

NS

AMERICAN BUILDER

TECHNOLOGY DEPT.

NOVEMBER 1943
PRICE 25 CENTS
30 CENTS IN CANADA

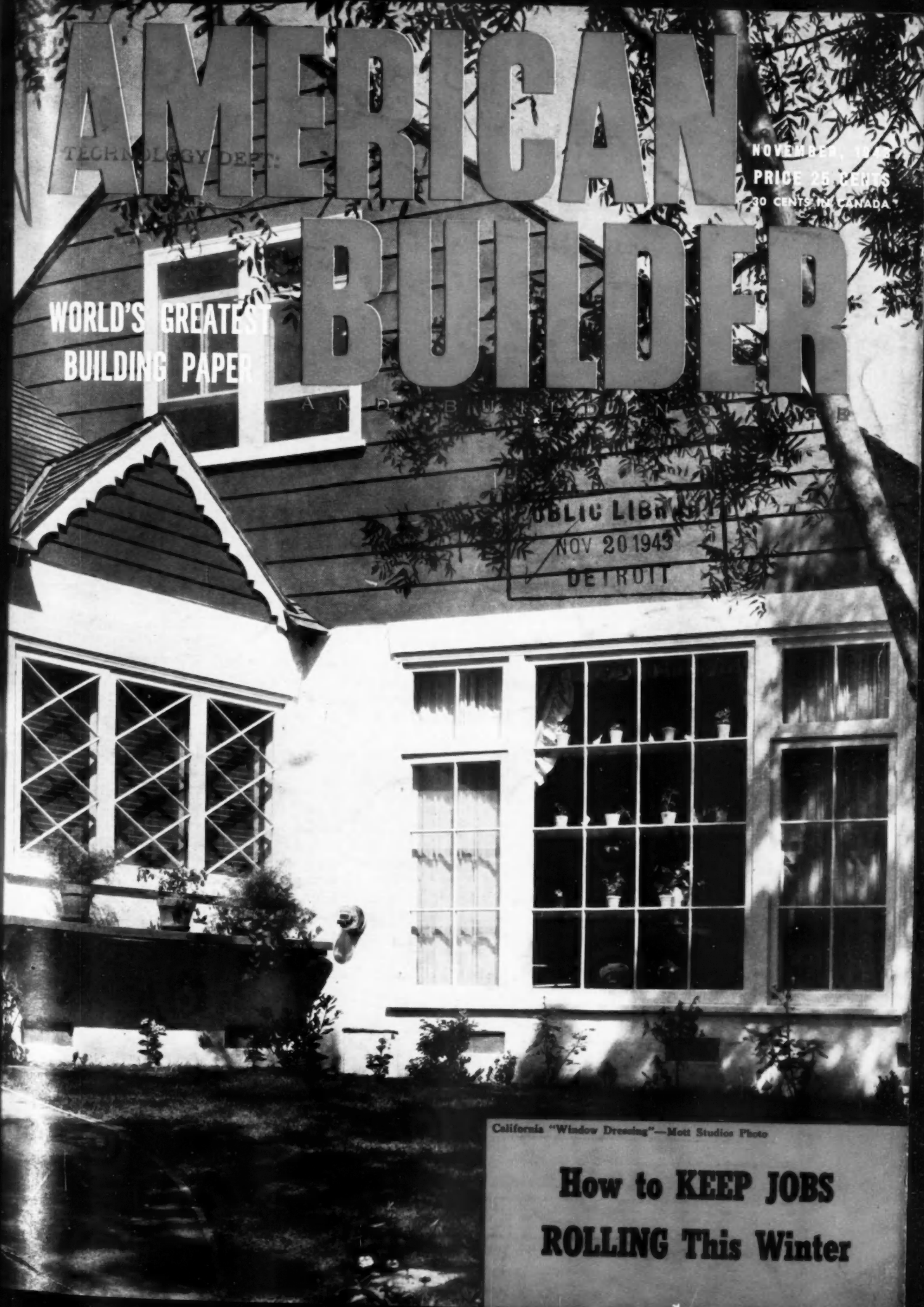
WORLD'S GREATEST
BUILDING PAPER

AND BUILDING

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NOV 20 1943

DETROIT



California "Window Dressing"—Mott Studios Photo

**How to KEEP JOBS
ROLLING This Winter**

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Get more building jobs
today with Celo-Siding

IDEAL FOR ALL TYPES OF CONSTRUCTION
BECAUSE IT DOES 3 JOBS...



