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Building Review and Forecast

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...BECAUSE IT DOES 3 JOBS IN ONE!



Row of four-family houses in Bill Holt FPHA Housing Project, Great Falls, Montana, with walls constructed with multiple-function Celo-Siding.

Plenty of Celo-Siding Now Available for Every Type of Essential Building in Any Kind of Climate!

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Colors and Sizes. Celo-Siding comes in buff or green. Units are 7/8" thick, 4' wide, 8' and 10' long, with square edges, or 2' x 8' size, with T&G edges. Suitable for vertical or horizontal application.

For Complete Details on Celo-Siding, mail the coupon, today!



Single-family house in Bill Holt project showing Celo-Siding walls.



Interior of house in Bill Holt project where insulating qualities of Celo-Siding add to comfort, winter and summer.

CELOTEX

REG. U.S. PAT. OFF.

BUILDING PRODUCTS

THE CELOTEX CORPORATION, Dept. AB 1-44
Chicago 3, Illinois

Please send me complete information on Celo-Siding, the multiple-function building material.

Name _____

Address _____

City _____ State _____

Published monthly by Simmons Boardman Publishing Corporation, 105 W. Adams St., Chicago 3, Ill. Subscription price, United States, Possessions, and Canada 1 year \$2.00; 2 years, \$3.00; foreign countries: 1 year \$4.00; 2 years, \$7.00. Single copies, 25 cents. Entered as second-class matter Oct. 11, 1939, at the Post Office at Chicago, Illinois, under the act of March 3, 1879, with additional entry as second class matter at Mount Morris, Illinois. Address communications to 105 W. Adams St., Chicago 3, Ill.

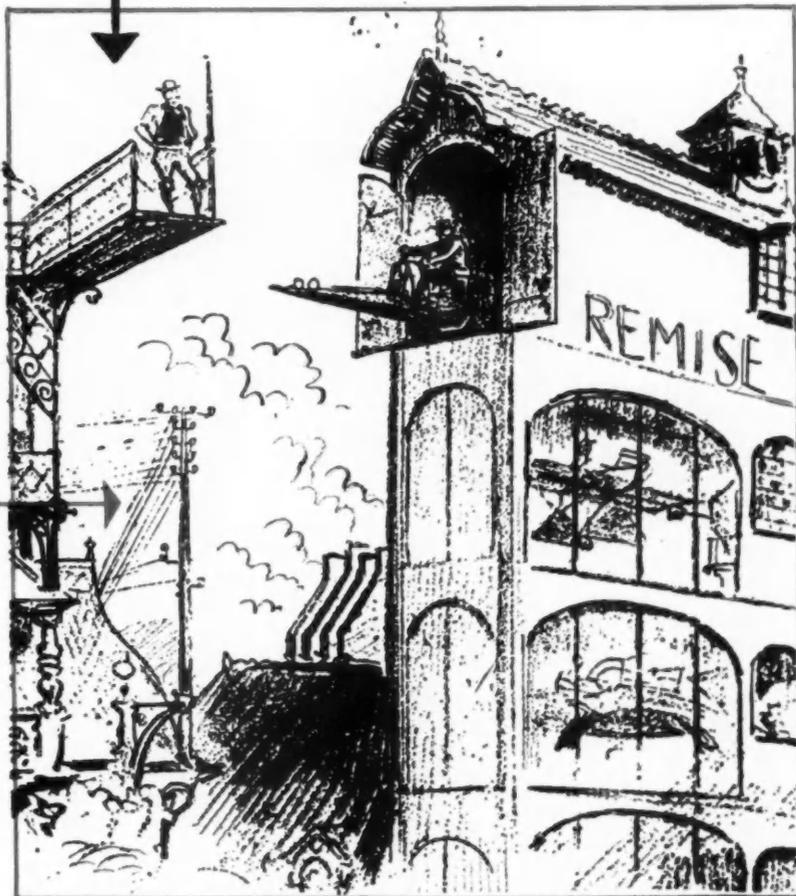


DOODLED 63 YEARS AGO.

What could be sweeter than an aerial bicycle—except one built for two? Albert Robida dreamed up these air-bike-garages long before Bleriot flew the Channel. Men have dreamed up new kinds of buildings since time immemorial—but mighty few ever got built.

are
you
doodling

or planning for that
building boom?



BETHMANN ARCHIVE

BIG AND BOISTEROUS and often fantastic are the dreams of the building industry about the building boom to follow this war.

But some leaders are talking a lot of sense—for example, Bror Dahlberg, President of the Celotex Corporation:

"After the war, millions of men now in service and millions of war workers now living in unsatisfactory houses will want new dwellings. We will have the demand for new homes; we will have the skill, materials, labor to build them ..."

"All that will be needed will be for some force to start the ball rolling ..."

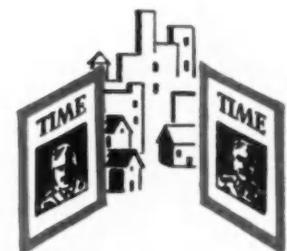
It's the American tradition that advertising is a great force for starting business booms a-rolling. And for advertising aimed to help start a *building boom*, one of the very best media is TIME.

Because in TIME—

You can aim your selling at the kind of Americans who set the pace for the rest of the country—you can get your stories of the new age in housing across to the million most influential U. S. families—you can reach people like Federal, State and City Planning Commission members, who recently voted TIME their first-choice magazine (evidence on request).

Yes—by far the most economical and effective way to reach these top million men and top million women* is through TIME, the Weekly Newsmagazine, for they vote TIME their favorite of all the magazines they read—by a margin of 7 to 1 over their next favorite.

*Among these people are executives and engineers, Government officials, mayors, bankers, architects, and 22 other groups of leaders who recently voted "TIME is America's most important magazine."



TIME

**THE GATEWAY
TO THE BUILDING MARKET**



What's your coal question?

That's what we asked you. Here are our answers to a few of your questions.

An accountant in Boston asks:

Are miners paid all they deserve considering the hazards of their work?

American coal mines are the safest in the world, and American coal miners are the best paid in the world. Moreover, coal miners' hourly earnings are higher than the average for all manufacturing industries. Fatal accidents in the mines have been reduced by approximately 40% in the past fifteen years, while the pay of miners has more than doubled. Progress in the development and installation of new mechanical safeguards never stops. Teaching miners themselves to be careful is part of a consistent, well organized safety program. Federal and state inspection is constantly going on. In the event of accident, miners and their families receive definite, specified compensation.



A garage mechanic in Nashville asks:

What kind of homes do miners live in today?

For the most part, miners live in homes as attractive and comfortable as those of any other well-paid workers. Washing machines, radios, refrigerators and other home appliances are commonly found in miners' homes. A miner is just as free to choose where or how he will live as anyone else. The automobile makes it possible for him to ride or drive to and from his place of employment like a worker in any other industry. When a miner lives in a company home, it is because he wants to. Today company homes on company property are usually better than the average home in the sections where they are located. Rents average around \$15 a month.

A New York policeman asks:

Are miners always "in hock" to company stores?



The answer is that they are not. And there is no reason why they should be. Most miners may draw against their pay any time they want to for taking care of their living expenses. They may trade at an independent store, a chain store or a company store. In a small mine in West Virginia, the pay roll figures show that only about 9 1/4% of the combined pay of all the 296 miners employed there was currently owed to the company store. Besides all this, the OPA forbids any store, and of course this includes company stores, to extend credit to any individual for more than 60 days. The only exception is credit for heavy consumer goods, and these would normally be financed on time payments anyway.

In war and in peace America depends on bituminous coal for most of its warmth, most of its electricity, most of its industrial power.

That makes it important for the public to know the real facts about this fuel, and about the people who mine it.

So we take this method of reporting to you.

And to make sure that we cover the subjects of greatest interest we have asked thousands of people what they most want to know about the coal industry and the way it is run.

On this page we present three questions asked over and over again. Next month we will present further questions and answers.

We are fully conscious of our responsibility as good citizens and good employers in the course of supplying America with its No. 1 fuel—and we consider answering your questions a part of that responsibility.

BUY MORE WAR BONDS

BITUMINOUS COAL Institute

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

Only FORCED HOT WATER HEAT CAN OFFER ALL THESE COMFORTS



PERFECT CONTROL KEEPS ROOM TEMPERATURE AT THE COMFORT LEVEL, REGARDLESS OF THE WEATHER

Before the war, the B & G Triple Duty System held top rank for low-cost comfort. In the post-war building boom to come, it will still be the finest heating system obtainable. Install B & G Triple Duty Heating for your customers, and you've done everything man can do to provide luxurious winter comfort.

This system of *forced hot water heat* meets every requirement of the ideal heating system. It does not over-heat the house when the weather's mild! It does not fail when the temperature skids to zero!

The secret of its success is that water under forced circulation can be controlled to deliver exactly the right amount of heat for any weather condition. *Just enough* fuel is burned to keep the house at the desired temperature, hence heating costs are amazingly low.

B & G Triple Duty equipment includes an Indirect Water Heater, which provides a year 'round supply of domestic hot water, heated by the same boiler that heats the house. All these comforts and conveniences are obtained with extremely simple, fool-proof operating units.

FREE!

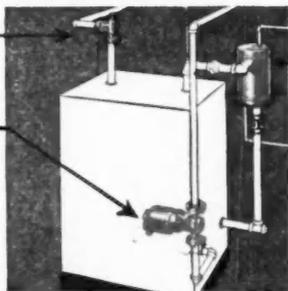
This illustrated booklet tells the whole story of B & G Triple Duty Heating. Be sure to read it—your copy will be sent promptly on request.



AMPLE HOT WATER FOR KITCHEN, LAUNDRY AND BATH

B & G FLO-CONTROL VALVE
This Valve helps keep home temperature uniform and permits use of Indirect Water Heater in summer.

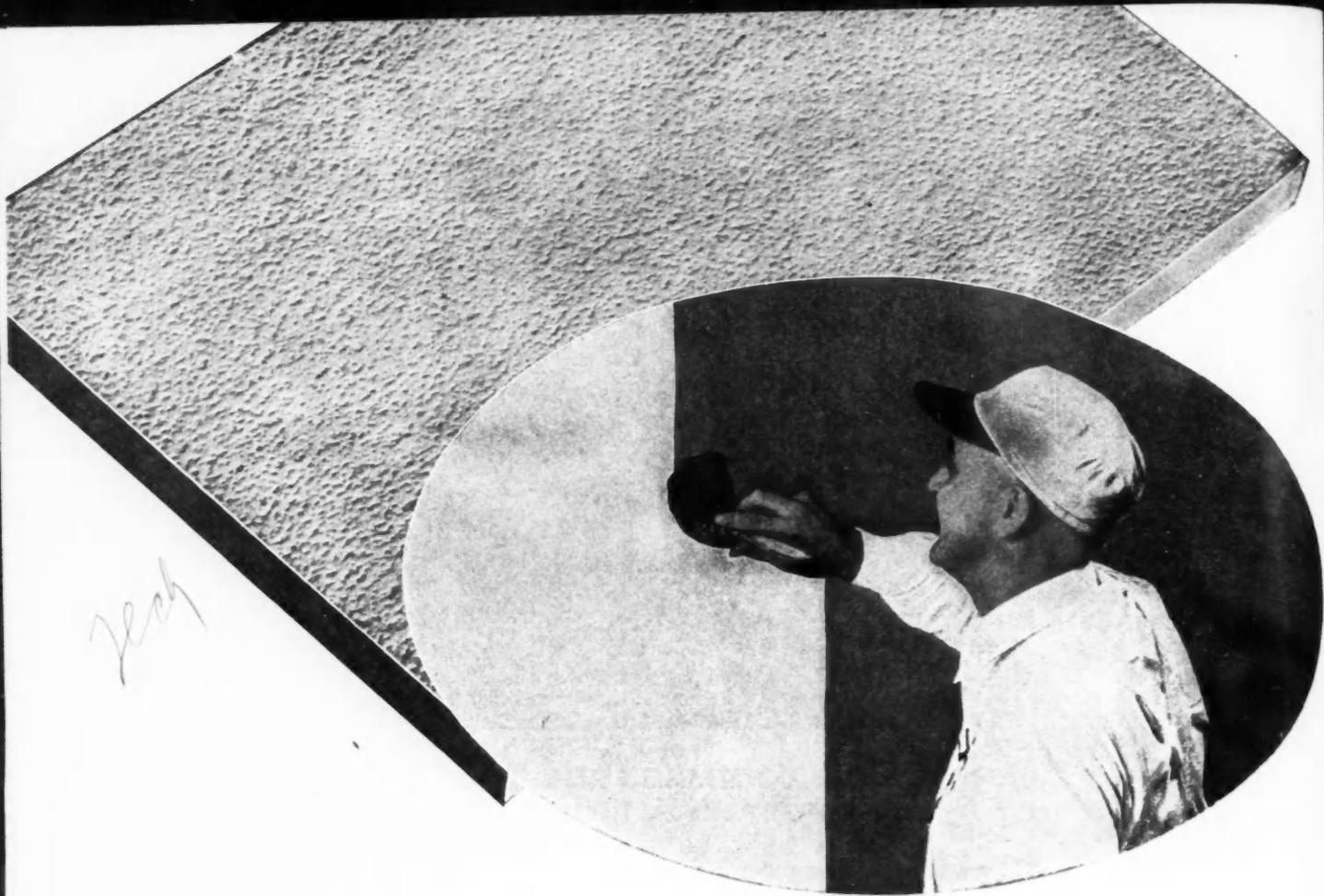
B & G BOOSTER
This is the heart of the B&G Triple Duty System—an electrically operated pump which mechanically circulates hot water through the pipes and radiators. The Booster is controlled by the room thermostat; delivers heat instantly when needed and shuts off the supply when the need for heat is satisfied.



B & G INDIRECT WATER HEATER
A money saver! Provides a means of using the house heating boiler to heat the domestic water at very low cost—in summer as well as winter.

B & G TRIPLE DUTY SYSTEM

BELL & GOSSETT CO. • MORTON GROVE, ILLINOIS



"the finest painting surface on any wall material"

THAT is the opinion of experienced painters after working on the alluring pebbled surface of full-wall size Strong-Bilt Panels.

Because the surface is presized at the factory, paint goes on quickly and evenly. No fuzziness. The true beauty of every color comes out in its full glory and attractiveness—and *without repeated coats*. Even prominent artists praise its painting qualities. Just *one coat* of good washable paint usually is sufficient.

Dry-built full-wall construction has proved itself in thousands of homes from coast to coast. It has a place in your postwar plans. May we send you booklets and full information? Write The Upson Co., Lockport, N. Y.

*Upson Quality Products Are Easily Identified
By The Famous Blue-Center*

Wall of the future . . . ready for postwar homes!

Cuts Down Construction Time!

One panel covers entire wall of average size room. Applied with Floating Fasteners which anchor panels securely from the rear and compensate for structural settling. No face nailing. No joints. No time-consuming system of filling and taping. No nails to counter-sink. No nail holes to fill.

No Moisture Troubles! Entirely dry-built. No waiting for plaster to dry.

Eliminates the 1000 pounds of water which may be used in plastering a 6-room house.

Efficient Insulating Value! Up to $3\frac{1}{2}$ times that of plaster.

Crackproof! Positively will not crack, splinter nor chip. Does away with annoying and costly plaster repairs.

Tough and Strong! Withstands impact up to 6 times that of boards with a mineral core.

UPSON
STRONG-BILT
PANELS

THE CRACKPROOF BEAUTY SURFACE
WITH EFFICIENT INSULATING VALUE

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AND BUILDING AGE

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Letters

Pessimistic view

To the Editor: I am unable to agree with your optimism as to the demand for a million homes a year. With the federal government bonded for more than three times the total assessed valuation of all real estate, plus the staggering debts of the states and counties, we can rest assured that any surplus cash remaining after the most meager living expenses will be absorbed by bigger and better taxes.

There is little indication that the cost of labor and building material will drop much below the 1939-1940 levels, and less indication that rents will be any higher, especially rents frozen at depression levels.

Consequently, it would be a rash business venture to invest in new buildings.—WM. H. WELCH, Contractor and Builder, Corning, N. Y.

40 years a reader

To the Editor: I am the owner of a 40-year file of the *Builder* through all of its ramifications. I thought such a record by any subscriber would be of interest to you and other readers because it shows how valuable your publication must be to men in the building business.—I. W. HEDGES, Building Contractor, Sidney, Ohio.

What is next step?

To the Editor: In the changing conditions of the day I would like your opinion as to what is the next step.

I have been in the building business since leaving school, both with builders and architects, and also in business for myself fifteen years as a builder.

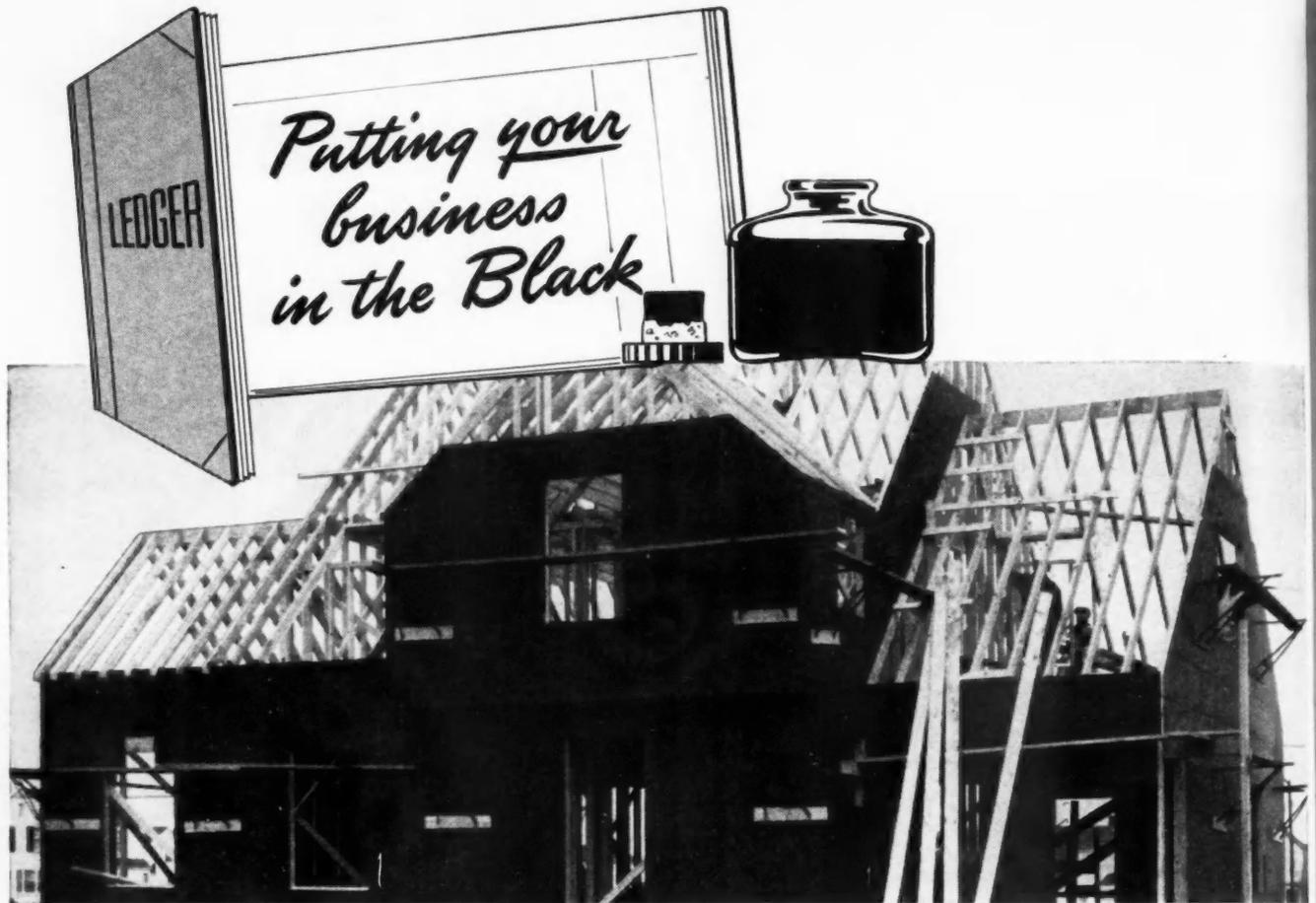
For the past few years I have been on defense and hospital projects as estimator and superintendent. These jobs are not steady, but generally last two to six months. For the past four weeks I have been without a job, due to closing down of construction.

Undoubtedly post-war work will bring activity, but you can't live on hope.—ROBERT H. COSTIGAN, White Plains, N. Y.

Double or duplex?

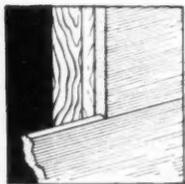
To the Editor: The photographs are excellent reproductions, and the accompanying statements relative to our defense housing (p. 56, Nov. *American Builder*) are very explanatory.

(Continued to page 80)



WHEN you use Gold Bond Gypsum Sheathing on a job, then you're really operating at a profit! For these big lightweight panels of processed gypsum rock fit standard stud spacing with a minimum of trimming. There's no waste. Construction time is reduced at least 10%. And it takes but a few hours to sheathe an entire house! That's important in these days of high costs and shortages. It will be even more important after the war's over and the biggest building boom in history will get under way!

And Gold Bond Gypsum Sheathing gives better protection from the weather! Unlike other older types of sheathing, there are no cracks or knot holes to let in the wind. The V-Type joints stay tight because panels won't warp, shrink, or swell. And because of its rock-like construction, Gold Bond Gypsum Sheathing adds greater structural strength to the building—greater rigidity. This in



turn helps prevent plaster cracks and sagging doors and windows.

Best of all, Gold Bond Gypsum Sheathing is absolutely fireproof! The processed gypsum core sees to that. It adds important fire protection at no additional cost. You can apply a blowtorch to it for hours and it still won't burn.

There's plenty of Gold Bond Gypsum Sheathing available now for emergency jobs. After the war, wood siding, brick, stone, or stucco can be added for a "permanent" finish.



BUILD BETTER WITH
Gold Bond
Everything - for walls & ceilings

More than 150 different products for
 MODERN CONSTRUCTION
 AND WAR PRODUCTION
 WALLBOARD...LATH...PLASTER...LIME
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See Your Gold Bond Dealer

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

21 Plants from Canada to the Gulf . . . Sales offices in principal cities

Publisher's Page

Materials for Building and Post-War Employment

ALL planning for adequate post-war employment contemplates the absorption of men by civilian industries as they are released from war industries and armed forces. Otherwise, large temporary unemployment cannot be prevented. This rapid absorption of men by civilian industry will present practical problems of great importance and difficulty.

A survey made by *American Builder* of the stocks that dealers in building materials throughout the country now have in their yards forcibly illustrates the point, and is given a somewhat startling background by a survey recently reported by the Chamber of Commerce of the United States. The Chamber's survey indicated that people who believe they will have enough money would, if other conditions permitted, *within six months after the war*, spend \$7 billion to buy or build new homes, and \$7½ billion for improving their homes and in building or improving farm buildings—total, \$14½ billion! This looks as if there would be plenty of employment in building.

But building requires *materials* as well as labor on the site where it must be done. And "there's the rub!" For the *American Builder's* survey shows that the stocks of jobbers and retail dealers in building materials have shrunk so much and become so unbalanced during the war that very little new building could be begun immediately if all wartime restrictions on the use of materials were lifted tomorrow.

Expenditures for residential and farm building in 1941 were \$3 billion \$200 million. *American Builder* inquired how much dealers would have to increase their inventories to make them as large as they were in 1941. The detailed answers given show that in every part of the country a perfectly huge increase of stocks would have to be made before building, and employment in it, could be increased to the 1941 level. And yet the U. S. Chamber's survey indicates that the nation's people would like to spend four times as much on homes and farm buildings, *in the first six months of peace*, as was spent on them in the entire year 1941!

Obviously, the first problem that should be tackled by all desiring a post-war increase of employment in building is the problem of greatly increasing the manufacture of materials for residential and farm building and their movement into the yards of material dealers. For the number of men that can be employed locally by builders can be only in proportion to the amount of materials that builders can get locally.

This very practical problem apparently has never occurred to theorists in Washington who have been "planning" for a big post-war increase of construction, both government and private, to provide employment immediately.

Dealers cannot replenish their stocks of materials for residential and farm building without being afforded opportunity to buy them. Manufacturers cannot sell such materials to dealers unless afforded opportunity to produce them. And manufacturers can be given opportunity to produce them only by relaxation of government restrictions on their production and sale. Nobody favors any relaxation of government restrictions that would impair the war effort. But that does not keep the facts from showing that the first essential to large post-war employment in building is relaxation as rapidly as practicable of government restrictions on the production and sale of materials for *private* building.

Samuel O. Drun,

MEMO FOR POST WAR PLANNING

Household operating and upkeep expenses come out of the same pocketbook as mortgage amortization payments. High-quality equipment, as supplied by General Electric, usually reduces monthly operating bills more than it increases monthly payments on the house . . . so actually it costs less to live better.

Remember, General Electric high-quality equipment will best serve the interests of your after-Victory clients or customers.

GENERAL ELECTRIC

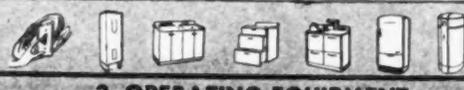
HOME BUREAU • BRIDGEPORT, CONN.



1. LAND



2. STRUCTURE



3. OPERATING EQUIPMENT



A HOME

★ **U. S. BULLETIN ★ JANUARY**

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★ **"AN OUNCE OF PREVENTION" NOW**

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★ *will help with tomorrow's problems*

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★ **Urge your customers** to do the little things in boiler and heating plant care that will guard against breakdowns, with resulting need for replacement and repair parts.

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★ **In this way** all available equipment can be used for really critical needs. You'll render a genuine service to your customers and yourself.

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★ **We in turn** — U. S. Radiator and Pacific Steel Boiler Division — will do everything we can to keep up with essential requirements. Let's work together to do the best job possible under present conditions . . . to build good will for the future.



New Pan American World Airways System Photo

U. S. RADIATOR IN THE WAR

New Pan American World Airways hangar and offices at Miami, in which U. S. Radiator heating equipment has been installed. Largest structure of its kind in the country. Can service 12 to 18 giant Clippers a day.

One United States Radiator Corporation plant is in production on magnesium castings for U. S. war planes. Pacific Boiler Division is building pre-fabricated ship sections.

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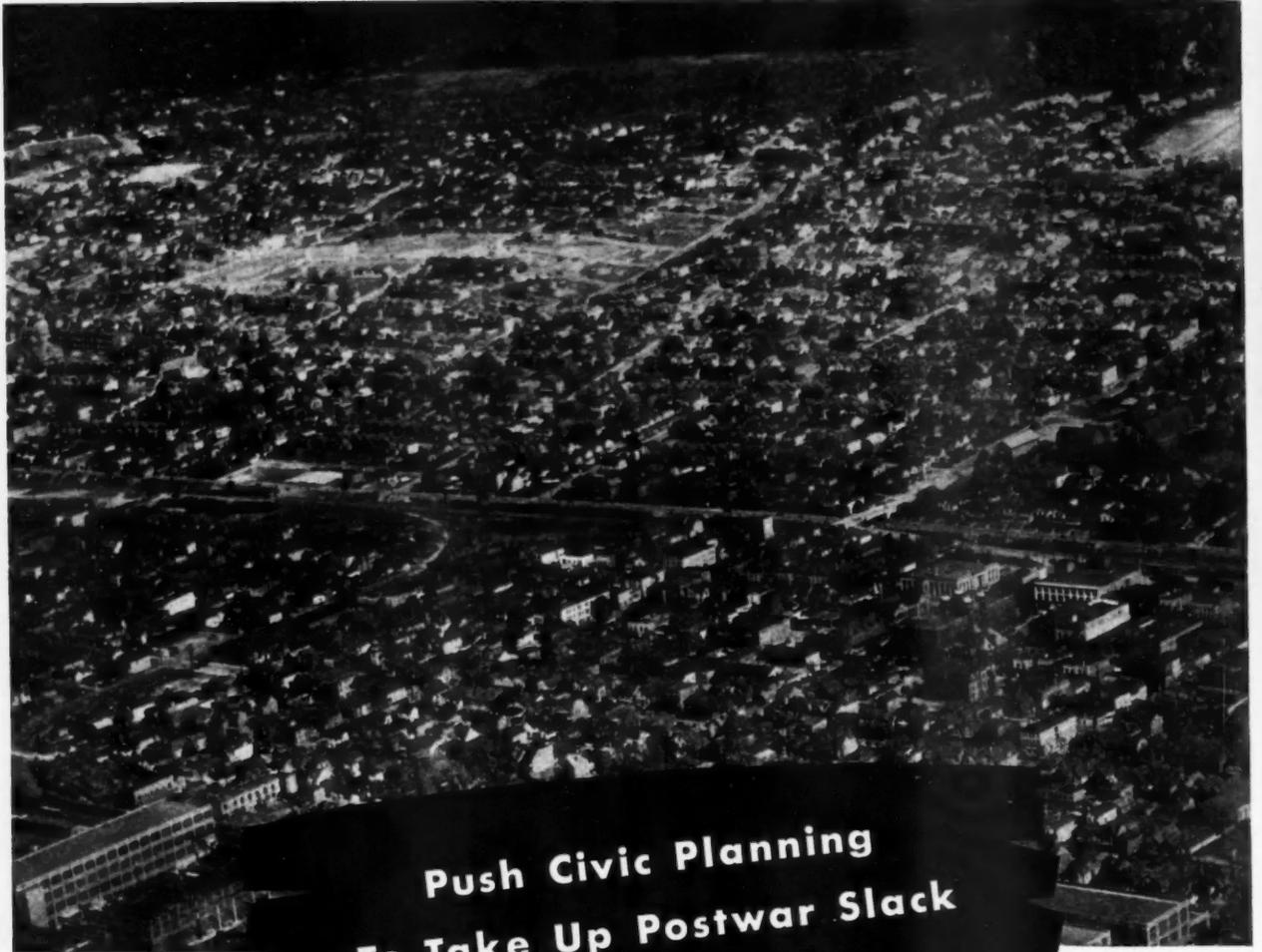
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Bristol, Pa. · Detroit, Mich. · Dunkirk, N. Y. · Edwardsville, Ill. · Geneva, N. Y. · Waukegan, Ill. · W. Newton, Pa.



Push Civic Planning To Take Up Postwar Slack

Does your town have slums and blighted areas, houses over fifty years old, not enough modern schools or hospital facilities, an antiquated sewage disposal or water treatment plant? Correcting such conditions is an excellent way of readjusting employment after the war.

Why not start your civic planning right away, so the end of the war won't catch your city unprepared? And while you're putting plans on paper, figure on using Alcoa Aluminum wherever possible.

Architects were including aluminum windows, sills and other aluminum building

products in municipal housing projects, before war industries started taking all the metal we could make. Engineers designing water works, sewage treatment plants and other municipal structures used aluminum doors, windows, sills, skylights, spandrels, coping, grating, ducts, conduit and the like.

The superior performance of all of these Alcoa products is an excellent reason for including aluminum in your designs.

We'll gladly tell you how you can include Alcoa Aluminum products in your designs. Write ALUMINUM COMPANY OF AMERICA, 1914 Gulf Building, Pittsburgh, Pennsylvania.



ALCOA ALUMINUM

Reg. U. S.



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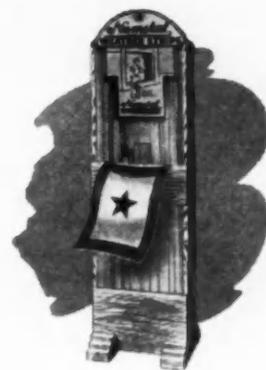


We'd like to pin a *medal* on every dealer's chest!!

WHEN it comes to distinguished service on the home front, we think that you hardware and lumber dealers deserve a medal for the swell job you are doing in the face of great odds.

We know what a tough row you've had to hoe. We know because we serve the hardware and lumber trade from coast to coast. We've seen how you've had to take on strange new lines of merchandise in order to keep your doors open—how you've had to struggle with priorities, price ceilings, new help, and a thousand and one other wartime headaches. But through it all you've kept your feet on the ground, and we admire you for it.

We don't know how much longer this war will last, but when peace comes we promise to show our appreciation for the understanding cooperation you dealers have given us during these critical times. Until then, however, all we can do is to divide the merchandise we have as fairly as possible among our dealers so that each will get his share.



If they gave service stars for products that have gone to war, every NUMETAL Weatherstrip display case should be flying a service flag. For today, the men and machines who once made America's finest weatherstrip are busy making vital parts for Uncle Sam's fighting planes. As soon as the materials from which NUMETAL is made are taken off the critical list it will be available immediately.



MACKLANBURG DUNCAN CO.

Manufacturers of NUMETAL WEATHERSTRIP NU-CALK CALKING COMPOUND NU-WAY WEATHER-STRIP NU-GLAZE GLAZING COMPOUND NU-ART MOLDINGS AND EDGING
OKLAHOMA CITY, OKLAHOMA

Items Still Available to Hardware and Lumber Dealers Everywhere

Nu-Calk Calking & Glazing Compound

No building is weatherproof until it is calked. NU-CALK Calking Compound will not dry out, run, crack, harden or pull away.

Nu-Glaze Glazing Compound

This dependable compound does not dry out, crack or peel. Not oily... clean to handle. Applied like putty... but not putty.

MADUCO PLASTICS

MADUCO Plastic Molding and Trim won the National Plastic Award for 1941, the highest honor in national plastic competition.

VICTORY

Wood & Felt Weather Strip

An efficient, easy-to-install weather strip. Made of high grade felt and wood.

Save Minutes... Money
... Manpower with

MODEL "825" SKILSAW
ON EVERY CUT!



A Great All-Around Saw
 ... a Great Saw "Buy"

MODEL "825" SKILSAW
 only \$119⁰⁰



● Here's the high-powered SKILSAW you need for top-speed sawing on every cut up to 2⁵/₈ in. deep! Model "825" SKILSAW bevel-cuts 2 in. dressed—*or* rough—lumber at 45° ... sizes stone and concrete blocks ... cuts compositions and flat or corrugated metals. In fact, Model "825" makes practically every cut that's called for in construction!

Yet ... for all the power and capacity of its 8¹/₄ in. blade ... Model "825" SKILSAW costs very little more than an ordinary 7 in. saw ... and it handles as easily because it's only 18 in. long; weighs only 18¹/₂ lbs. It will pay you to try out a Model "825" SKILSAW on the jobs you're doing now. Ask your distributor for a demonstration *today!*



SKILSAW, INC.

5031 Elston Avenue • Chicago 30, Illinois
 Sales and Service Branches in All Principal Cities



FREE! TOOL MAINTENANCE MANUAL AND NEW SKILSAW CATALOG!

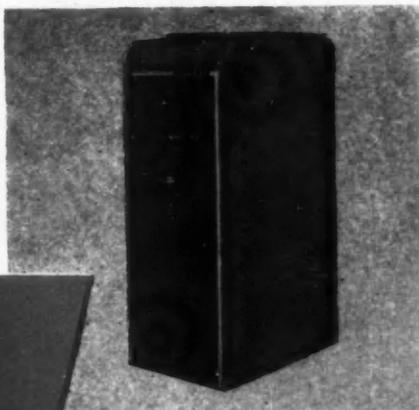
● There's a big Special Section on *How to Get the Most from Your Electric Tools in War-time* ... in the new SKILSAW CATALOG!

● SEND FOR YOUR FREE COPIES NOW!

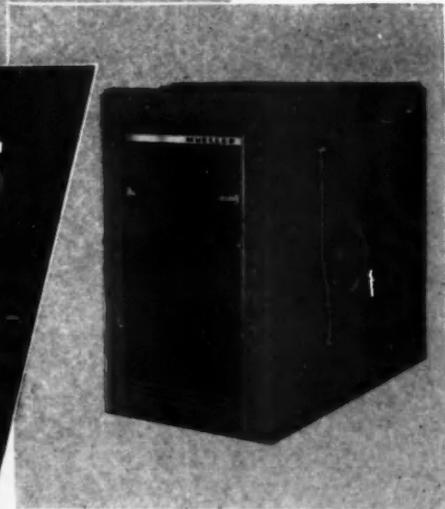
SKILSAW **PORTABLE ELECTRIC** **TOOLS**

★ MAKE AMERICA'S HANDS MORE PRODUCTIVE ★

With times with right ety of pays t manuf meet a ments really e for each Mue outstand ice to y The sizes, pr you the can buy units to Plan t advertise



Mueller Series SHP Steel Gas-Fired Winter Air Conditioner — Attractive, compact cabinet type for utility room or basement. Economical to buy and to operate.



Mueller Series 50 Oil-Fired Winter Air Conditioning Furnace — Small size equipped with either Vaporizing or Pressure Atomizing Burner. Larger sizes with Pressure Burner only.

For your post-war homes

MUELLER

offers you

a complete heating service . . .
from one dependable source

**GAS
OIL
COAL**

**Gravity or forced
air . . . for homes of
every size, type,
and price range . . .
also for commercial
installations**

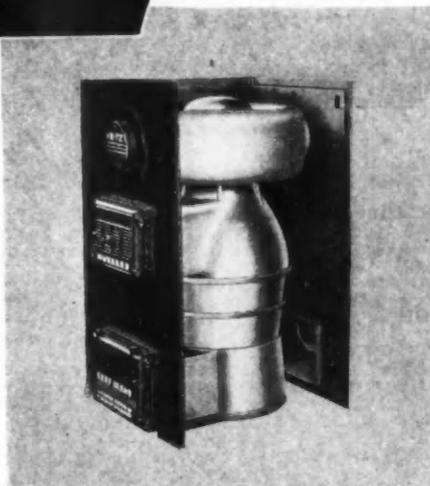
With the return of more normal times, you will again be confronted with the problem of obtaining the right heating equipment for a variety of heating requirements. It pays to deal with one reliable manufacturer who can help you meet any or all of these requirements — and who can give you, from a line that is really complete, an unbiased heating recommendation for each project.

Mueller is — and has been for many years — an outstanding manufacturer who can deliver such a service to you.

The Mueller line is complete from every angle — sizes, price ranges, designs for specific fuels. It gives you the finest modern winter air conditioners money can buy — from the larger automatic oil- and gas-fired units to the latest defense-housing unit.

Plan to specify Mueller's nationally-known, nationally-advertised equipment in your post-war projects.

B-15



Mueller WR-72 Coal-fired Winter Air Conditioner — 28" square. Only 46 1/2" high to top of casing. All cast iron. Standard return flue radiator provides efficient, satisfactory results.

MUELLER

Milwaukee



HEATING AND WINTER AIR CONDITIONING

They'll Be Your Customers . . . these Crane Step Planners of Today



IT'S important that your future prospects start thinking about and planning their postwar homes right now. To stimulate their interest in new homes—to aid them in some of their planning—Crane Co. is offering a "Step Planning" Portfolio containing a wealth of information on planning bathrooms and kitchens. This portfolio gets them out of the wishing and into the *doing* stage...induces them, in many cases, to consult you at once about the kind of homes they wish to have when the war is over.

Yes, Crane is working today to build greater postwar volume for builders. Already Crane designers and engineers are at work developing the Crane plumbing and heating line of tomorrow—a line that reflects the wishes of America's home owners, as shown by actual survey.

Wouldn't you like to see a copy of the Crane "Step Planning" Portfolio? Although intended for your customers, you will find much in it to interest you. Just mail the coupon for your copy!

CRANE

CRANE CO. GENERAL OFFICES: 836 SOUTH MICHIGAN AVENUE, CHICAGO 5, ILLINOIS

PLUMBING • HEATING • PIPE • PUMPS • FITTINGS • VALVES

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

AB-1-44

Crane Co.,
836 S. Michigan Ave., Chicago 5, Ill.
Please send me your "Step Planning" Portfolio on Bathrooms & Kitchens.

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

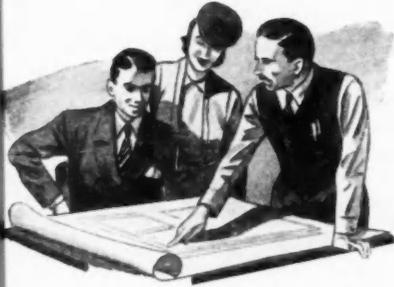
**WILL YOU
BE READY?**

Line Up Your

Postwar Prospects **NOW!**

Help Prospects Make Plans

The halting of private construction didn't stop people from thinking about new homes. Far from it. They're more eager than ever for new, better houses. They've been buying bonds so they can build them. And so there's a tremendous backlog of building business waiting for the day restrictions are lifted. Prospects are ready now to decide what kind of house to build—and who is going to build it. It's not too early to begin talking with them about it.



Make Your Homes More Salable with Fenestra Windows

There's been much talk about what the postwar home will be like. But regardless of architectural style or type of structure, you can be sure that, as always, these important advantages will prove to be sales-clinchers:



- More beauty—inside and out
- Easier operation
- Safer cleaning
- More daylight

- Better ventilation
- Superior weather-tightness
- Better screens
- Low-cost storm sash that checks condensation

Fenestra's Package Window is a "natural" for your postwar houses. It's low in first cost and costs less to install quickly and correctly. A beautiful steel casement window, it comes glazed, complete with hardware, mounted in a wood casing, with inside wood trim all cut to length, mitered, ready to nail in.

**Provide Jobs for Service Men*

Our fighting men are looking forward to peacetime jobs in their home communities. You can help make these jobs for them—jobs that can start right after the shooting stops—by making plans now. Point out to your prospects the advantages of having plans worked right up to the blueprint stage before the boys come home.



DETROIT STEEL PRODUCTS COMPANY

Now Chiefly Engaged in War Goods Manufacture

Dept. AB-1 • 2260 East Grand Blvd. • Detroit 11, Mich.
Pacific Coast Plant at Oakland, California

***THE REASON WHY:**

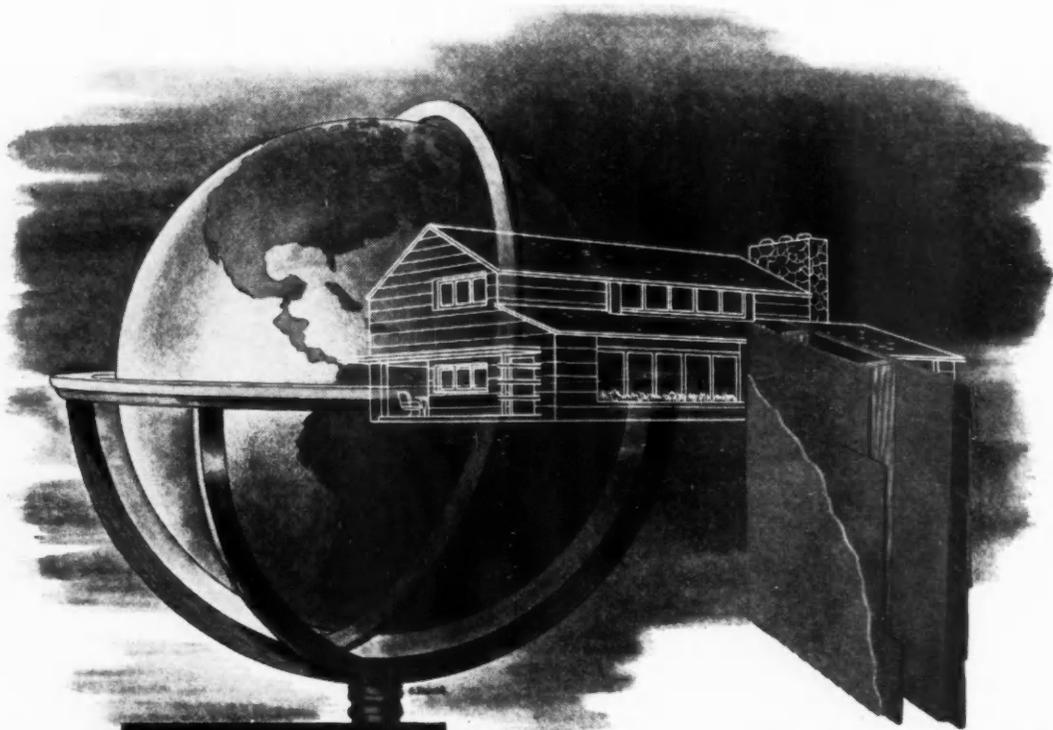
Fenestra SUGGESTS

DETROIT PUBLIC LIBRARY

START AN ARCHITECT ON
A POSTWAR
PLAN NOW



Tomorrow's World ... Tomorrow's Homes



AT THE PLATE

● Provide headers over plates as nailing base for top edge of sheathing. Bildrite Sheathing extended into cornice to cover plates and headers. Bildrite Sheathing notched for rafters to assure full insulation coverage.

AT THE SILL

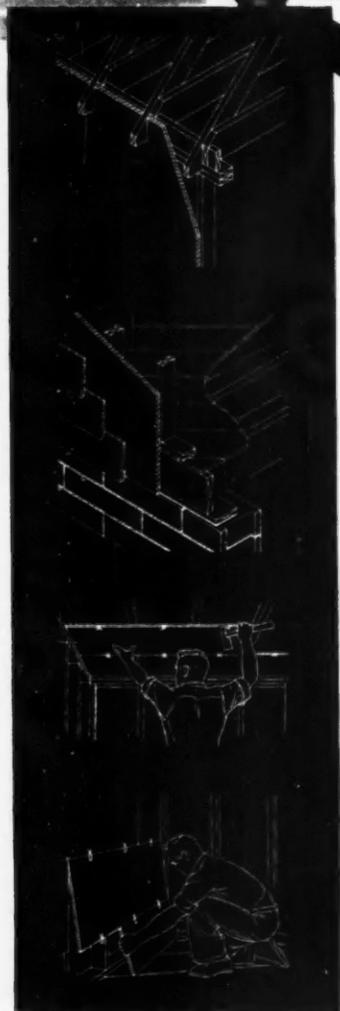
● Sill and stringer set in $25/32$ " from foundation face. Bildrite Sheathing carried down to butt flush with foundation. Bevel siding, with starting strip, extended below top of foundation to prevent infiltration.