SIDING!
SHEATHING!
INSULATION!



Typical House in Bill Holt FPHA Housing Project, Great Falls, Montana, showing walls constructed with Celo-Siding.



Laying house on farm in Minnesota, with walls constructed with multiple-function Celo-Siding.



Typical Celo-Siding wall construction for small factories, machine shops or warehouses.

PLENTY OF **CELO-SIDING** TRADE MARK AVAILABLE!

COMPLETION of scores of military and housing projects using millions of square feet of Celo-Siding now enables us to provide this multiple-function building material for general wartime construction demands.

Celo-Siding is ideal for small factories, machine shops, farm buildings, and other essential building. It combines siding, sheathing and insulation in one quickly applied material and provides its own exterior finish. It is applied direct to studding, saving time, labor and critical lumber.

Celo-Siding is composed of cane fibre board, coated on all sides with

an asphalt compound. An extra coating is applied on the weather surface, and mineral granules are pressed in to provide added durability and appearance.

Celo-Siding comes in buff or green. Units are $\frac{7}{8}$ " thick and 2' x 8' or 4' x 8' and 10'. The 2' x 8' size has T&G joints on long edges. The big board has square edges all around. Each is suitable for vertical or horizontal construction. All joints are to be sealed with caulking compound.

Talk with your local Celotex dealer about Celo-Siding or write for complete information to The Celotex Corporation, Dept. AB 11-43, Chicago 3, Illinois.

THE CELOTEX CORPORATION, Dept. AB 11-43,
Chicago 3, Illinois

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

Name

Address

City

State

CELOTEX

REG. U. S. PAT. OFF.

ROOFING • INSULATING BOARD • ROCK WOOL

GYPSUM WALL BOARD • LATH • PLASTER

SOUND CONDITIONING PRODUCTS

BECAUSE "nothing else will do"

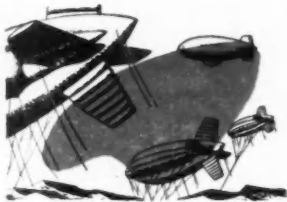
Even though you haven't been able to get it, you might suppose that aluminum paint has been supplied without question for Army and Navy uses. Not so! Before any aluminum pigment could be released, the WPB had to be convinced that no other paint would do the job.

The approved jobs have ranged from painting aircraft spark plugs for rust prevention to coating degaussing cables which protect ships from magnetic mines. Some of the uses are shown below.

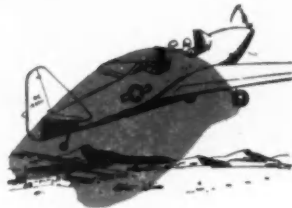
We wish we could show you the glowing testimonials written on the requests for authorization we get for releasing Alcoa Albron

Pigment. The reasons given are all good reasons why, as it becomes available, you'll be using aluminum paint again.

WPB RELEASES ALUMINUM PAINT
A limited quantity of aluminum pigment, made from a war by-product, has been released for making aluminum paint "for industrial maintenance and essential civilian requirements". Get in touch with your paint supplier for details.



Barrage balloons for air raid defense, and blimps for submarine defense, are coated with aluminum paint to protect the fabric and reflect sun heat and, thus, reduce expansion and contraction of the gas inside.



The surface of plywood trainer planes is painted with aluminum paint to provide lasting protection and prevent raising of the wood grain. It resists moisture and the action of sunlight.



The Navy employs aluminum paint on ammunition boxes and magazines, gun control parts, target designators, gun sight lamps, spare parts boxes, and other purposes connected with gunnery.



In field hospitals, aluminum paint is found on the interior of instrument sterilizers because it resists heat and moisture. It is also used to protect other surgical equipment.



Bombers and fighter planes have aluminum paint on motors, running lights, landing gear struts, wheels, ailerons, radio antennae parts, instrument panels and other places.



In addition to the other applications mentioned on bombers and fighters, aluminum paint is used on floor sections, benches, radiators and other parts of the interior of giant troop transport planes.



Warships and transport vessels use aluminum paint on heated surfaces of all kinds. Alcoa Albron Pigment is also used in a caulking compound to waterproof metal-to-metal joints.



There are many applications for aluminum paint on panels, chassis, cabinets, and tubes for radio and other electronic devices used by the Army Signal Corps and other armed services.



ALUMINUM COMPANY OF AMERICA

2120 GULF BUILDING, PITTSBURGH, PA.

MAKERS OF ALCOA ALBRON PASTE, MADE UNDER PATENTS OF METALS DISINTEGRATING COMPANY, INC.



WAR-WORKER

and Record-Breaker

Coal wears no uniform.

It goes off to the wars in the same garb in which it sees the light of day.

It needs no training, no fundamental change to ready it for its job — and it goes to work with equal readiness in small family grate or modern, super-efficient, monster industrial furnace.

And, for all its man-made difficulties, coal itself is doing its full part to help win the war.

It was on the job when the first bomb hit Pearl Harbor, and will still be there when the last fighting man steps off the train at his home station.

Today it develops more power — hauls

more trains—warms more homes, offices and buildings—turns more wheels—generates more light and power than any other fuel—and does it at lower cost.

Though the armed forces and other war industries have drawn some 70,000 trained men from the mines, *more coal was brought to the surface in 1942 than in any previous year.*

Again in 1943, the first nine months of the year set a new record for coal production, topping any like period in history.

Coal is “public energy No. 1,” now as in the past—and those who produce it work shoulder to shoulder with other American industries in an honest effort to meet their every obligation as employers, as suppliers to the public—and as good citizens.

BACK THE ATTACK • WITH WAR BONDS

BITUMINOUS COAL
Institute

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



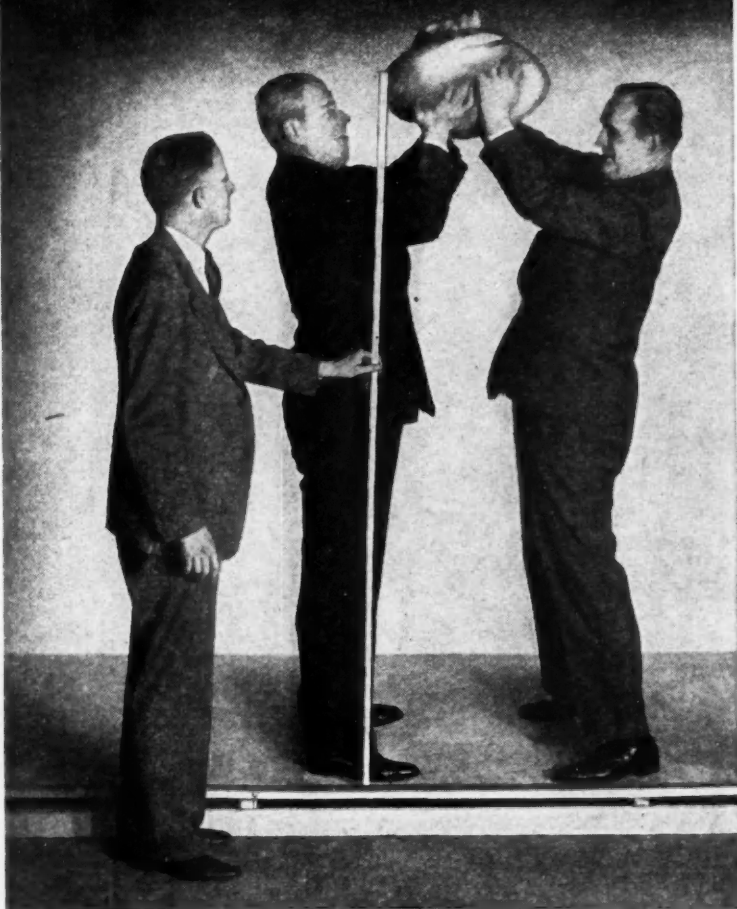
**YOU, TOO, MR. ARCHITECT
OR BUILDER!**



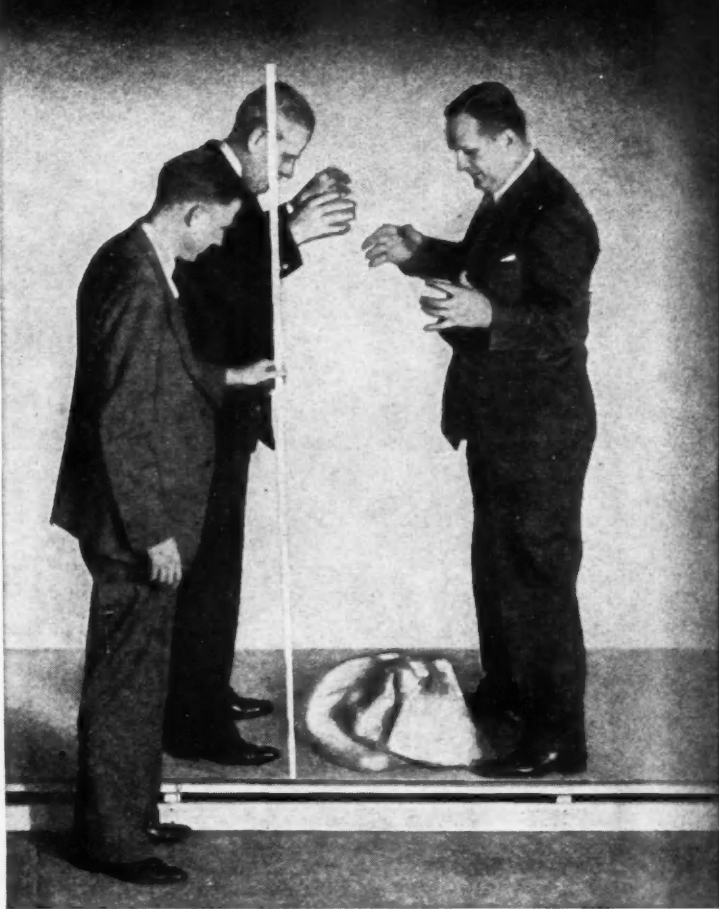
★ The ZOURI Store Fronts advertisement above is typical of those which are appearing regularly in 22 leading trade magazines — encouraging the merchants of America to plan their store fronts of tomorrow—today! But this involves you, too, Mr. Architect or Builder, for the merchants depend upon you for design and construction. So let's all work together by planning now for post-war prosperity. When ZOURI store front construction is again available, you can be sure that it will be even finer and offer more possibilities for good design than ever before. ZOURI STORE FRONTS, NILES, MICHIGAN.

GET A HEAD START! PLAN TOMORROW'S STORE FRONTS TODAY! SEE SWEET'S

READY → → →



→ → DROP IT!