LOK-JOINT LATH FOR CEILINGS

● 18" by 48" Lok-Joint Lath units are applied snugly over ceiling rafters. Shiplap joint is further reinforced by three heavy galvanized "Loks" on each unit. Units are staggered—centered on framing members. Units spaced $3/16$ " apart.

INSERTING BOTTOM UNIT

● Fasten next to last Lok-Joint unit along top edge only. Insert bottom unit under "Loks" and slide into place. Nail securely after bottom unit is in place.



1. Insulite Bildrite Sheathing forms the outer wall of the Insulite Approved Wall of Protection. The large boards provide a windproofed, waterproofed, weathertight wall.

2. Inner Walls—Insulite Sealed Lok-Joint Lath provides a second wall of insulation. The patented "Lok-Joint" provides a rigid plastering surface.

3. Moisture condensation eliminated—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 the barrier to pass naturally toward the outside.

Soon you will again be building many homes.

Homes for men returning from the war. Homes for workers who have accumulated bonds against the day they could build a home of their own.

In tomorrow's homes, modern improvements such as air-conditioning will put new demands upon the walls.

Moisture condensation within the walls presents a grave danger unless avoided *when the house is built*.

When you build with the Insulite Approved Wall of Protection, you meet tomorrow's demands. With this wall you build: . . . A wall of double insulation . . . A wall of superior bracing strength . . . A wall protected against internal moisture condensation.

Let us tell you about the Insulite Approved Wall of Protection in detail. Write for complete technical information. Insulite division, Minnesota and Ontario Paper Company, Minneapolis, Minnesota.



MADE
EXCLUSIVELY
FROM WOOD

es

Approved
rproofed,
wall of
surface.
h asphalt
heathing,
barrier to

workers
build a

condi-

danger

ection,
... A
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tion in
vision.
nesota.



THE
USIVELY
WOOD



Flexibility for the Industries of Tomorrow

Out of the hard necessity of war is emerging a new trend in industrial engineering . . . a new understanding of plant design as a potent factor in manufacturing efficiency.

It is a concept that demands exceptional flexibility in design and construction—an inherent characteristic of Stran-Steel building systems. Present wartime assignments are bringing about important developments in the application of Stran-Steel systems to industry's widely varied requirements. When peace returns, Stran-Steel will apply this experience to serving the peacetime needs of progressive industrial designers.

STRAN STEEL

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

UNIT OF NATIONAL STEEL CORPORATION



THAT'S *What* *They Say...*

The CONTRACTOR—Most Acceptable

For homes built for sale or by contract, Certigrade shingle roofs and double-coursed side walls are accepted as quality building.

The ARCHITECT—Most Adaptable

In 90% of the residential designs, Certigrade shingles are adaptable and versatile to roof and double-coursed side walls.

The HOME OWNER—Most Desirable

Texture, deep shadow lines, paint or stain that mellows in the wood, low upkeep cost, all add up to desirability, beauty and economy.

The FARMER—Most Protective

Farmers know from experience throughout the ages that Red Cedar Shingles give a service that protects their live stock from extremes of heat and cold, hail and wind storms and all with negligible upkeep.

The DEALER—Most Profitable

Over the long pull, Certigrade Cedar Shingles are the most profitable material any lumber dealer can sell because they satisfy the contractor, the architect, the home owner and the farmer.

RED CEDAR SHINGLE BUREAU

Seattle 1, U. S. A.; Vancouver, B. C., Canada

RED CEDAR SHINGLE BUREAU, 5508 White Bldg., Seattle 1, Wash. AB 1-44

Please send me, free, a complete set of Blueprints which show how Red Cedar Shingles are properly applied on roofs and sidewalls.

Name.....

Address.....

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



Red Cedar SHINGLES



Get acquainted

with your kitchen

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

When we have the urge to get the convenient kitchen we really need but can't buy now, let's put that money into the uniform of fighting dollars—War Bonds—and let it help speed Victory. In the meantime, let's put whatever time we can spare from our war work into planning the kitchen we want when the war is over, so that we can be sure it will be perfect in convenience and appearance.

Youngstown Pressed Steel will send a beautiful new booklet, brimful of helpful ideas for planning new kitchens or remodeling old ones.

Youngstown Kitchens
YPS

YOUNGSTOWN PRESSED STEEL DIVISION, MULLINS MFG. CORP.
Dept. P 100, Warren, Ohio

The new YOUNGSTOWN booklet, "Get Acquainted With Your Kitchen", tells how to plan for more comfort in your present kitchen. Send for your copy today!

YOUNGSTOWN PRESSED STEEL
DIVISION, MULLINS MFG. CORP.
Dept. P 100, Warren, Ohio

Please send New Leaf
 Scrap Book, "Practical
Ideas for Kitchen Con-
servation", Price 15c
 to modernize

Name _____
Street _____
City _____

TOTAL WAR
Send your money where
TOTAL PEACE
can be made in the
Plan Now to give
every man a job—
put every dollar to
workful advantage your
freedom of choice

Get Acquainted
WITH YOUR
Kitchen Business

YOUNGSTOWN kitchens are being kept before the public in large space, full color advertisements, such as the one illustrated. This continuous consumer advertising is building a strong list of prospects for YOUNGSTOWN dealers after the war . . . Cash in on this reservoir of business by getting details about YOUNGSTOWN dealerships NOW.



1. 40 YEARS AGO — the Electric Age began in the Century's FIRST Building Era as buyers began to insist on Electric Lights in their new homes.



2. 20 YEARS AGO — in the Century's SECOND Building Era, came Electric Refrigeration. Homeowners insisted on wiring for Refrigerators and other appliances . . . Apartment house owners found Electric Refrigerators a "must".

**THE CENTURY'S THIRD
BUILDING ERA WILL
FEATURE**

Electric Ranges!

BEFORE THE WAR the Electric Range had started its great forward march. In 1940, 450,000 Electric Ranges sold—in 1941, 780,000! The trend is INEVITABLE! The speed, economy, safety and convenience of Electric Cooking has become a part of "the American way".

AFTER THE WAR—cash in on this great swing, plan NOW to wire the homes you're going to build, for Electric Ranges. Built-in, such wiring is negligible in cost—powerful in sales appeal.

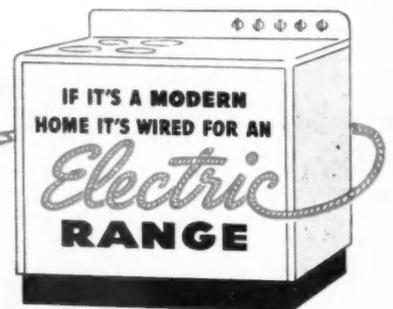
For details on wiring costs and advantages, write for the booklet "Wiring Ahead". Address:

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



3. AFTER VICTORY—will come the Century's THIRD Building Era. And Electric Ranges will be the new American Kitchen "must". FROM NOW ON, the fast-selling homes will be the homes wired for Electric Ranges!

Wire your houses
FOR EASIER SALES



ESTATE • GENERAL ELECTRIC • GIBSON • HOTPOINT • KELVINATOR • MONARCH • NORGE • QUALITY • STEWART-WARNER • UNIVERSAL • WESTINGHOUSE



**THE MODERN,
EFFICIENT
WATER HEATER**
is *Electric!*



Those new houses you're planning for after the war will have potent sales appeal if equipped with modern automatic electric water heaters! They produce an instantly available supply of hot water at extremely low cost. They're sootless, which means absolute cleanliness—fumeless and flameless which means absolute safety.

Include electric water heaters in your post-war plans. Both you and the ultimate owner will profit by your foresight.

"A house wired for an ELECTRIC RANGE is already

wired
for an
Electric
WATER HEATER!"

ELECTRIC WATER HEATER SECTION,
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

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

News, Views and
Comments
On and Off the Record
by **STRACTOR**

TIME TO CHANGE L-41—Strong forces in the industry are driving for a change in L-41, possibly by administrative order. Here are first steps proposed:

In class 3, 4 or unrated labor areas any construction would be allowed where 95 per cent of the materials are available on an AA-4 or lower rating. Cost of labor and materials unrated or with a rating of AA-4 or less would be excluded from cost of the job under L-41 procedure.

A change in L-41 interpretation such as this would permit much needed construction without drawing on critical materials or scarce man power.

TIP TOP RESEARCHER—Most interesting job in the industry today is the one held by Joseph H. Schulte of Los Angeles builder Fritz Burns' organization. He has been travelling from city to city for three months, tracking down newest ideas in materials and building equipment; soon will put them all together in an experimental model house in Burns' subdivision.

Schulte told me: "We will use any prefab method that contributes to efficiency, but only as long as it doesn't make the house look prefabricated."

PREFAB FLOP—The newspapers continue carrying extravagant statements about wartime "progress" in prefabrication. Actually the wartime results shown by this industry constitute one of the greatest flops in history. Most of the prefab firms have gone broke or have suspended business. Even gullible government agencies finally became disillusioned. The crappiest, shoddiest, most shack-like housing in history has been produced, and will take a long time to live down.

Out of it all has come, however, some sound progress in *partial* prefab—use of shop-built sections, parts and units. This will continue.

EMPTY FPHR'S—In the Ogden, Utah, area the need for houses is overwhelmingly acute. I heard officers from the big naval depot nearby begging builders to rush completion of private homes. Yet in this same area several huge public housing projects are standing partly empty. Several hundred units, available furnished or unfurnished at very low rentals, are going begging; the civilian workers

and army personnel don't like them, won't live in them. Folks will not even leave nearby shacks and trailers to move into them. But privately built, single-family homes, which are attractive and livable, are very much in demand.

UNION TROUBLE—Denver builders, like those in many other cities, are having their share of union trouble. Local unions have demanded that the War Labor Board require payment of the "prevailing wage" on all war housing. The case has gone to Washington. If decided in favor of the unions, it will affect not only Denver but all other towns, and practically force complete unionization.

PROVO BUILDING—Hot spot of western building is Provo, Utah, which I visited last month. This town of 19,000 has grown to 40,000; has had 1900 priorities allotted. Some 800 have been completed, 900 are under way—a remarkable sight. Some of the best looking Title VI houses in the country are being built in Utah. State FHA Director Gordon Weggeland has done a splendid job with private builders.

STOPS INFLATION—The best way to keep real estate prices from continuing to rise is to build more homes. Many \$5000 houses have gone up to \$7500, and \$3000 ones to \$5000. However, if houses keep coming on the market at reasonable prices, the inflation is stopped.

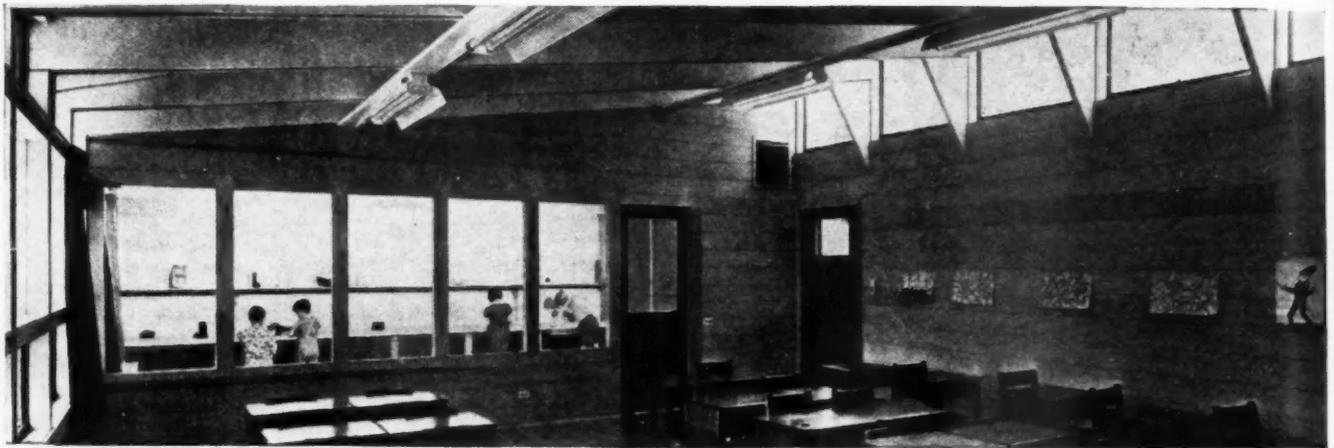
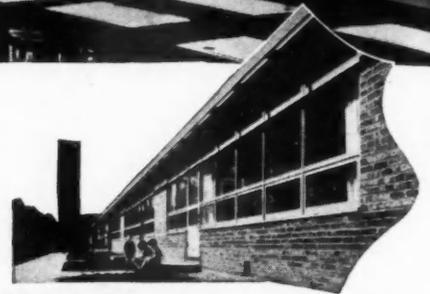
Builders feel that in areas where labor is not critical, they should be allowed to resume building NOW. This would stop inflation, provide needed jobs, and cut down the housing shortage.

FLYING BULLDOZERS—Yes sir, the army has been flying bulldozers to difficult spots, or dropping them in by glider. Latest models, they say, will do anything but fry ham and eggs for breakfast.

OFF TO MEXICO—Looking for work? Better head for Mexico where we hear American building materials and equipment are *plentiful*. No priorities, restrictions, red tape, or L-41. A good many people are wondering how much U. S. material going into luxurious Mexican houses and steel skyscrapers is result of lend-lease.



DAYLIGHT ENGINEERING IN THE MODERN SCHOOL



This recently completed midwestern school, designed by Perkins, Wheeler & Will, noted Chicago architects, sets the pattern for educational institutions of the future. The principles of *Daylight Engineering* are a paramount feature of its design.

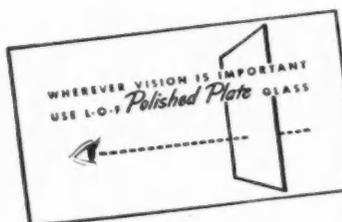
Eye comfort for pupils is substantially stepped up through carefully planned utilization of natural light. Daylight is evenly distributed throughout the classrooms, directed to walls and ceilings in a way that eliminates dark corners and eye-fatiguing shadows.

Supplementing the large window areas, on the opposite wall are clerestory windows scientifically designed to

capture and distribute added daylight.

In homes and offices, as well as schools, *Daylight Engineering* opens up entirely new opportunities to make interiors brighter, cheerful and more spacious in appearance. Here is one modern building feature that every home, large or small, can enjoy, for it costs no more to design and build with glass.

Many kinds of high quality Libbey-Owens-Ford Glass for windows, and Blue Ridge Glass for partitions are available for every *Daylight Engineering* need. Libbey-Owens-Ford Glass Company, 1214 Nicholas Building, Toledo 3, Ohio.



LIBBEY • OWENS • FORD

A GREAT NAME IN *Glass*



HERE'S MORE ABOUT THE NEW WHEELER OSGOOD PRODUCT

Tru-sized DOORS

MADE BY AMERICA'S LARGEST DOOR MANUFACTURER!

Wheeler Osgood craftsmanship has triumphed in full development of Tru-Sized Doors. This new product provides the building industry with doors precision machined to exact book opening sizes. No sawing, no planing is necessary to install a Wheeler Osgood Tru-Sized door.

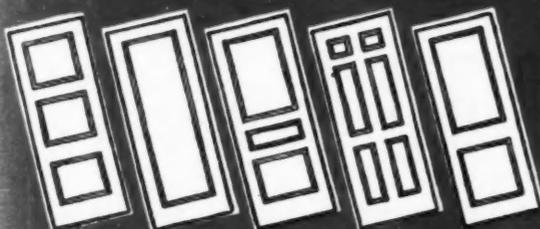
TRU-SIZED
Doors are
easy to install
—no planing—
—no sawing—
—no fitting



Here's What TRU-SIZED Doors Mean to You!

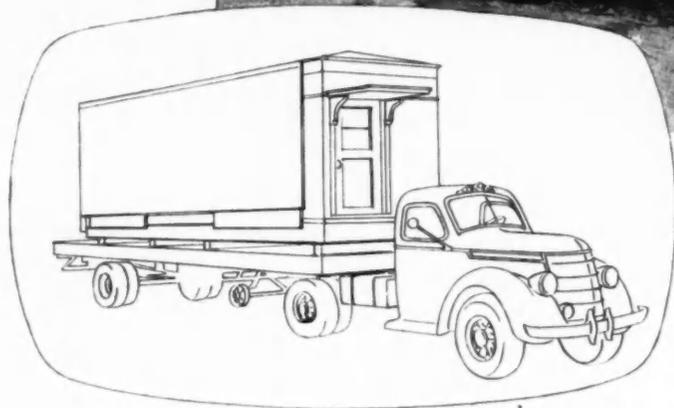
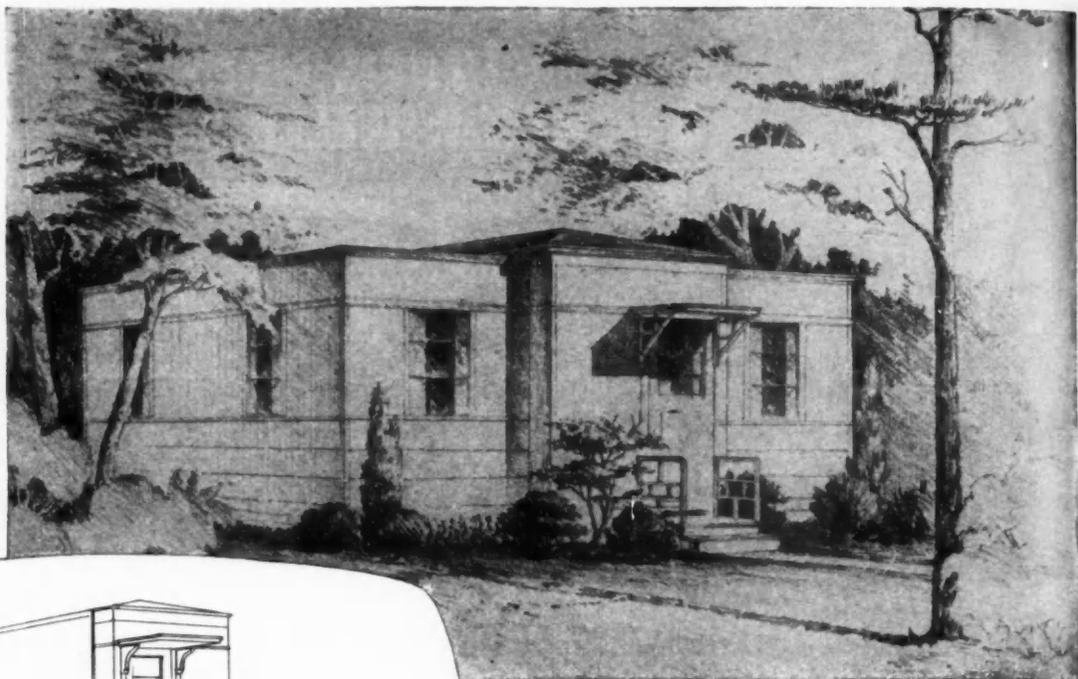
- ★Time saved on the job
- ★Amazingly low cost
- ★Tru-Sized Finished Edges
- ★Greater Profits
- ★Perfect Installation
- ★Satisfied Customers

EASY TO INSTALL—READY TO HANG—WHEELER OSGOOD TRU-SIZED DOORS available for all kinds of buildings



Wheeler Osgood Sales Corp. Dept. 7
Tacoma 1, Washington
Please send me free literature and detailed guide sheet for ordering Tru-Sized Doors.

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



Mobility

**A NEW WORD
AS APPLIED TO HOUSING**

IN the past, except in very rare instances, houses have always remained on the site where they were originally erected. Regardless of how the character of a neighborhood might change, its houses "stayed put". The owner of a home had no choice but to let it stand where it was or pay so much for moving it that he might better build a new home elsewhere. Consequently there has always been present in the building of a home a certain element of risk that could not be guarded against.

But with the coming of a new type of home — the Palace Portable Home which can be moved from place to place at the will of its owner — home ownership assumes a much more pleasant aspect.

A home of the Palace portable type can be moved, all in one unit, on a flat-bed motor truck, with practically the same ease as a van load of furniture. A patented construction feature makes this possible without disassembling the house or any part of it.

Completely factory-built, factory-assembled and factory-equipped — with plumbing, heating and lighting equipment installed at the factory — Palace dwelling units are ready for occupancy practically upon arrival at the building site, making it possible to supply housing for both wartime and peacetime needs more quickly than by any other method.

No wonder the Palace Portable Home is acclaimed as marking a new epoch in the field of home building!

Palace

*Write for 4-Color Brochure
of Palace Homes and Floor Plans.*

CORPORATION
Flint, Michigan

ELJER PLUMBING FIXTURES



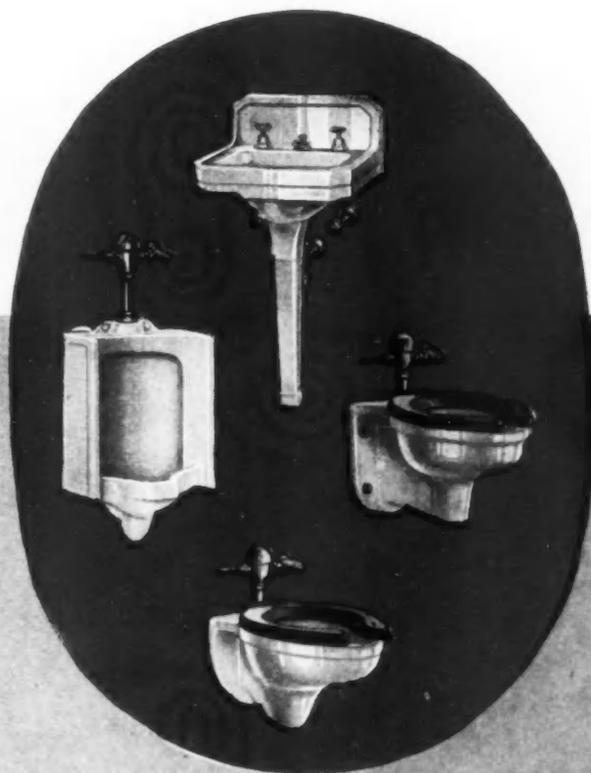
in New York City Schools

These beautiful buildings are typical of the many New York City schools equipped with Eljer's fine, long-lasting plumbing fixtures. Some of these fixtures are shown below.

In selecting fixtures, remember that where quality and durability are important, Eljer fixtures measure up to the most exacting standards.

Write for our condensed catalog and free booklet on residential bathrooms entitled "Women Tell Us". Also see our catalog in Sweet's.

ELJER CO. • Ford City, Pa.



Mr. Eric Kebbon: Architect, Supt. of School Building, Design and Construction.

Chief of the Sanitary Division: Mr. O. C. Wahlstrom.

Jobber: W. H. Hussey & Son, Inc.

1. Benjamin Franklin High School
Plumbing Contractor: Jesse E. Kahn
2. Machine and Metal Trades H. S.
Plumbing Contractor: Joseph F. Egan
3. J. Fenimore Cooper Jr. H. S.
Plumbing Contractor: Jesse E. Kahn

KEEPING THE HOME DESIRES BURNING



WAR BOND



- Home perhaps with the family gathered around the dinner table on Sunday. Or the gang in the rumpus room, downstairs. Or familiar things—like Dad's easy chair or the cupboard where Mother keeps her best china. These are the memories which bind fighting men to the kind of world they're fighting for.
- Many of them are looking back today on homes graced with the warmth and charm of the Western Pines. Many of them are looking ahead to the day when they will remodel their homes, or build new ones, with these distinguished woods.
- If you have plans for building or remodeling your home some day, you'll find a lot of interesting ideas in "Western Pine Camera Views." For a FREE copy, just address: Western Pine Association, Dept. 177-F, Yeon Bldg., Portland, Oregon.

*Idaho White Pine *Ponderosa Pine *Sugar Pine

THESE ARE THE WESTERN PINES



PRIVATE JONES HAS A PLAN FOR PEACE

- It's pretty much of a personal plan. It concerns the basement at his home. When his present job is done, Private Jones is going to turn that old basement into a slick, up-to-the-minute game room.
- He wants a neat bar, a built-in radio and a lot of other things. And because he wants the room to look just right, and yet not cost too much, he's decided on interiors of knotty Western Pines.
- If you are planning to remodel your home—inside or out—or if you are planning now for the new home you will build when the war is over, you should investigate the amazing versatility and economy of the friendly, smooth-textured Western Pines. To learn more about these fine woods, write today for your FREE copy of "Western Pine Camera Views." Western Pine Association, Dept. 177-F, Yeon Building, Portland, Oregon.

*Idaho White Pine *Ponderosa Pine *Sugar Pine

THESE ARE THE WESTERN PINES

- Building new homes is obviously something that the American people will have to postpone until after the war.
- However, there are no restrictions on planning new homes now. That's why we are keeping these "home desires burning" by regular national advertising as shown here.
- The response from this advertising is most reassuring. From every state in the Union—even from members of the Armed Forces—come requests for copies of "Western Pine Camera Views." The letters which accompany these requests indicate that home building will be one of the nation's greatest activities when peace comes.
- The mills will be ready for this postwar demand for Western Pines. There will be plenty of timber. Future supply also is assured under the industry's program for continuous production of forest crops. Pine mills will require no retooling or conversion but can start cutting for peacetime uses immediately after war requirements slacken or cease. And our Research Laboratory is constantly working to determine new uses, new values, and to improve the manufacturing and service of Western Pines.

WESTERN PINE ASSOCIATION

YEON BUILDING • PORTLAND (4) OREGON

*Idaho White Pine *Ponderosa Pine
*Sugar Pine

*THESE ARE THE WESTERN PINES

★ ★ ★
★ **WORKING** ★
★ **FOR** ★
★ **TODAY** ★
★ ★ ★

Volunteer pilots of the Civil Air Patrol, busy by day and by night at important tasks, typify the indomitable spirit of American womanhood at war. Norge salutes these valiant volunteers who are today working to speed the victory.



**..PLANNING
FOR
TOMORROW**

Norge, too, is enthusiastically devoting its specialized skills and production facilities to the job of winning the war.

And Norge is planning for tomorrow . . . planning new household helps for the women in the postwar homes. Because of the new skills and techniques acquired as a result of war assignments, the Norge Rollator refrigerators and the Norge washers, ranges and home heaters planned for tomorrow will be better designed, better engineered, better built. They will be, in all truth, *products of experience*—better products for the better world to come. Norge Division, Borg-Warner Corp., Detroit 26, Mich.

A BORG-WARNER INDUSTRY

NORGE

HOUSEHOLD APPLIANCES



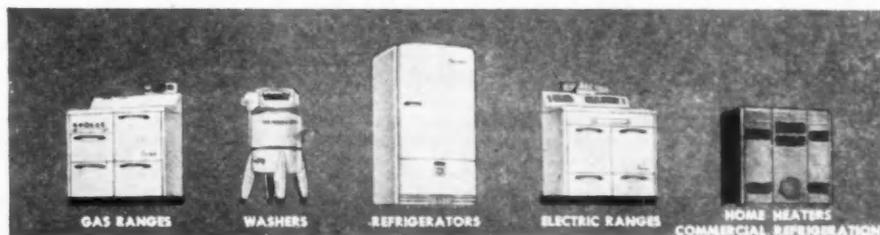
BETTER PRODUCTS FOR A BETTER WORLD

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

NATIONAL APPLIANCE CONSERVATION PROGRAM
"BETTER CARE—LESS REPAIR"

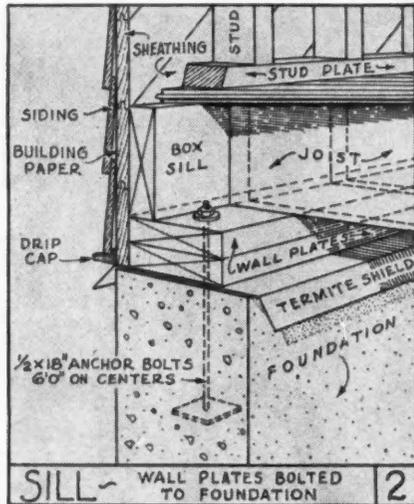
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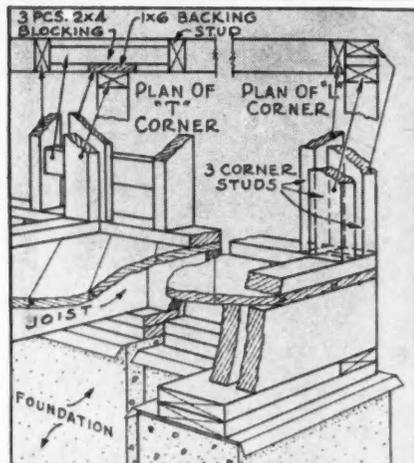
Take It Easy, Builders, About

Miracle House Hoop-la!

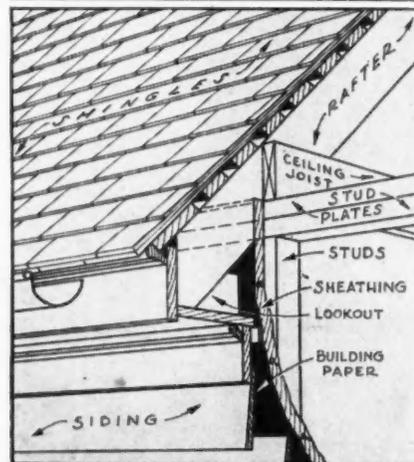
**THERE'S NO SUBSTITUTE
for Sound Construction by
Experienced Craftsmen**



SILL WALL PLATES BOLTED TO FOUNDATION **2**



CORNERS REINFORCED CORNER POST AND PARTITION CORNER **3**



10 CORNICE CONSTRUCTION

★ Vivid imaginations are predicting radical changes in design and construction of post-war homes. In the speed and short cuts of defense and war industry housing, they claim to see similar methods forecast in building the homes of 1944?

★ But erecting 500 workers' houses at one time differs utterly from building a single home for an owner. Mass housing goes up swiftly, impersonally . . . a lifetime home for Mr. and Mrs. does not.

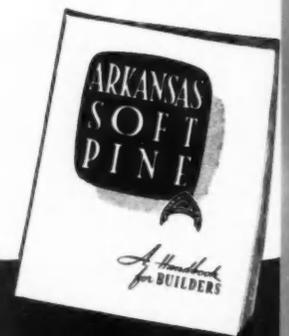
★ For Mrs. especially her home is a treasured possession with spiritual qualities close to her heart. She'll not be interested in a pre-conceived factory-built home. She wants her own floor plan and an exterior that reflects her personal individual taste.

★ So, builders, take it easy when fantastic predictions are made that tomorrow's homes are going to be delivered at the site, practically ready to move into. A few may be, but mostly they'll be built by you, just as they always have.

★ To be ready to take up where you left off, send for our Builders' Handbook. It's packed full of useful know-how that makes it a mighty helpful tool in your kit. (Includes many construction details like those shown, left.)

Just put a dime in an envelope with your name and address, and the postman will deliver your copy.

**SEND FOR
YOUR COPY**



ARKANSAS SOFT PINE BUREAU
741 BOYLE BUILDING LITTLE ROCK, ARKANSAS

AN ANNOUNCEMENT OF GREAT IMPORTANCE TO THE BUILDING INDUSTRY

WHAT types of electrical equipment will be needed in the homes of tomorrow?

Where should fixed equipment be placed in kitchens and laundries? How about dimensions and clearances—access for servicing—lighting outlets and controls—utility connections?

Westinghouse has long recognized the need for accurate information on these subjects . . . and for this reason has created the

BETTER HOMES DEPARTMENT

The Westinghouse Better Homes Department was created to assist the building profession in the planning of postwar housing . . . and to give authoritative technical advice on the *proper applications of electricity* which will contribute so much to better living in 194X.

To achieve these ends, Westinghouse has organized the *Better Homes Advisory Staff*, consisting of men of recognized standing and wide experience in the housing field:

IRVING W. CLARK, MANAGER, who has been continuously engaged in housing activities for nearly 25 years . . . a nationally recognized authority on home planning and kitchen design . . . and a Director of Producers Council, Inc.

A. CARL BRED AHL, TECHNICAL DIRECTOR, formerly Chief of the Mechanic-Electrical-Utilities Division of the Federal Public Housing Authority from 1934 to 1943, where he was responsible for establishing design standards of mechanical and electrical installations for U. S. Government housing projects . . . and for 7 years electrical designer for Warren & Wetmore, New York.

JOHN S. VAN WART, REGISTERED ARCHITECT, formerly with Fred F. French Company, New York, who has designed many multiple dwellings, hotels, and institutions during the past 30 years . . . including Knickerbocker Village, 10 Gracie Square, and Blind Brook Lodge in the New York area.

SIX-POINT ADVISORY SERVICE

The Better Homes Department offers a *Six-Point Advisory Service* to the building profession, featuring advice on the following subjects:

- 1—Selection of correct types of electrical equipment for various classes of postwar homes.
- 2—Location and arrangement of fixed equipment, for conserving space and attaining maximum efficiency in arrangement of work cycles.
- 3—Accurate dimensions and clearances of equipment to insure proper installation and efficient operation.
- 4—Access for servicing of equipment—so necessary for periodic inspection and repair.
- 5—Location of lighting outlets and controls, for greater enjoyment, comfort, and safety in the home.
- 6—Utility service connections—including location and size of electric wiring, water supply, and drainage lines.

This Six-Point Advisory Service is available to contractors, builders, architects, engineers, public utilities, housing authorities, electrical inspectors, building management, and investment institutions.

Westinghouse Better Homes Department welcomes the opportunity of giving constructive assistance to those interested in postwar housing.

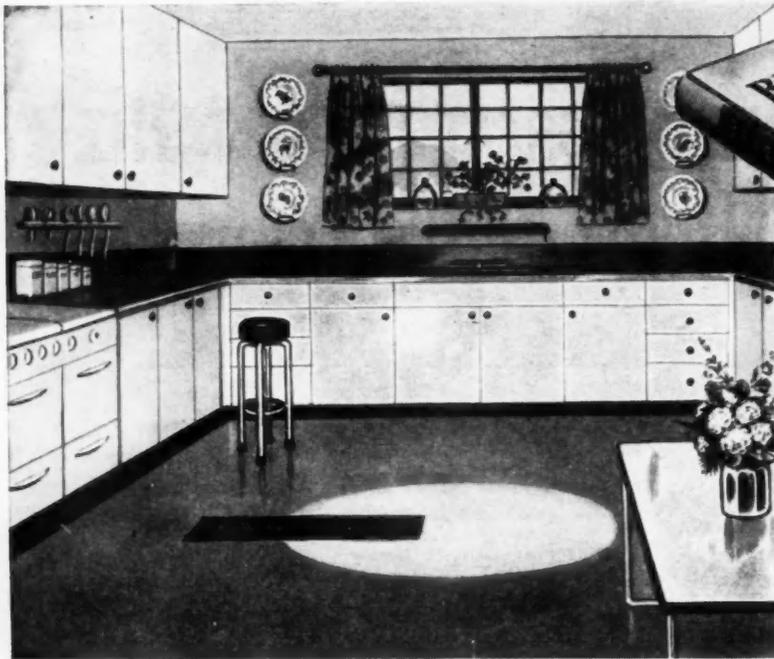
If you have any problems relating to the selection, installation, and use of home electrical equipment, write: Better Homes Department, Westinghouse Electric & Manufacturing Company, Pittsburgh 30, Pennsylvania.

A NEW APPROACH TO ELECTRICAL LIVING IN 194X

A carefully co-ordinated program . . . for assisting the building profession and homeowners in the attainment of *better wiring for better living* . . . will be announced soon. *Watch for it!*

Westinghouse

PLANTS IN 25 CITIES OFFICES EVERYWHERE



...and
 add a Dash of
STANLEY
HARDWARE"

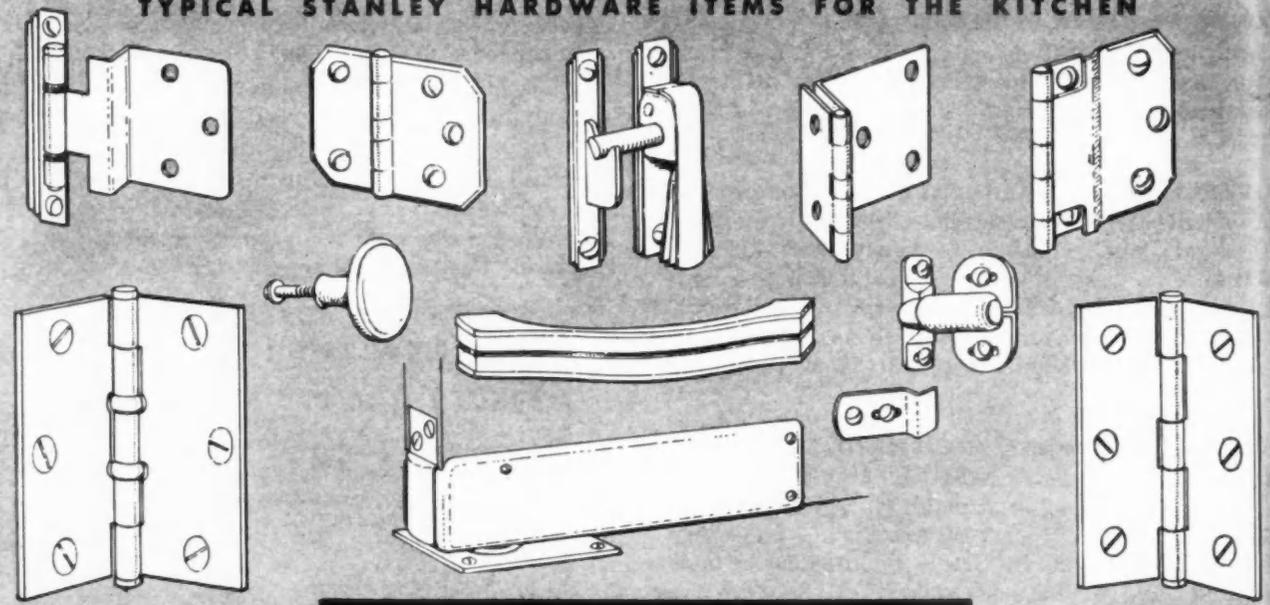
What "flavor" will their new kitchens be? Certainly, homekeeping magazines are suggesting a wide choice — from the ultra-modern with glass-enclosed ovens and 3-minute dishwashers — to the homey farm-kitchen designs with cleverly camouflaged modern appliances.

But you can be certain of one thing — to your continual post-war profit: there will be a demand for those necessary and useful items of

Stanley kitchen hardware to match every design. Time-tested and long-preferred styles or modern and "functional" designs — all are on our production lists, ready to go when the war is over and Uncle Sam gives the word!

So, keep kitchen-minded and Stanley will be with you when the day of building and re-newing arrives. The Stanley Works, New Britain, Connecticut.


TYPICAL STANLEY HARDWARE ITEMS FOR THE KITCHEN



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STANLEY

1943

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Cut it out!



Photo in circle shows UNI-POINT adjusted for notch cutting operation, using a 4-knife countersunk cutterhead. Photo at right shows UNI-POINT set for compound miter cross-cut angle.



WITH A MONARCH UNI-POINT RADIAL SAW The Wonder Saw for Speed with Accuracy

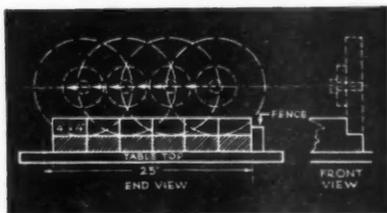
WHY NOT bet on a sure thing? Here's a *guaranteed* radial saw, operating on an entirely new principle, that *guarantees* far greater production per man hour. You simply can't lose!

Whether your post-war business is mass production of prefabricated homes or individual contracts for remodeling and new construction, you'll find that **UNI-POINT RADIAL SAWS** make big money for you in every operation. With one point cutting (saw entering work at same point in table regardless of cross cut angle) you eliminate changes of stops and gauges and do not have to wait for saw to stop before changing angle.

You do not even have to raise or lower saw blade when changing angle of cut nor make frequent replacements of guide fence usually mutilated by production angle cutting. You simply pivot or tilt—snap lock—and start cutting.

Clear vision of the work is afforded at all times by the telescoping ram,—nothing to bump your head. And there's no reaching over saw for adjustment levers, a big safety factor with **UNI-POINT**.

Numerous other advantages of this complete production cutting tool are explained in our illustrated catalog No. 60 which will be sent promptly upon request.



Notching six 4" rafters with one stroke of saw—500% increased production. UNI-POINT has 25" cross-cut capacity.



AMERICAN SAW MILL MACHINERY CO.

60 MAIN ST.

HACKETTSTOWN, N. J.

Established 1903

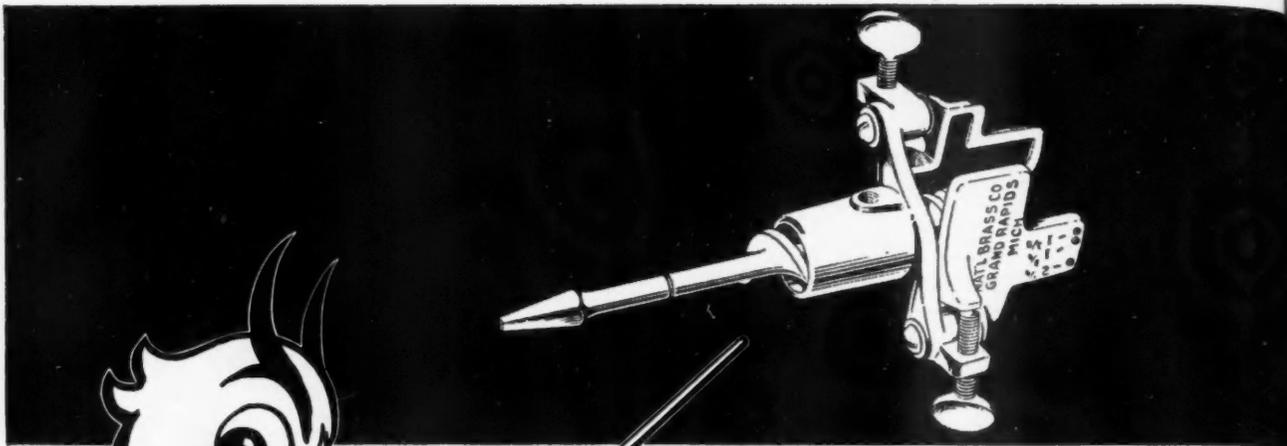
Radial Saws
Shapers

Saw Benches
Sanders

Band Saws
Mortisers

Jointers
Swing Saws

Planers
Saw Mill Machinery



***This is the Bit Guide
tried and true
Just clamp it on
that's all you do***

Dexter Tubular *drill-hole* installation does a better job, faster, by avoiding slow, old-fashioned chisel mortising; but the real hero of fast, time-saving, accurate *Tubular* installation is the DEXTER BIT-GUIDE. It's the tool for the job — just clamp it on and drill — no measuring, no squaring, no laborious chiseling.

Most Dexter dealers carry Bit Guides to loan you for your convenient use.

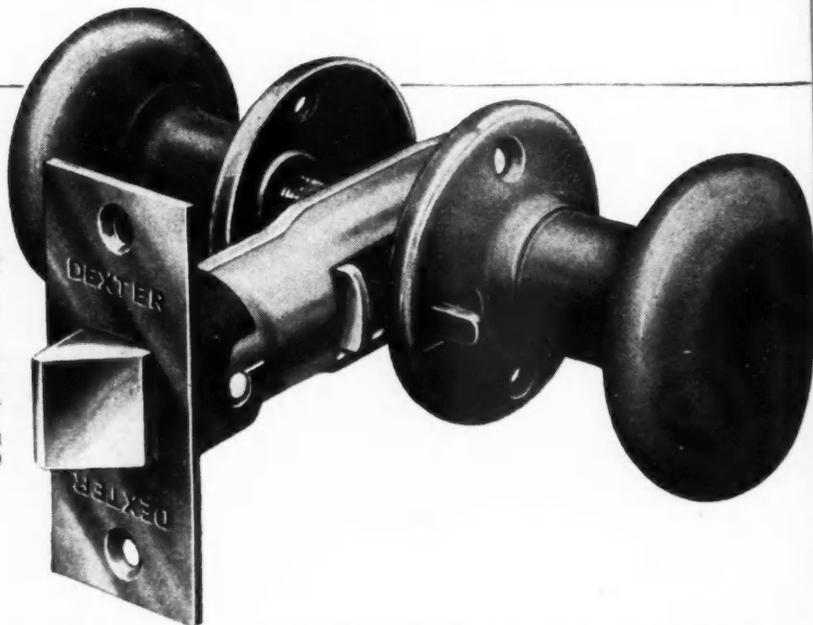
There's more to Dexters than meets the eye. For example: set screws in the knobs are self-locking, positive assurance that knobs will not become loose in service. Always ask for — always use — DEXTER TUBULARS — remember...



Self-locking set screws

**Dexter is the Tubular made with care
GUARANTEED for Lifetime of use and wear**

**DEXTER
TUBULAR
LOCKS and LATCHES**



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

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Washington News Summary

U. S. Chamber of Commerce Says \$4 Billion Post-War Home and Farm Building Program Ahead

FHA Rolls Along And Houses Go Up

During the first eleven months of this year, 127,841 new family dwelling units financed with FHA-insured mortgage loans have been placed under construction by private builders in critical war industry areas according to Commissioner Ferguson. This, he said, is upward of 85 percent of all new home construction being financed by private capital under the National Housing Agency's war housing program. During this same period a total of 123,509 war housing units were completed under the FHA program.

Further, FHA says that, assuming the availability of materials, labor and a normal housing demand, indications are that within the first year after the removal of wartime restrictions, between 350,000 and 400,000 privately built dwelling units, with an average value of \$5,000, will be built at a total cost ranging between \$1,750,000,000 and \$2,000,000,000.

Rapid Increase After First Year

The home building industry, starting from a comparatively low level, will gain momentum throughout the first year and a much higher volume of activity may be anticipated thereafter.

A large volume of home repair and modernization work, probably as much as \$3,000,000,000, may be expected.

From a low level of employment at the beginning, construction of new housing and modernization and repair of existing houses may be expected to provide work on and off the site for an average of 2,400,000 men for the year, reaching up to 3,000,000 to 4,000,000 men toward the end of the year.

Ample funds from private lending institutions are looked for by Commissioner Ferguson. He added:

"The FHA organization is in a position to aid the industry from the start—a very different situation than existed after the last war. The FHA has a half billion dollars in Title II insurance available now and a billion more available on the President's approval. Adequate Title I insurance is also available to finance a large volume of modernization and repair work."

No area of any importance in the

(Continued to page 80)

The building boom statement is made after studying responses secured through personal interviews with families comprising the mass market of America—15% in the income bracket from \$4,000 to \$2,500; 52% in the income bracket from \$2,500 to \$1,500; and 33% in the income bracket from \$1,500 down. These facts and figures cover only a portion of the buying public and do not include families with incomes in excess of \$4,000. The findings are based on personal interviews with a cross section of the United States adult population, and were made between July 15 and August 25, 1943.

The original study was designed to supply a factual basis for answering three basic questions: "If the War should end tomorrow, what is the one thing you would most like to buy?"—"Would you certainly buy within six months, or do you think you would wait longer than that?"—"How much money have you got to buy it with?"

Not only are people planning early postwar purchases, but they are also accumulating the necessary money for these purchases. There is little indication that the prospective market is due to increasing wishful thinking on the part of workers whose financial status has been suddenly improved by jobs in war plants. Eighty-five per cent of the respondents intend to buy because their present equipment has already worn out, or is fast wearing out. This lends further support to the theory that careful planning, rather than wishful thinking, is behind the postwar market.

It is evident that the policy of restricting the manufacture of appliances, automobiles, and building materials has done much to create an immediate postwar demand far in excess of normal. For instance, the number of people saying they would buy certain less restricted items such as furniture or floor coverings immediately after the war has remained fairly constant, while the number planning to buy automobiles, appliances, and new homes has skyrocketed.

In order to make these increased purchases and carry through enlarged plans for home repairs and improvements, more people are saving more money this year than last. What is more, an increased number of people are saving

(Continued to page 79)

New Construction Spending Expected to Drop in 1944

New construction expenditures in the United States are expected to drop from an estimated \$7.4 billion in 1943 to approximately \$4.2 billion in 1944, Department of Labor recently reported. "Construction for private account will decline from an estimated \$1.6 billion in 1943 to \$1.3 billion in 1944. Public construction expenditures for 1944 are forecast at \$2.9 billion as compared with a preliminary estimate of \$5.7 billion in 1943.

"Private construction expenditures were lower in 1943 than in any year since 1934, and, if the war continues through, 1944 will probably approach the level of the bottom depression year. Nonfarm residential construction expenditures in 1944 will amount to approximately \$600 million as compared with \$756 million in 1943. Practically all of this type of construction will be found in critical housing areas in war industrial centers."

OPA Boosts Prices and WPB Tightens Allocation Controls

Southern yellow pine and certain hardwoods have been placed under strict allocation control by the War Production Board. Action is taken by Conservation Order M-361, covering southern yellow pine, and M-364, covering the following hardwoods: oak, ash, hickory, yellow birch, hard maple, rock elm, and beech. Shingles, lath and railroad cross ties of all the species affected are exempted from the provisions of the orders. M-361 and M-364 are designed to conserve supplies of these woods for direct and indirect war uses and to prevent their use for non-essential purposes.

Provisions of both orders are substantially the same. Producers are permitted to sell only (1) to the Central Procuring Agency of the U. S. Corps of Engineers and contractors and others designated by it; (2) to other Federal agencies, Lend-Lease, and their contractors and suppliers; and (3) upon specific authorization by WPB.

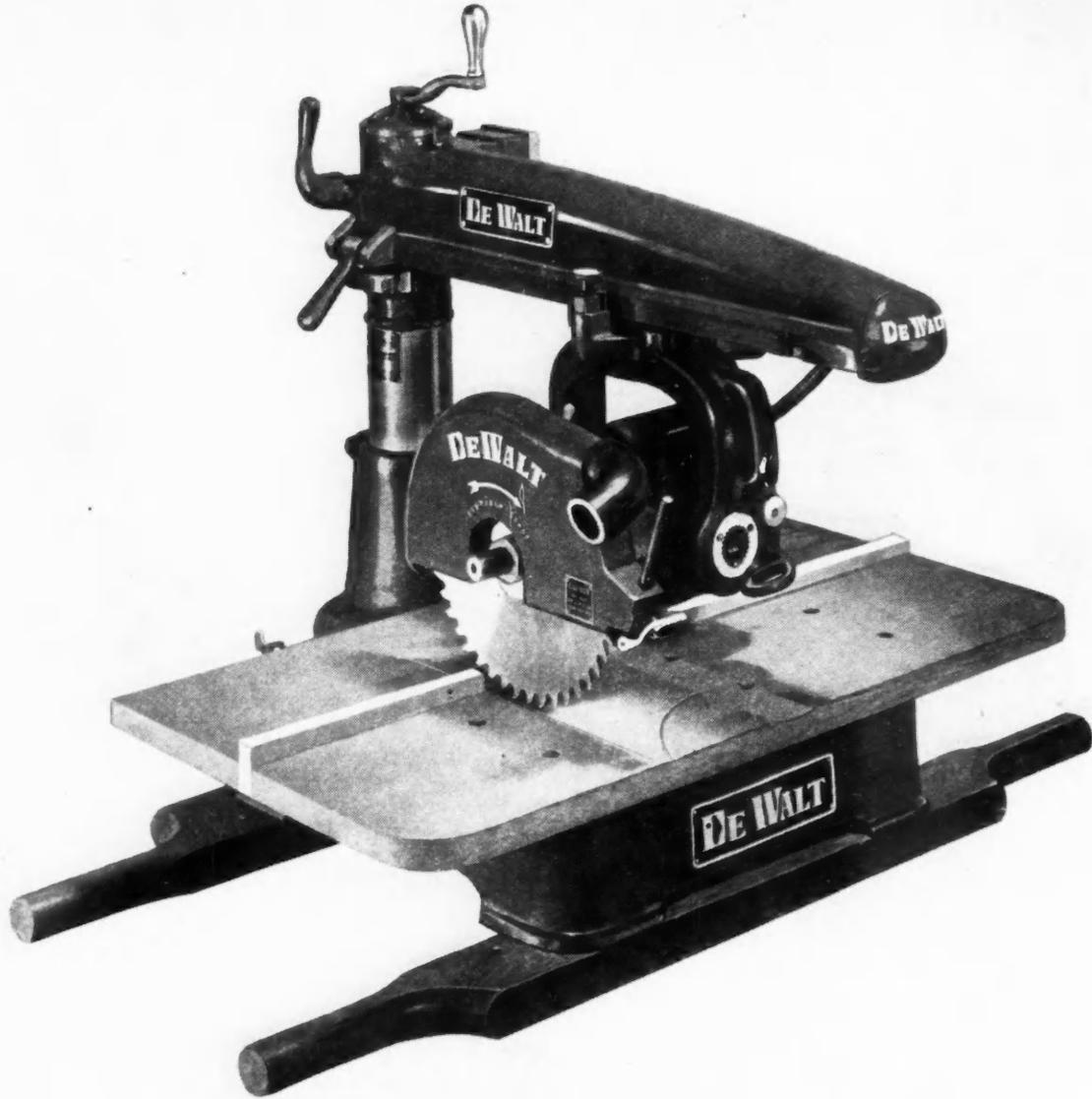
Purchase orders by or for the Central Procuring Agency, other Federal agencies, Lend-Lease, and their contractors must be accompanied by certifications; application for WPB authorization of purchase orders is made on Form WPB-2720. Certification may be used only for purchase orders to fill specific contracts; it may not be used for inventory replacement, for which Form WPB-2720 is required.

"Producers of larch-fir, inland red cedar, and incense cedar lumber in 12 western states were authorized by the

(Continued to page 79)

DE WALT

PORTABLE BUILDERS' SAW



Again keeping ahead of the latest trends in home building techniques, this portable, low-cost DeWalt has been especially engineered and built for builders. Light in weight, this machine can be conveniently carried around from job to job. It provides the facilities of a complete woodworking shop, from the cutting of framing to the finished interior trim. Using this machine, builders can *custom-cut* houses faster, more accurately and for less cost. Write for complete information on this *builders' saw*.

DE WALT
PRODUCTS CORPORATION
LANCASTER, PA.

Answers to ten post-war questions

AS WE embark on one of the most momentous years in history, it seems appropriate to take time to appraise as best we can the prospects for the building future. *American Builder* has been receiving many questions about 1944 and beyond. Following are answers to ten of the most important and often asked questions.

1. How soon can building start?

Answer: Pressure for relaxation of L-41 is growing, and will increase as unemployment in the building trades continues to develop. If the war with Germany should end in mid-1944, as many predict, a considerable volume of building could get under way before the end of the year. Repairs, modernization, farm building and small homes should be the first to start.

2. How many new homes will be built?

Answer: A good estimate is that 300,000 to 400,000 units will be built the first year after the war. This should increase rapidly to a level of from 900,000 to 1,000,000 homes a year.

3. What price houses will be built?

Answer: Under \$3,000—20 per cent; \$3,000 to \$5,000—40 per cent; \$5,000 to \$7,500—25 per cent; above \$7,500—15 per cent.

4. Will prefabrication win out?

Answer: Completely prefabricated houses will account for a very small part of the market—perhaps 2 to 5 per cent in the first five years after war. But greater use of fabricated parts or sections by traditional builders will occur. Also precutting with power saws, and site fabrication.

5. Will public housing kill the private market?

Answer: Our opinion is that determined opposition, already well reflected in Congress, will confine public housing to bad slum areas and to types not in competition with private builders.

6. Will there be a radical change in homes?

Answer: The evidence is overwhelmingly against a quick or radical change in traditional methods or appearance. But expect important improvements in materials and equipment—especially as concerns kitchen, bath, and heating.

7. Will there be a change in distribution?

Answer: Very little. The handling, storage, and servicing of bulky and complicated building products require specialized abilities and establishments that take years to build up. Distribution in this industry, considering the nature of the materials, is no more costly or less efficient than in other industries.

8. Who will build post-war homes?

Answer: In addition to the thousands of builders already active, there will be a huge influx of trained men from the armed forces, from war construction, and from war industries. An increasing number of houses will be constructed by operative or speculative builders for sale. While there will be a tendency toward larger building operations near the cities, the movement of population from the centers of cities to outlying areas will encourage an increase in the number of *small* speculative builders who put up from five to twenty-five houses a year. Speculative builders who own land with utilities already in will be in a position to start first.

9. How will post-war homes be financed?

Answer: Banks, savings and loan associations and mortgage companies have more money available for home financing than ever before in the nation's history. FHA is a going concern: is ready to begin financing post-war homes under Title II at any time, and has ample appropriations for this purpose. Private lending institutions are preparing liberal, long-term arrangements that will enable them to compete with FHA for low-cost home financing.

10. Will there be enough men and materials?

Answer: A surplus of labor—especially building labor—is already appearing in many areas. It is probable that the supply of building labor will increase during the coming year, and the end of the war in Europe will result in the return of great numbers of skilled men. The war has brought millions of men into a form of rugged, outdoor experience that many will want to continue by getting into the building business.

As to materials, the productive capacity of the manufacturers in this industry is at the greatest peak in history. Once the crest of demand for war purposes has passed, inventories can be rebuilt, and supplies made available rapidly.

BASIC FACTORS But

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A notable review and forecast by the nation's foremost analyst of building trends, economics.

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FIVE BASIC factors will dominate the post-war outlook for the home-building industry. These are (1) The national income level; (2) The immense accumulation of savings from the war years; (3) The physical need for housing including the backlogs and replacement market; (4) The cost of home ownership; (5) Psychological factors.

For over a decade preceding the war the economy of the United States was running persistently in low gear. Then, electrified by the tremendous stimulus of war demands, the pent-up energy of the American people seemed veritably to explode in an outburst of productive achievement the like of which has never been equalled in our history.

The sum total of that achievement can be expressed very crudely by the figures for national income. The latter was only slightly over 70 billions in the last pre-war year, 1939. *In 1943 it will be around \$147 billions*—a truly colossal advance in physical volume of production!

But before going further, let us review present building prospects.

1943 was a year of sharp contraction for the construction industry. Instead of the \$13.7 billions of new construction volume of 1942, we had barely \$8 billions in 1943. Instead of

about 495,000 new homes as in 1942, we built only about 350,000 in 1943.

Volume is almost certain to contract further in 1944 and total new construction is likely to be between 4 and 5 billion dollars. Home building also will shrink further, but everything depends on the progress of the war.

The most commonly accepted guess now is that the war with Germany will end somewhere around July in 1944 and that the conflict with Japan will last about a year longer. If that happens to be correct, building will begin to revive in the last half of 1944 but not to an important extent as there will remain a very tight situation in labor, lumber, certain strategic materials, and in some types of home equipment.

But in spring of 1945, even before the war with Japan ends, the war in the Pacific will be so completely organized, that it is likely that the war

economy will have begun to contract sharply. Hence it will be necessary for the peacetime economy to begin to expand to prevent unemployment, and the construction industry will therefore at once come to the fore.

In the first 12 months after the end of the war with Japan, new construction should come close to \$9 billions

C FACTORS in 1944

Building and Beyond

By W. C. Bober

and should rise from there on to at least \$15 billions (exclusive of modernization and repairs) in the third full-time peace year if a national income of around \$120 billions is to be supported.

The industry, except for the tight situation in lumber—vast amounts of which are needed for crating and shipping as well as for military construction abroad—could get started very rapidly in 1945.

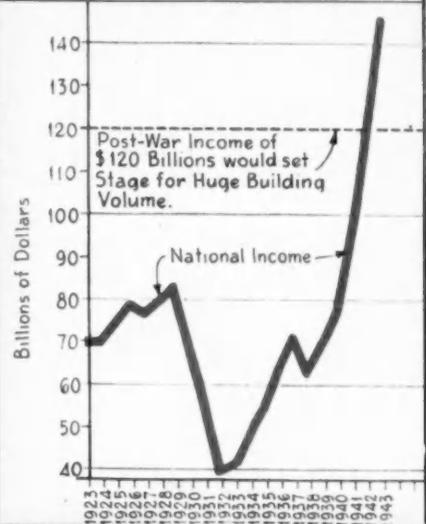
Most building material manufacturers are set to go, having relatively little conversion to do. Even lumber production could be rapidly expanded, once labor again becomes available for the forests and in the mills. Order L-41 should be drastically modified at the earliest possible date commensurate with the war effort and certain steps in this direction should probably be taken in 1944 as the war economy is already showing signs of contraction in some sectors. Moreover, modernization and repair cannot wait like new construction.

Rate control is tied up with the whole general picture of price control and it is very doubtful whether government would permit the end of rent ceilings before the building industry is well set to go, as a sharp rise in rents would push up the entire cost of living, bring swift and irresistible demands for higher wages from the millions of organized labor, and thereby set in motion the whole dreaded spiral of inflation.

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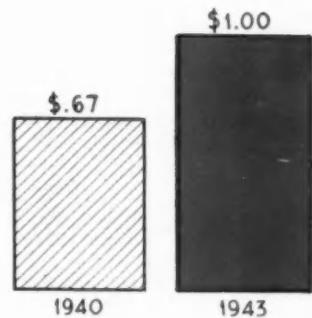
— learn the effect of eight million new potential customers — \$100 billion savings—rapid transit—higher hourly wages—the biggest baby crop in history.

HIGH LEVEL OF NATIONAL INCOME IS FIRST CONDITION FOR A PROSPEROUS POST-WAR CONSTRUCTION INDUSTRY



IF NATIONAL income can be kept at \$120 billions a year, the home building industry will have 8 million more customers than in 1929.

A HUGE NEW MARKET OF MILLIONS OF FAMILIES FOR THE LOW COST BUILDER



AVERAGE hourly wage of factory workers has increased from 67 cents in 1940, to \$1.00 in 1943 — opening a huge new market for home building.

THE BOOMING BIRTHRATE FAVORS POST-WAR SINGLE FAMILY HOUSE CONSTRUCTION



SPECTACULAR rise in births during the war will cause unprecedented demand for houses. Families will want new, single-family homes away from congested areas.



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But as soon as the war situation permits the building industry to again roll up its sleeves and produce homes and structures, the rent ceilings should come off as fast as possible. Otherwise speculative capital will not flow into buildings. After all, there is only one satisfactory and permanent way of keeping rents low, and that is *by building plenty of space*. The best and only effective answer to an abnormal demand for homes is not rent ceilings, but a plentiful supply of new homes.

Let us now turn to the five basic factors affecting post-war building.

The immense significance of the high national income years of the war era to the Construction Industry as well as to all other fields of business is the following: These war years have furnished a spectacular demonstration which is leaving a vital impress on the public mind that enormous productivity and therefore a high national income are not exceptional but *NORMAL* for the United States, *provided its people and machines are kept busy*.

Hence the nation-wide emphasis today on such phrases as "full employment," "high level employment," etc., and it is a safe prediction that whatever government we have in power in the post-war era, it will become the major national economic policy of the United States to attempt to maintain employment and the national income at high levels far surpassing the pre-war years.

Need \$120 Billion National Income

If we can maintain an annual post-war national income of around \$120 billions at approximately 1942 prices, it will be no mean achievement. It represents about \$40 billions more money flowing into the nation's pocketbooks per year than in the boom year 1929. At that level the construction industry can flourish mightily if other factors—building costs, interest rates, taxes, psychological factors, etc.—are right. True, the construction industry *alone* cannot produce national prosperity. It is both cause and effect.

In the prosperous Twenties, we averaged around \$13 billions of construction per year including maintenance and repairs. In 1942, the all-time peak, it exceeded \$17 billions, and if we include a huge amount performed abroad either directly by, or under the supervision of, the American armed forces, it came very close to the colossal sum of \$20 billions.

Thus the construction industry has already demonstrated its physical capacity to produce \$20 billions of construction a year. But there is also such a thing as "market capacity" and we must not lose sight of the fact that in peacetime,

building volume is a matter of selling structures to millions of people, who can buy or refuse to buy, instead of signing a few thousand contracts with one buyer, the government, which in wartime has no choice but to buy. Peacetime building volume requires salesmanship and plenty of it.

A prosperous construction industry is the No. 1 condition for high-level employment and a high national income level after the war and we must never let business, government, or the nation as a whole, forget this all-important fact. To maintain a \$120 billion annual national income after the war, construction volume (including modernization, maintenance, and repairs) would probably have to average around \$17 or \$18 billions per year, and this could not be achieved in any ordinary year without building approximately a million homes. Needless to say, however, this volume cannot be reached in the first full post-war year.

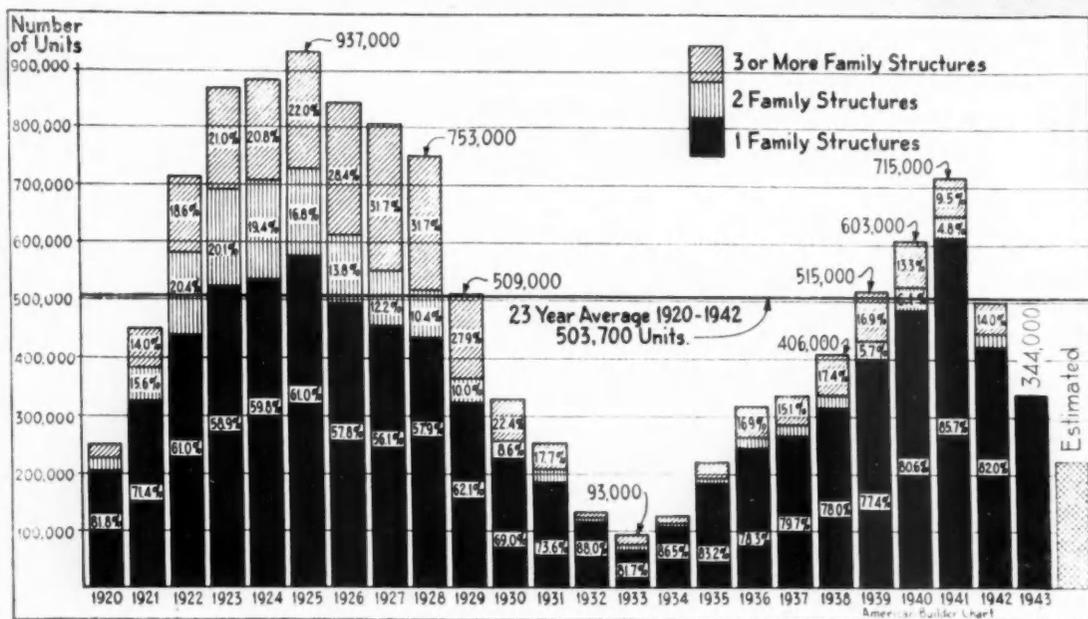
The immense importance of a high level of national income to the home building industry, in particular, is clear if we keep in mind that the pattern of the *distribution* of income changes as the national income rises or falls. To make this clear I cannot do better than quote the following figures from a study by the National Economic Research Bureau made about two years ago:

	Number of Consumer Units At National Income Level of \$81 Billions	Number of Consumer Units At National Income Level of \$109 Billions	Change
Below \$1750.....	25,817,000	19,079,000	- 6,738,000
\$1750 to \$10,000.....	14,904,000	21,333,000	+ 6,429,000
Over \$10,000.....	553,000	862,000	+ 309,000
	41,274,000	41,274,000	0

As the national income rose from \$81 billions (roughly the 1929 level, the highest we ever had before the outbreak of war in Europe) to \$109 billions (roughly the early 1942 level) 6,739,000 consumer units moved out of the *BELOW-\$1750* a year income class and moved into the *ABOVE-\$1750* a year class. To put it in peacetime terms, and assuming the construction industry is able to put on the market a reasonably acceptable house selling for between \$3500 and \$4500, a rise in national income from \$81 to \$109 billions *produces over 6,700,000 new potential customers* who did not exist as such at the lower national income level of \$81 billions.

It is not easy to estimate how many new additional potential home prospects a national income of \$120 billions would produce in a post-war year as increased taxes and the rise in the cost of living greatly complicate the problem. But I think

(Continued to page 89)



Source - U.S. Bureau of Labor Statistics

Number of U. S. dwelling units (except farms) built annually, by types, since 1920

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Announcing

AMERICAN BUILDER'S New BLUEPRINT Series FOR POST-WAR BUILDING

WITH this issue *American Builder* inaugurates a new educational and service feature of great importance to its present and future readers.

Our post-war blueprint series is dedicated to the men in business today, and to the thousands who will soon be coming back from the war, from distant construction projects, and from war industries—back into the building business.

We have passed the period of mere talk about post-war building, and should now be engaged in actual planning. This feature will serve to crystallize thinking and help the men of the building industry start NOW to blueprint their ideas.

The editors of *American Builder* have selected the subjects to be covered in this post-war blueprint series with the help of the foremost residential architects in the country. The firm of Henry Otis Chapman-Randolph Evans enjoys one of the finest reputations, and is one of the oldest in continuous practice. Chapman and Evans have designed more than 10,000 houses, and have been a powerful force in creating the present vogue of popularity of the Colonial home. The architectural treatment of the houses, garages, roadside buildings, shops, and other structures to be covered in this series represents the opinions of the *American Builder* editors and of the architects as to the types of structures that will be popular in the post-war era, and that can be built immediately when restrictions are lifted.

American Builder is not entering the plan service business, but presents this blueprint series for the study and guidance of the men of the industry so that they may start NOW to prepare their post-war operations.—THE EDITORS



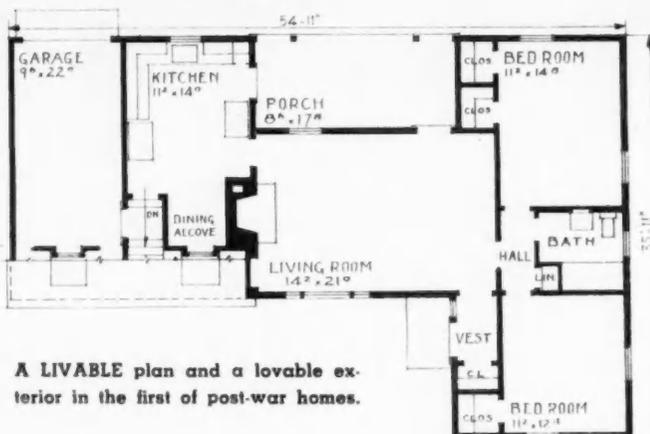
ARCHITECT Randolph Evans, whose gifted touch in the field of small home architecture has created millions of dollars worth of sales for successful builders. His Colonial homes designed for the Harmon Realty Corp. attracted nation-wide attention, resulted in the widespread use of a better type of Colonial design in speculative home projects.



ARCHITECT Henry Otis Chapman attended Cornell University, studied in the office of John Russell Pope, traveled extensively abroad, was one of the outstandingly successful architects of the "Town of Tomorrow" at the New York World's Fair. Has conducted extensive research in post-war housing methods and home equipment.

See next page





A LIVABLE plan and a lovable exterior in the first of post-war homes.

Rambling Colonial Introduces Our New Blueprint Series

EVERY SURVEY of what the American public wants in a home places *charm* and *livability* high in the order of preference. It is significant, therefore, that architects Henry Otis Chapman and Randolph Evans, in conjunction with the editors, chose the above charming, rambling Colonial for the first of this new *American Builder* post-war blueprint series.

This is a house and a plan that have stood the test of time. The architects have taken a tested, well-thought-out arrangement and given it a treatment and modern equipment that will be 100 per cent in harmony with the post-war home buying taste of the public.

The blueprint opposite has been accurately drawn to $\frac{1}{8}$ inch scale. Details of the cornices, bay windows, fireplace, etc., are drawn to $\frac{1}{4}$ inch scale or larger. Especial attention is called to the careful detailing of all the important parts of this post-war home—detailing which brings to *American Builder* readers the skill and artistry of one of the nation's foremost firms of residential architects.

This is a house with a promising post-war future—one that can be built as soon as the "go ahead" signal is given the building industry and materials are again made available for home building.

Extra copies of blueprints \$1 each

AS A SERVICE to readers, *American Builder* will supply extra copies of the blueprint opposite (same size and scale) for \$1.00 each, cash enclosed with order. Send request to *American Builder*, 105 West Adams St., Chicago.

THIS BLUEPRINT series is presented as an educational and service feature in the interest of better post-war planning. *American Builder* recommends the employment of competent local architects on all projects to secure sound, well designed buildings that conform to local codes, ordinances and practices.

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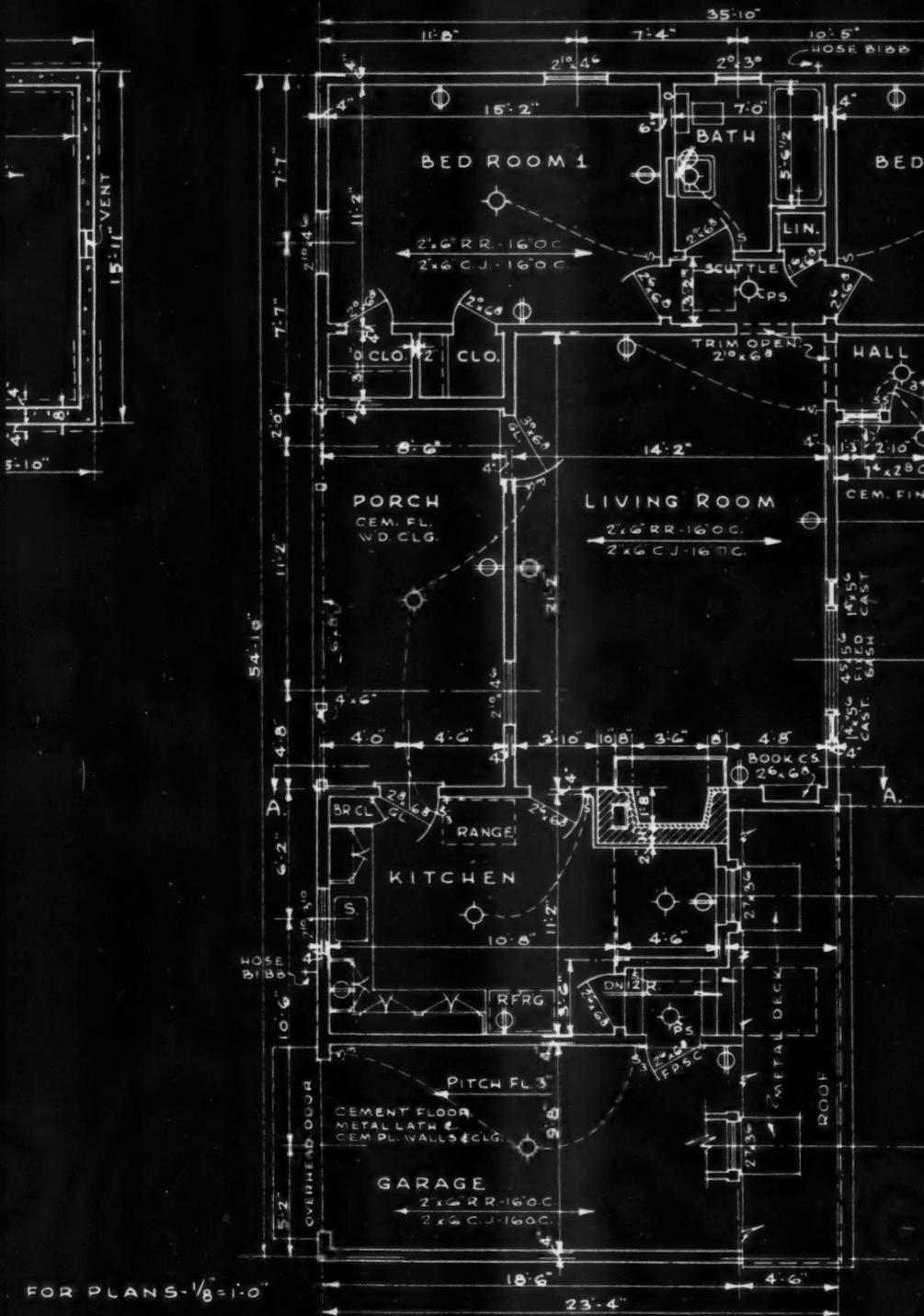
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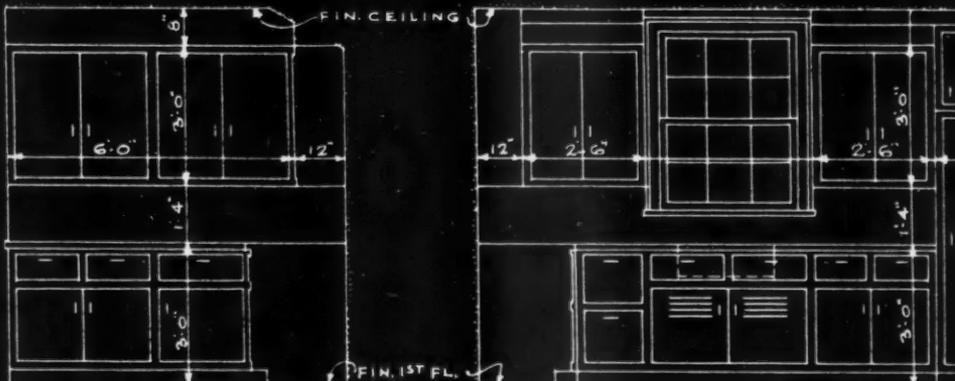
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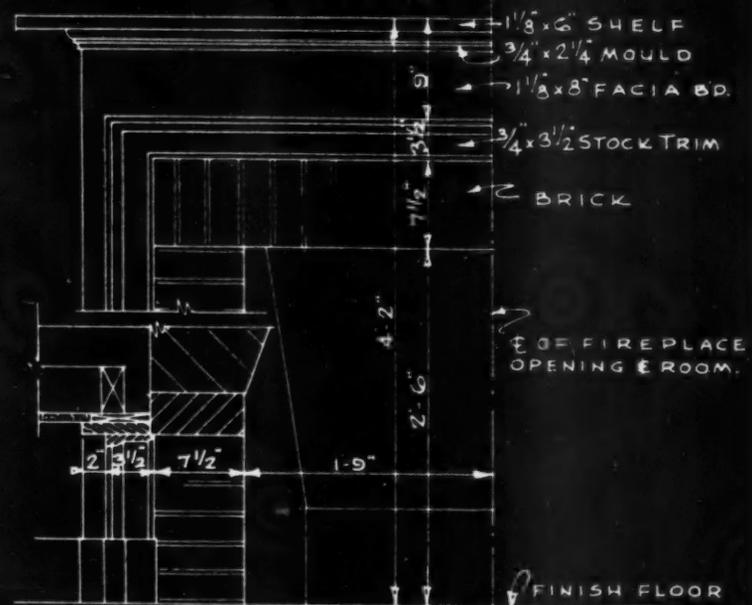
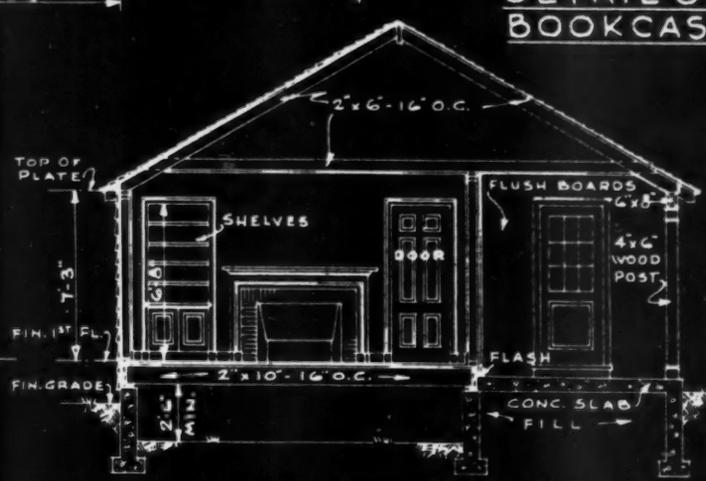
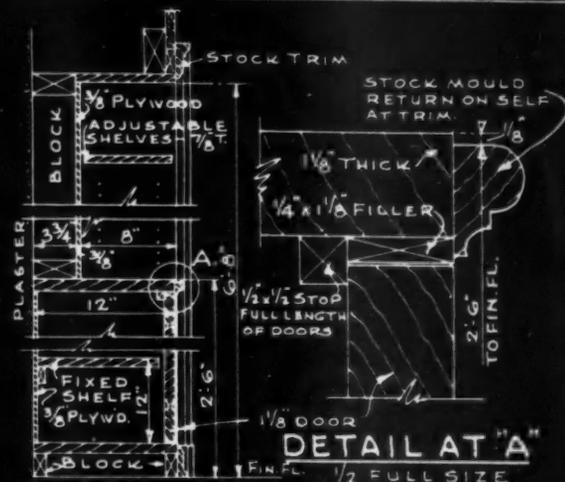
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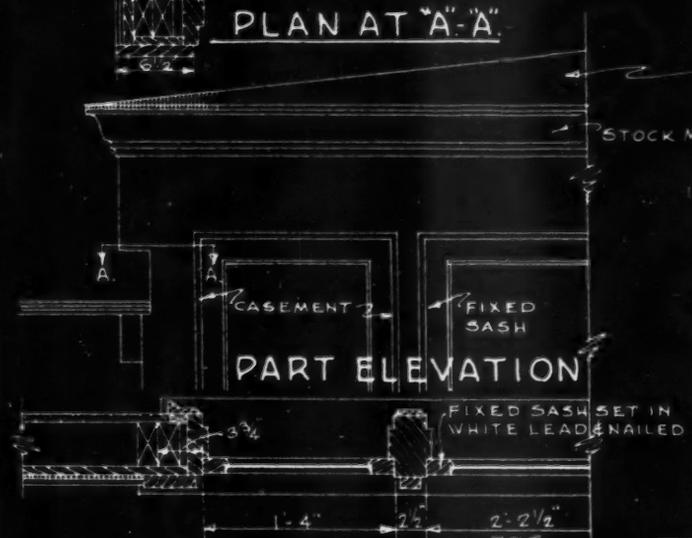
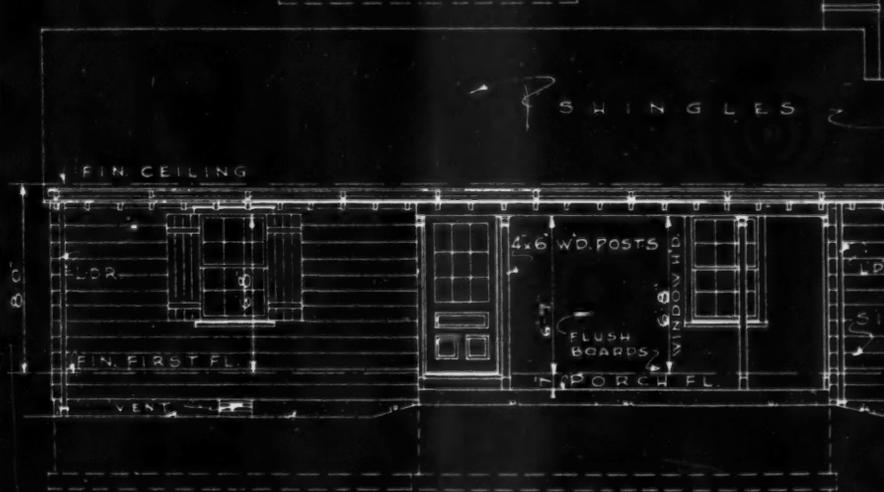
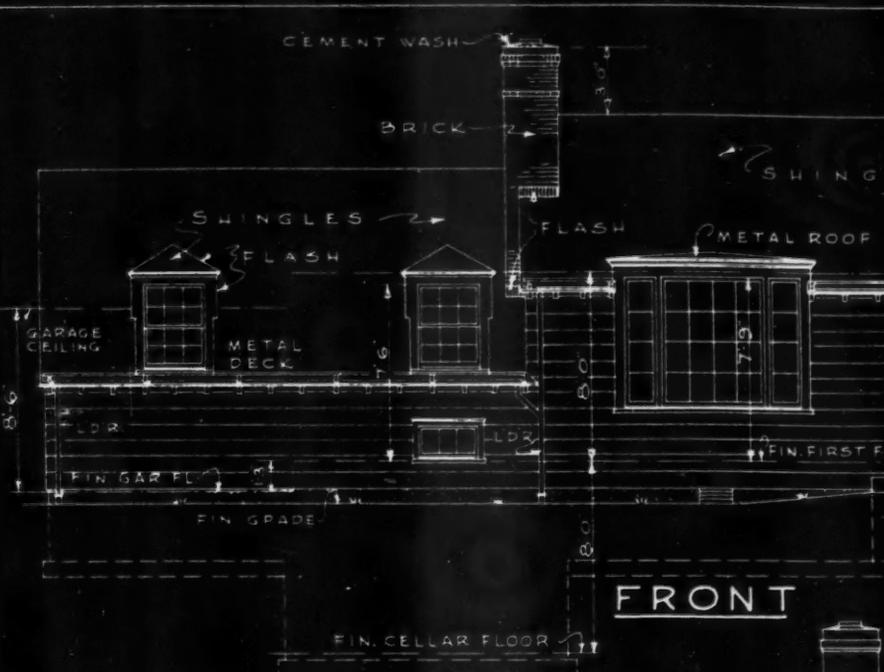
FIRST FLOOR PLAN



KITCHEN CABINET ELEVATIONS
SCALE $\frac{1}{4} = 1'-0"$

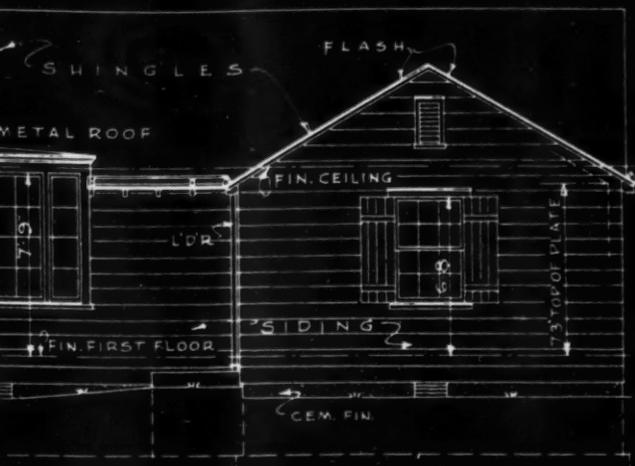


DESIGN No. AB-1
AMERICAN BUILDER
POST-WAR BLUEPRINT SERIES
 PREPARED BY
 HENRY OTIS CHAPMAN • RANDOLPH EVANS
 ARCHITECTS NEW YORK, N.Y.
 Simmons-Boardman Pub. Corp. 105 W. Adams St. Chicago



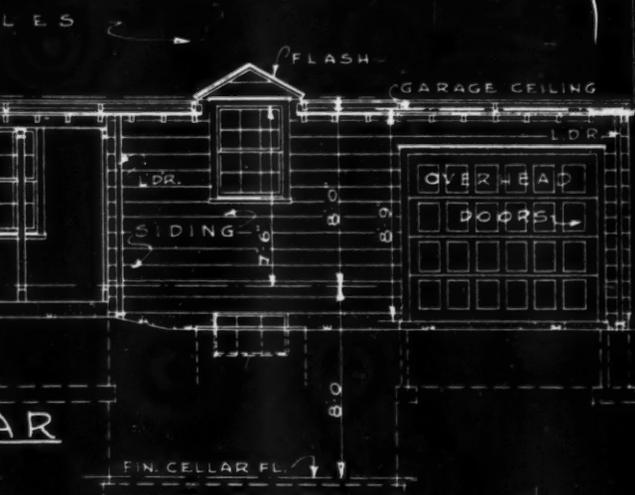
PLAN
LIVING ROOM
DORMER DETAILS
 SCALE - 3/4" = 1'-0"

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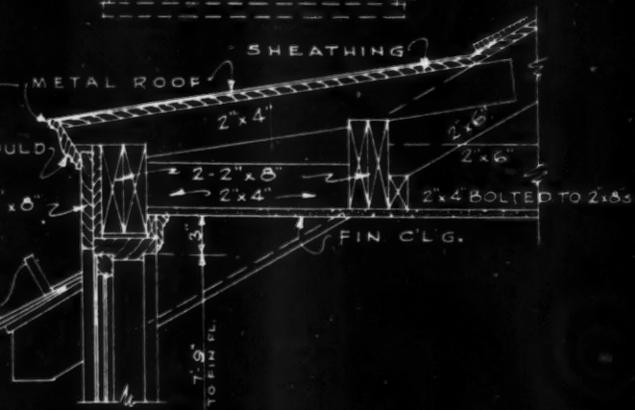


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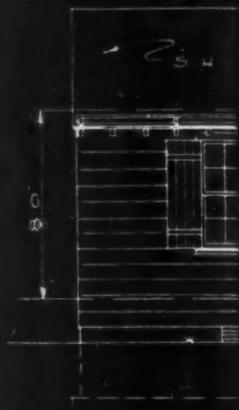
SCALE FOR ELEVATIONS - $\frac{1}{8}'' = 1'-0''$



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NOTE

DEPTH OF FOOTINGS BELOW GRA
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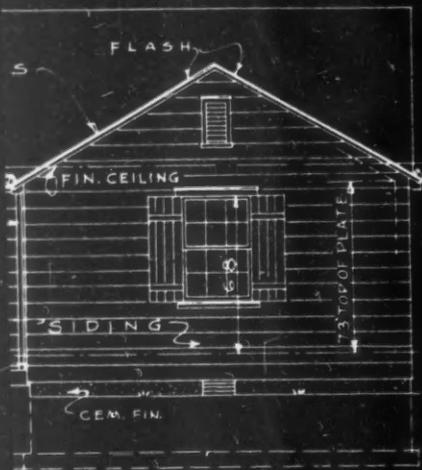
SECTION

PLAN

**DORMER DETAIL
KITCHEN (FRONT)**

SCALE $\frac{3}{4}'' = 1'-0''$

DESIGN No. AB-1
 AMERICAN BUILDER
 POST-WAR BLUEPRINT SERIES
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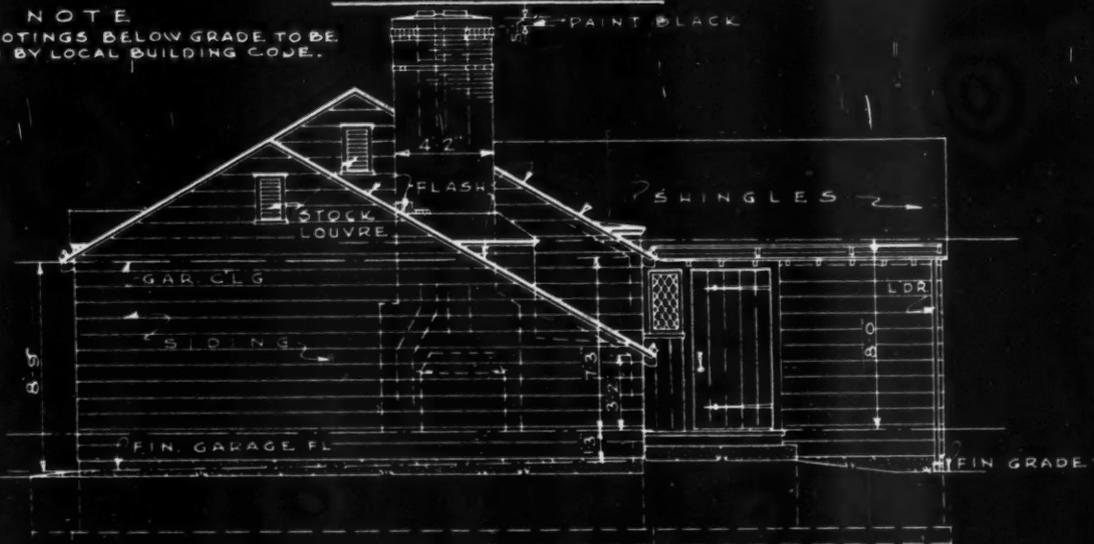
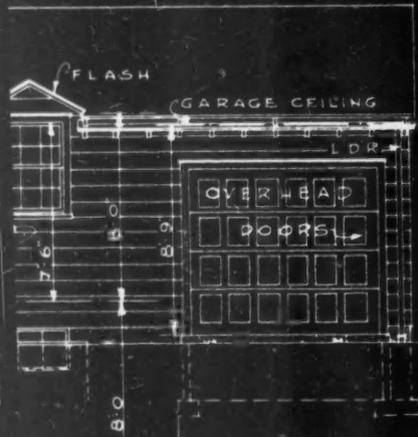


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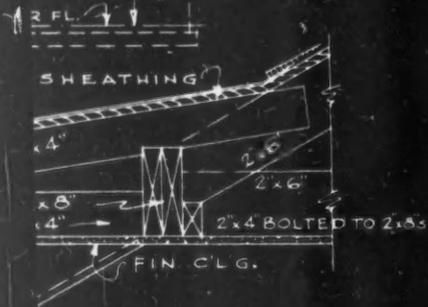


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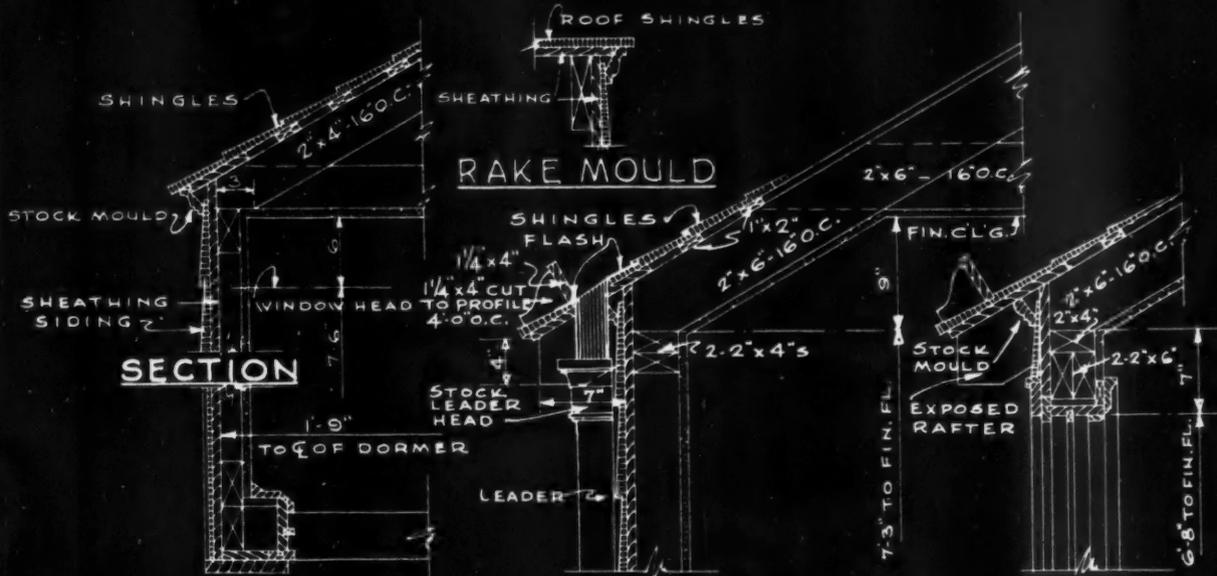


LEFT SIDE



**AT HEAD
OF M. DORMER**

PLAN No. AB-1
AN BUILDER
REPRINT SERIES
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RAN - RANDOLPH EVANS
NEW YORK, N.Y.
Corp., 105 W. Adams St., Chicago.