There is Toughness and Strength to Spare in This Full-Wall Size Panel

See the dramatic proof pictured above?

A 60-pound bag of sand was dropped again and again from a distance of 6 feet on to a Strong-Bilt Panel supported on 28 inch centers. Result: *no harm to the panel.*

Can you visualize what would have happened to boards made of a brittle or crumbly material? The fact is that Strong-Bilt Panels will withstand an impact up to 6 times that of boards with a mineral core, as verified by an independent testing laboratory.

This is the board which, after years of testing, has scored such an amazing success on great housing projects from coast to coast—the board which brought *dry-built, full-wall construction* to the front.

In full wall sizes, Strong-Bilt Panels have enabled leading builders of mass housing to reduce building time, provide efficient insulation, cut comparative costs, and produce *crackproof* walls of lasting beauty. Their use eliminates the 1,000 pounds of moisture which may be introduced into the building of an average six-room house.

In like manner, Upson Strong-Bilt Panels will enable you to build a better postwar home—*faster*, and with *added* dollar value whether you are building one or a thousand homes.

Booklets picturing advantages and methods applicable both to conventional and prefabricated construction will be sent on request. Write The Upson Company, Lockport, N. Y.

Upson Quality Products Are Easily Identified By the Famous Blue-Center

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THE CRACKPROOF BEAUTY SURFACE WITH EFFICIENT INSULATING VALUE

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MAF

Letters

Likes 10-point program

Opelika, Ala.

To the Editor:

I am much impressed with your 10-point program to restore private enterprise and assure a million homes a year. Indeed I think you are right as to the lower rates of interest, long terms and smaller homes for the lower-bracket middle class folks. About all the homes formerly approved have run too high. We need more of the small, say \$2500 to \$3000.—N. B. JONES.

Editorial sniping?

Oak Lawn, Ill.

To the Editor:

I think that your magazine has many helpful articles and suggestions; however, I do not like your editorial sniping at the government. After all, it was the administration that jerked the building trade out of the doldrums.—D. O. CHAPMAN, Builder.