SECTION

PLAN

AT LEADERS

AT WINDOWS

**DORMER DETAIL
KITCHEN (FRONT)**

**DETAILS OF
CLOSED CORNICE**

SCALE $\frac{3}{4}'' = 1'-0''$

SCALE $\frac{3}{4}'' = 1'-0''$



What Will New Homes Be Like?

THE pattern of the post-war home is already well on its way. It is emerging from the best of the pre-war work, improved and enlivened by wartime progress. Check YOUR post-war plans against the answers below:

1. What architectural styles? Compact designs of modified Colonial, many of a decidedly modern flavor, will predominate. Corner windows, more glass area, modern lines are expected—but no flat roof or shoebox types. Interiors will show marked change in all brackets, with a tendency toward streamlining in keeping with new wall finishes—particularly the service portions of the home.

2. Structural changes ahead? Within traditional and modified conventional exterior lines, construction will take on many technical improvements in old methods plus application of new materials and techniques as these are proven and marketed. Light weight metals may affect framing. Precutting has been successfully used on large and small war housing projects; should be widely used soon after peace. Complete prefabrication is looked for to start in the lowest priced homes; few isolated units, some multi-house projects to start. Partial prefabrication will be used as available; look for panels, door and window units, storage units, roof trusses, etc., which can be worked into conventional framing.

3. Will floor plans change? The most efficient post-war arrangements will incorporate ideas to give better use of space, such as opening up of plan into multi-use room, folding partitions for privacy when larger space is not needed. Continuing trend toward smaller family units will put greater emphasis on the small and medium size homes; fewer show places and mansions, but trend toward larger rooms in the four to six room house. Urban and suburban homes will be compact and efficient to give greatest values.

4. What about basements? Although the basementless house has not been 100 per cent accepted in many areas, trend will be toward smaller excavations below grade; otherwise, first floor utility room, including laundry. Progress in heating continues to reduce the necessity for basements. Expect floor furnaces, wall heaters, compact automatic units that require little or no floor area. Progress will be made toward panel heating, radiant heating, and air conditioning. Forced circulation so that heating source can be placed wherever most convenient will be popular.

5. Servantless kitchens? Here the greatest changes are expected, principally because as a production center efficiency is closely related to mechanical equipment where much has been promised. Probably will be the first room in which complete, ready-to-install assemblies will be available. Better

stoves, refrigerators, sinks, dishwashers, ventilators, freezing units, storage units expected. New easy-to-clean surfaces of numerous materials such as steels, non-ferrous alloys, and plastics will be offered. "Clustering" of equipment in units to cut installation cost is probable.

6. Streamlined baths and plumbing? Along with heating and kitchens, baths will be subject to great improvement and change. Eventually, rather drastic changes in fixture design for better grouping to allow most efficient piping is probable—possibly a three-fixture equivalent in a single unit. Built-in heaters, ventilators, sun lamps, storage, etc. are planned. Surveys show desire for more color, combination tub and shower, and at least a lavatory in addition to second floor bath.

7. More electrical and mechanical servants?

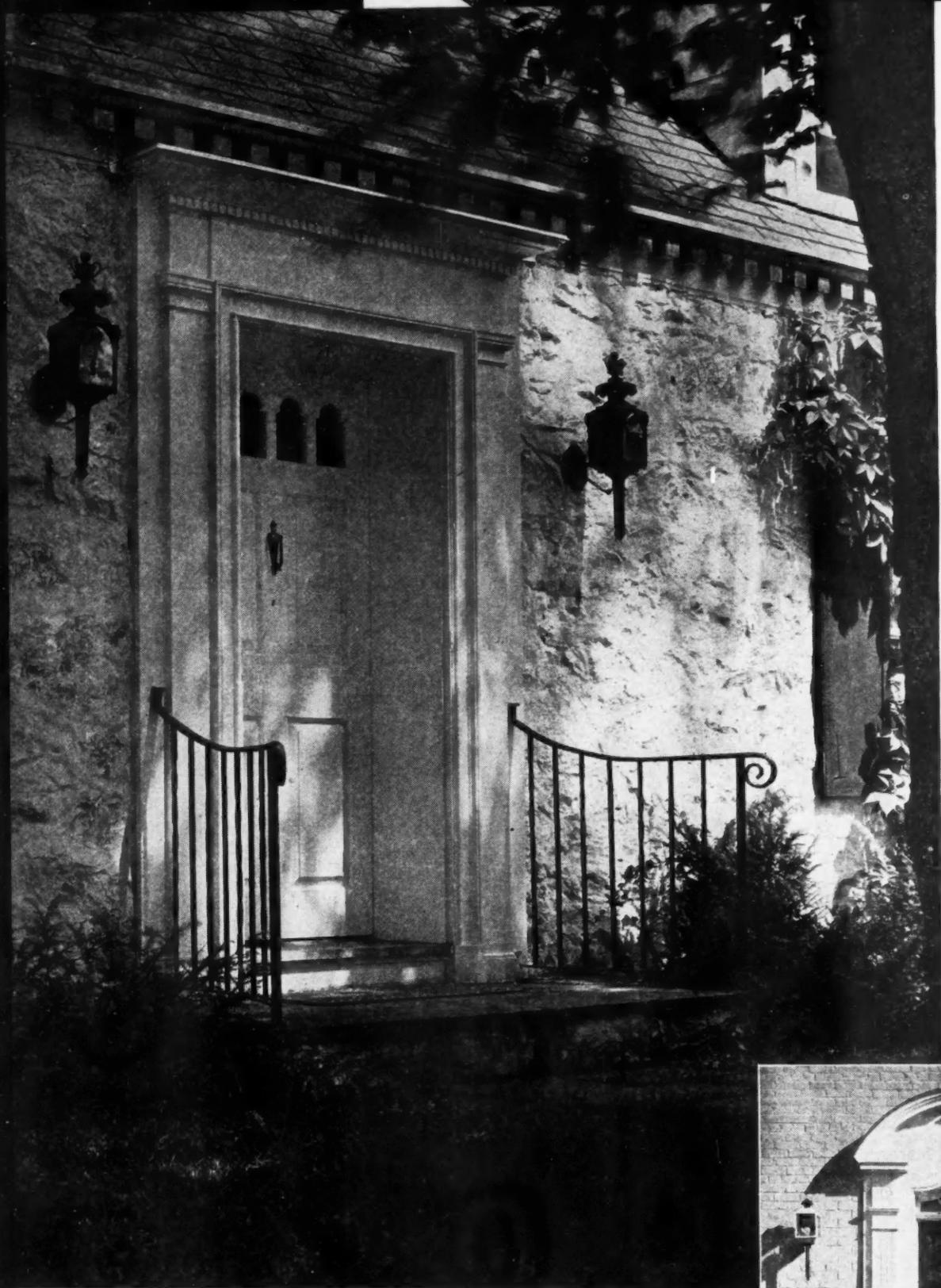
Much has been said of the coming wonders of electronics, including television, door openers, intercommunicators, etc., and their application to the home; however, even if the more phenomenal of these have to wait for some time after peace, enough useful equipment was developed and perfected before the war and since to call for thorough study for post-war use. The one thing certain that can be planned for future homes is *adequate wiring*—this must accommodate devices still to be marketed as well as what will be available with peace, some of them already mentioned in connection with heating, kitchens and baths.

8. Better lighting, day and night? Along with progress in electric servants and convenience equipment, new standards of domestic lighting are being planned. Larger glass areas, both movable and fixed, will give better daylighting throughout the home. After dark, rooms will be flooded with light from numerous sources, probably including fluorescent fixtures, so that wherever a member of the family is working or relaxing, proper illumination will be built in. This will probably be a combination of already developed methods, but fixtures will more and more conceal the source.

9. New materials and equipment? Beyond the specific improvements already mentioned, there will be a stepped-up evolution in the forms of many standard items going into a house. Better and more widespread use of improved insulation for both weather- and sound-conditioning; hardware has been redesigned; paints and new finishes are easier to apply, more durable; the many newly developed sources of raw materials, and the new synthetics, plastics, glues, etc., plus improved alloys and metal fabrication will mean a wider choice of the form in which countless construction items will be available.

10. More house for the money? The net result of the new materials, methods and equipment will be *more house value for the money* for buyers than ever before.





THIS dignified and formal front entrance is set off by the painted masonry wall. The flanking carriage lamps and wrought iron rails, both black, contrast pleasingly. (Richard Averill Smith photo.)

BELOW: another formal entrance treatment, this one in harmony with the elevation of a finely detailed classic exterior of a larger home. Broken arched pediment and modified fanlight are unique. (Rudolph E. Leppert, Jr., photo.)



Preview to Tomorrow

WITHIN charming entrances such as these, there will be revealed the major changes and improvements in post-war homes. Wartime techniques will bring new advances in planning, construction, equipment, materials; exteriors, however, will mostly be based on traditional forms.

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IN PLANNING your
1944 homes for post-
war sale, spotlight the
entrance with ideas
such as these. Charm
based on modern Colo-
nial trends will be the
popular design type.

ABOVE: Set off by shingles and shutters, this simple doorway is framed with a combination of mouldings. (Harold Holiday Costain photo.) Above at right a distinctive modern touch: dentil surround and diamond pattern flush door. (R. T. B. Hand photo.)

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THE Dutch door adds an entrance feature that is both un-
usual and practical for some homes. (Mott Studios photo.)



FOR an inside vestibule or hall, a three-pane transom sash will
give needed daylight and a cheerful appearance to such arrangements.

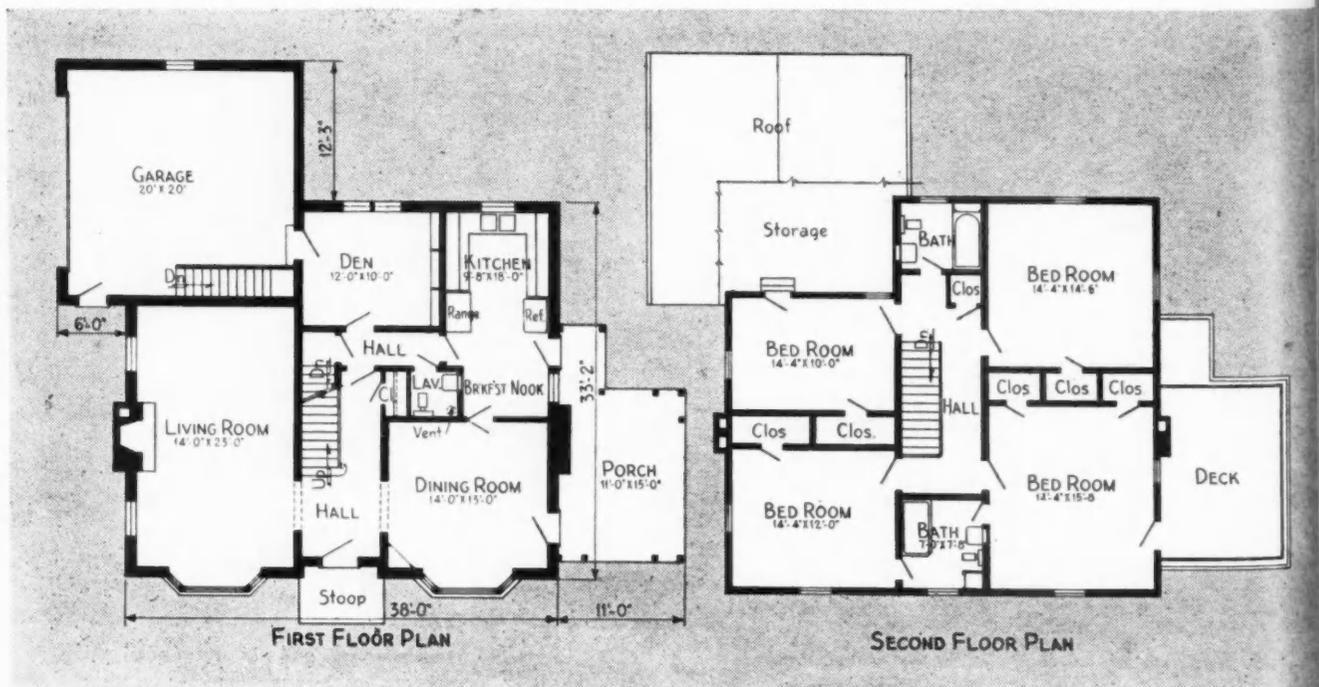


ATTRACTIVE eight-room home and attached double garage built by Schroeder Realty Co., Omaha, Nebr.; clean lines, efficient, livable plan and numerous extras indicated in plan below make it a post-war candidate in its class.

Large, Comfortable Homes Will Still Be in Demand

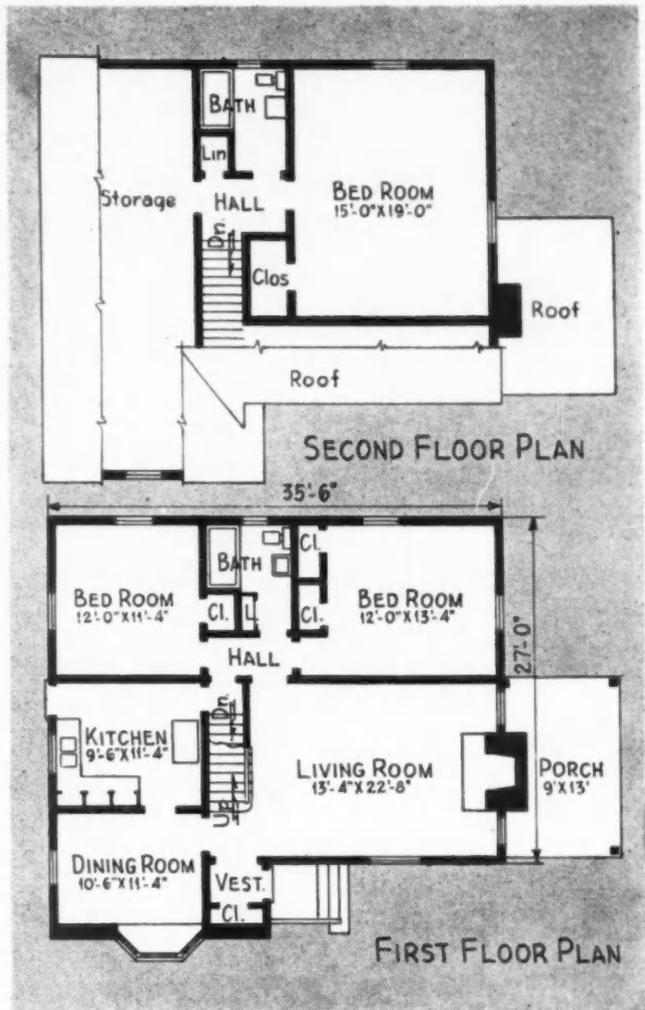
In spite of emphasis in post-war market for a predominance of small, low-cost homes, there will be a good number of larger units.

J. L. SCHROEDER has had a quarter of a century of experience building homes in Omaha—several hundred of them, in fact. The design presented on this page is his idea of the type of larger home which can and will be built in the immediate post-war market. Naturally, newly developed ideas on structure and equipment will be incorporated. But for this bracket, buyers will demand conservative, long-term design. Balanced elevation has entrance between two bays, with screened-in porch on one side and garage on other. First floor provides such features as den with built-in cases, centrally located lavatory, breakfast space in kitchen, extra stairs to basement. On the second floor there are four good-sized bedrooms, ample closets, storage above garage and deck off the master bedroom.



More Value Will Be Built Into Small Homes of Traditional Charm

A REACTION on the part of prospective buyers of small homes is expected to rule out cramped, unattractive quarters endured under wartime conditions in favor of trim, adequate, small designs. Quiet charm such as is suggested by the home shown here will have high salability. This attractive small home was designed by Architect Burnett V. Vickers, White Plains, N.Y. It offers five rooms on the first floor, with a master bedroom and bath above. This expansible feature will allow the extra room to be finished by younger couples at a later date. Unusually good circulation, living porch and ample storage are "plus" values which will be appreciated by post-war buyers.



THE story and a half home shown below, with plans at the right, was built in White Plains, N.Y.; Burnett V. Vickers, architect.

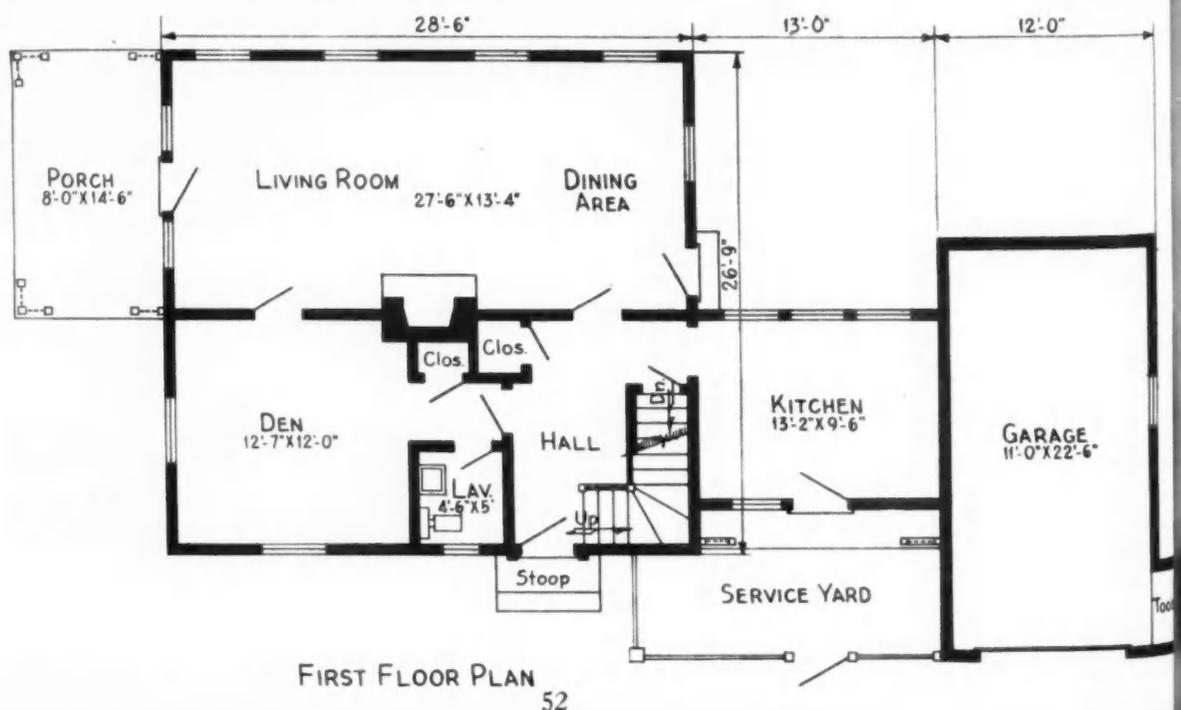




AT THE TOP of the list put livability as the first requirement in your post-war homes—exterior design that can be lived with through the years; arrangement that gives comfort and convenience; equipment that adds to the pleasures of living; materials that are long-lived and require minimum of maintenance.

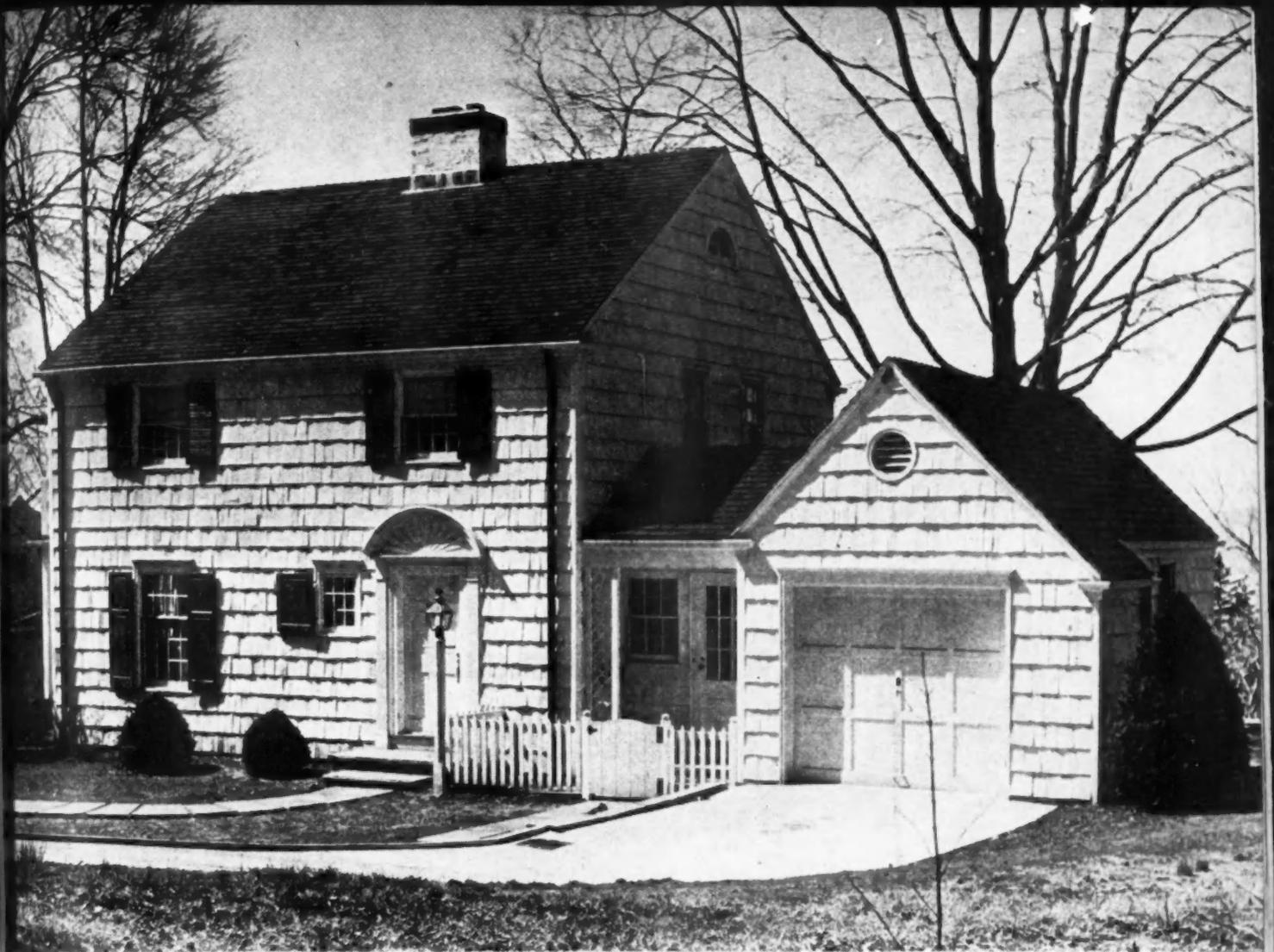
These needs for the greatest livability are combined in the design presented here. Six-room floor area on two floors is in line with economical design for the average size home. However, the rooms are not standard: third bedroom with adjoining closet and lavatory serves principally as a den on the first floor, while living and dining are combined in one large room. Closed-in porch and all principal rooms enjoy the view of the Hudson River to the rear; even the kitchen has a bank of windows looking in that direction and giving good daylight for work. Attached garage broadens the front elevation. Extra value features include ample storage, attractive fence and post lamp for service yard, tool space in garage. This home was one of the last pre-war designs built by Charles Margotta, Tarrytown, N.Y.; completed in 1942.

Livability We

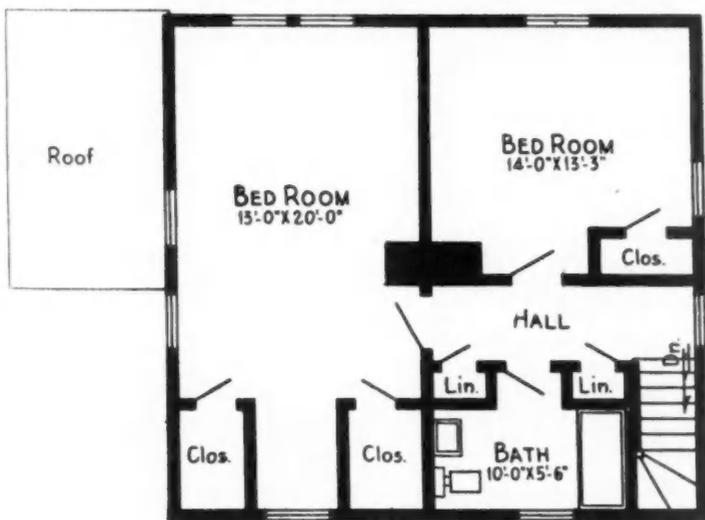


BUILD UP YOUR SALES PORTFOLIO OF POST-WAR DESIGNS

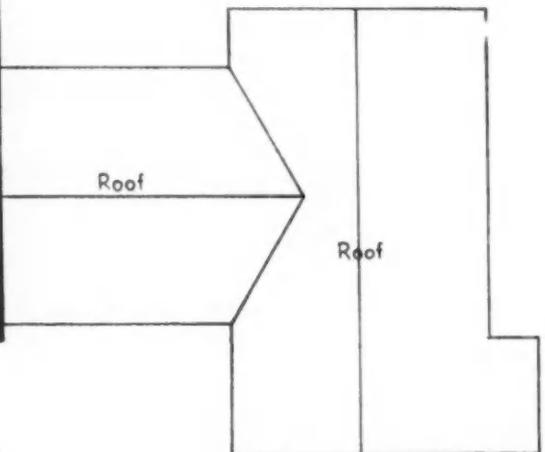
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Wave Number 1 Feature of Post-War Homes

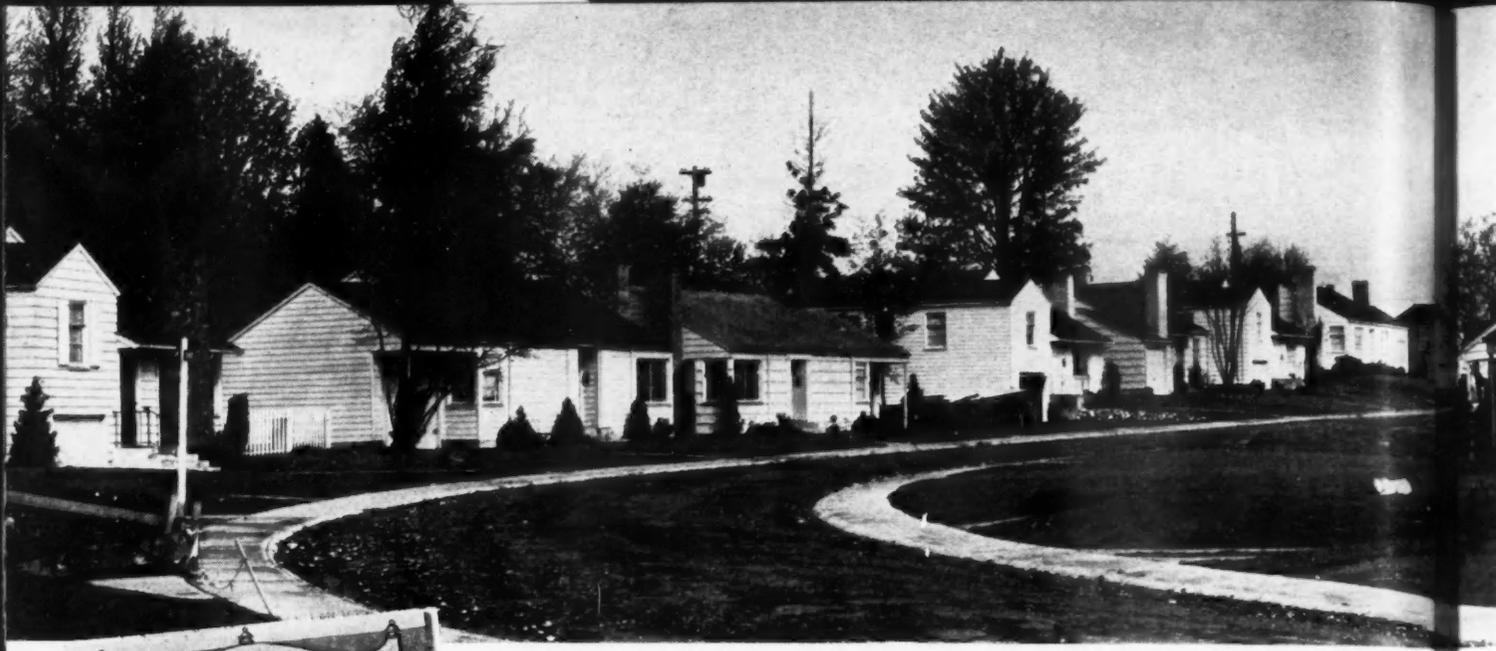


DESIGNED by Architect Burnett Vickers, this house is of average size, about 26,000 cubic feet; main portion 28 by 27, with overall length of 52 feet. Exterior is finished with hand-split shakes.



SECOND FLOOR PLAN
53

BE READY FOR THE HOME BUILDING WAVE OF THE FUTURE



War Community Created with O

WHEN Frank McAbee, prominent Seattle building contractor, and his associates undertook to develop "Columbia Ridge" as a neighborhood of low-cost yet individualized small homes for war workers in the nearby Boeing aircraft and Todd shipyard plants, they decided to limit themselves to three basic floor plans for the 200 four- and five-room homes laid out for this tract.

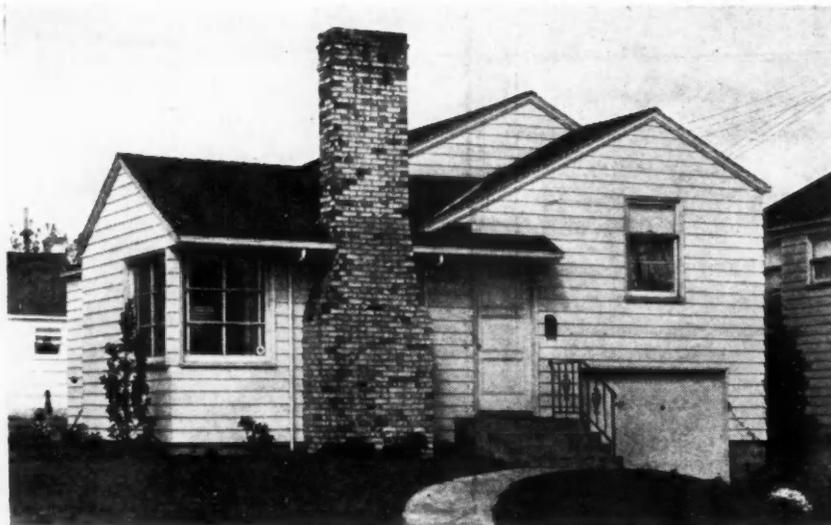
They felt that the utmost in mass-production economies would have to be realized in the construction of these houses if the desired low selling price of \$4,100 to \$5,100 was to be made good, and that three carefully designed types—with their variations—could be skillfully enough placed on the gently rolling terrain and curving-

street building sites of this development as to avoid any monotony of appearance.

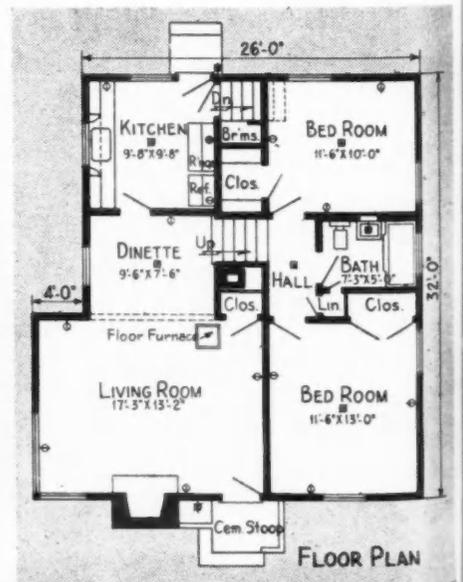
The limitation in style and size, they calculated, would give them the cost-cutting benefit of standardized operations, while the simple honesty and winsomeness of the house designing plus individual landscaping would provide the desired sales appeal.

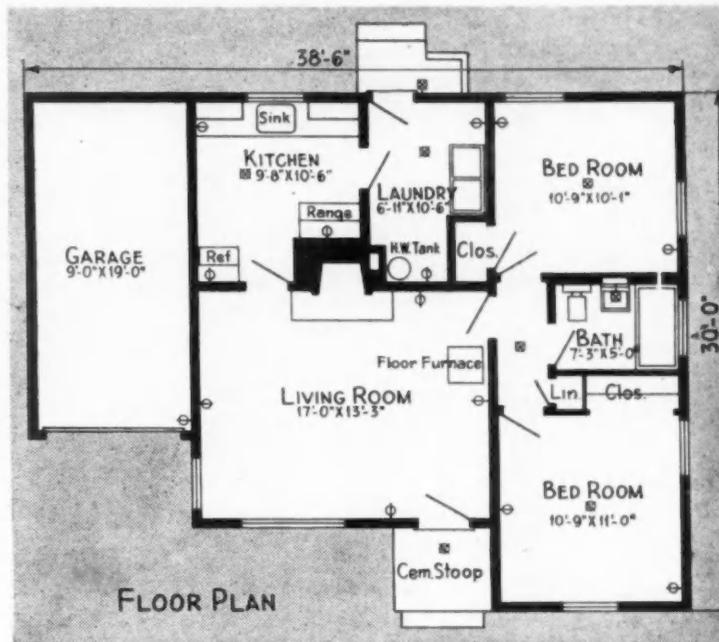
The results of this development procedure, now completed, sold and occupied for a little more than a year, have been so satisfactory that the local regional director of the National Housing Agency cites "Columbia Ridge" as his idea of the proper pattern for much of the private-enterprise home building in the post-war period. Wholesale development

Seattle builder shows how to develop an attractive Title VI neighborhood of 200 small homes without monotony



THREE-LEVEL design for house plan No. 1 (see street view for variations).

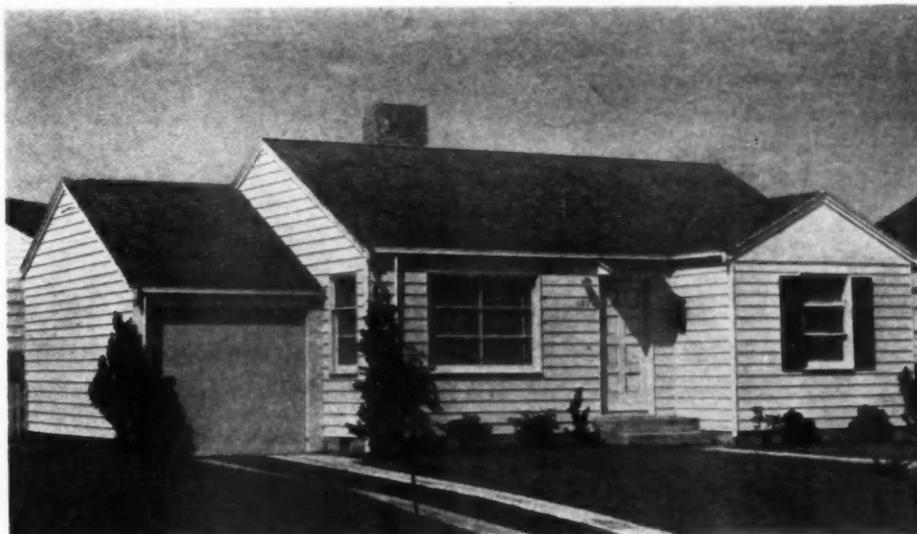




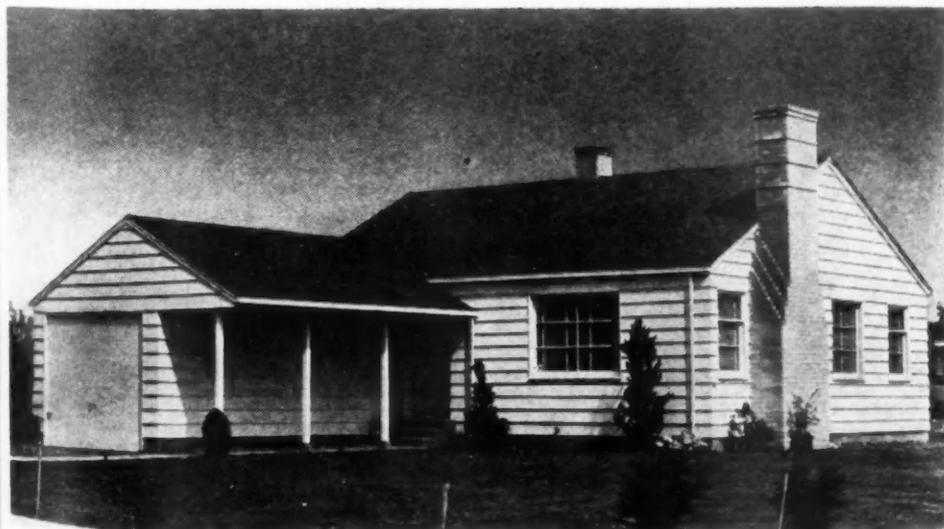
with Only 3 Designs

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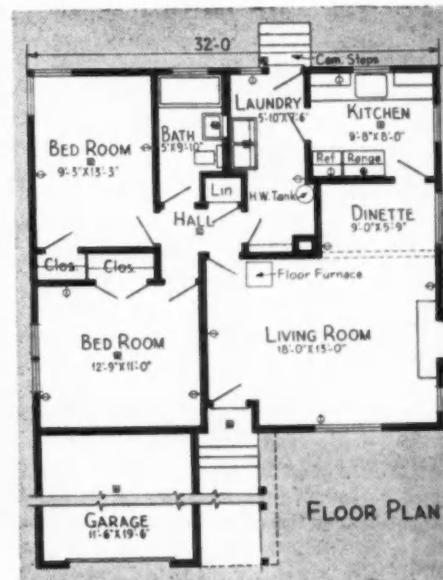
methods plus good architecture will, he feels, give the American home seeking public the sort of good low cost homes it wants and can afford. "Columbia Ridge" was laid out by Continental, Inc., with 200 wide shallow lots on curving streets, gravel surfaced, concrete curbs and sidewalks, sewers, city water, electricity. Four prominent contracting firms handled the construction, each building 50 houses. They were F. R. McAbee, Inc., Ray Seelye, Inc., Arthur H. Ormsby, Inc., and Swanson Construction Co. Paul Hayden Kirk, architect, furnished the three basic house designs with their three standardized floor plans and numerous changes in exterior materials, roof treatments and entrance details.



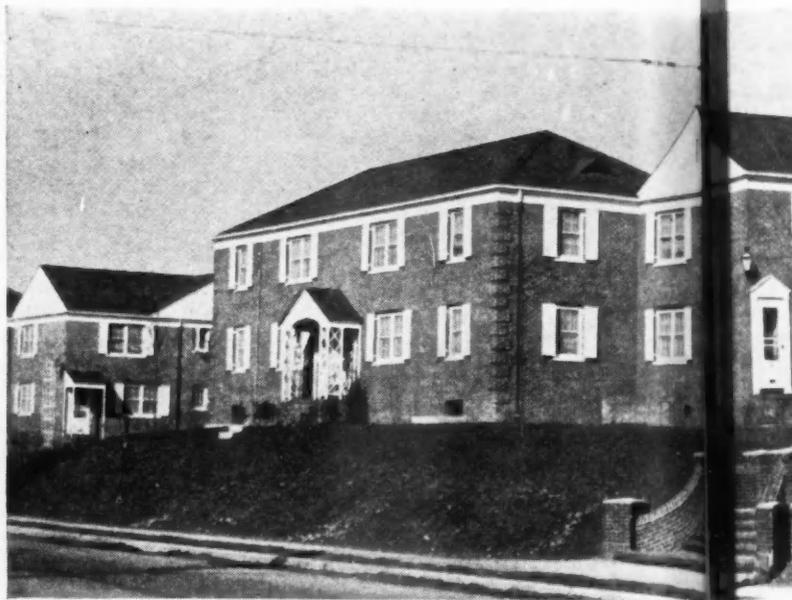
ONE of the exterior variations of plan No. 2 shown above.



THIS design No. 3 appeared in December American Builder with garage at side.



RENTAL HOMES FORTON



FRONT view of one unit of Normandy Village showing how the buildings are offset for better light and air and privacy.

Normandy Village is the answer of private building to the size and type of apartment, grouping of buildings, and the method of financing for post-war rental projects in U. S. A.

WILBUR DUNHAM, Guy M. Rush and the Bowers Organization operating as Normandy Village, Inc., seemingly have anticipated the future types of rental families and have put their studied analysis to practical use in the planning, building, and renting of apartments in their buildings which make up Normandy Village in Union, New Jersey.

There are six buildings, as on plot plan, page 58, with a total of 96 apartments. Each apartment has its own front entrance, whether upstairs or down. Similar to apartments in most modern apartment buildings in large cities, there are no back doors. All service of every nature is in or out of the one entranceway. Sunken trash and garbage containers are placed near each single or double entrance porch, nicely screened from notice by low shrubbery which was just being set out at the time the illustrative pictures were taken.

There are 68 three-room apartments and 28 four-room apartments. The former rent for \$47.00, and the latter for \$57.00 per month. The smaller apartment has one bedroom, while the larger has two bedrooms. The difference in rent is \$10.00, yet the management stated that the larger apartments rented first. This desire for more room at more money per month, is understandable during these days as most of the tenants are war workers

in surrounding plants, and the contents of their pay envelopes are in excess of normal times.

The fact remains, however, that there are 68 three-room apartments and 28 four-room apartments. This percentage of smaller to larger quarters fits into the analysis of what the future rental demand will be. Such thinking suggests that the way to plan future community rental buildings for living is to study people, as-is. For instance, the size of the average family in 1890 was over five persons. In 1943, the average family has less than three human beings.

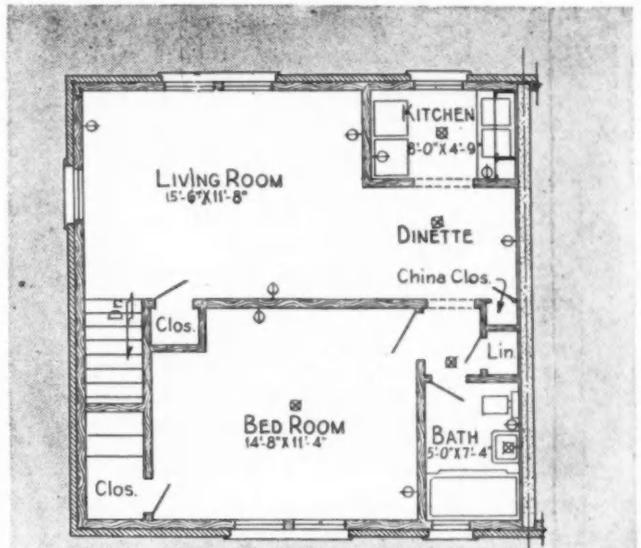
It is obvious, therefore, that smaller apartments, better as to services, equipment and privacy, and with garden areas sufficient for extended green vistas, will be needed to compete in the future rental field. As has been made apparent, there is no longer a social stigma against divorced people. An increasingly larger percentage of modern marriages are not successful. This fact tends to divide an otherwise normal household into two units, both of which are smaller in numbers of individuals. This means two living quarters, instead of one, and both containing less rooms.

Another fact which contributes to the analyzing of future rental markets is that the average age of people is increasing. This means smaller and more automatically

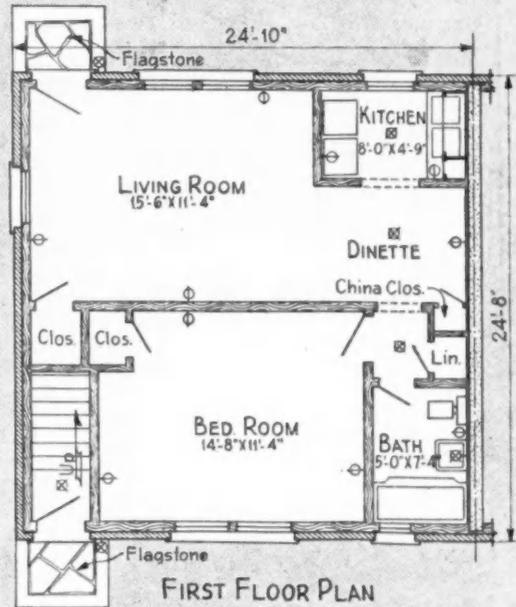
FORTOMORROW'S TOWN



GRASS, shrubbery and trees will complete the project. Below is shown the attractive entrance to the garages and parking areas.

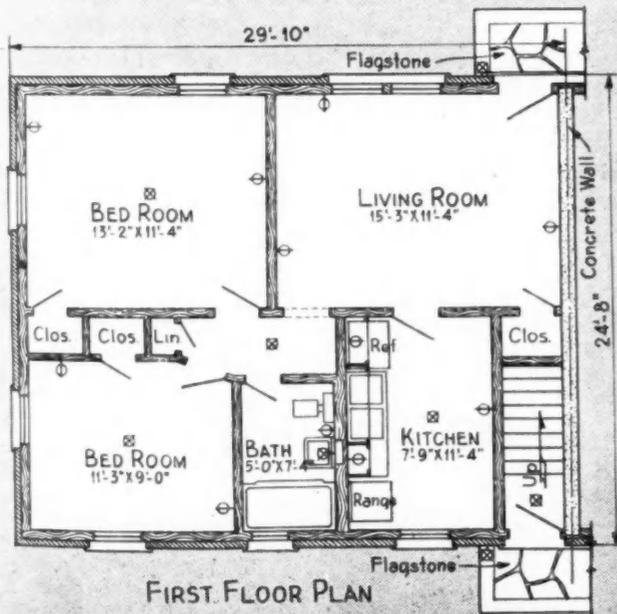


SECOND FLOOR PLAN

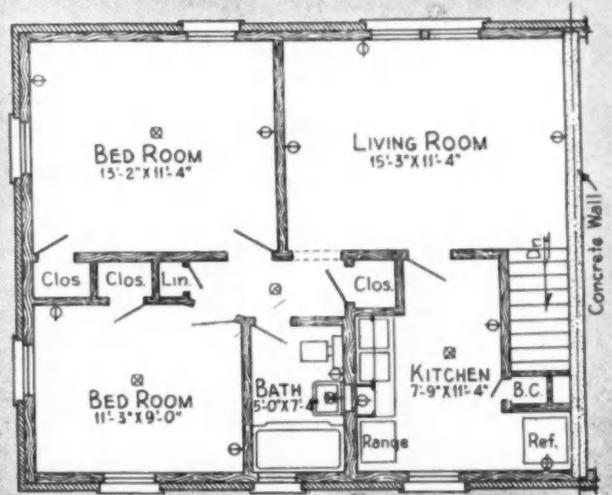


FIRST FLOOR PLAN

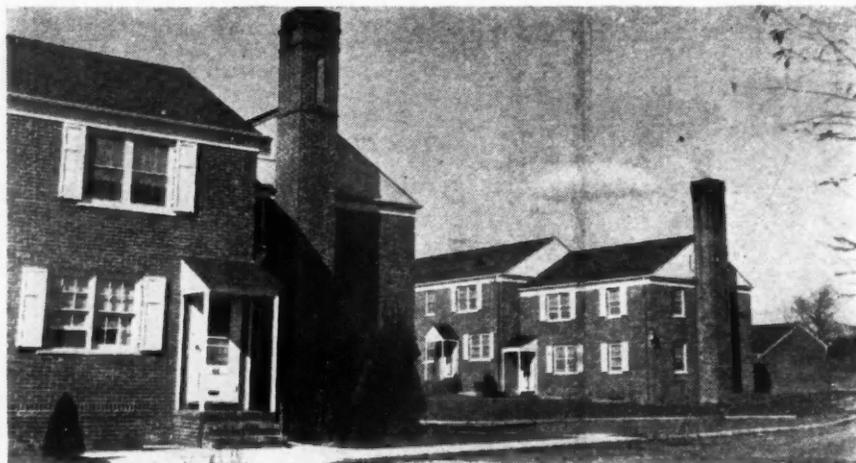
FOUR different floor plans, depending upon their locations in the buildings, make up the entire layout of Normandy Village.



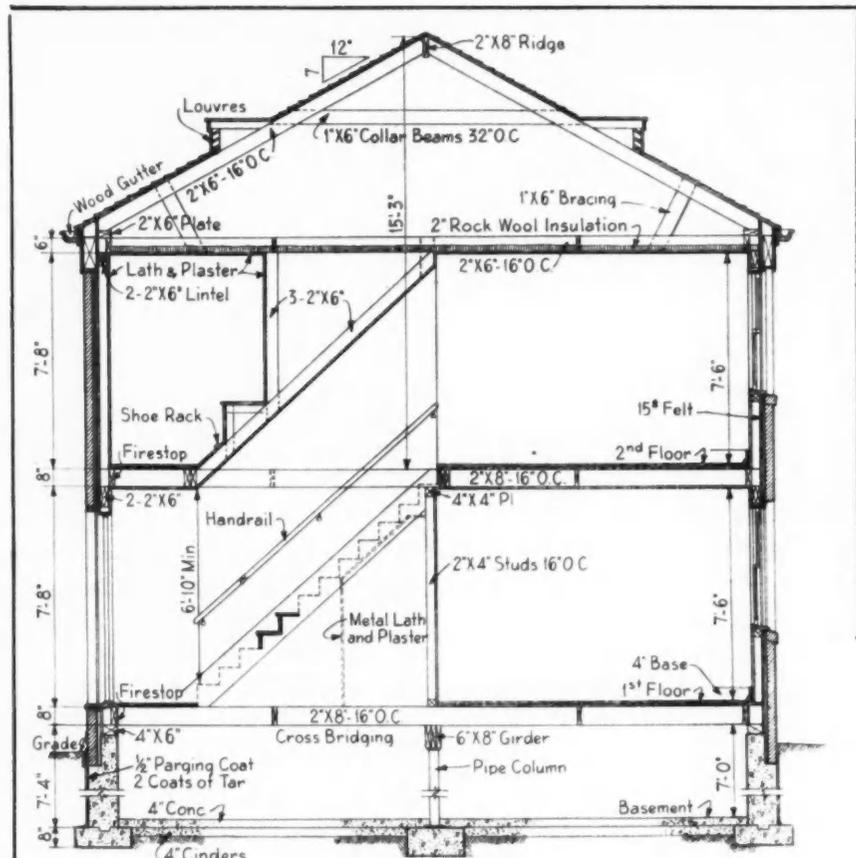
FIRST FLOOR PLAN



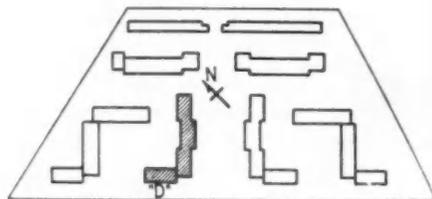
SECOND FLOOR PLAN



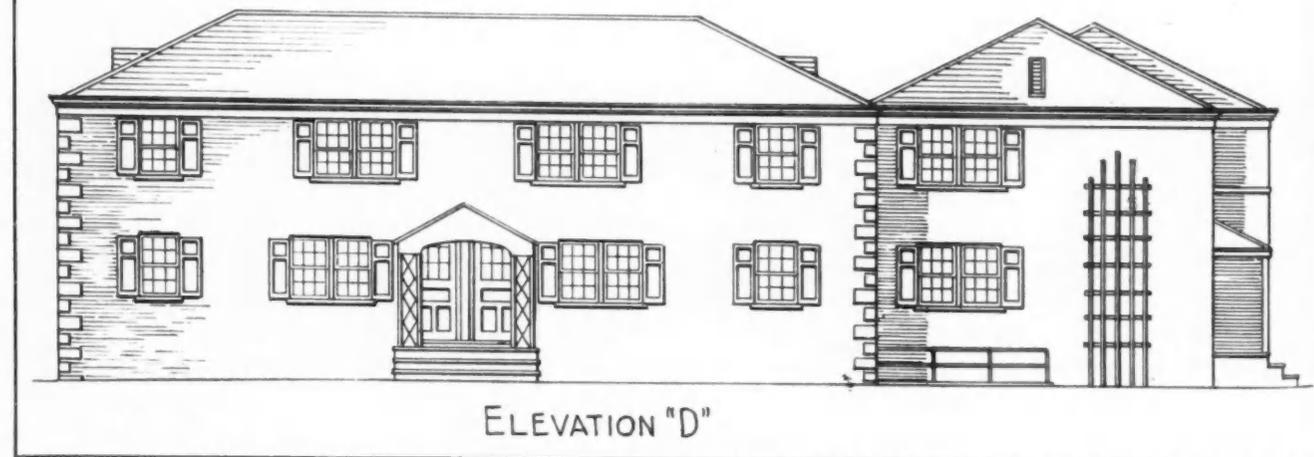
CHIMNEYS for heating plants are located at the ends of buildings along driveways.



TYPICAL CROSS SECTION



PLOT PLAN



ELEVATION "D"

serviced rental quarters. Besides this the increased number of widows who live on insurance incomes suggest smaller units. And, as the number of employed women in America increases, it isn't good business to forget that they, even though they may get married and have babies, will keep on working to be sure their family incomes are kept up to what they need to maintain their standards of living.

Normandy Village comprises 4 1/2 acres close to the center of a small city, and its buildings occupy only 15 per cent of the land. Grass, shrubbery and trees will make the whole project an inviting location to both present tenants and future renters. The apartment sizes are right, the services are complete. In fact, a tenant can lock his front door and go away for any length of time, enjoying complete assurance that his private establishment will carry on safely without him.

Ray Tillou, who was in charge of all construction, took your reporter over the property and explained the job. There are 30 garages for rent at \$6.00 per month, and 35 outside parking bays. Driveways lead from the main highway, which runs past the front of the property, along both sides to the rear where the garages are located. Play yards for children and drying yards for home laundering are available. Laundry facilities in basements will be part of the services when the necessary equipment is made available after the war.

(Continued to page 95)

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It is neede illustr the w all lu Ther price foot" syste norm squar

For back figur meth SF 8/0x 8/0 16" 6x6 com surf unde shed 4" b 4/0 rail. pri \$2.00

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Quick-On-The-Trigger Estimating

Here is a second article on a rapid and sure method of arriving at costs on small jobs without taking time to figure out material lists beforehand

by Oscar F. Pederson

LAST month we published a list of "square-foot" prices and told how they are used for quick estimating of costs for repairs and remodeling operations for small jobs. By using this system, you eliminate the necessity of making out material lists for every job figured.

This method of estimating makes use of a simple table of unit prices of material and labor (see additional list accompanying this article) for most items needed in rehabilitation work. All that is necessary to do is to figure the square-foot count, or lineal-foot count in some cases, or unit prices, on every item needed for the job. Then apply the proper prices and you will be able to give a prospect his price within a matter of minutes.

It is, of course, important to figure each and every step needed to do the job. The sample estimates and sketches illustrating this article show the steps necessary to do the work outlined. The unit prices, as shown, allow for all lumber, nails, waste, labor, etc., for every operation. There is nothing extra to add to these prices. Chicago prices, which are average, are used in determining "square foot" costs, and labor is figured at \$2.00 per hour. This system can be checked by figuring a typical job in the normal way and then applying your local prices to the square-foot method.

For an average example of small jobs, a typical open back porch is illustrated. Following is the method of figuring the erected cost of it by using the square-foot method.

SPECIFICATIONS: Size 8/0x16/0, set on concrete blocks. 8/0 ceiling height, 2x8 floor joists 16" O.C., 1x4 clear porch flooring, 6x6 posts, 2x4 roof rafters 16" O.C., common roof boards, 90 lb. slate-surfaced roll roofing with paper under, flashing to be roof cement, shed-type roof with closed-in ends, 4" boxed-in cornice, Common steps 4/0 wide, 2x4 top rail and 1x4 knee rail. Figured at Chicago market prices for material, and allowing \$2.00 per hour for labor.

	Material and labor	
9 8x12x12 concrete blocks ..@ \$1.50	\$ 13.50	
(3 under each post which allows for a frost line 36" deep)		
3 6x6 12/0 posts ..@ \$6.00	\$ 18.00	
(6x6 timbers are always figured at 50c per lineal foot installed)		
2 6x6 8/0 timbers lookouts @ \$4.00	\$ 8.00	
1 6x6 16/0 header beam ..@ \$8.00	\$ 8.00	
130 Sq. ft. 2x8 No. 1 floor joists 16" O.C.@ \$.13	\$ 16.90	
130 Sq. ft. 1x4 clear porch flooring ..@ \$.20	\$ 26.00	
200 Sq. ft. 2x4 No. 1 roof rafters 16" O.C.@ \$.15	\$ 30.00	
See sketch—rafters are figured at about 12/0 long		
200 Sq. ft. No. 2 roof boards..@ \$.12	\$ 24.00	
2 squares 90 lb. roll roofing with paper under ..@ \$5.00	\$ 10.00	
17 lineal feet 4" boxed-in cornice No. 1 W. P. Pine or equal ..@ \$.25	\$ 4.25	
20 lineal feet No. 1 common steps ..@ \$.75	\$ 15.00	
2x12 treads and stringers and 1x8 risers		

35 lineal feet 2x4 top rail and 1x4 knee rail	@ \$.30	\$ 10.50
3 4x4 4/0 newels	@ \$2.00	\$ 6.00
40 sq. ft. 1x6 vertical partition	@ \$.20	\$ 8.00
Total selling price		\$198.15

6x6 porch timbers are always figured at 50 cents installed per lineal foot. If it is necessary to figure for letting lookouts in to brick work, charge \$5.00 extra for each one. Front and rear porch steps are always figured at \$.75 per lineal foot of tread. This takes care of treads, risers, and stringers but if there is a winder charge in extra \$15.00 for each one. This takes care of extra material and labor. Notice that on this porch there will be 5 treads and the steps are 4/0 wide, hence 20 lineal feet of tread. Figure 4x4 square newel posts at \$2.00 each.

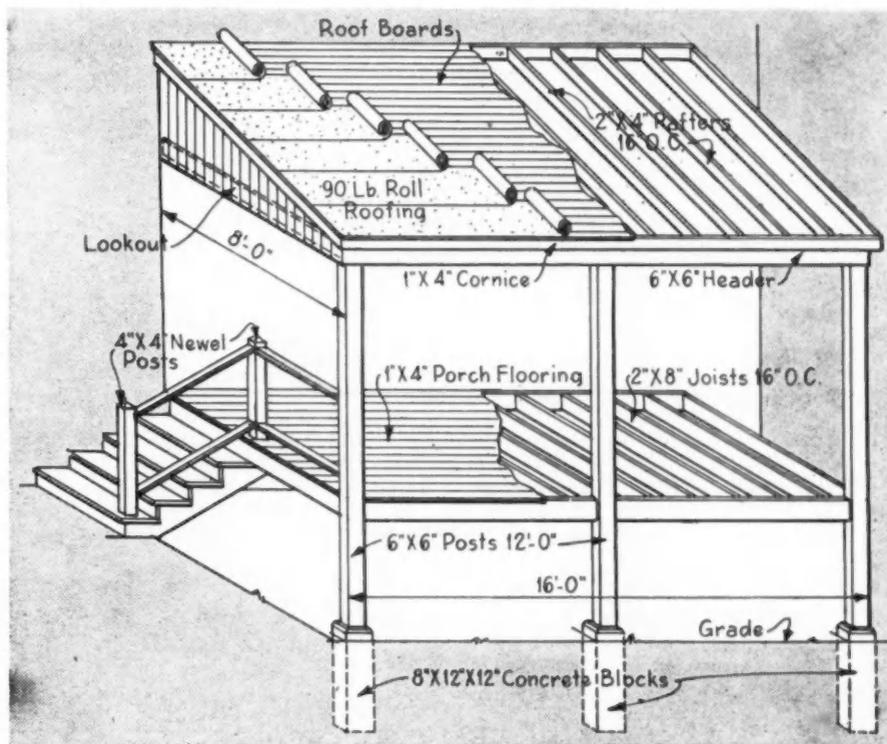
Now let us assume that a customer wants this porch closed in with galvanized 16-mesh screens from floor to ceiling with a screen door at steps and a transom screen above. Take the perimeter of the porch, which is 8/0x16/0x8/0, making a total perimeter of 3 sides of 32 lineal feet. We know that the height to the beam is 8/0 so let's multiply 32 ft. x 8 ft. This gives us a total of 256 sq. ft. Here is your quick estimate:

260 sq. ft. 16-mesh galvanized porch screens @ \$.40,	\$104.00
Extra for framing at screen door. Nominal charge	6.00
Total selling price.....	\$110.00

The price of 40c per square foot allows for either mill-made screens or carpenter-built screens. If the screens are mill made, the labor is less. If the screens are carpenter made, the material is less. This allows for screens 1 1/8" thick rabbetted together and fastened to the hand rail as necessary, and allows for all ordinary framing that you would come up against on a job of this nature.

Now let's tackle something a little more complicated like the 2-story open rear porch replacement for a 2 flat building, as sketched.

SPECIFICATIONS: 8/0x24/0x24/0 high. All timbers (Continued to page 87)



PERSPECTIVE sketch showing the different items for figuring the cost of this open back porch.

How to Handle and Assemble Precut Framing on the Job



Accurate Cutting and Bundling Mean Less Hand Labor and Confusion at the Site; All Members in a Bundle Are Quickly Nailed in Their Proper Places. Look for Widespread Use in Peacetime.

This fourth article in the current series on pre-cutting methods covers assembly and estimating of framing. Previous installments have explained the advantages of this quick, accurate, wasteless procedure; how to figure lengths of members; and how to organize a pre-cutting shop.

JOB USE of Precut Framing is primarily a matter of distributing materials to their final destinations and nailing them into place. We are assuming that the "office" tasks of listing and ordering lumber and planning the work, together with the "shop" pre-cutting, have been completed. The job is ready for the full-speed-ahead signal.

The bundles of knock-down assemblies, as well as the exact-length studs and other pre-cut items literally fall into place. The use of hand saws is virtually eliminated. Carpenters use their full time for productive work, as they need no longer prepare each stick for its place. Measuring is minimized.

Even with relatively unskilled labor, each piece fits perfectly, as it has been manufactured that way. Furthermore, the framing will be complete. There is no opportunity to overlook putting in even the last cripple, for it is lying at the carpenter's feet where the bundle was broken.

Inspectors, constructing quartermasters, FHA staff—in fact, all supervisory agencies—like the precision of fit which makes every joint full-bearing and uniform without shimming. Not only is the framing neat in appearance, but it is a strong

defense against uneven settling, plaster cracks, etc., which occur with inaccurate joinery. The completeness of the framing saves time in back-checking, thus sparing not only grief but an item of expense.

Cost savings on Precut Framing jobs have been in the neighborhood of \$10.00 per thousand board feet of lumber, more or less, depending mostly on prevailing wages. Such

savings have been accomplished with the same carpenter crews as would build the job under old methods; and they have been attained also on projects with relatively unskilled labor, men whose principal qualification is the ability to drive nails.

Obviously a saving in time is a direct saving in dollars. Beyond payroll, it might avoid a penalty or earn a bonus. It will permit the



PRECUT framing arrives on the job in ready-to-assemble bundles.

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RIGHT. assembling precut framing (top to bottom): (1) Carpenters place bundles where they will be used on the sub-floor; (2) without stopping to measure and saw each piece, the members are speedily nailed in place with square, solid fit; (3) job goes up quickly without any missing members and with no framing scrap.



owner to occupy his premises at an earlier date. It will reduce the amount of interest on money tied up in the construction job. During inclement weather Precut Framing will place the structure under cover most rapidly, thereby hastening the day when finishing can be undertaken, and also protecting equipment or materials which might otherwise be damaged with longer exposure to the elements.

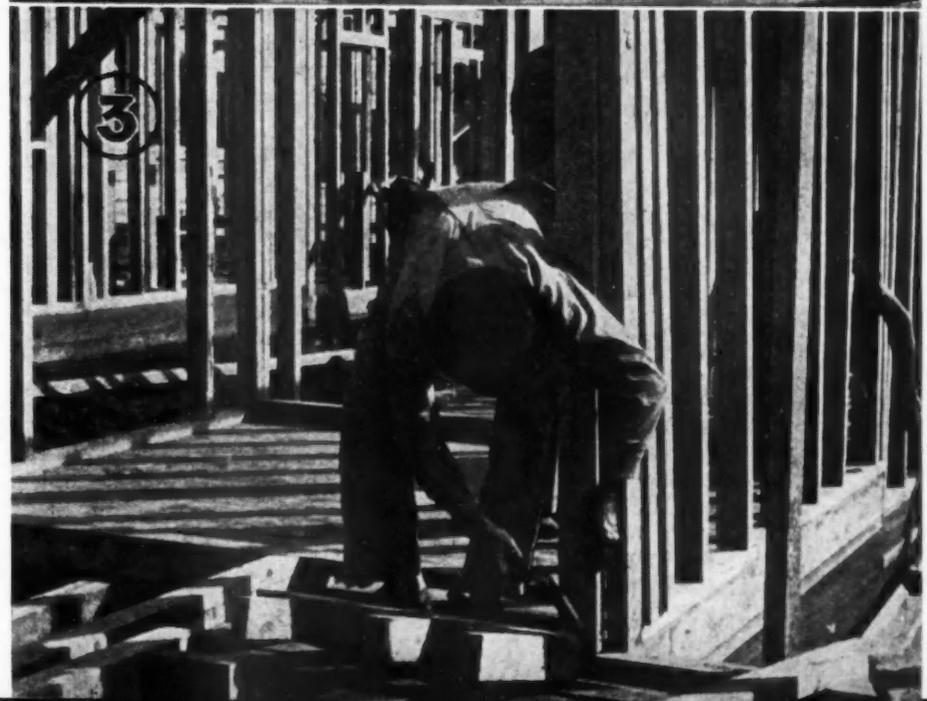
While considering savings in cost and confusion, it is interesting to note that the Precut Framing job is virtually clean when the framing is completed. Cleanup for the succeeding crafts is seldom necessary. Emergency orders for a handful of lumber, or return of small overages, can be eliminated. The combination of a series of such small advantages, together with the highly important ones, is indeed a great step forward.

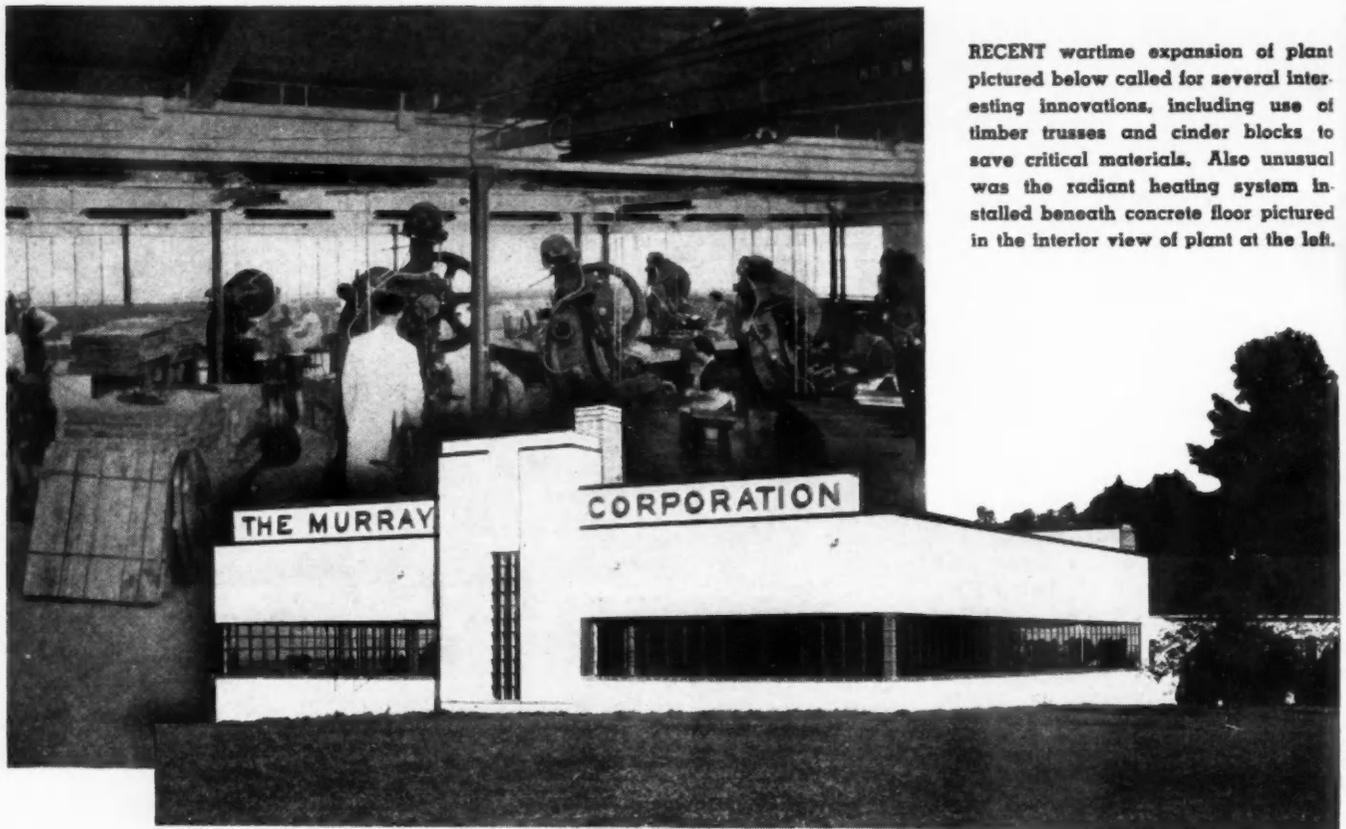
Estimating and Listing

In preparing the materials list for wall framing we are concerned with only five exact-length items: windows, doors, fire blocking, bracing, and studding. In a diagonally sheathed job the cut-in or let-in bracing is omitted, reducing the list to but four types of items—bundles of window and door framings and fire blocking, plus exact length studs. This is highly significant. Whereas the estimating of board footage for wall framing has heretofore been "guesstimating," Precut Framing now permits 100 per cent accuracy with quantities taken from the floor plan just as rapidly as they can be written. Take-off of other precut items is as rapid.

First, all doors and windows are listed by size. This identifies the corresponding bundles of Precut Framing. Next count the studs for intermediate "solid" wall space. Then list a fire block for each full length stud. Finally, where cut-in bracing

(Continued to page 93)





RECENT wartime expansion of plant pictured below called for several interesting innovations, including use of timber trusses and cinder blocks to save critical materials. Also unusual was the radiant heating system installed beneath concrete floor pictured in the interior view of plant at the left.

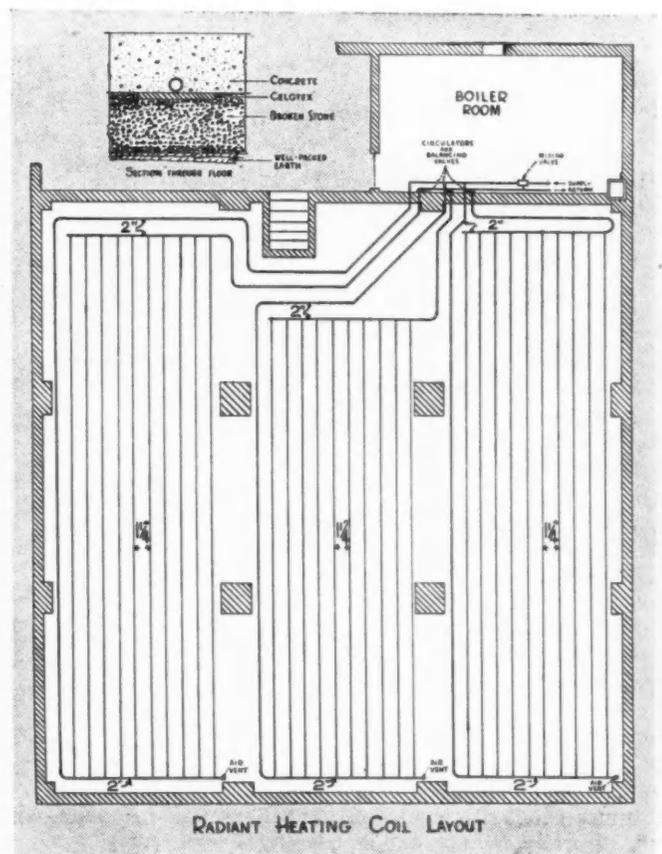
Post-War Stores and Plants Will Have Be

Satisfactory Results from Radiant Heating Systems in Wartime Plants Point to Wider Use; Survey Shows Interest in Radiant Heating for Post-War Homes

THE heating of post-war structures of all types is expected to bring some of the greatest changes due to technological improvement that can be looked for in peacetime building. Most of the new ideas have been tried out only in wartime construction, this principally in plants and military buildings. In the residential field changes in heating have largely been limited to critical material saving ideas.

In the factory field radiant heating is one of the types that has found new successes. For instance, when the Murray Corporation decided to build a 60- by 80-foot addition to its plant at Towson, Md., the main objective was to construct a modern factory with the use of a minimum amount of metals and other critical materials. But there was also a unique by-product achievement. A radiant heating system was installed in the plant addition, operating from the same stoker-fired hot water boiler that supplies the standing radiator system used in the office and the unit heaters used in the old portion of the plant.

Here, under one roof, are three distinct and different types of heating systems functioning within a single plant, and affording an opportunity for a direct com-



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WELDING
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parison of results. The Murray Corp. is a "heating engineering laboratory," as well as a war plant.

One indication of the results is suggested by an inspection trip made on one of the coldest days of the past winter, when the outside temperature was ten degrees and a strong wind was blowing.

The office building, with standing cast iron radiation, registered 75 degrees and "had an atmosphere of stuffiness." The original factory building, with unit heaters, was 70 degrees and "felt cold and drafty." The new addition, with radiant heating, was 65½ degrees and was "definitely comfortable" and there were "no drafts."

The president of Murray Corp. half-jokingly reported that employees were competing with one another to be transferred to the new addition. He added that management and personnel alike were "sold" on radiant heating.

These reports came after a full heating season's experience with the system, during which unusually cold weather for extended periods was encountered.

The radiant heating system consists of 2360 feet of 1¼-inch wrought iron pipe assembled into three "banks" of grid coils. Strips of one-inch Celotex, eight inches wide, were laid on the six-inch crushed stone fill under each run of pipe. A six-inch topping of concrete was then poured.

Several factors influenced Murray Corp. officials in deciding upon radiant heating for the plant addition. They wanted a concrete floor but were fearful of employee discomfort. Radiant heating was a natural answer, as they also wanted to utilize every inch of floor space.

QUICK FACTS ON RADIANT HEATING

A recent survey by a well known research organization on "wants" in post-war homes made the unusual disclosure that better than 40 percent desired radiant heating, when asked, "What type heating system would you prefer?"

Radiant heating is simply a system of producing comfort conditions by means of large, warm room surface areas. These basic principles have been known for centuries; Roman conquerors of the British Isles ran flues from their fires under the floors and around the walls. Practical use of the idea made little headway in this country until about 6 or 7 years ago.

Radiant heating is same as conventional forced hot water system, except that pipe coils are substituted for radiators. Most systems have these heating coils in concrete slabs, which may or may not be on the ground. Recommended practice calls for 6- or 8-inch course of gravel or crushed stone under slab on ground, with waterproofing between where there is appreciable moisture.

A properly designed radiant system will never produce floor surface temperatures above 85 degrees. On past experience, such heating systems will average from 6 to 10 per cent of total cost of structure; operating economy from 15 to 30 per cent can be expected.

ve Better Heating



WELDING the three banks of grid coils for the Murray Corporation radiant heating installation; straight runs for 1¼-inch wrought iron pipe resting on 8-inch wide strips of 1-inch Celotex. To complete floor, 6-inch slab was laid; drawing at left shows layout.



LARGE new steel structures under construction in heart of Mexico City. Neon signs are erected while building is under way.



MODERN apartments, as shown above, are springing up in all parts of Mexico City despite war. Note single course walls below.



Viva Mexico!

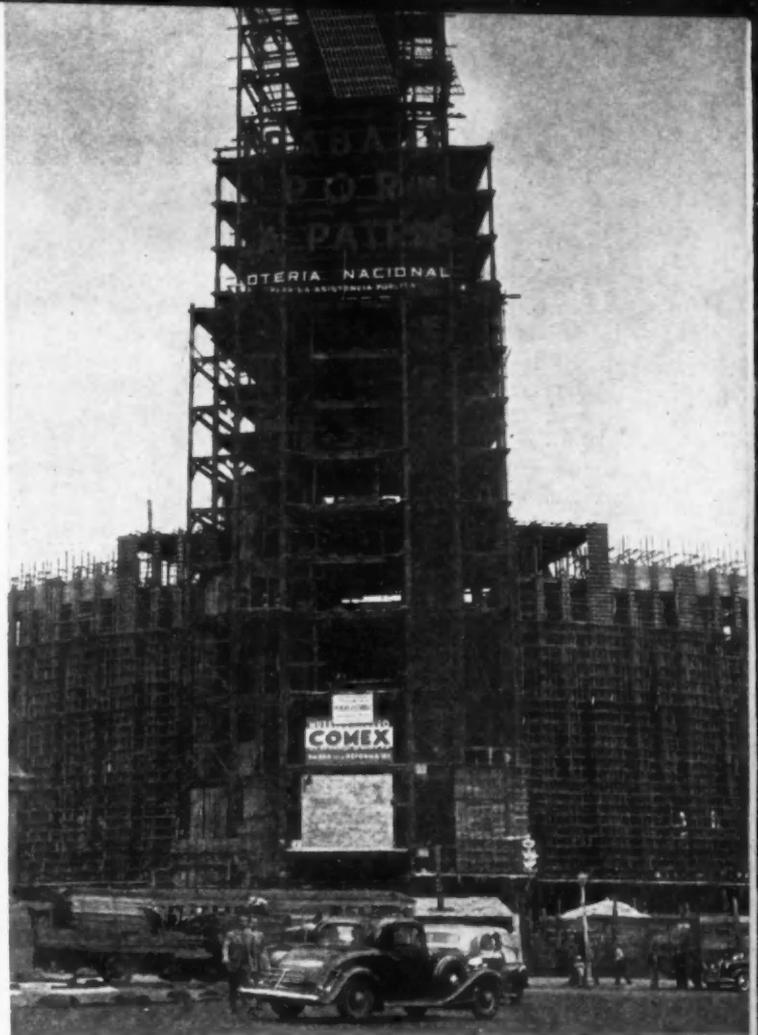
War or no war, Mexico builds—and builds—and builds!

American Builder's roving editor, Joe Sanders, reports that Mexican builders are free from directives, restrictions and government regulations.

Finds plenty of American luxury materials being used and wonders whether this is still another form of our lend-lease.



PLENTY of labor and U.S. materials appear available for these new Mexican homes, which are being built by the hundreds.



NATIONAL Lottery Building (right), features frame of steel (from U.S.?). Brick and stucco used on smaller structures.

By Joe Sanders

DO you think that all the freedom-loving countries now waging war against the Axis have folded up their building industry for the duration?

Is all the world deprived of the privilege of building *now*?

Do builders and contractors everywhere tussle with a maze of forms, regulations, restrictions, directives, and interviews with Government officials to obtain a few feet of wire, a roll of fence, or a new bathtub?

If you think such is the case with building men in all the United Nations lend me your ear while I pour forth just a few of the highlights of the unprecedented and almost unbelievable building boom that is under full swing in the land of siestas, fiestas, and colorful enchantment lying just below our southern border.

I speak of Mexico. Particularly of its beautiful mile and a half high capital—Mexico City.

Today, in the midst of war, Mexico City is a builder's paradise. To ride around the town is to get an eyeful of

new office buildings, new apartments, new homes, new streets, new monuments, new trunk highways, new government buildings, and to see new schools in small towns, or where there are no towns at all, new bridges spanning the charmingly named rivers and streams. It is all remindful of Long Island of the late thirties or the Chicago boom of the middle twenties. And American materials are much in evidence.

There is only this difference: In Mexico City one sees more new buildings *today*, war or no war, than one saw in our own country at the time and places mentioned.

Believe it, dear restricted reader, for it's true!

So widespread and general is new construction activity that the question, "How much of this is going on?" is answered with a typical latin shrug of the shoulders and the comment, "It's everywhere."

The best idea I can give you of "how much" is to repeat the story told me by my guide, Fernando, who was

told by an elderly American matron whom he had escorted about the city that "Mexico City is very nice, Fernando, but I would rather come back when it is finished."

If there are any shortages of steel, plumbing, electrical wiring, hardware and other items for which many of you would give your eyeteeth, my careful questioning over a three-week period failed to locate the bottleneck.

The only thing that appears to be acutely scarce is government restrictions similar to our L-41 and M-208, bureaucratic red tape and all the other "war measures" that have confused and constricted our building program and have practically shelved a vigorous industry for the duration.

When a Mexican wants to build, his government doesn't seem to worry him much about the need of critical materials for their country's war effort. He puts up the pesos and gets his house—*muy pronto*. And if the house needs a few of those American-

(Continued to page 93)

Sold 1320 Prefab Farm Buildings In

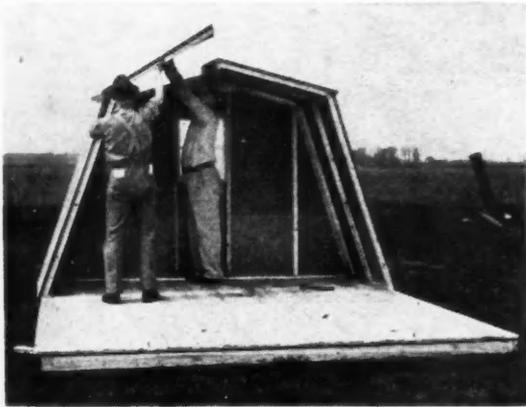
EVERYBODY'S doing it! including J. R. Darrow Co. of New Lisbon, Wisconsin, which prefabbed and sold the astounding number of farm buildings mentioned in the title of this article. Yes sir, everybody's doing it including Darrow.

A recent national survey of prefab activities reveals that 65 per cent of lumber yards are selling materials for prefabbing farm buildings. This average of 65 per cent varies according to localities. For instance, the middle west farm belt showed the percentage at 80, while throughout New England the percentage hovered around 25. The west and Pacific states are doing it to the tune of about 50 per cent. And, of all the builders now doing this sort of work, 88 per cent say they are going to continue the activity after the war because the volume has grown steadily since they have been in the business.

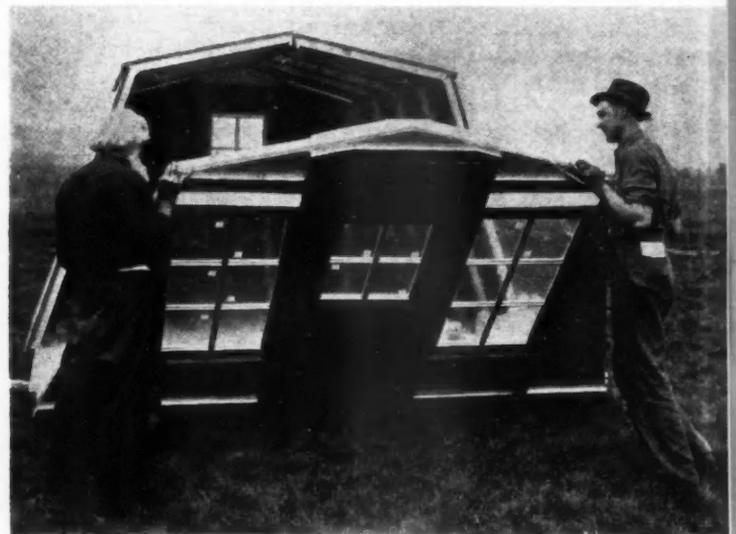
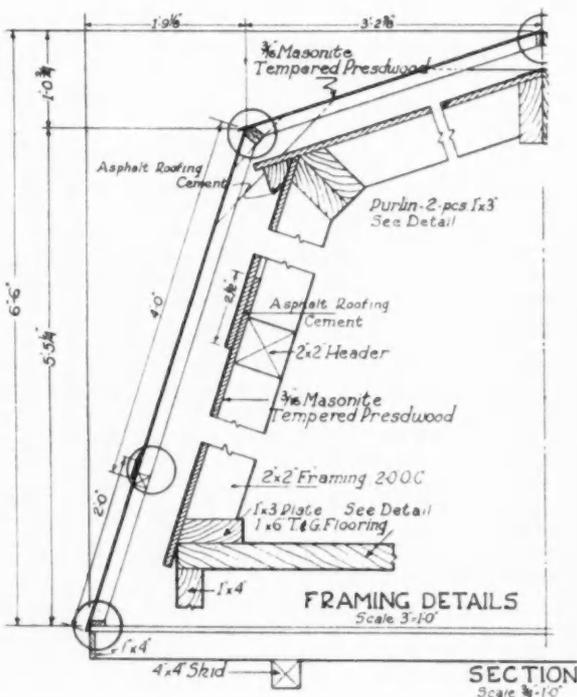
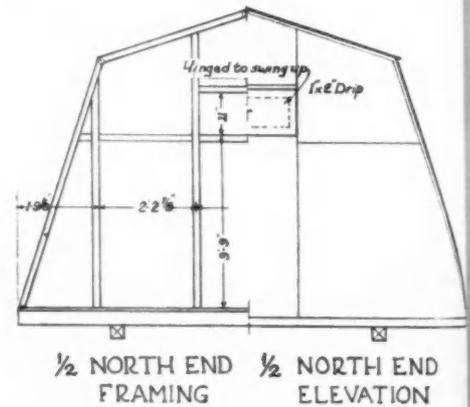
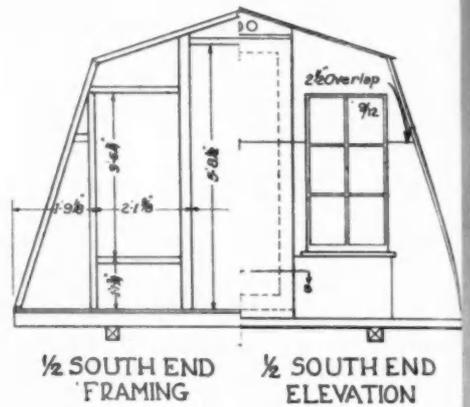
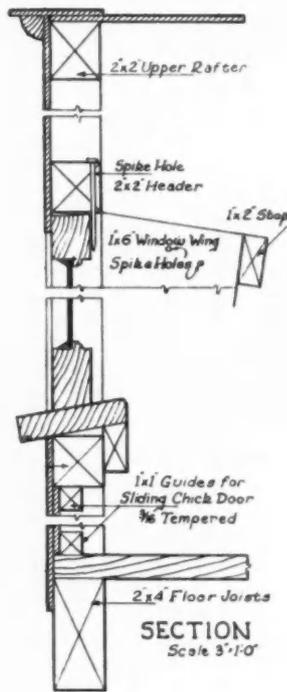
In order to determine what the possible

market might be, and what items the market would most readily absorb, Mr. Darrow made a study of the needs of farmers in his territory and then built a few buildings and tried them out on farms. These first buildings were built up in cooperation with H. M. Ward, Agricultural Engineer of the Masonite Corporation from stock plans and were not, at first, prefabbed. As the buildings proved to be successful in use, the plans were re-designed so as to be suitable for prefab construction.

Darrow started in making up the prefab sections with one power saw but found his demand increasing so rapidly that he had 60 men working by the middle



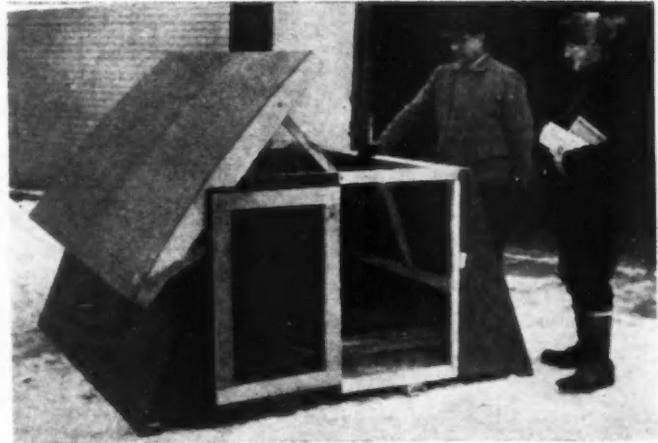
PHOTOS on this page show how easily a 10x12 brooder house is erected on the site by two men.



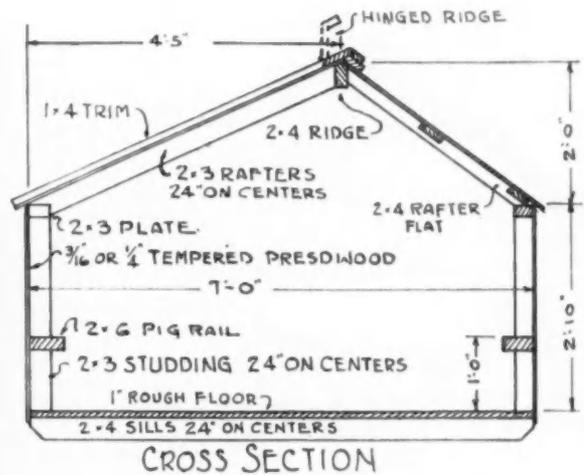
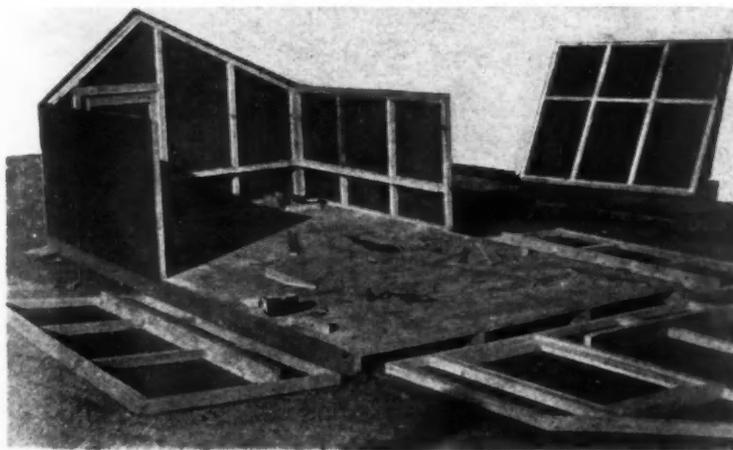
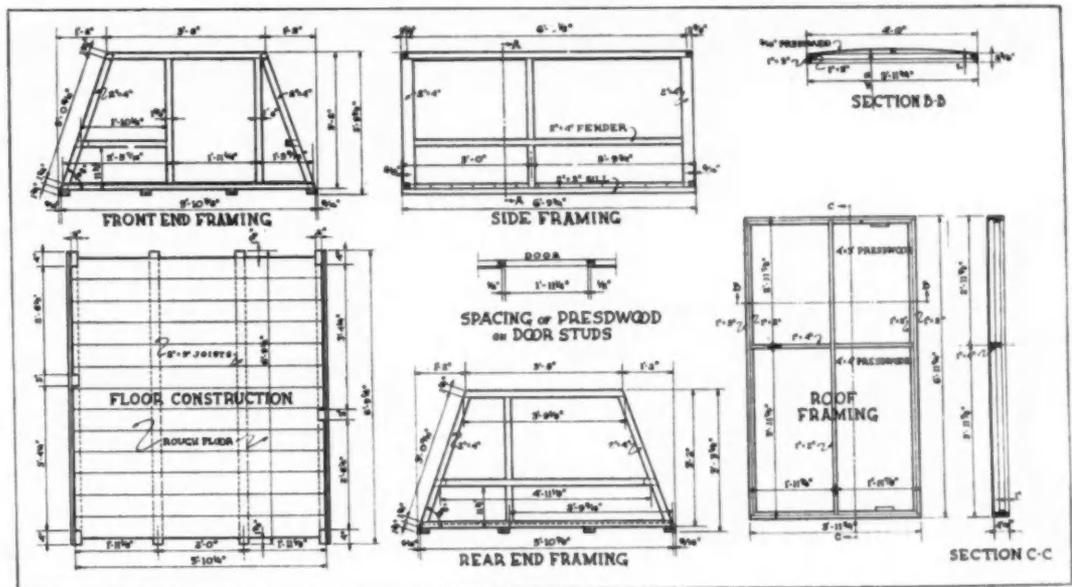
In Six Months' Time

of summer using a battery of DeWalt power saws. Floors, sides, ends and roofs are nailed up and stacked ready for transporting and erecting on the farm.

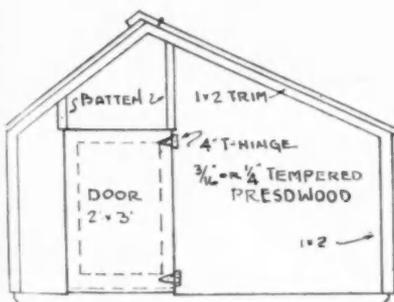
While any general locality will be liable to use building of the same type, Mr. Darrow's method of checking up on the most desirable types first, and then prefabbing stock plans of the buildings most suitable, is strongly recommended. Bolts and nuts are most generally used for fastening the sections together, and substantial
(Continued to page 86)



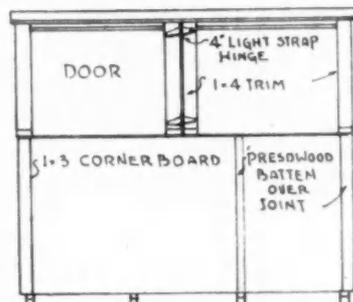
The tilt-top hog house shown above in the photo and at the right in detail drawings, after it had been prefabbed from stock plans, proved to be a popular item with Mr. Darrow who is shown demonstrating it to the farmer wearing coon skin cap and high boots. The hog house is made of six sections bolted together in such a way they can be dismantled if desired for cleaning or storing when not in use in the field. The prefabbed method of construction has two of the four floor joists fastened to the bottoms of the sides.



CROSS SECTION



EAST END ELEVATION



SOUTH SIDE ELEVATION

BROODER houses and hog houses lead the list of prefabbed farm buildings in sales. The hog house shown in the photo with its floor, sides and ends ready to be bolted together is Mr. Darrow's prefabbed version of the stock plans shown at the left and directly above. This hog house is of the sunlit type, having sliding door openings in the narrower side of the roof which is shown on the south side elevation. The sides and roof are made in stock lengths so that they can be fitted together to make hog houses of lengths to suit the farmer's needs. The house rests on 2x4 sills which act as skids for dragging over the ground.

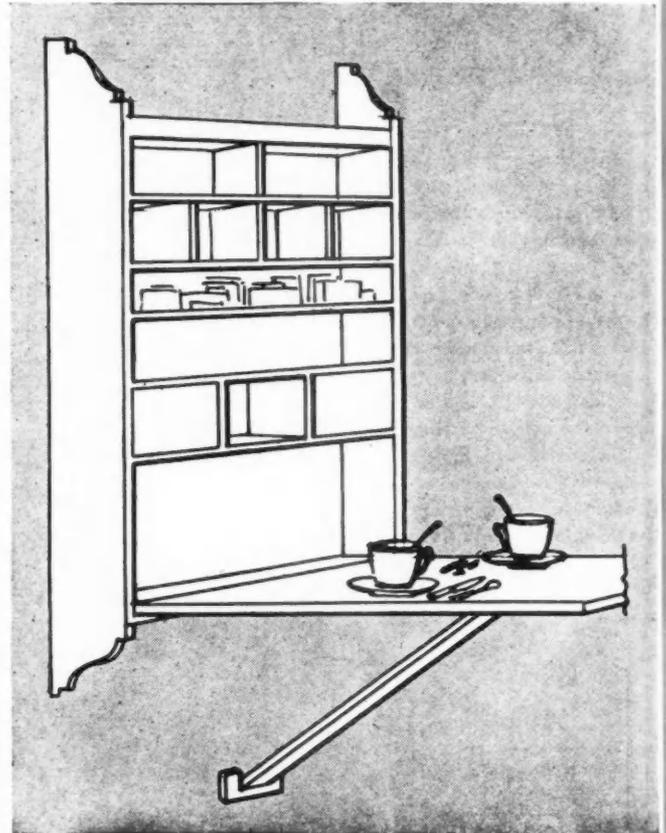
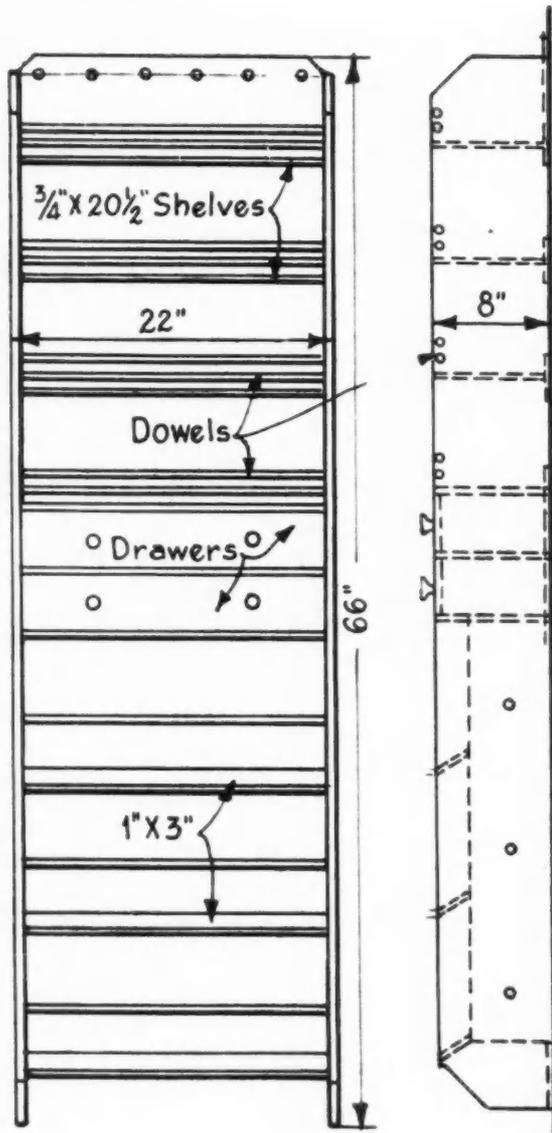


1944 Ushers In an Era Calling for Initiative

How-to-do-it, and doing it, make up the best paying kit of tools you can carry with you to any job

How to Build a Space-Saving Unit

SMALLER rooms in homes and more intense living make it necessary to take advantage of every possible square foot of area whether it is horizontal or up and down. Here is a practical unit that can be fastened to the inside of a closet door. Its width and height will vary according to the size of the door.



How to Make a Hanging Wall Cabinet

MANY kitchens lack a place where a quick breakfast can be eaten, yet there is wall space enough for hanging a cabinet similar to the one shown in the sketch. The front folds up when it isn't being used as a table and the brace lies flat against it. The compartments can be built in any size and shape to suit the uses they will serve. A convenience outlet can be located in the lower part for connecting an electric coffee pot or toaster.

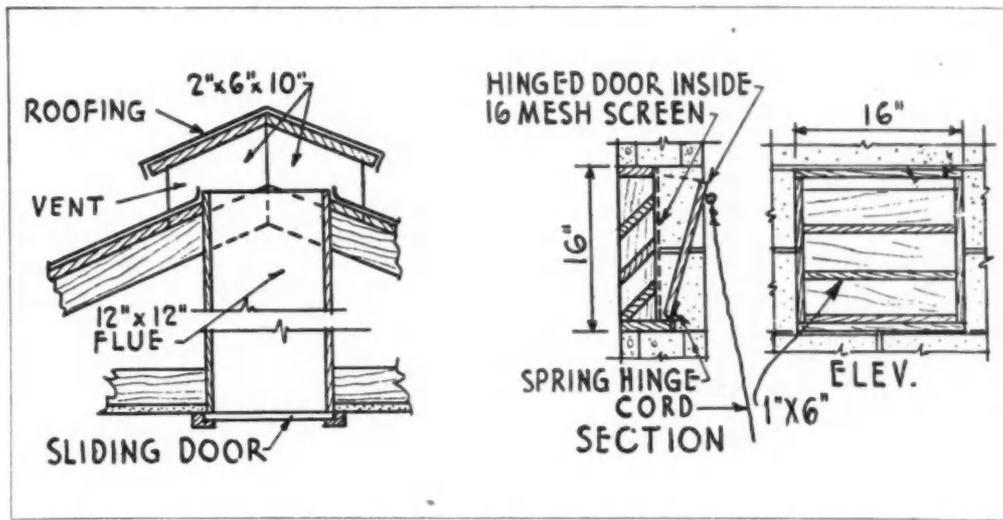
This type of cabinet can be made to serve many purposes in addition to informal eating. It will be of use as a desk, telephone shelf, wrapping place, and storage for cooking books. Spices and small cans of kitchen supplies can be kept handy yet out of sight when the front of the cabinet is closed. Side pieces should be rabbetted to receive shelves, and the hinges for the door strong enough to bear the load that may be placed on the opened shelf door.

How to Make Two Different Kinds of Building Ventilators

BUILDING ventilation is one of the most important details of practically all types of construction. This is true of homes as well as farm or storage buildings. Below is a type of roof ventilator that gives positive results because of its natural chimney-like suction inside the flue. The proportions of a 12" by 12" flue and the double vent, as indicated on the drawing, is right for satisfactory results. Care must be exercised when flashing the work to assure there will be no leak due to a driving rain. A sliding door in the ceiling at the bottom of the flue provides control of the volume of air to be taken out of the house or building at any particular period of the day. Flues help control excessive moisture and condensation.

VENTILATORS of the louver type, as shown below, are normally used in the gable ends of houses to provide an escape for air from the attic space. The small one illustrated here is designed for a cement block type of farm building where ventilation for animals or fowls is important. The angle of the baffle strips prevents rain from getting inside, and the hinged door provides manual control of the passage of air to suit varying conditions. A screen is fitted over the inside of the louver frame, between it and the door. The simplest construction is a square frame with butt joints and such a louver is suitable for a masonry wall where the sides of the frame are flush with the outside surface of the wall. For house use, frame and baffle boards should be rabbetted.

WATER vapor, or moisture in the air, is the worst enemy of almost any kind of building construction. The proper use of ventilators is a guard against excessive vapor.



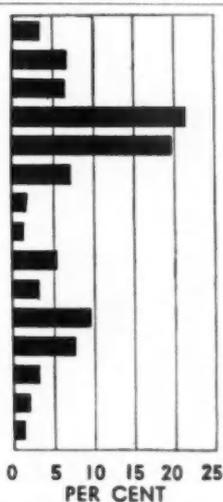
How to Figure Cost Breakdown on Average Price Small Home for Post-War

WITH plans now being drawn up for homes which builders expect to start on as soon as the war is over, restrictions lifted and materials made available, one of the important phases of such planning is estimating future costs. Of course, no one knows what prevailing prices will be at that time, when it arrives, but the chances are that the relationship as far as percentage of cost of the various principal items going into a home will remain about the same.

the table below shows the costs of excavation, concrete work, mason work, rough and finish carpentry, lath and plaster, tile work, linoleum floors, painting and glazing, roofing and sheet metal, plumbing, heating, electrical work, grading and sidewalks, and miscellaneous, and the percentage each is of the total. These figures were arrived at by taking the average housing unit built between Oct. 1, 1935, and Sept. 30, 1943, in Canada. For this period the average total cost was \$3,924.

TRADE (TYPE OF WORK)

Excavation
Concrete work.....
Mason work.....
Rough carpentry.....
Finish carpentry.....
Lath and plaster.....
Tile work.....
Linoleum floors.....
Painting and glazing.....
Roofing and sheet metal.....
Plumbing
Heating
Electrical work.....
Grading and sidewalks.....
Miscellaneous
Total



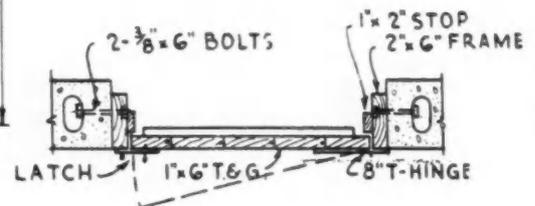
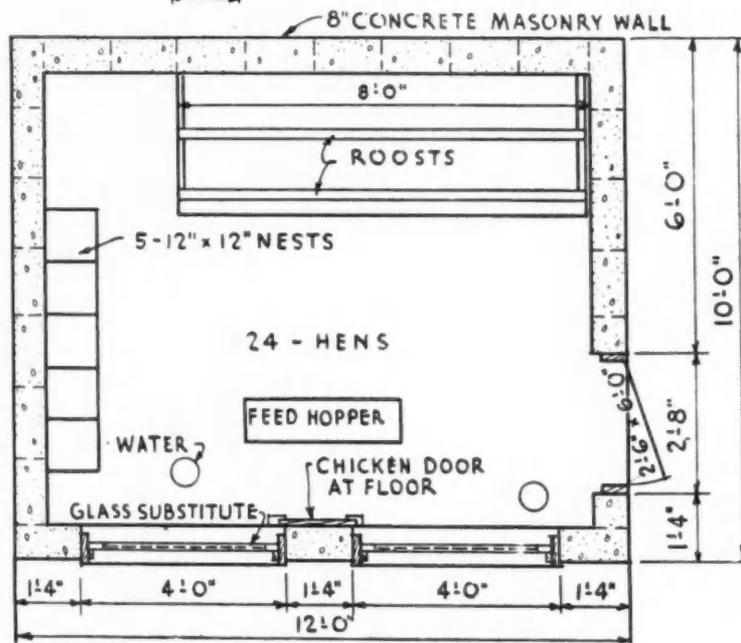
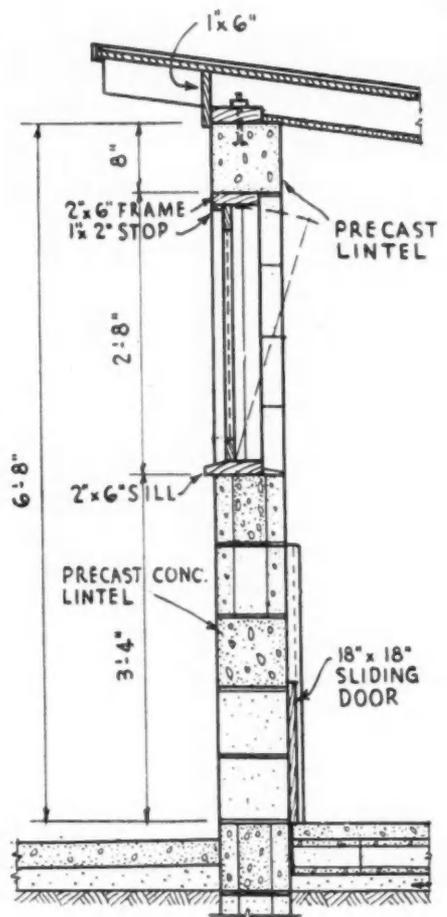
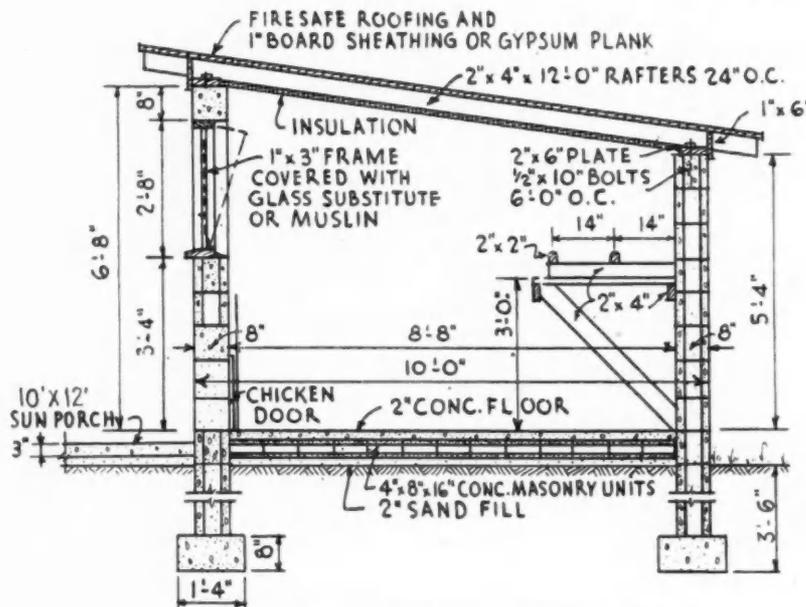
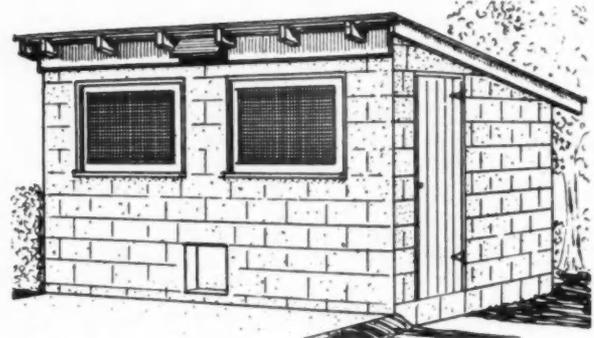
Dollars	Per cent
117.7	3.0
266.8	6.8
247.2	6.3
843.7	21.5
773.0	19.7
294.3	7.5
74.6	1.9
47.1	1.2
211.9	5.4
137.3	3.5
376.7	9.6
290.4	7.4
125.6	3.2
70.6	1.8
47.1	1.2
3924.0	100.0

How to Build a Hen House Using Mostly Non-Critical Materials

POULTRY raising on a small scale is fast becoming one of America's best methods of assuring family supplies of foods without relying upon the number of stamps left in the ration book. Appreciating this fact, the plans for this backyard hen house are offered at this time so that you can have them handy for early spring building. Many families will be planning on raising chickens in 1944, and a substantial house for them is imperative. Also, the house must be ready when the chicks arrive or mortality will be high and disappointment follow.

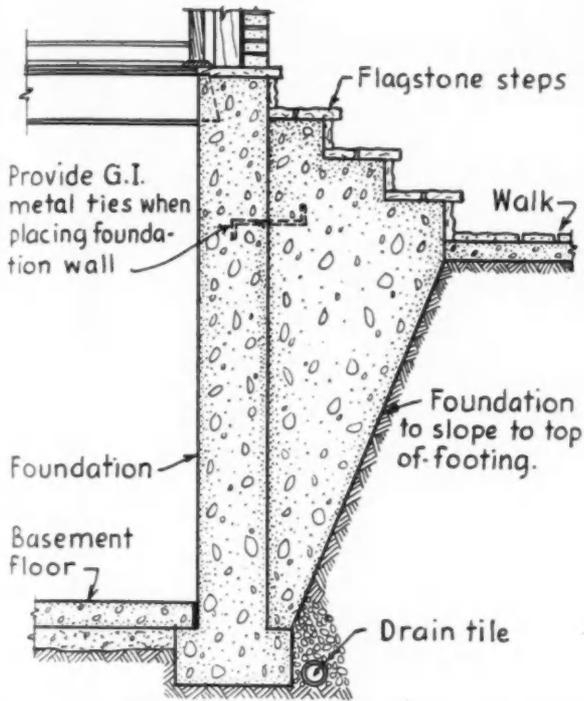
The only sizable pieces of wood needed for this house are the roof rafters, and they could be pre-cast concrete. An asphalt roof over gypsum plank, and insulation board on the underside will make a good job. The nests and roost can be made of small pieces of lumber. This hen house will appeal to practical chicken raisers because of its rat-proof

construction, permanence, the insulation feature, and lack of upkeep. The 10 x 12 sun porch should be fenced and hosed occasionally.



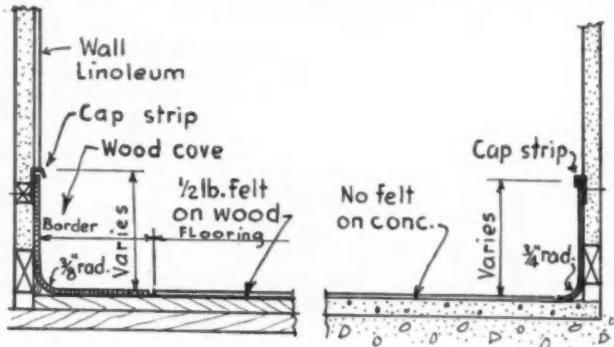
How to Build Concrete Steps

WHETHER new construction or rehabilitation work, this is an excellent method of building a foundation for exterior porch steps. If the foundation wall is already in place, a star drill will make a hole for a bolt, with large washers and nuts, to extend clear through the wall and into the footing.



How to Lay Linoleum for Long Life

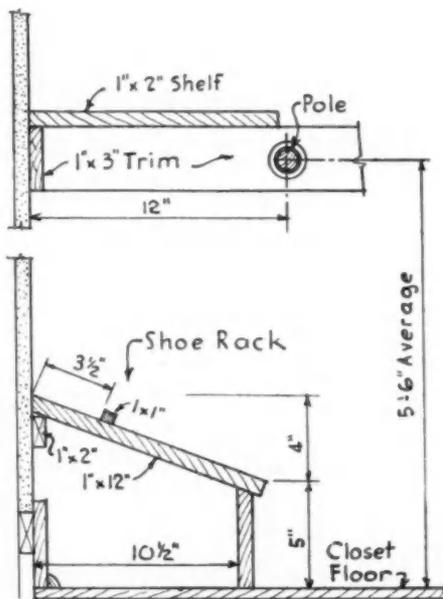
PROBABLY the four most important things to think about when putting linoleum on either wood or concrete floors are temperature, condition of floor, adhesive, and protection of edges. On wood floors, a felt pad is recommended for a linoleum base, and on concrete no pad is needed. If the concrete floor is in a basement there is the need to be sure it will not get damp from moisture



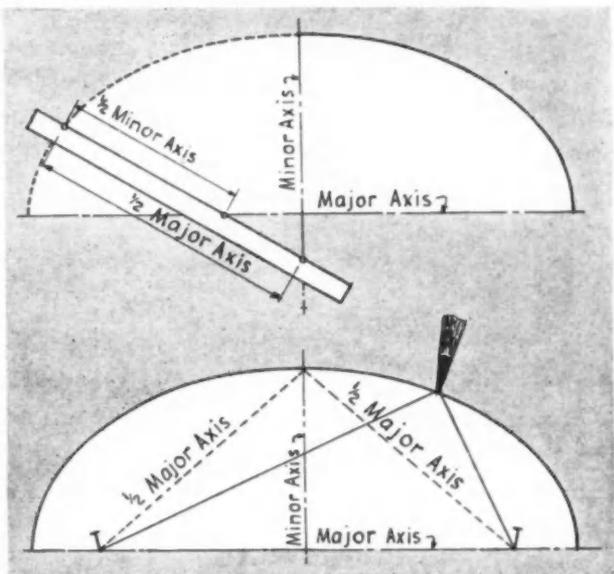
underneath. A good way to test the possibility of dampness is to lay a piece of linoleum on the floor for a day or so. If it is damp on the under surface when lifted, the floor needs treatment before linoleum is laid. Any bend or cove, or edge, should be protected with a backing of wax, or wood strip, or molding to insure a satisfactory job with long life for the linoleum.

How to Make a Closet Shoe Rack

USING every available bit of space in homes, especially in storage and closet areas, is good sense. Here is shown a cross section of a closet giving proper dimensions for a practical shoe rack as well as hook strip and hanging pole. A raised floor, as shown, prevents dust collecting on closet floor.



How to Lay Out an Ellipse for Arch



TWO methods are shown here for making an accurate ellipse. One is for smaller work and makes use of a piece of cardboard or straight edge, which is marked with two dots, one being half the length of the minor axis from the end, and the other half the major axis. The measuring piece is moved, as shown in the sketch, and the point where dotted line falls outlines ellipse.

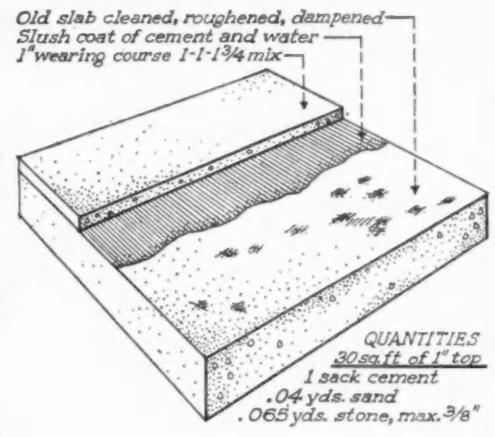
The string method is for larger work, and makes a perfect arch when the string is measured accurately, as indicated, and held with a pin or nail at each end equidistant from the ends of the major axis. A pencil then outlines the arch as the string swings through its arc, as shown in the sketch. These methods give true ellipses for nice arch work.

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 RESURFACE CONCRETE FLOORS



Old concrete slab to be resurfaced must be clean of loose particles, grease, oil, paint, or other material which interferes with bonding of the new top.

Saturate slab with water over night. Then allow to dry 2 hours. No pools should be left standing.

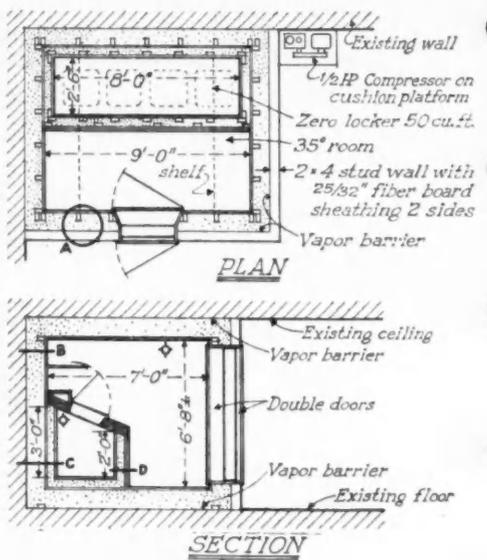
Brush on a thin coat of cement mixed with water to the consistency of heavy cream or thick paint.

Place the wearing surface before the slush coat has dried or set. Scream to proper true level, float with wood float, and trowel to desired smoothness.

Careful curing will determine the amount of wear the new top will withstand. Protect carefully with wet sand, wet burlap, or waterproof paper as soon as new surface can be sprinkled and walked on.

Not more than 5 gallons of water should be used in the mix for each sack of cement. Screeding, floating and troweling should not bring free water to the surface. Do not dust top with dry cement, or sand and cement, to take up excess water.

HOW TO BUILD A HOME FREEZER (1)

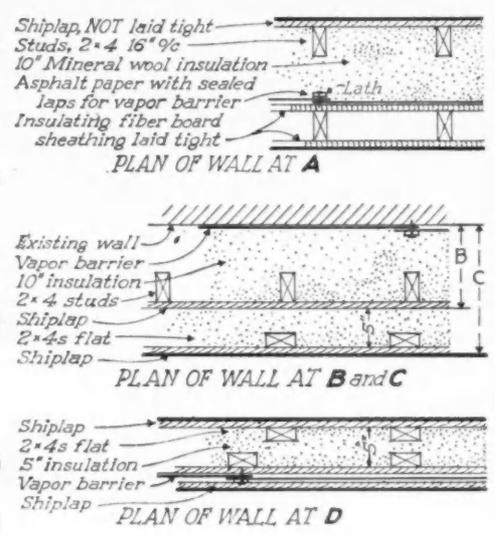


The plans for many houses of the future will incorporate home freezing plants, for in no other way can meats, fruits and vegetables be always available in the home at an advantageous cost and in perfect condition. Basement installation is recommended.

The horizontal locker type of zero box is preferred to the vertical walk-in type since less cold spills out when the compartment is opened. Then, too, the contents are more easily placed and removed in the horizontal box type.

A one-half horse power compressor will accommodate the plant shown, and a kitchen refrigerator as well.

HOW TO BUILD A HOME FREEZER (2)



The inclosure for the 10" insulated wall should be lined completely with a moisture barrier of asphalt (tar paper taints food) paper sealed at the laps with liquid asphaltum and cleated in place with lath nailed thru to studs.

Hemlock, pine, spruce or fir can be used for the shiplap lining of the 35° room and the zero box. Paint made especially for refrigerators should be used — not common paints. An undercoat and two finish coats provides a sanitary finish.

Good doors with hollow rubber gaskets will cut leakage and reduce operating cost. Zero box hatches should be 5" thick; inner door to 35° room should be 8" thick; outer door 3" thick.

Secrets of chemists in our country, bringing new things with new... THESE new products and ideas developed by the "experts" in fiber in freeing lignin, strength. Next, together pressure things, M cellulose useful cor

MEN WHO ASSAY THE FORESTS



Secrets long held deep in the trees of the forests are being disclosed today by a group of chemists down in Laurel, Mississippi. Working with prominent scientists throughout the country, they are doing undreamed-of things with wood's basic ingredients. They are developing new materials (from the heaviest to the lightest made from wood!), creating hardboards with new properties, and discovering new uses for the famous Masonite* Presdwoods.*

THESE new uses of wood's basic ingredients are triumphs of modern research and imagination. A unique gun, developed by Masonite research men, literally "explodes" wood, freeing its cellulose fiber in varying degrees of plasticity; freeing also wood's natural cement, lignin, which gives trees their great strength.

Next, these two materials are bound together at various controlled heats and pressures—producing, among other things, Masonite Presdwoods, the ligno-cellulose hardboards, with new and useful combinations of physical qualities.

Masonite Presdwoods have glass-like smoothness, yet do not shatter or crack. They take all types of paint and baked-on finishes, yet do not warp when properly used. They are strong in every direction. And they can be easily worked by carpenters with ordinary tools.

Masonite products are now going into more than 500 different war jobs, saving rubber, steel, aluminum and other

strategic materials. You can secure Masonite Presdwoods for war-essential construction today—and after Victory, quantities will be available for exterior and interior walls, panels, ceilings, for cabinets, counters, furniture and scores of other jobs. Masonite Corporation, 111 W. Washington St., Chicago 2, Ill.

*Trade-mark Reg. U. S. Pat. Off. "Masonite" identifies all products marketed by Masonite Corporation.

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MASONITE PRESDWOODS



THE LIGNO-CELLULOSE HARDBOARDS



Figure on Flintkote

For maintenance and repair...

★ ★ ★
 ★ **M**AYBE the war will be won by next summer; maybe
 ★ the Nation will still be fighting throughout the year...
 ★ Whichever it is, you can figure on Flintkote for '44.

You can figure to make money and save worry because Flintkote has planned ahead to meet whatever comes...and to meet it to your satisfaction.



Figure on Flintkote Insulation Boards

Structural or decorative, Flintkote Insulation Board Products do their jobs well and beautifully.

Flintkote Decorative Tile and Plank provide both insulation and decoration at one low cost.

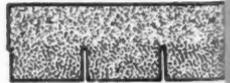
Colors include Decoblend (an extremely popular blend of coral tones), Green, Buff, Ivory White and Smooth White.



- | | |
|--------------------------|--------------------------|
| Asphalt-Sealed Sheathing | Thriftex Wallboard |
| Building Board | Colored Tile and Plank |
| Insulation Lath | Decoblend Tile and Plank |
| Roof Insulation | *Hard Board Products |

Figure on Flintkote Asphalt Shingles

For the finest in fire-resistant Asphalt Shingles, Flintkote has always been the first word and the last.



Distinctive colors and practical, proved types give Flintkote dealers added selling opportunities.

- | | |
|-------------------------|--------------------------|
| *Tapered Strips | *Square Butt Strips |
| Thikbut Strips | Flintlock Shingles |
| Cedartex Thikbut Strips | Staple-lox Shingles |
| *Stalwart Strips | Dutch Lap Giant Shingles |
| Hexagon Strips | *Super Giant Shingles |

*These Flintkote Products have "gone to war." They'll be back soon.

The FLINTKOTE

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y. . . . ATLANTA . BOSTON





... for FORTY-FOUR

... for new work and remodeling...

Figure on Flintkote Asphalt Sidings

Ideal for low-cost residential or commercial work, this famous line of mineral-surfaced asphalt sidings saves building time, does away with outside painting.

Brick-type siding in strips or rolls "Individual siding shingles" Many designs and colors to choose from.



Figure on Flintkote Asbestos Sidings

One of the finest lines of all asbestos-cement sidings, Flintkote gives you a wide range... and a first-quality product.



Three butt lines:
Waveline
Shake
Straight-Edge

Three surface finishes:
Tapertex
Woodgrain
Smooth

Fireproof protection for exterior walls.

Figure on Flintkote Asbestos Shingles

These fireproof shingles are made of two everlasting materials — asbestos fibers and portland cement. They provide top protection and long life. Woodgrain finish on Dutch Lap, smooth finish on Hex.

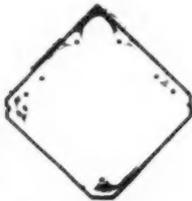
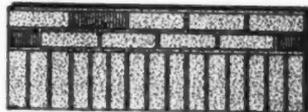


Figure on Flintkote Insulated Sidings

Insulation Board, a full 1/2 inch thick, is saturated and coated with asphalt and surfaced with hard mineral granules. Very attractive. An ideal siding. Available in brick and stone designs.



"These Flintkote Products have gone to war." They'll be back soon!

Figure on Flintkote Cold Process Built-Up Roofing

Flintkote special Cold Process Felts and Static Asphalt provide rugged, durable roofing. This new method supplements Flintkote's line of hot-applied built-up roofing materials.



Figure on Flintkote Roll and Built-Up Roofings

Low cost per year after year of service is a feature of Flintkote Roll and Built-Up Roofings.

Smooth Roll Roofings include:

Rex Flintkote Reliance
Stalwart Guardian

And for rich coloring and extra fire-resistance, Flintkote Mineral Surfaced Roll Roofings! Plus a complete line of Built-Up Roofing Products.



Figure on Flintkote Asphalt Coatings and Plastics

The name for dampproofing and waterproofing materials is Flintkote! Meeting rigid specifications, Flintkote Static Asphalt Coatings will not flow, alligator or crack and will outlast any known type of bituminous material when exposed to weather.



Figure on Flintkote Rock Wool Insulation

Those who didn't last year... will this year! Flintkote's line of rock wool insulation sells itself with every drop of the thermometer.



Figure on Flintkote for '44

Talk today with your friendly Flintkote representative. Or write nearest branch office.

Flintkote Company...

CHICAGO HEIGHTS · DETROIT · EAST RUTHERFORD · LOS ANGELES · NEW ORLEANS · WACO





War Housing Items from the CAPITAL

By Frank W. Cortright

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



Look Before You Leap—Of great importance right now is the matter of securing materials and procedures to insure the early completion of private war housing programs. Some builders are unable to complete projects through lack of equipment and materials, and higher priority ratings must be secured in many areas. We have just learned that certain changes are being discussed within WPB which, if adopted, would not only seriously damage construction now underway, but would definitely prevent our undertaking a substantial part of the balance of the war assignment. It is incredible that at this late stage further obstacles should be set up.

Carroll F. Sweet, Managing Director of the Chicago Home Builders Association, in his latest bulletin reflects the views of the entire industry when he writes his members:

"The new quota is out. What a thrill that would have brought six months or a year ago! However, we have learned in the last few months the serious problems of construction under existing conditions. One wonders what we can use for floors? Or joists? Or furnaces? Or refrigerators? Or bathtubs? Here's what we must TRY to build to carry on OUR WAR JOB: 500 conversions and 2,515 new units. Good luck, men, but THINK BEFORE YOU ACT! This is no time for kid's play nor spontaneous combustion. IF YOU CAN'T SEE YOUR WAY THROUGH, DON'T START!"

Senate Ups Lanham Act Amount

—On the strength of reports that the \$50,000,000 installment allowed by the House for Lanham Act housing would have a retarding influence on the war production program, the Senate Appropriations Committee was persuaded to double the amount. Following this action by the Committee, the Senate approved the measure and sent it back to the House for concurrence. The bill will go to conference for adjustment of the differences in the House and Senate language. Whether the fund for publicly financed housing under the Lanham Act will remain at the \$100,000,000 level, or will go back to the lower amount fixed by the House, is still a matter of speculation.

Finally More Ranges—A month or two ago we advised you that 64,000 electric ranges would be authorized by

WPB for next year. This week formal announcement was made, and some war workers will be able to prepare meals (if the food hasn't spoiled for want of a refrigerator). Another order releasing about three million pounds of fabricated copper and copper base alloy parts for builders finishing hardware, cabinet locks and padlocks was issued. Basic production is gradually catching up with the overall needs of the armed services as evidenced by such orders as these.

Bathtubs?—Apparently bureaucracy, functioning at its worst, has swallowed up the 163,000 bathtubs practically promised the war housing program some months ago. Although the production of this number of tubs was urged by NHA and FHA, and although important divisions of WPB recommended approval, the request was first reduced to 50,000 tubs. Last month it bogged down completely through WPB's effort to have them produced in areas where the labor employed would not interfere with more direct war production.

Tight Lumber—Recently we referred to the two limitation orders which will become effective January 1st; M-361, controlling about 50 per cent of the southern yellow pine production, and M-364, covering seven hardwoods (oak, ash, hickory, yellow birch, hard maple, rock elm, and beech). Amplifying our statement, we would say that this partial freeze method was decided upon only after serious consideration of an overall lumber freeze. A clue to the tightness of the situation can be found in the restrictions in the orders, viz; purchase orders which would increase

inventory beyond a 90-day supply are prohibited, and the provision that WPB may allocate specific quantities and control deliveries without regard to preference ratings. The steady decline in production is largely due to the lack of manpower. War construction, boxing, and crating with yellow pine, naval landing craft, Army truck bodies, and dunnage lumber for the hardwoods, all steadily increase. The use of war prisoner labor in the forests may furnish some relief in moving more lumber out to the mills, but the situation will be dangerously tight for some time.

More Federal Aid?—Administrator Blandford of NHA announces that proposals are now being studied concerning Federal aid in land acquisition. While no complete legislative program has firmed up as yet, Mr. Blandford believes that NHA should be doing its part in exploring various broad plans whereby privately financed postwar residential construction can be stimulated. He has emphasized that NHA is not only re-examining Federal Housing legislation now on the statute books, but is also exploring new ideas. His reference to aid in land acquisition indicates that NHA shares in the commonly-held view that private industry cannot undertake to rehabilitate down-at-the-heel areas without Federal help in acquiring the land.

Primarily, Administrator Blandford feels that the formulation of specific postwar housing programs is a local responsibility to be done mainly by local builders, lending institutions and real estate boards. He believes "cities must decide whether they want to be big or small, industrial or residential." Each locality must decide on the extent and type of new housing that it will need. Thus, he would not have the Federal government step into the picture until the locality had decided such fundamental questions as: (1) the total need of new housing that can be financed by private enterprise; (2) the amount that will need indirect Federal aids such as mortgage insurance or secondary credit; (3) the amount that will have to be financed

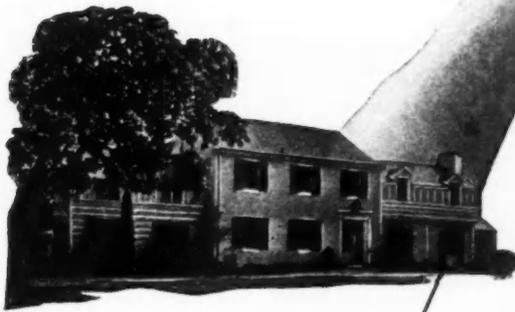
(Continued to page 78)



Frank Cortright's Christmas Card!

THE NEXT ESSENTIAL for the "Home of Tomorrow"

SERVEL'S NEW ALL-YEAR GAS AIR CONDITIONER



**Wins enthusiastic praise
in 300 test installations**

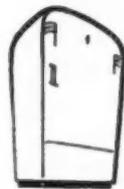
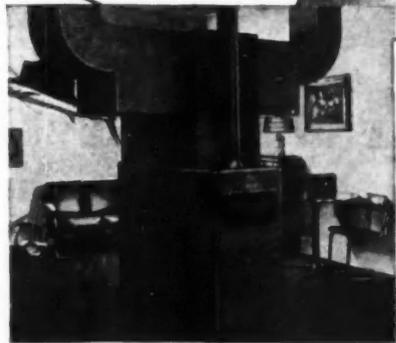
"Couldn't do without it." "Best investment I ever made!" "We point with pride to our good fortune in having this equipment." These are typical comments received from people who helped test Servel's new All-Year Gas Air Conditioner.

Three hundred of these installations were made in homes and certain types of commercial buildings throughout the country. Careful records of costs and results were kept, and frank opinions of users secured. In every case the verdict was the same . . . undreamed-of comfort all year round, at a surprisingly reasonable cost!

Servel's new All-Year Gas Air Conditioner is the result of nine years' engineering and research. One compact unit performs all six basic air-conditioning functions—cools and dehumidifies in summer, heats and humidifies in winter, provides air circulation and filtering the year round. It combines all the advantages of indirect-fired heating and absorption refrigeration, in one simple-to-operate complete air conditioner.

This new equipment will be available for your post-war clients just as soon as production capacity is released from war work. Write today for the full story about Servel's All-Year Gas Air Conditioner. Address: Servel, Inc., Evansville, Ind.

**SERVEL GAS REFRIGERATORS are standard equipment
in the nation's finest apartments.**



SERVEL, Inc.
America's Leading Makers
of Modern Gas Appliances

(Continued from page 76)

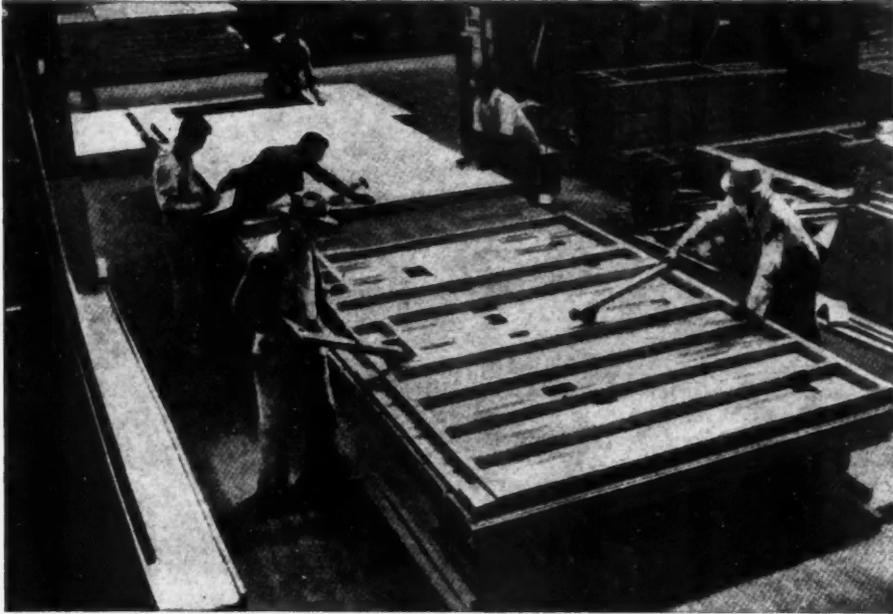
by the government under existing or new forms of assistance.

Mr. Blandford cited the FHA mortgage insurance program as a good example of the type of industry-government cooperation which can be profitably applied and perfected on a much broader scale. Under the FHA program, more than \$5,000,000,000 in private funds have been channeled into housing investments at little cost to the government and the producers.

While war housing has first call on our activities, Mr. Blandford stated, we are now headed down the home stretch of that assignment and are increasingly finding the time to look at the job ahead. We are making plans for the disposition of war housing. We are proposing that we con-

tinue to build houses during the pre-victory period to the extent that manpower and materials are not required by the war effort.

We are reexamining federal housing legislation now on the statute books and, as part of this process, we are starting to study new proposals such as federal aid for land acquisition. We are reviewing the housing experience after World War I and we are rechecking over-all estimates on housing needs after World War II and on housing's place in the total national economy. We are about to launch an analysis of wartime experience with new materials and methods. However, none of this work can be a substitute for the activity that must be carried on in the communities.



WAR and POST-WAR HOUSING CALL FOR WOOD and LAUCKS GLUE

WAR-LEARNED LESSONS will shape housing of the future.

Laucks Glues make possible the most modern techniques of stress-cover construction — wallboard glued to framing members — a "miracle" factor in the erection of war housing "cities." Post-war housing too, will call for the speed, strength and durability of the best war-born projects.

Laucks Glues and Laucks Glue techniques can solve tomorrow's

problems as they have licked the "toughies" of wartime construction. I. F. Laucks, Inc., world's largest manufacturer of water-resistant and water-proof glues, can help you. For complete information, write or wire:

I. F. LAUCKS, Inc.
Lauxite Resins — Lauxein Glues
CHICAGO, 2 — 6 North Michigan Avenue
LOS ANGELES, 1 — 859 E. 60th Street
SEATTLE, 4 — 911 Western Avenue

Factories:
Seattle, Los Angeles, Portsmouth, Va., Lockport, N. Y.
In Canada:
I. F. LAUCKS, Ltd., Granville Island, Vancouver, B. C.
HERCULES-LAUX-MERRITT, Ltd., Stanbridge, Quebec



LAUCKS CONSTRUCTION GLUES
Consult LAUCKS—America's Glue Headquarters

American Builder, January 1944.

Good Thinking—The House Committee on Public Buildings and Grounds under Chairman Fritz G. Lanham heard testimony this week from Herbert U. Nelson, Executive Vice President of the National Association of Real Estate Boards; Eric A. Johnston, President of the Chamber of Commerce of the United States; and other outstanding representatives of industry. It is very clear that the problems of postwar employment, and the responsibilities of private enterprise in planning to meet these problems, are uppermost in the minds of all industry groups at this time. The committee itself believes that there must be no competition by government in the postwar period. Furthermore, they recognize that our probable national debt of a quarter of a trillion dollars makes it advisable to limit beneficent expenditures. It seems safe to predict that when these hearings are completed, probably late in January, the committee's recommendations will be against the use of federal funds for postwar public housing.

Ask FHA About Increased Costs

—Many builders do not realize that Section 603 cases, where actual costs exceed original estimates "because of rises in construction cost levels prior to or during the construction period," may be reworked. Builders faced with increases beyond their control, should request FHA field offices to reconsider their cases to obtain the benefit of changes which have occurred. FHA has indicated a complete willingness to reflect supportable increases of labor and materials in their findings, and reconsideration of many cases can and should be made.

NHA Offices Reduced

N H A has revised the set up of its regional offices from ten to eight, abolishing regions three and five. Region three is absorbed by regions two and four. Thus, the states of Maryland, Delaware and New York will be included in region two at New York City. The state of Virginia will be grouped in with region four located at Atlanta, but a sub-office under Clifford Boyd is being established in Baltimore. Work involving the Washington area will be handled directly by the national NHA office and will be under the immediate supervision of Assistant NHA Administrator Coleman Woodbury.

Virtually the entire midwestern area is being consolidated under William K. Divers who will be Director of a greatly expanded region six in Chicago. This shift involves the merger of the Chicago region six with region five which formerly had its headquarters in Cleveland. Under the reorganization, the states of Illinois, Wisconsin, Indiana, West Virginia, Kentucky, Ohio and Michigan will be included in the new consolidated region. The remnants of the old region six will be absorbed by region

seven under the direction of Joseph Tufts with headquarters at Kansas City. Region seven will now include the states of Kansas, Utah, Wyoming, Colorado, Nebraska, Missouri, Iowa, Minnesota, North Dakota and South Dakota. According to NHA officials, this reorganization will result in a saving of \$85,000 a year.

Arthur Walsh Important New Senator—The appointment of Arthur Walsh to the Senate to fill the unexpired balance of the term of the late Senator Warren Barbour of New Jersey, is news of the most welcome sort to the home building industry. Through his work as Assistant Administrator of the Federal Housing Administration during the early days of that agency, Mr. Walsh gained an intimate knowledge of the problems of home financing and construction. In fact, he took a leading part in drafting the original FHA action, collaborating in this connection with Charles Edison, the present Governor of New Jersey, at that time Director of the National Emergency Council. As second in command under Administrator James Moffett, and later under Stewart McDonald, he was largely responsible for the early success of the mortgage insurance program.

OPA Boosts Prices

(Continued from page 35)

Office of Price Administration today to add \$3 per 1,000 board feet to basic maximum prices of 12 specific grades of this material."

"To facilitate production of the light construction types of lumber now in heavy demand as a result of changing requirements of the war program, the Office of Price Administration increased maximum prices for Douglas fir dimension lumber and boards."

"To cover increased production costs, the Office of Price Administration today announced an increase of approximately 8 per cent in ceiling prices for all grades and sizes of red cedar shingles."

"Oak flooring maximum prices at the manufacturers' level were increased approximately 24 per cent and pecan flooring about 21 per cent by the Office of Price Administration to meet increased production costs and to obtain greater production of oak flooring for war purposes."

"Action was taken to remedy a situation where demands for oak flooring for war housing and factory construction and maintenance exceed production, which has declined materially because of higher costs. Inventories have been depleted. The increase in ceilings will be reflected in prices paid by the ultimate buyers."

"Western white pine logs produced in Washington and Oregon west of the Cascade Mountains were given dollars-and-cents ceilings today by the Office of Price Administration. The new prices are approximately \$1 per 1,000 feet log scale, higher than the previous ceilings."

U. S. Chamber of Commerce

(Continued from page 35)

with a definite purchase in mind. Of the total public, 84% are investing in one or more of the following: War bonds, life insurance, savings accounts, mortgage retirement, other investments. Over half of the people questioned say they will have accumulated savings equal to at least a tenth of their annual income by the end of the year.

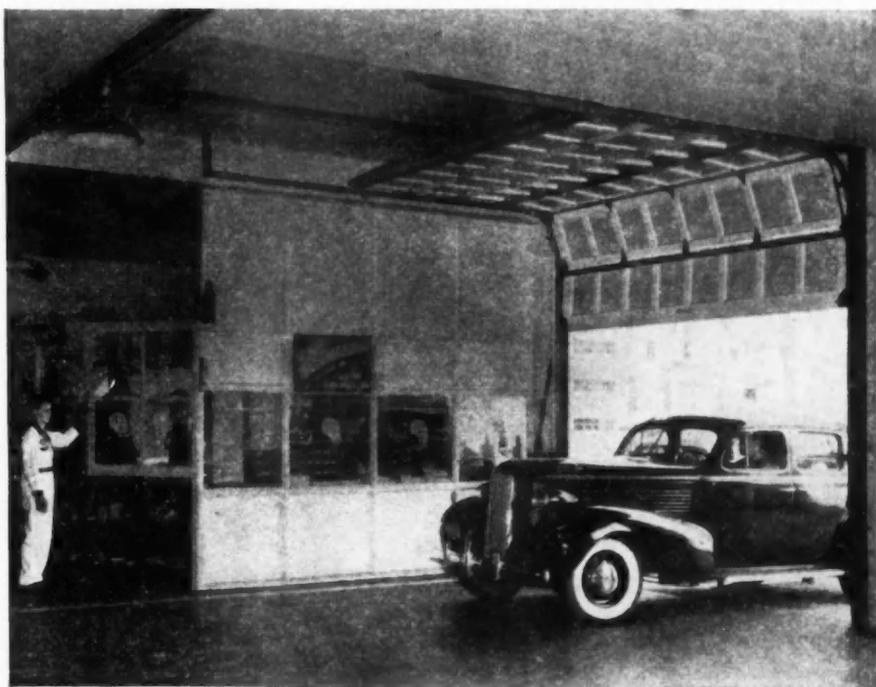
If the war ended tomorrow, 64% of U. S. families believe they would make purchases along the following startling lines: 3,675,000 families intend to buy new automobiles. This is a family response for new cars. Therefore, the figures do not include possible used car sales, fleet ownership of passenger cars

by commercial companies, nor does it include exports. This means an immediate postwar market for family automobiles of \$3,307,500,000.

Two thirds of as many families will spend \$1,215,910,000 for household appliances. And so it goes into home furnishings where there is indicated an immediate postwar household furnishing market of \$711,410,000! As for the postwar demand for new homes, 1,540,000 families intend to build or buy a new home within six months after the war is over.

23% say they will spend \$3,000, or less; 27% say they will spend \$3,001 to \$5,000; 18% say they will spend \$5,001 to \$10,000; 12% say they will spend

(Continued to page 80)



Save Heat ... and Time ... in COMMERCIAL GARAGES

Tight closing keeps drafts out, keeps heat in. Easy operation saves time, reduces maintenance to a minimum. Electric door operators provide efficient remote control.

Use the BARCOL OVERdoor and Electric Operator

Get this equipment NOW for remodeling jobs. Be sure to specify it when complete new garages can again be built. The owners of commercial garages now having BARCOL OVERdoors and Electric Operators swear by this equipment, not at it. High quality materials and construction, experienced engineering, and careful installations insure accurate, durable, dependable operation. Let us prove these claims ...



FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

BARBER-COLMAN COMPANY
104 MILL ST. • ROCKFORD, ILL.

(Continued from page 79)

more than \$10,000; 20% say they are not certain how much they will spend. In this connection, it is important to take into account the income brackets of the people questioned. However, this means a postwar home building boom of at least \$7,184,800,000.

In addition are the home and farm improvements contemplated. 39% of the home owners in America say that if the war ended tomorrow, they would almost certainly make some sort of improvements or repairs in their properties within six months. In addition to improving farm homes, 67% of farmers who own their own farms say they would also make farm improvements. All of which

adds up to an immediate postwar farm and farm home improvement market of at least \$7,500,000,000.

FHA Rolls Along

(Continued from page 35)

entire country is expected to have a scarcity of capable builders prepared to resume new home building activity in the early postwar months, even though building organizations now operating throughout the country are less than 25 percent of the number expected to be in operation during the first post-war year. During November the mortgage insurance totaled \$59,537,800 which financed the construction of 12,972 proposed new family dwelling units for war workers.



... makes **TRU-BILT EXTERIOR** the most practical, economical and speedy exterior

Using pure phenolic resin glue, TRU-BILT EXTERIOR is manufactured by an exclusive process which includes a continuous assembly line minutely synchronized to produce a superior uniform product in solid sheets up to 72" x 144" (not scarfed).

TRU-BILT EXTERIOR offers:

Minimum of Warping Minimum of Checking
Minimum of Shrinkage Smoother Surface

A BINDER IMMUNE TO MOISTURE



WEST COAST PLYWOOD CO.

ABERDEEN, WASHINGTON

Manufacturers of **DOUGLAS FIR PLYWOOD**

LETTERS—

(Continued from page 7)

You make reference to these two-family units as duplexes, but in this area a duplex ordinarily refers to one unit above the other. Where the two units are side by side, they are usually referred to as *double* houses.

We plan to build some more of these units under new priorities.—F. C. TUCKER, President, F. C. Tucker Co., Indianapolis, Ind.

Planner in Navy

To the Editor: I am very interested in the post-war planning cause, and am making plans for post-war myself.

Although at present engaged at the Boston Navy Yard, I never forget the *American Builder*, and every month look forward to my copy. Will remain here in the Yard until we can go and build the real American Home again.—M. J. KAMATIS, Boston Navy Yard.

Where it counts

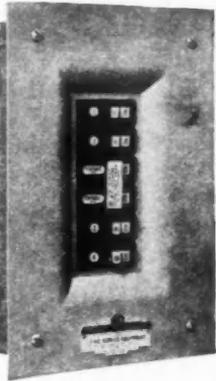
To the Editor: I have carefully noted your recommendations in connection with a national housing policy, and you may be sure that in the event any legislation is brought before the House of Representatives for consideration, I will keep your comments in mind.—EVAN HOWELL, Congressman from Illinois, Washington, D. C.

English builder looks ahead

To the Editor: I have in front of me an old copy of the *American Builder* dated March, 1936, and which I have read many times over and envied the *American Master Builder* who is able to incorporate so many ingenious ideas in his house building plans.

Before I go further with my praise of your magazine I will introduce myself. I am the son of an old English firm of builders, and a *Master Builder* myself. I went to Australia many years ago, and was a member of the Australian Builders and a manufacturer of concrete products. When I came back to this country just before the war, I was astonished at the lack of progress in the building trade, and I only had time to build one block of huts before the restrictions on building came into force. I am thankful that the war has given us time to seek new ideas, and America seems the place to look for them.

This is where I want your help. I note in your magazine a list of building books. Will you kindly send me a copy of the most up-to-date building books, also a copy of the *American Builder* each month for the future. I have an office and show rooms in London, and would like to get in touch with as many of the firms as possible who advertise in the *American Builder* with a view of acting as an agent for them in this country.—BERT HEFFER, Cobham Surrey, England.



Pleasingly designed and finished, this **FA** Service Equipment combines **FA** D. P. 35 Amp. AC Thermag Circuit Breaker for range circuit, and 4 S. P. AC Thermag Circuit Breakers for light and appliance branch circuits (Cat. No. SE41-3L7F — list price \$11.00.)

The "Load Center" is well-named

To it comes the main feed line for the electrical system. From it radiate the wires that carry current to the electric range—the lamps—radio—vacuum cleaner and other appliances that help make life more pleasant . . . When you build, choose wisely. Select

FA LOAD CENTERS SERVICE EQUIPMENT and PANELBOARDS

They are safe—will serve you uninterruptedly—require little or no attention—are efficient and attractively designed.

In Bulletin 63 and 67

you'll find them fully described and illustrated—with a wealth of detail as to specifications, wiring diagrams, etc. Write for your copies . . . Frank Adam Electric Company, Box 357, St. Louis (3), Mo.

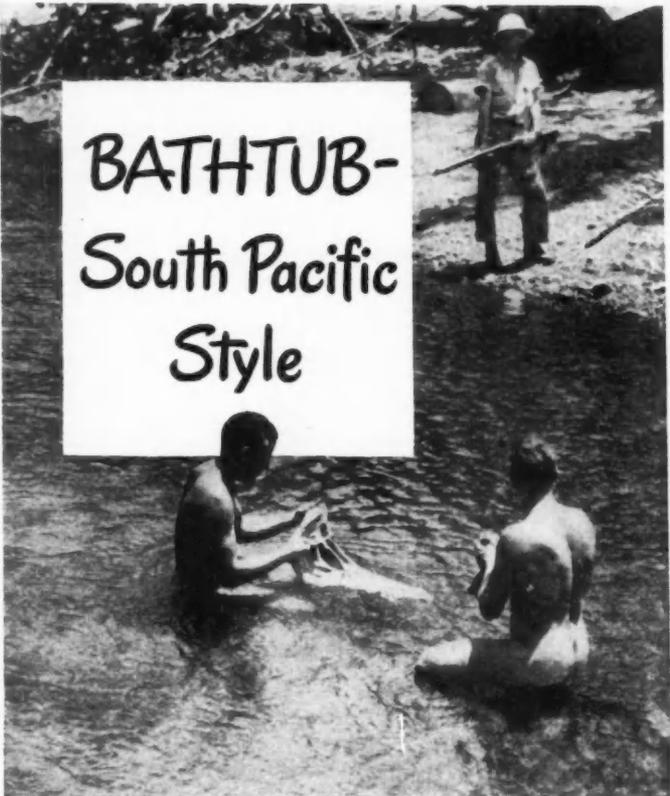
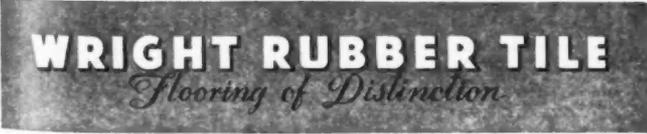


We'll have RUBBER Again

—and then Wright rubber tile flooring will again be available. Whether made of natural or synthetic rubber, it will possess all those characteristics for which Wright has become famous—*long life, lasting beauty, low maintenance.* Check your new flooring prospects now. Help them plan their Wright floor for that time when we'll have rubber again.

Flooring contractors: Now is the time to get lined up on our "2-Way Profit" proposition. Write for details.

WRIGHT RUBBER PRODUCTS DIVISION
Taylor Manufacturing Company
3050 W. Meinecke Ave., Milwaukee 10, Wis.



BATHTUB— South Pacific Style

HERE a couple of soldiers are cleaning up while a watchful buddy stands guard against Jap snipers. After this experience, you can just bet they will enjoy relaxing comfortably in a real bathtub when they get back home.

- That will be a great day for them — and for you. For peace will permit the manufacture of millions of much-needed bathtubs, lavatories and sinks for new and remodeled homes.
- Then you will want to consider *Formed Iron Fixtures* for the houses you build. These smart, modern products are light though strong — easy to transport and install. Your clients will find that the acid-resisting porcelain finish is easy to clean and remains lustrous and beautiful. Many of these *Formed Iron Fixtures* will have an added selling feature, too — porcelain on ARMCO Ingot Iron.
- For 30 years people have been seeing the ARMCO trademark on metal products of all kinds. They recognize it as a mark of the highest quality. This familiar ARMCO label will help clinch many a sale for you and assure lasting satisfaction for your customers. The American Rolling Mill Company, 201 Curtis Street, Middletown, Ohio.

EXPORT: THE ARMCO INTERNATIONAL CORP.

FINISH THE FIGHT—
WITH WAR BONDS



American Builder's Original Post-War Program Endorsed by National Leaders

ANTICIPATING the great necessity for straightforward and adequate planning for the post-war era, especially in the home-building portion of the building industry, the *American Builder's* issue of May 1943 contained an 8-point Plan to Bridge the Gap from War to Peace.

This May 1943 issue created considerable talk throughout the building field, and it was the beginning of concentrated thought regarding the problems for post-war operations and their answers. After five months of consultations throughout this country, a special issue was published in October, again making clear that the way from War to Peace is with Private Building.

In the box ruled off directly below in this column is a condensed version of the several points brought out by this magazine both last spring and last fall. In the column at the right are comments from leaders interested in the future of America.

It is obvious that very little if any disagreement can be found with the broad, constructive, and democratic thinking represented by these endorsed points for post-war prosperity as presented last year. All that is needed now is their orderly carrying out as military, and no other, conditions dictate.

Frank W. Cortright, Executive Vice President, National Association of Home Builders: "We are told that to take up our full share of the post-war employment need, we must build a million homes a year. Unless our planning is adequately done, many millions of war workers and veterans will be without

jobs. If we fail, the alternative will be a dole, apple peddling, bread lines and leaf raking. As an association, we are determined that these conditions shall not again come about.

"At the earliest possible moment *WPB order L-41* preventing all non-war construction *must be relaxed*. The building industry cannot quickly undertake the post-war job if it must start from a dead center of inertia.

"We believe it desirable that all financing of construction be done by private lending institutions *without assistance* from Government. We believe that *FHA or similar insurance will be necessary* if we are to reach the full volume of production assigned to us. Some part of the million homes annually will require special insuring procedures for that housing involving an element of risk which private financing could not, and should not, be expected to assume."

Green favors private enterprise

William Green, President of American Federation of Labor: "The spirit of free enterprise, individual initiative and devotion to our democratic processes is reflected in the construction of homes erected in every city, village and community throughout the land. The one lesson we learn out of this experience is the vital necessity of *preserving* for all time both the *spirit and principle of free enterprise* for ourselves and for future generations."

Douglas Whitlock, President, Producers' Council: "It is not enough to sit back complaining about Government interference and demanding that the bureaucrats *keep out of the field of private business*. We must meet the challenge by coming forward with *sound plans* for returning the responsibility for construction to *private industry*."

"I urge the construction industry to intensify its efforts to *reduce building costs*, as a means of broadening the market for housing and other construction after the war and thus providing hundreds of thousands of additional jobs for returning service men and the rest of the nation's labor force.

"Great savings can be made through prompt *revision of local building codes* which slow up or prevent the adoption of new building products and improved construction methods. Representatives of the industry should *organize in every community* to encourage local building officials to adopt tested money-saving ideas as soon as they become available.

"There are no drastic changes in prospect for the post-war home, and the public wouldn't be receptive if the dreams of post-war homes were to materialize. The post-war home will be better built and represent a better value than the pre-war home and will contain new comforts and conveniences, but it still will look like the sort of home the public knows and wants."

John B. Blandford Jr., Administrator, National Housing Agency: "It is my firm belief that the *fundamental decisions on post-war housing must originate with our communities themselves*. I believe our communities must decide how much and what kind of housing they need—acting in consultation with the *local citizens* who will live in the housing, the *builders* and workers who will produce it, and the *lenders* who will finance it.

"If federal assistance is desired—in planning or financing or any other phase—recommendations should be *submitted to Congress* and to the federal agencies involved, in accordance with our democratic procedures. It will then be for the *Congress to determine* the nature and extent of federal assistance."

Eric A. Johnston, President, United States Chamber of Commerce: "We favor the following principles—that *Congress looks to the construction industry* to eliminate its own peaks and valleys so far as possible and in that way to make its own contribution to providing useful employment, and does not expect that industry to stabilize our whole economy.

"That the federal government will not undertake any activities in the field of housing which will *compete with private builders* or interfere with the community's responsibility."

1. **Plan NOW for building up to 1,000,000 homes per year after war.**
2. **Rescind War Production Board restrictive Order L-41 just as soon as possible.**
3. **Keep FHA strong, efficient and ready to work constructively with private enterprise.**
4. **Private loan groups to organize broad national plan for insured home financing.**
5. **Demand Congress take Federal Government out of home-ownership activities.**
6. **Revise obsolete building codes and give full sway to technical progress.**
7. **Promote both home-ownership and private building of rental garden apartments for low income groups.**
8. **Reform local real estate taxing methods.**

Catalogs and How-to-do-it Information

1—HOW TO GET THE MOST FROM YOUR PORTABLE ELECTRIC TOOLS—This is the title of a special section in the new catalog just published by Skilsaw, Inc. Designed as a handy guide to greater production and longer tool life, this wartime maintenance manual is full of illustrations and valuable suggestions on the care and operation of portable electric tools. It also carries complete data on and working illustrations of the Skilsaw portable electric tools preferred in war production and construction.—Skilsaw, Inc., 5033 Elston Ave., Chicago 30, Ill.

2—THE WHY AND HOW OF HOME INSULATION—A small folder describes Gilman Cellulite blanket insulation, which is said to have the following advantages: light weight, weighing only 4 ounces per square foot; made of virgin cotton; easy to install; flame resistant and vermin-proof; safe to handle; does not absorb water; odorless; will not pack down; saves up to 30 per cent of fuel; fits any house; no priorities needed. Also included is a paragraph of instructions on how to install Gilman Cellulite.—Cellulite Insulation Sales Co., Gilman, Conn.

3—WARTIME INFORMATION FOR THE DELIVERY TRUCK OPERATOR—The title of a 54-page booklet which has just been issued by The Studebaker Corp. An outstanding feature of the booklet is that it provides delivery truck operators with the complete text of ODT 17, establishing wartime delivery restrictions, plus authoritative interpretations covering both the regulations and general permits issued under them. This material is further supplemented by a series of questions and answers on the entire subject of government regulations of wholesale and retail deliveries. Another section contains numerous suggestions regarding truck conservation and maintenance in wartime. It is informally written, applies to all makes of trucks and furnishes useful data on truck care, causes of tire wear, lubrication requirements, minor adjustments and operating economies.—The Studebaker Corporation, South Bend 27, Ind.

4—"HERE'S WHAT'S COOKING!"—A new folder put out to Heatilator dealers explores the market for this unit in relation to post-war homes and living comfort. Included are four attractive renderings of modern rooms of tomorrow, designed around this fireplace unit.—Heatilator, Inc., Syracuse 5, N. Y.

5—NOT HOUSES—BUT HOMES—This is the title of a booklet which has been written to describe the Homasote Precision-Built system of construction and to explain the difference between this and other methods of construction. Eight steps are listed in the planning and buying of a Homasote Home, and on the back page of the booklet is a 13-point summary of the story of Homasote Homes.—Homasote Co., Trenton 3, N. J.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department, (January, 1944)
American Builder,
105 W. Adams St., Chicago 3, Ill.

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

Numbers

Name

Street

City State

OCCUPATION*

*Please note that occupation must be stated if full service is to be given.

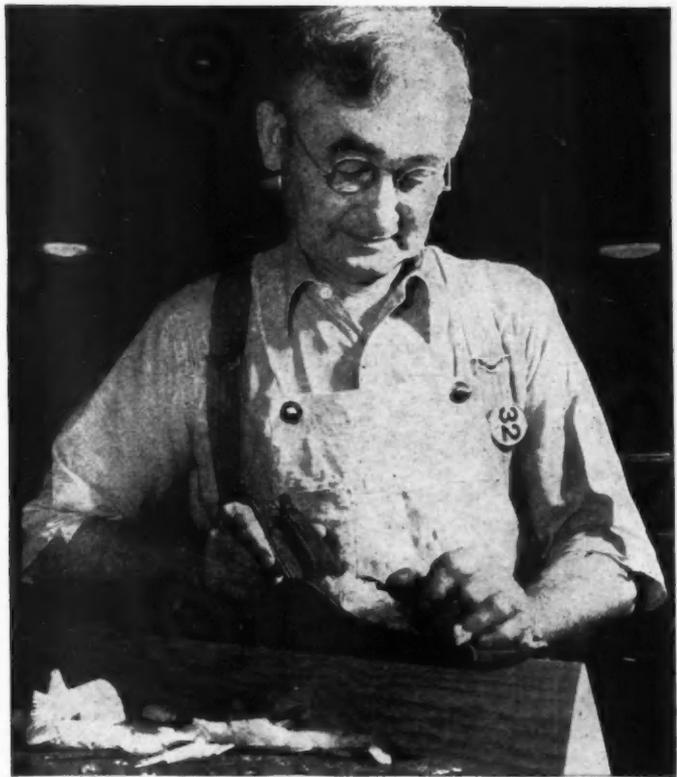


Photo by Office of War Information

Two "OLD TIMERS" still on the job

This aged worker and his Stanley "Bailey" Plane — both old enough to have been retired years ago — are on the job daily in a West Coast airplane plant. To this craftsman, working with a Stanley Plane is still a pleasure, — and all the more so because he knows his work is contributing to winning the war.

Hand tools are playing a very vital part in this mechanized war, — not only in building planes, tanks, and ships but also in maintaining them. The demand for Stanley Tools for war work is tremendous. That is why they are difficult to get and why it will pay you to take good care of those you have. Stanley Tools, New Britain, Connecticut.



1843 **STANLEY** 1943

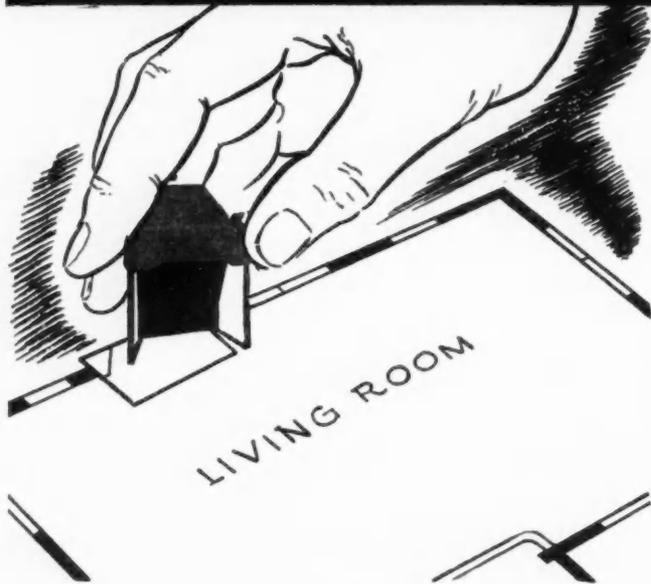
TRADE MARK



STANLEY TOOLS

"The Tool Box of the World"

Fitting precisely



INTO YOUR PRESENT BUILDING PLANS

Whatever the size or type of homes you will build they are going to have fireplaces — and Bennett Fireplace Units and supplies can contribute to faster, more economical construction and complete customer satisfaction.

Your choice of two models — the Fresh-air or the Recirculating Bennett Guaranteed Unit enables you to make sure of . . .

- (1) Smoke-free draft.
- (2) Generous, evenly distributed heat.
- (3) Elimination of cold floor-drafts.
- (4) Stopping the loss of heat from the rest of the house.

Those are outstanding sales advantages.

Now re-engineered for greater efficiency than ever before, the complete Bennett line will be in production *immediately* after removal of war restrictions.



THE BENNETT COMPANY
FIREPLACE DIVISION, NORWICH, N. Y.



BENNETT
Guaranteed
FIREPLACES
*** FLEXSCREENS**

*Reg. U. S. and Canada Pat. Off.

& CONSTRUCTION SUPPLIES

Building Products for the

New Glass Sink Replaces Pre-War Metal Fixtures

WARTIME saving of critical metals has resulted in the development of a new type of glass kitchen sink by a Bridgeport housing project manager, in cooperation with the Libbey-Owens-Ford Glass Company. To replace the cast-iron enamel-coated kitchen fixture no longer being manufactured, a sink of sanitary heat-tempered vitrolite glass is being used in apartments of the development. The new black or pastel-hued sink employs only one and three-fourths pounds of metal, exclusive of plumbing, as compared to 150 pounds in old-type metal sinks. The



STREAMLINED glass kitchen sink uses little critical metal, is available in black and colors.

fixture can withstand heavy blows and shocks because of strength imparted to the glass by the heat-tempering process, which is similar to that treatment given to metal to make fine steel.

Ease of cleaning the sinks will be another feature of special interest to the post-war home-builder. A damp cloth rubbed lightly over the surface eliminates stains and grease from the non-porous and non-absorbent surface. The new glass fixture is being produced in black and a wide range of pastel colors.

New Sink Mixing Faucet

TO enable builders and plumbers to make necessary repairs and replacements and to provide fixtures and fittings for war housing, Kohler Co. early in the war developed the "Win-the-War" line, to which it is adding from time to time as the needs develop.

The newest addition is the K-8685 sink mixing faucet with swing spout. Made of non-critical war materials it has 1/2-inch inside threaded couplings and a 5-inch spout. Working parts including Remov units are of brass. It is finished with a baked plastic protective coating developed to withstand the hardest use, whether in army bases, cantonments, hospitals or war housing.



MIXING faucet of non-critical materials.

for the Duration and After

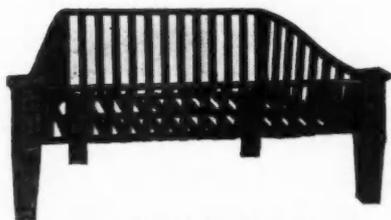
The K-8685 sink faucet is for use on sink backs, wall installations where sink is built into a counter top, and for replacements.

Combination Basket Grate

IN keeping with the general plan for redesign and re-engineering of the entire Bennett line, a basket grate has been developed by the Bennett Fireplace Co., Norwich, N.Y., to meet the present as well as future requirements of a combination grate.

The removable ends permit the use of wood in case the owner would like to have a log fire, but its general construction is for coal, with this adaptable feature.

A recent release of a very limited number enabled Bennett to supply those customers who had orders on file at the time limitation orders became effective. This is only one of several basket grates planned and in the process of development by Bennett.



REDESIGNED basket grate.

Non-Absorbent Waterproofing Compound

A NEW waterproofing compound call Hydrepel, scientifically prepared to close the smallest pores of the masonry surface to which it is applied, is now being manufactured by Hydrepel Products Co., Inc., 84 Fourth Ave., New York City.

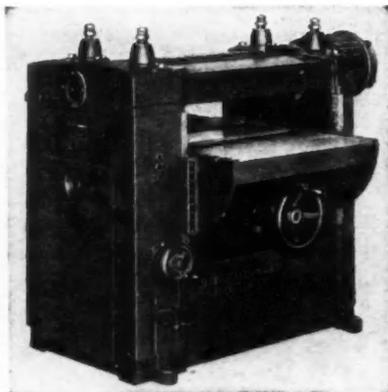
This product is applied by trowel to a thickness of approximately 1/8 of an inch, and when applied to the surface of new or old unpainted masonry floors or walls, forms a bond that will not peel, blister or flake. It may be used in cellars, vaults, poultry farms, bulkheads, sub-basements, dairies, laundries, and also places subjected to steam, fumes and high humidity.

Hydrepel, a gallon of which will cover approximately 15 square feet of surface, is stocked in red, green and natural, and is sold by leading dealers in builders', masons' and painters' supplies.

New 24" Cabinet Planer

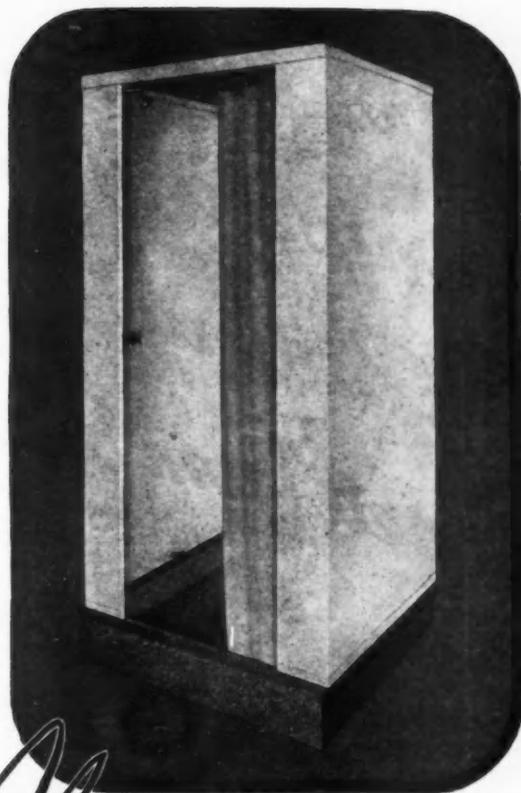
IN line with its program of redesigning its woodworking machines, the American Saw Mill Machinery Co. of Hackettstown, N.J., has announced its latest addition to this group of "modern designed" machines—an entirely new 24-inch "Cabinet Planer."

The main frame is one piece cored casting, totally enclosing the feed transmission and providing complete safety for the operator. The top section, supporting the cutterhead, chip breaker, pressure bar and two upper feed rolls, is also one piece, assuring unusual rigidity and enclosing all moving parts. A totally en-



MONARCH cabinet planer added to line of "modern design" woodworking machines.

(Continued to page 86)



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, waterproof 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.

1205 Rescoe St., Chicago 13, Ill.
21-45 Borden Ave., Long Island City 1, N. Y.
32 S. San Gabriel Blvd., Pasadena 8, Cal.



**Structural,
Reinforcing or
other Blding Steel
Shipped from Stock**

Write for Stock List—
your guide to over 10,000
different kinds, shapes
and sizes of steel for quick
shipment from ten plants.

Joseph T. Ryerson & Son, Inc. Plants at Chicago, Milwaukee, St. Louis,
Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City.

RYERSON

**FROM
EVERY
ANGLE**

**IT'S FASTER · SAFER
EASIER · CHEAPER
with A Mall SAW**

MODEL 80
CAPACITY 2½"

Cross cutting or ripping rough or dressed
lumber, also cutting metal, cutting and scoring
concrete, stone or tile with an abrasive wheel.

TIME AND EFFORT-SAVING FEATURES

1. Powered beyond ordinary requirements
2. Light in weight and easy to handle
3. Perfectly balanced for safe, one-hand use with greatest weight on long end of board—eliminating binding near end of each cut.
4. Quickly adjusted for depth and bevel cuts to 45 degrees.

Available for VICTORY Construction with 8" and 12" blades.
Cutting capacities 2½" and 4½". Write for full details.

MALL TOOL COMPANY
7737 South Chicago Ave., Chicago 19, Illinois

(Continued from page 85)

closed feed mechanism providing an infinite range of speeds, from 20' to 30' per minute, can be instantly controlled by operator with a conveniently located hand wheel.

Features of this planer are:

The bed casting in one piece with removable center bed platen; a foot pedal for quick feed release provided as a safety feature; feed rolls driven by means of chains and hardened steel sprockets; a three knife, round type, cutter head (four knife if desired) mounted in four precision ball bearings, two at each end, thus dividing the load between the bearings; a rotating index plate furnished at left of cutterhead, with an index pin for locating knives accurately when jointing or grinding; all main revolving parts operating in ball bearings; the lubrication by alemite pressure system; all controls centrally located for operator's convenience.

Provided with direct drive motors, 5 horsepower or 7½ horsepower, this planer possesses not only an attractive appearance, but a sturdiness and efficiency necessary to obtain the finely planed surfaces so much desired by the woodworking industry.

* * *

New Synthetic Shellac for War Uses

THE development of synthetic shellac has been accomplished, according to Arthur D. Little Laboratories. The new product will relieve the serious shortage of natural shellac, which is normally imported from India, but since Pearl Harbor has not been adequately available, even for essential uses. Mr. C. G. Harford, the inventor, stated that extensive practical experience reveals the new shellac as essentially a duplicate of the natural product, but surpassing it in some properties, such as adhesion to metal as well as wood and subsequent resistance to water. The synthetic shellac is made from available domestic materials. Mr. Harford previously developed processes for the manufacture of one of these raw materials, the corn protein zein, and has developed a number of new products in his special field of protective coatings.

The shellac is being manufactured under the name "Zinlac" by William Zinsser and Co., New York, and is available for essential wartime applications.

* * *

Prefab Farm Buildings

(Continued from page 67)

materials are needed to withstand not only the exposures of weather but the racking action of many of the buildings being dragged about the farm from one location to another.

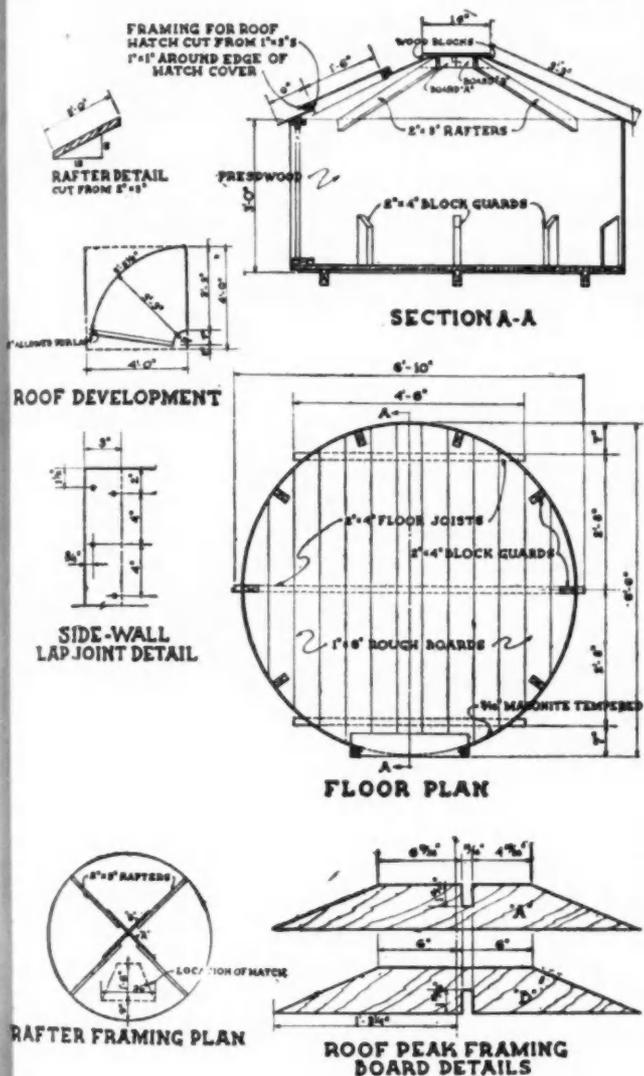
Most of the prefabbing of farm buildings by builders and others has developed since 1940. In other words, the activity is a war-born one which has proven profitable



ROUND hoghouse; working drawings on page 87.

to many carpenters and builders during the curtailment of normal home building. Outside competition has been slight, and the meeting of such competition is not difficult because local builders can usually under-sell industrial and mail-order buildings.

In general, the demand for buildings has proven to be in the order named: brooder houses, hog houses, hog



feeders, poultry feeders, grain bins, hog troughs, poultry houses, hay racks, and feed bunks. Mr. Darrow found that in his territory two or three types of hog and brooder houses about kept him busy.

* * *

Quick-on-the-Trigger Estimating

(Continued from page 59)

to be 6x6, 2x8 joists 16" O.C., 2x8 rafters 16" O.C., 1x4 clear porch flooring, No. 2 common roof boards, 3-ply tar and gravel roof, No. 1 W.P. Pine stairs 3/6 wide with 2x12 treads and stringers and 1x8 risers, 2x4 top and bottom rail with solid 1x6 partition between.

Tear down old porch.....	Nominal	\$ 20.00
206 lineal feet of 6x6 posts	@ \$.50	\$103.00
12 lookouts let into brickwork	@ \$ 2.00	\$ 24.00
(Remember this is a replacement and there is no necessity to do much masonry work here. The \$5.00 charge per lookout is only for new work.)		
270 Sq. ft. 2x8 floor joists 16" O.C.	@ \$.13	\$ 35.10
This does not include stair well opening		
300 Sq. ft. 2x8 roof rafters 16" O.C.	@ \$.13	\$ 26.00
(Figure same as joists as there is hardly any pitch)		
300 Sq. ft. No. 2 roof boards	@ \$.10	\$ 20.00
300 Sq. ft. 3-ply tar and gravel roof	@ \$12.50	\$ 25.00

(Continued to page 88)

I'M SELLING INSULATION FOR YOU!



ZONOLITE'S 3-WAY INSULATION

Ties in perfectly with Government Drive

In our government's urgent drive to conserve fuel for war needs, tremendous emphasis has been put on the need for insulating homes. There are many reasons why Zonolite is easily your best bet to get a fair share of the enormous volume. Not the least important of these reasons are (1) Zonolite requires a minimum of scarce labor; (2) needs no costly, unobtainable equipment; (3) gives you three types of insulation to feature as explained below.

1. GRANULAR FILL

Pours as easily as pop corn; flows around pipes, cross braces, etc. to make a complete uniform fill without tamping or blowing. No fitting, cutting or waste. It's fireproof, rotproof, verminproof, practically moisture proof. A "natural" for the great farm market. A 24-lb. bag covers about 17 sq. ft. 3" deep.

2. INSULATING PLASTER

Merely use Zonolite Plaster Aggregate instead of sand to get a plaster that has 3 times the insulating value of sand plaster, is many times lighter, has decided sound-deadening qualities and is highly resistant to cracking.

3. INSULATING CONCRETE

Instead of sand and gravel in concrete, use Zonolite Concrete Aggregate to make warm dry floors and walls for many industrial and farm buildings. Zonolite concrete is easy to install, permanent and a real money maker both for the contractor and his client. Get all the facts about Zonolite, particularly with respect to the opportunity it offers for getting into the tremendous farm market. Mail the coupon.

UNIVERSAL ZONOLITE INSULATION CO.
Dept. AB-1 • 135 S. La Salle Street
Chicago 3, Illinois
Prompt Shipments from 22 Factories

FREE WORK SHEETS
Mail Coupon at Right



Universal Zonolite Insulation Co.
Dept. AB-1, 135 S. La Salle Street
Chicago 3, Illinois

Please mail details on items checked

Farm Insulation Home Insulation

Insulating Plaster

Insulating Concrete

Name.....

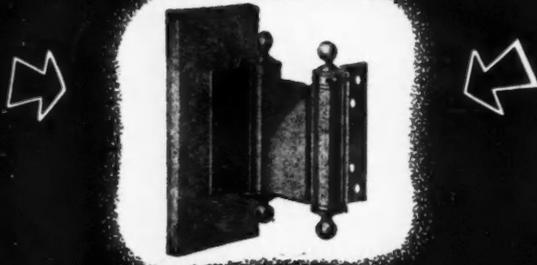
Address.....

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

SEE YOUR LOCAL LUMBER AND BUILDING MATERIAL DEALER



Why Builders Prefer Milwaukee "NU JAMB" ★ ★ SPRING HINGES ★



- Builders and architects, too, like the "NO HANGING STRIP REQUIRED" feature of the NU JAMB. More easily and quickly applied — offers more solid support — avoids the "give" of the old hanging strip (which often tore loose). Makes a more modern, attractive, longer-lasting installation that satisfies the builder, architect and owner.

- The NU JAMB is typical of the quality features in the COMPLETE MILWAUKEE BUILDERS HARDWARE LINE. Recommend MILWAUKEE for all building needs today!

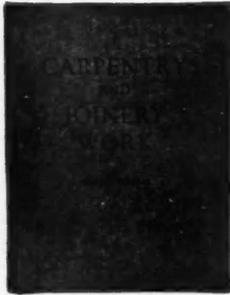
MILWAUKEE STAMPING COMPANY

814-B South 72nd Street
MILWAUKEE 14, WISCONSIN

CARPENTRY and JOINERY WORK

By Nelson L. Burbank

Formerly Instructor, Building Vocational High School
Cincinnati, Ohio



The new second edition has been thoroughly revised.

The manuscript was carefully checked by a former contractor and ex-editor so that this book combines the practical outlook with the author's trade teaching experience. The cardinal principles of modern residential construction are set forth simply and logically with the aid of many photographs and line drawings.

The Second Edition contains 90 revised pages with new illustrations and descriptions of new methods and materials.

The program of study as presented in this latest textbook for students of carpentry work involves class discussion, practical job work and related studies. These include Architectural Drawing, Plan Reading, Carpentry Mathematics, Business English, Applied Science, Civics and First Aid.

280 pages, illustrated, 8 1/2 x 11 inches. Cloth Bound, \$3.00

BOOK DEPARTMENT

AMERICAN BUILDER AND BUILDING AGE

39 Church Street

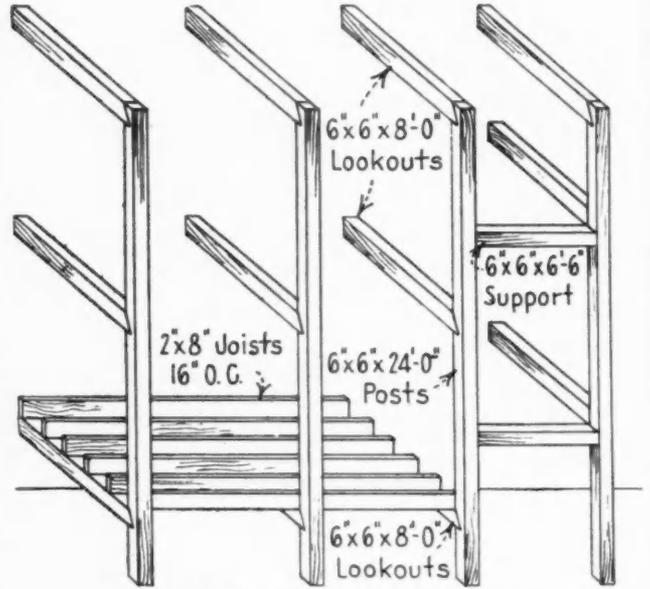
New York, N. Y.

(Continued from page 87)

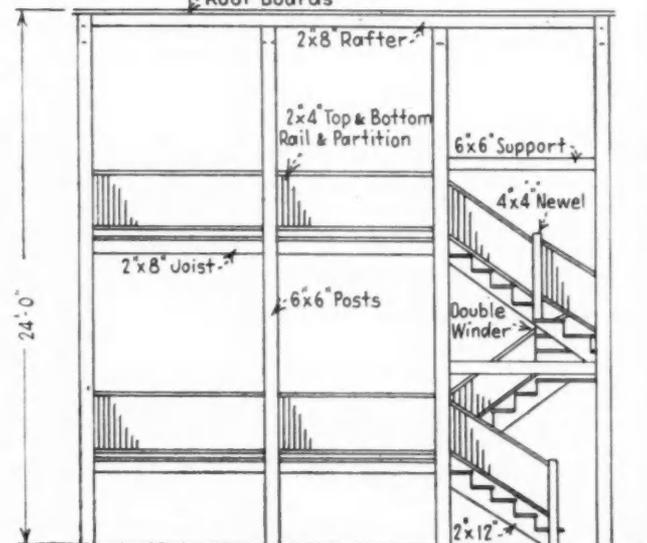
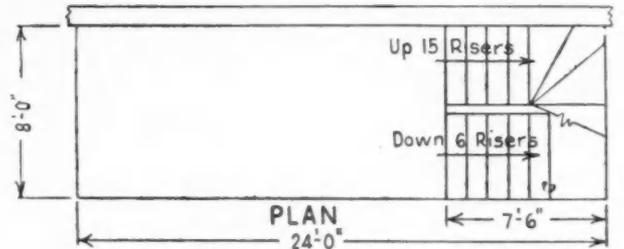
Although this roofing work is high priced here, it is well to remember that this is a very small amount to get a roofer out to a job.

270	Sq. ft 1x4 clear porch flooring	@ \$.20	\$ 54.00
67	lineal feet stair treads	@ \$.75	\$ 50.25
There are 19 treads 3/6 wide. See sketch. Not necessary to allow extra for length of winders			
1	Double winder	@ \$30.00	\$ 30.00
110	lineal feet 2x4 top and bottom rail with 1x6 partition solid between	@ \$.80	\$ 88.00
10	4x4 newel posts	@ \$ 2.00	\$ 20.00

Total selling price \$495.35



FRAMING sketch for figuring 2-story porch.



ELEVATION

PLAN and elevation for 2-story porch.

There is no reason to figure a foundation for this porch as it is a replacement and there are undoubtedly concrete blocks under the old posts. Gutters and downspouts have been omitted. The important thing to keep in mind as you start to use this system in your estimating is to be

sure and allow for each step in the operation. The following sq. ft. or unit prices, plus the list published last month, were used for these estimates.

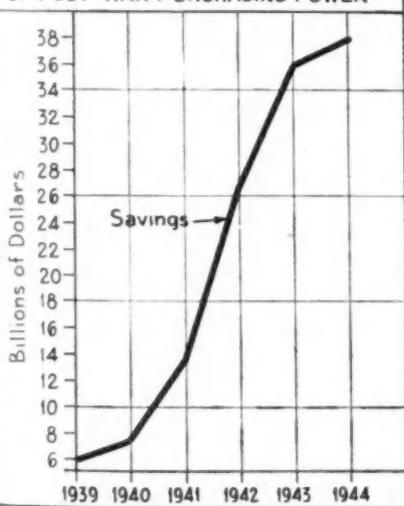
	Material and labor
Miscellaneous	
8"x12"x12" concrete blocks	each \$ 1.50
4x4 timbers on new work	per lineal foot \$.30
4x6 timbers on new work	per lineal foot \$.40
6x6 timbers on new work	per lineal foot \$.50
8x8 timbers on new work	per lineal foot \$.65
8x8 timbers on new work	per lineal foot \$.85
1x4 clear fir porch flooring, per square foot	.....\$ .20
90 lb. roll roofing with paper under, per square	.....5.00
4" boxed in cornice with 4" fascia and 4" soffit, per lin. foot	.....\$ .25
Common soft pine porch steps with 2x12 treads	
1x8 risers, and 2x12 stringers. Per lineal foot tread	.....\$ .75
2x4 top rail and 1x4 knee rail. Per lineal foot	.....\$ .30
2x4 top and bottom rail with 1x6 partition between. Per lineal foot	.....\$ .80
4x4 newel posts, not over 4/0 long. Each	.....2.00
1x6 vertical partition. Per sq. ft.	.....\$ .20
1x6 vertical partition with horizontal 2x4 studs and 1 vertical stud every 4/0. Per sq. ft.	.....\$ .25
Letting lookouts into a brick wall—new work, each	.....\$ 5.00
Letting lookouts into a brick wall—old work, each	.....\$ 2.00
Winders on stairs	each \$15.00
(Note that on porch job we charged for a double winder because the steps take a full 180 degree turn)	
16 mesh galv. porch screens (either mill made or carpenter made). Per sq. ft.	.....\$ .40
Remove old porch 1 story to be torn down	.....\$10.00
Remove old porch 2 stories to be torn down	.....\$20.00
Remove old porch 3 stories to be torn down	.....\$35.00
3-ply tar and gravel roofing. Under 5 squares. Per square	.....\$12.50
3-ply tar and gravel roofing. Over 5 to 10 squares. Per square	.....\$10.00
3-ply tar and gravel roofing. Over 10 squares. Per square	.....\$ 8.00
Porch check rail windows complete. Not larger than 30x24 or 28x28 glass size. Each	.....\$18.00
Rear combination door complete including frame trim and hardware	.....\$20.00
1x6 or 1x8 No. 2 sheathing lumber or roof boards. Per sq. ft.	.....\$ .12
6" bevel siding with paper under	.....Per sq. ft. \$.16
1x6 clear fir drop siding	.....Per sq. ft. \$.18
1x4 clear Y. P. Finish flooring	.....Per sq. ft. \$.20
Rock wool batts 3" thick	.....Per sq. ft. \$.10

1944 Building and Beyond

(Continued from page 40)

it is a fair guess that even after making full allowances for these factors, a national income level of \$120 billions at approximately 1942 prices would assure the construction industry from seven to eight million more commercial prospects for homes priced to sell from \$3500 to \$4500 than we had in 1929. So great is the significance of a high national income to the home building industry!

HUGE WARTIME SAVINGS CONSTITUTE IMMENSE RESERVOIR OF POST-WAR PURCHASING POWER



NEXT to the spectacular increases in production and national income during the war, the outstanding economic feature of the war years is the huge accumulation of savings.

The war has created a "new market" for homebuilding that did not exist in 1940. The Dept. of Labor's average hourly wage rate in factories has risen from 67 cents an hour in 1940 to nearly \$1.00 an hour in the second half of 1943 and this average conceals much higher rates in some industries. Today, at these new rates and with long hours and heavy overtime, many a factory worker could readily afford a new home at \$6000 or even higher. After the war, however, hours will shorten and overtime vanish. But the high hourly rates will very likely prove permanent, thus giving millions of fac-

(Continued to page 90)



Built to Stand Continuous Use on Heavy Construction

Speedmatic

ELECTRIC HANDSAW

Big operators never think of an electric handsaw as a substitute for an ordinary handsaw. They think of it as a power tool. And they plan their jobs so that these power tools are in operation every minute of the day—turning out mass production on the job and insuring a much higher construction rate per man.

Of course, the Porter-Cable SPEEDMATIC Electric Handsaw can be used as an ordinary handsaw and it will give you much faster cutting when used that way. But to know the full possibilities in SPEEDMATIC, plan the job so that it can be kept cutting every minute of the day. It's built to take that sort of sawing. The extra capacity motor with the smooth, non-jam helical gear drive (that delivers more power to the cutting edge) both guarantee that SPEEDMATIC can keep going at top speed from morning to night, with a minimum of maintenance expense.

More—SPEEDMATIC'S balanced, one-hand grip, and the broad shoe, make it so easy to use that the operator doesn't tire and slow down, either.

FREE DEMONSTRATION

PORTER CABLE MACHINE CO.

1721-1 N. Salina St. Syracuse, N. Y.

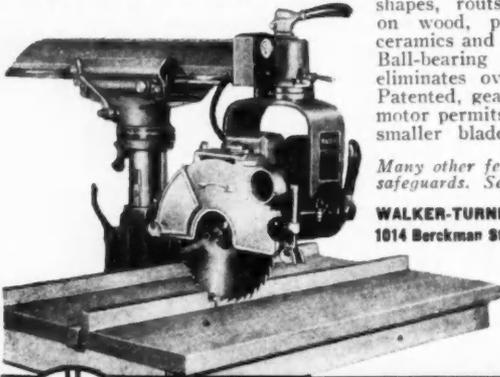
Don't take our unsupported word for what a SPEEDMATIC Saw will do for you. Ask for a demonstration—no charge, no obligation. Just 'phone the local Porter-Cable man or dealer (name in classified 'phone book), or drop a postcard for full details.



**CUT THE BIG JOBS DOWN
TO YOUR SIZE
WITH
Walker-Turner
Radial Saw**

Don't let your present capacity stop you from bidding on those "big jobs". By adding a versatile Walker-Turner Radial Saw to your shop, you produce greater volume, save time and manpower, meet the close scheduling demanded by war contracts.

One operator with this machine outproduces several without it, turning out work of much greater accuracy. It crosscuts, rips, dados,



shapes, routs and tenons—on wood, plastics, metals, ceramics and other materials. Ball-bearing sliding ram eliminates overhanging arm. Patented, geared, shockproof motor permits deep cuts with smaller blades.

Many other features and ample safeguards. Send for literature.

WALKER-TURNER COMPANY, INC.
1014 Berckman Street, Plainfield, N. J.



MACHINE TOOLS

DRILL PRESSES — HAND AND POWER FEED • RADIAL DRILLS
METAL-CUTTING BAND SAWS • POLISHING LATHES • FLEXIBLE SHAFT MACHINES
RADIAL CUT-OFF MACHINES FOR METAL • MOTORS • BELT & DISC SURFACERS

3 1/2-S TILTING KWIK-MIX



**End discharge
Air-cooled engine
Light weight
Welded construction**

**Anti-friction bearings
Spring mounting
High speed trailing
Write for Bulletin AB**

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

(Continued from page 89)

tory workers a sharply higher annual income than before the war, provided they obtain enough hours and weeks of employment—which most of them would at a \$120 billion national income level.

These workers would then for the first time be able to buy new homes, not in the \$5000 or \$6000 price class, but from \$3500 up to perhaps as high as \$4500. If the home building industry can turn out a satisfactory house within those price ranges—and I believe it can—the new market will grow to comprise millions of families as a permanently higher factory-wage level always sooner or later raises the income level of millions of non-factory workers besides.

A true mass market for housing must revolve primarily around the millions who have benefited economically from the war and who will continue to benefit provided the national income remains high enough. Hence, a big part of the future belongs to the low-cost builder.

We now come to savings. Together with the huge increase in production, the spectacular rise in savings is the most striking economic development of the entire war period. Here is how savings of individuals and unincorporated businesses have skyrocketed:

1939	.....\$ 6,000,000,000
1940	..... 7,500,000,000
1941	..... 13,700,000,000
1942	..... 26,900,000,000
1943	..... 36,000,000,000 (approximate)
1944	..... 38,000,000,000 (rough estimate)

All the above savings (which include a certain amount of "reduction of indebtedness") are by no means liquid enough to be readily available for buying homes, but an astonishingly high percentage is, being in the form of war bonds, bank deposits, and currency. If we add corporate savings—a considerable part of which will be available for industrial modernization and construction after the war—it is likely that the total accumulated savings of the nation in more or less liquid form will have reached the immense sum of \$100 billions by end of 1944—an amount that exceeds the total national income of the boom year 1929 by almost \$20 billions.

Danger of Inflation

Here, therefore, is an immense reservoir of commercial purchasing power to finance post-war backlogs of deferred demand, including homes. But this reservoir is by no means without its perils. It has dangerous inflationary possibilities, because when we again produce homes, cars and other backlog-goods after the war, we pay out wages, salaries, and profits at the factory and to salesmen, retailers, and others who distribute them and thereby produce the purchasing power to buy these goods. If this huge reservoir of savings then comes into the picture to bid for these goods (as it will of course) we have essentially two units of purchasing power bidding for one unit of goods produced. As a result, there will be a powerful impulse to raise prices which could readily and sharply check volume unless stern restraint is exercised, a restraint which must definitely include a certain amount of governmental price control and rationing after the war, little as we may relish the thought.

In the absence of restraint, we would be very likely to repeat the experience of the first years after World War I. Here is approximately what happened in the construction industry right after the armistice:

	1914 (last pre-war year)	1919 (first post-war year)
Construction in dollar volume.....	100	161
Prices (construction costs).....	100	234
Construction in physical volume.....	100	69

Thus, construction in dollar volume in the first post-war year was 61% above 1914. But this didn't provide many jobs or profitable volume to the manufacturers, dealers, and contractors of the building industry because the increase was wholly "wind" reflected by a construction price level 134% higher than before the war. The physical volume of construction was only 69% of 1914—that is, 31% below pre-war volume.

It therefore became an economic necessity for the great deflation and severe depression of 1921-22 to intervene to

get building costs and the general level of prices down to a basis at which people were again able and willing to build and do business. A similar deflation sometime in the post-war years would spell catastrophe to private enterprise and the best way to avoid such a deflation is to prevent inflation, in other words, to sternly hold in check the urge to raise prices.

Building costs of both labor and material have risen sharply, but semi-prefabrication at the site and construction of a large number of houses at one time will provide offsetting factors for mass housing. Nevertheless, the entire cost of home ownership must be studied as never before. The fact remains that at no time since 1925 have we as yet built as many new homes as in that year when 937,000 were erected, all by private enterprise. In the best year since, in 1941, when the national income and population were both materially larger than in 1925, we built only 715,000 new homes and 95,740 of these were publicly financed. The Housing Census throws further light. The percentage of American families that owned their own homes dropped from 47.8% in 1930 to 43.6% in 1940. This is a warning that home ownership must be made more attractive thru better homes for less money and on easier terms, and homes must be aggressively sold. Million-homes-a-year don't grow on bushes. They must be worked for, and hard, by the entire industry.

The transfer of some part of the burden of municipal taxation to other shoulders than homeowners, and a reduction in interest rates on the mortgage could help materially. In its October issue, the *American Builder* took the lead by saying: "The spread between the present low cost of money and the 4½% to 6% charged by home lending institutions is too great, especially when the home mortgage is guaranteed by a government backed insurance fund."

Million Homes a Year Calls for High Income

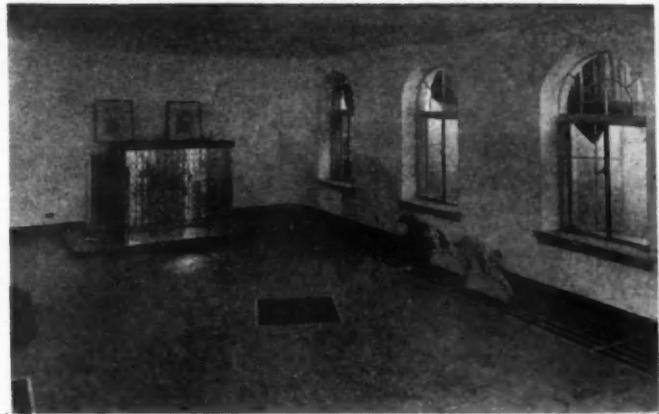
A million homes a year is a dream that can be converted into reality, but only if a satisfactory level of national income is maintained, inflation is held in check so houses can be built and financed at low cost for the waiting millions with only moderate incomes, and provided psychological factors remain "right."

The physical need for homes is immense. At least 1,400,000 homes which normally would have been built in 1942, 1943, 1944 by private enterprise for new families alone have remained largely unbuilt in the war years and constitute a pressing backlog of deferred demand. There was no surplus of homes left over in 1940 from the building boom of the Twenties as is clear from the generally normal vacancy ratios of that year. We still need at least 520,000 new homes a year currently to house new families and make good the loss from fire, flood, etc. On top of this is the ever growing need for a replacement market. If we allow as high as 75 years for the average life of the American home, it would require 500,000 new homes annually to replace the country's 37,000,000 dwelling units. The pressing need for replacement is spectacularly highlighted by statistics of the Housing Census. For instance: Over 23% of all our homes were built before 1900 and only about 40% of American families live in homes built since the First World War. Over 14,300,000 homes lack bathtubs or showers and almost 20,000,000 homes—a great many of them in the cities—have no central heating.

Moreover a new factor has come into the picture since 1940 that strongly favors single family house construction. This is the immense increase in the birthrate that has followed the great number of wartime marriages. The number of births has skyrocketed as follows:

1939.....	2,265,588
1940.....	2,360,399
1941.....	2,513,427
1942.....	2,807,445
1943.....	3,125,000 (estimated)

This bumper crop of war babies—despite the transient nature of the increase—calls for a great post-war increase (once families are reunited again) in the type of homes where children can best be raised, that is, in individual-



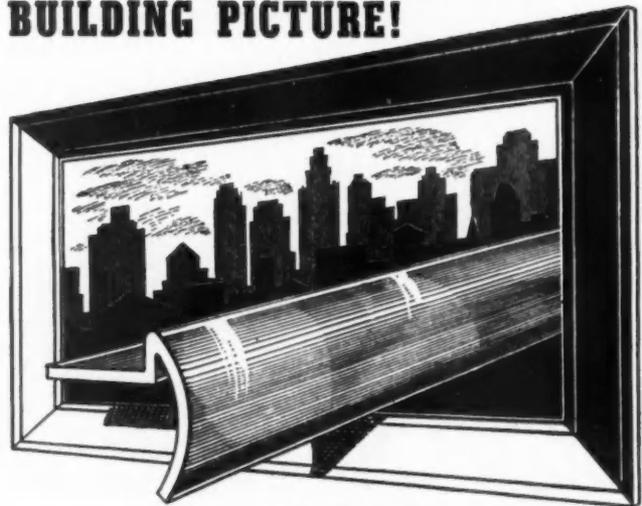
You can do a lot with *Tile-Tex*

Today's restrictions on construction still make it possible to use *Tile-Tex* asphalt tile in recreation rooms, kitchens and hallways where the cost of the installation does not exceed \$200.

Here's an opportunity for you to keep busy with *Tile-Tex* on work of this type. Home-owners everywhere are interested in modernizing within today's limitations. Write today for "Floors that Endure" and the name of the nearest *Tile-Tex* Contractor.

The *Tile-Tex* Company CHICAGO HEIGHTS, ILLINOIS

FIRST CHOICE *throughout the* BUILDING PICTURE!



Wherever smart, modern floor and wall coverings are used, B & T metal trims trademarked **CHROMEDGE** are the leading choice as the finishing touch of protection and eye-appeal. (Several rolled metal shapes are still available for current needs, from stocks existing before B & T turned to war production. Write for details.)

The B&T Metals Company
COLUMBUS 16, OHIO

Two Worlds...

TODAY the world is at war. Tomorrow the world will be at peace.

But—since we can live in only one world at a time—war needs must come first. War has first call on anything and everything vital to Victory. Today, Tylac quality, durability, adaptability and ease of installation make it the logical choice for innumerable wartime applications.

Tomorrow, however, Tylac will again be "at home" to play its part in bringing brightness and beauty to American homes and commercial establishments. Now is the time to plan your future as a dealer for an *even better* postwar Tylac.

Tim Tylac

LOOK TO TYLAC FOR BRIGHT NEW WALLS IN THAT BRIGHT NEW WORLD OF TOMORROW

TYLAC COMPANY
MONTICELLO, ILLINOIS
MANUFACTURERS OF ENDURING-MODERN WALL COVERINGS

Comets IN AIRCRAFT PLANTS

Mighty aircraft plants rely on Comets for speedy, accurate cuts, hour after hour, month in, month out. Emergency service. Comets were made for it. You'll want a Comet after the War.

THE COMET Senior

CONSOLIDATED MACHINERY & SUPPLY COMPANY, LTD.
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(Continued from page 91)

family homes with a plot of earth around them, away from the congested areas of cities.

But it is not only in the field of new construction that the war is building up heavy backlogs of deferred demand. The same applies to modernization, alterations, and repairs and in the residential field alone a backlog of between two and three billion dollars will exist by end of 1944.

Finally, we come to perhaps the most important factor of all in determining the volume of post-war construction—the psychological factor. Even if a person has a satisfactory income and ample savings and the housing industry is able to offer him an acceptable home at his pocket-book level, it still does not follow that he will either build or buy. He will do neither if he feels his job or income are insecure. Nor will the speculative builder erect homes, if he feels he may not be able to sell them at a profit. Hence confidence in the future—both consumer-confidence and business-confidence—are of the most vital importance.

Fear of a great deflation and the shadow of depression can halt the intention to build dead in its tracks. Fear of governmental policies that threaten the security of property, profits, jobs, and savings, can paralyze the desire to build. Fear of a violent inflation may stimulate a rapid flight of cash into real estate and produce a violent, short-lived, excessively-speculative building boom that will be but the prelude to collapse.

Public construction of the kind we have always had, is of course necessary if we are to have sufficient total volume to insure that the construction industry will do its full share in providing jobs for high-level employment and a high national income. But every dollar spent on public construction should, wherever possible, *actively encourage—not discourage*—several dollars of investment in private construction and secondary private expenditures.

Public Construction Should Supplement Private

An example is the public construction in the Twenties made necessary by the coming of the motor age. It has been estimated that federal, state, municipal and other governments spent as much money in building the right of way for the automobile to run on—the streets, roads, highways, approaches, bridges, etc.—as the manufacturers spent in producing and selling the cars. But every dollar of such public construction resulted in the Twenties in the outflow of many additional private dollars as the automobile revolution led to the great building boom which in its turn stimulated a vast subsidiary flood of private expenditures.

The automobile revolution—in fact the entire rapid-transit revolution in which we live, which today includes the airplane—resulted in the Twenties in a spectacular outward thrust of population from the congested centers of cities built in the horse and buggy age to the periphery and beyond where people can breathe and live in natural surroundings.

This elemental centrifugal thrust has by no means run its course. On the contrary, it barely got started in the Twenties and was immensely retarded in the Thirties by the depression. Dammed up by depression and war for almost two decades, it will be ready to surge forward again with renewed force after the war, but, from now on, it must be aided and implemented by a far more thorough reconstruction of the still very unsatisfactory and obsolete approaches between the places of work and shopping centers on one hand and the periphery, suburbs, and country-side on the other.

Here in this type of reconstruction so badly needed to give fulfillment to the rapid-transit age, is a proper field for public expenditures that could so change land values and stimulate the flow of private capital into construction that one can almost say that, given this type of reconstruction, the housing problems of all but a rather small irreducible minimum of the American people would fairly rapidly solve themselves by the ordinary processes of private enterprise. Always provided the national income remains at a level high enough to give people the

means with which to buy homes priced in line with their pocketbooks.

In other words, let public construction be confined mainly to accelerating and implementing the fundamental outward thrust of population to the periphery of cities and out into areas where people can live naturally, and private enterprise will see to it that the homes are built where the people want to live.

* * *

Precut Framing—

(Continued from page 61)

is to be used, count the number of runs from an examination of the floor plan on which the logical placing of braces can be determined—and list one bundle for each run of bracing required. This, plus a tally of lumber for sole and upper plates, is the complete story for walls.

Of several methods for counting the exact number of studs, the following has been found simple:

1. Add up the linear footage of all walls and partitions and convert this into the number of studs required if there were no wall openings (three-fourths of the linear footage is the number of studs spaced on 16" centers).
2. Add to this the studs required for triple-studs at corners and double-studs at partition intersections.
3. Subtract the number of studs replaced by door and window openings.

The next article on precutting will show the savings possible, provide further information on recently completed jobs.

* * *

Viva Mexico!

(Continued from page 65)

made items which have all but disappeared in the country where they are manufactured, why, our Mexican neighbor just goes out and buys 'em, sans forms, sans restrictions, and sans days of waiting and interviews with the Mexican counterpart of the WPB, OPA, NHA, and FPHA.

If deliveries are required, the material is loaded, taken to its destination and dumped off American-made trucks that sidle up to the curb on unrationed tires with a tankful of unrationed gasoline.

To be sure, the Mexican believes in the destruction of the Axis. He wants his Four Freedoms, too. But he has a Fifth Freedom—Freedom to Build—and he isn't waiting until peace comes again to enjoy the unmatched thrill of tearing down an old hulk of a building and replacing it with a new one or to open up a whole new subdivision development of high, medium or low-priced homes where there were only open fields before.

One sees many American-made products, and American materials. There is speculation as to whether these are the result of some lend-lease arrangement.

The architectural trend of the new homes of Mexico City is definitely influenced by a renaissance of the Spanish-Colonial designs imported by the Conquistadores. Virtually no lumber is used except for forms, doors and frames, and the latter are made from native cedar and pine.

Floors are of beautiful tiles, laid in squares of about 8" x 8". Bathrooms are large, ornate and equipped with the last word in enamel ware. Wrought iron is used freely in staircases and entrances. Frequently seen along stairways in the higher priced homes is a strip of tile 3' or 4' wide running the whole length of the stairway with small tile of variegated color and design used for trim. Most large homes are fenced. Main entrances are ornately designed in a soft brown volcanic rock which is easily worked and chiselled by hand labor. Some entrances bear lettering above the doorway wherein the owner of the home may have had cut into stone his private motto or lifetime slogan.

The universal structural material for homes in Mexico City is a large common brick about 5" x 12" which is laid in a coarse mortar bond about an inch thick. Exteriors are covered with colorful cement stucco while interiors are uni-

(Continued to page 94)



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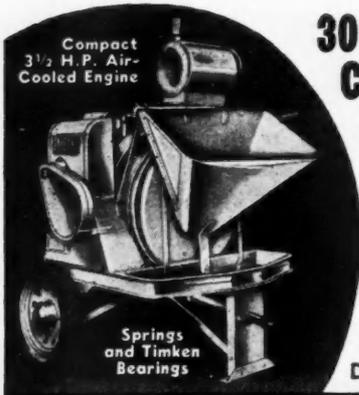
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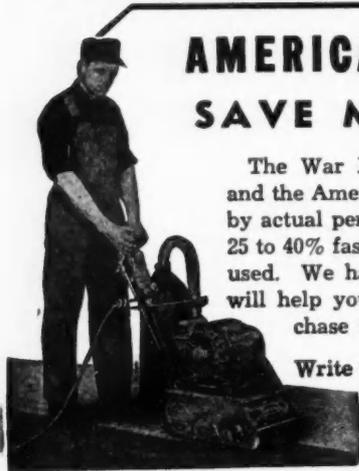
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(Continued from page 93)

versally plastered. The Mexican masonry craftsman is a patient, artistic individual who spends hours to mold and form the most delicate and intricate designs and lines. The result of his patience and care is a decorative beauty seldom seen in homes north of the border. He is aided by the high, dry climate and the almost total lack of rainfall for six months out of the year. This latter factor helps account for the widespread use of the highly porous brick and plaster.

The interior arrangement of rooms bears little similarity to the newer houses in our country and none at all to our firmly established Colonial design. Swimming pools are a common, rather than an unusual sight, even in homes costing less than \$10,000. Ceilings are high. Generous use is made of glass, almost all of which is set in steel frames. Halls are large, closets are abundant, living rooms are sometimes set down three or four steps and entirely removed from other parts of the house. In one interesting home in Cuernavaca, a health resort 45 miles southwest of Mexico City and a mecca for *Norte Americanos*, priced at about \$16,000, the owner had placed a semi-circular bar made of rare magnolia and cherry woods in his large entrance hall. From here one stepped down three steps to a commodious living room with beamed ceiling, a large fireplace and a wide expanse of glass that permitted a view out across the swimming pool to the rolling hills beyond. In a corner of his lot was a two-car garage and servants' quarters. Directly off the living room were two bedrooms, each of comfortable size.

Again from the entrance hall more steps led up to the dining room, kitchen and another bedroom. The picture is complete when a six-foot high brick fence is placed around the lot about 100 x 200 and a winding flagstone walk leads from gate to entrance.

This is the first time I had seen a bar in an entrance hall and a kitchen and dining room on the second floor.

There just doesn't seem to be much rhyme or reason to such layout. But they're beautiful and livable and, size, price and appointment considered, belie description.

The apartment buildings in Mexico City rarely go beyond five stories except in the case of new hotels which run up to ten or twelve floors. The town abounds with new apartments, the reason apparently being that most Mexican families of the middle class are lifetime renters, and despite the huge number of new buildings it is not an easy matter to find a new place to live. Mexico City is enjoying a rapid growth in its population—it is estimated that 1,500,000 people now reside there; also it has become the new home of thousands of European refugees, many of whom have immigrated from Spain since the beginning of the war.

In its apartment buildings, new hotels, office and government buildings, as well as in such small commercial buildings as stores and shops, the architectural trend swings sharply away from Spanish-Colonial and goes modern in one fell swoop. Sharp corners, angles, rounded roof overhangs and awnings are common. Sunlight can be let in abundantly or shut out when desired and here the architect gives full play to his artistry with mosaic, tile, plaster, brick, cement, and soft volcanic rock. The result is a welcome contrast to the sturdy standardization which characterizes the average commercial or apartment building of the United States. Nevertheless the interior arrangement of large office buildings in downtown Mexico City is very similar to our own newer twelve- and fifteen-story office buildings.

It is in the homes, the apartments and small commercial buildings that the great change in design and arrangement is accented.

For a builder who wants to get an eyeful that will thrill and astound him nothing could be more refreshing and inspiring than a trip to this mecca of building freedom. Here, in a country also at war, he will see the outstanding results that can be accomplished by private capital, private architects and engineers, private contractors and material dealers, who are permitted to do a creative job and are unencumbered by an ever-increasing amount of needless red tape, regulations and restrictions.

And he will simply be astounded at the quantities and kinds of critical items "Made in the U.S.A.," unrationed and unrestricted, which can be had whenever one is willing to match his desire with the price of acquisition.

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Rental Homes for Tomorrow's Town

(Continued from page 58)

The construction is brick veneer on wood framing. The roof is of slate. Second floor ceilings are insulated with rock wool. The windows are screened and weatherstripped. Heat control is by outside controls, and coal stokers are used. The Superintendent, therefore, is in control of heating at all times, it being regulated according to outside temperatures automatically.

Normandy Village was built under Title VI, Section 608 of Federal Housing Administration with a 90 per cent loan. The apartments are 100 per cent rented, and the whole property is owned by Normandy Village, Inc., although the building company was Westlake Homes, Inc., who also built forty houses for sale in 1942 in nearby Orchard Park.

An interesting comparison has been made between the Normandy Village project and a Public Housing project built but a few miles away. The cost of the Public Housing job was about \$6000 per unit, whereas the cost of the privately built Normandy Village project was about \$4000 per unit. These figures go to show the soundness of private building as against public works in the housing field.

The arrangement and shapes of the six buildings in Normandy Village are such that all apartments receive sunlight, and have maximum views from living room windows. The two end front buildings have 20 apartments each. The two center front buildings have 16 apartments each, and the two buildings farthest away from the public highway have 12 apartments each. Cement walks lead around the buildings, connecting them all together as well as with the entrance to the garage court. At both sides of the garage entranceway there are storage rooms for such things as screens, baled scrap paper, extra garbage cans, garden equipment, and the like.

Many Modern Features

The two-bedroom apartments occupy approximately 725 square feet, and the one-bedroom apartments have about 590 square feet. The two-bedroom apartments have a closet in each bedroom, a hall linen closet, and a cloak closet off the living room. The first floor two-bedroom apartments, because of the stairway leading to the second floor, have the cloak closet located in the corner of the living room. The second floor two-bedroom apartments, however, because the entrance doorway at the top of the stairs is located at this point, have their cloak closets located off the hall and taking up part of the kitchen.

The kitchens are arranged differently because of the stairways, although there is the same amount of floor area available in either case. There is space in both types of kitchens for informal eating. While the kitchens and baths are located one above the other, there is no front or back side to any building. The outside entrance doorway to a second floor apartment is located on the opposite side of the building from the entrance to the apartment directly below it. Where two entrance doorways occur beside each other, they both belong to either first or second floor apartments.

The one-bedroom apartments, both up and down, have dinettes at the end of the living room. A small broom closet in the corner of this area backs against the side of a linen closet which is reached from the small hall connecting the dinette, bedroom, and bathroom.

Materials and equipment used in Normandy Village include Minneapolis-Honeywell outside temperature controls, Stokol bin feed stokers, Electrolux refrigerators, Rose gas ranges, Interlock-weather stripping, wood gutters, galvanized Tonken iron leaders, U. S. Gyplap sheathing, National Gypsum rock lath and plaster. Bathrooms have tile floors and wainscots, and plumbing fixtures are by Standard Sanitary. Bell and Gossett forced hot water heating systems with H. B. Smith boilers are used, and clear red oak is used throughout for flooring. Floors in kitchens are 5/8 inch plyscord over wood sub-floor, with standard grade linoleum for finish floors and walls, and extra heavy linoleum on counter tops, trimmed with stainless steel. Hardware is Corbin solid brass and Stanley butts. Howell upward-acting doors are used for all garages, with Russwin hardware.

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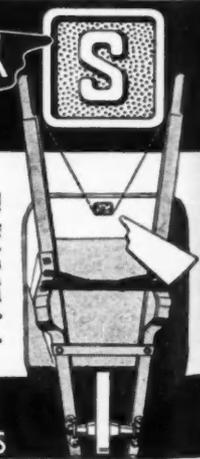
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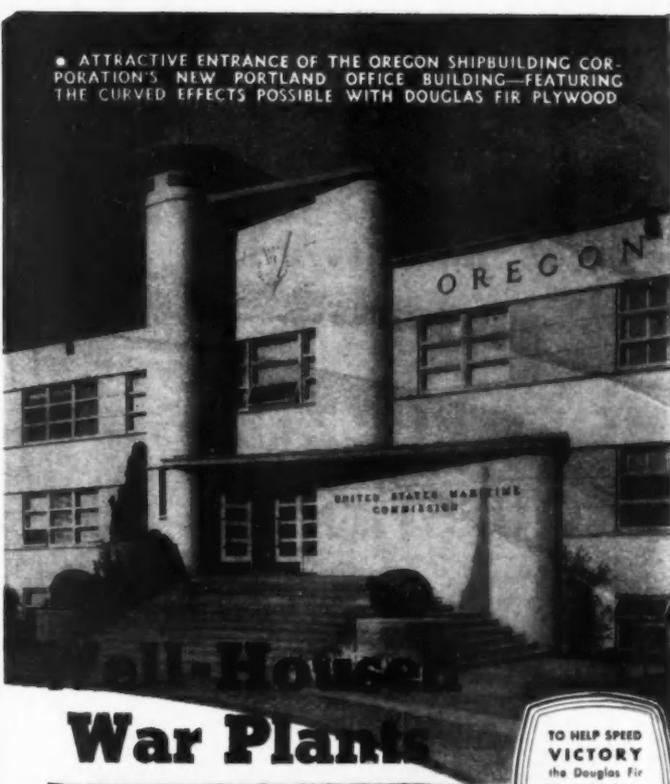
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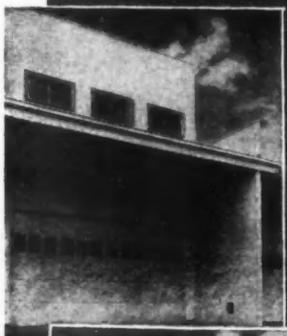



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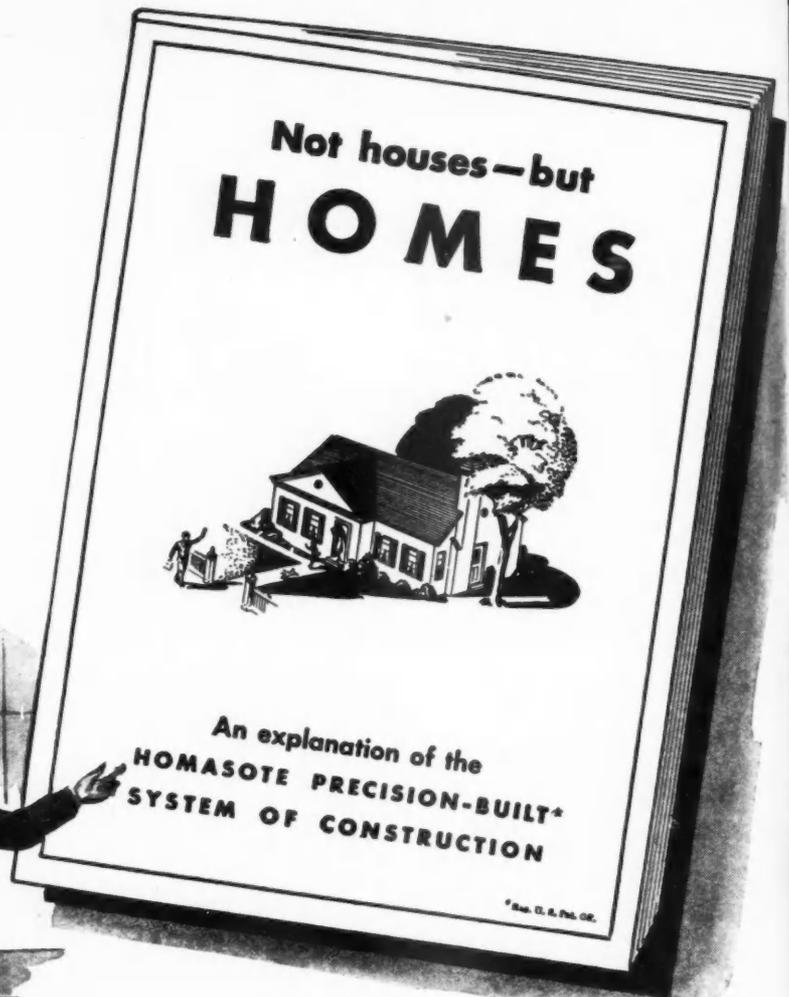
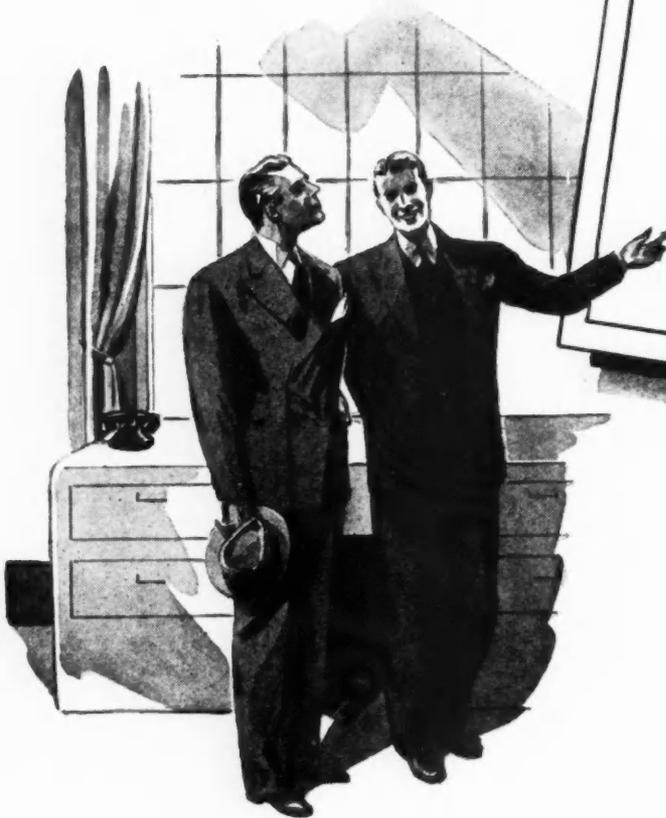
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