Gets ideas

Margo, Sask., Canada

To the Editor:

I sure enjoy your magazine and get a lot of ideas from it. I built the poultry feeder described on page 53 of your August issue and several people saw it and want one like it.

I have a job to do repairing a church, and would be glad if you could recommend a book on this subject.—D. N. JOLLY, Building and Contracting.

Saves job helps

Peoria, Ill.

To the Editor:

As a steady reader I want to say you have a very helpful and interesting magazine.

I am saving the page of "Job Helps" as they are a real help, and always a source of ready information. If you have any information on preparing or trimming limestone blocks, also the state and place where different types may be obtained, I would appreciate this. As I hope to build my post-war home of limestone blocks I would appreciate any designs you may have along this line.—ALBERT G. MARX.

(Continued to page 80)

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NOVEMBER, 1943

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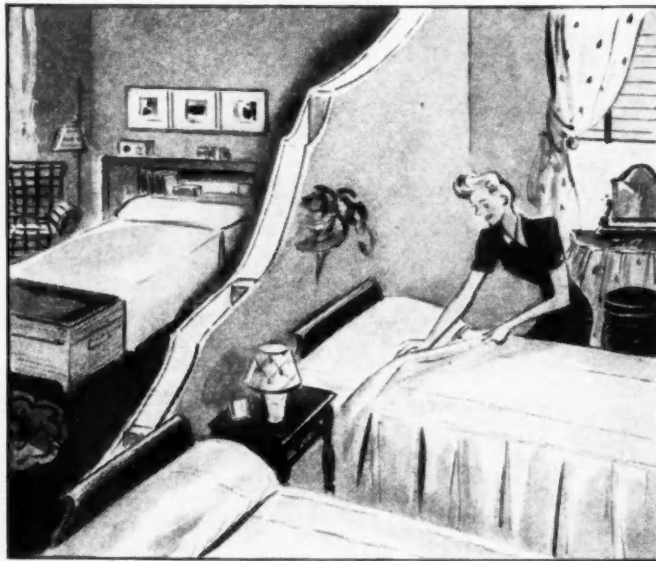
Member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulations (A. B. C.) PRINTED IN U. S. A.

WHEN PEOPLE ASK YOU HOW TO GET MORE ROOM . . .



ANOTHER winter and with thousands of additional war workers in need of living quarters, the housing shortage becomes even more acute . . . Daughter, married to a draftee, comes home with her baby to live with her parents. Farmers need accommodations for extra workers. Everywhere you hear the cry, "Find us a place to live!"

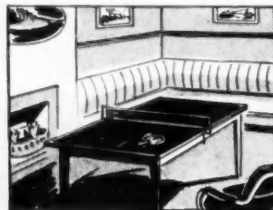
Contractors are working miracles in converting unused space into comfortable rooms and apartments. And for speed, economy and best results, their choice is always the old standby, **FIREPROOF GOLD BOND GYPSUM WALLBOARD!**



TWO ROOMS FROM ONE. A partition of Gold Bond Gypsum Board is all that's needed to convert a large, barny room into two cozy bedrooms with income doubled. Dealers have Gold Bond . . . all you need!



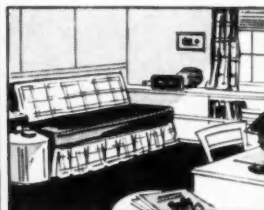
INCOME APARTMENT. Many homes have unused attics. Many garages have second floors going to waste. Fireproof Gold Bond Board can quickly change this "slacker space" into a smart kitchenette apartment.



RECREATION ROOM



EXTRA LAVATORY



REMODELING

These typical jobs are "made-to-order" for Gold Bond Board. Unaffected by cellar dampness, the rock-like panels are especially recommended for basement rumpus rooms. For converting a clothes-press into an extra lavatory—for covering cracked plaster walls and ceilings, Gold Bond is best because it's so easy to apply and takes paint, paper or any decoration.

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BUILD BETTER WITH
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Everything - for walls & ceilings

More than 150 different products for
MODERN CONSTRUCTION
AND WAR PRODUCTION
WALLBOARD...LATH...PLASTER...LIME
METAL PRODUCTS...WALL PAINT
INSULATION...SOUND CONTROL

NATIONAL GYPSUM COMPANY . . . EXECUTIVE OFFICES, BUFFALO, N. Y.
21 Plants from Canada to the Gulf . . . Sales offices in principal cities

Publisher's Page

The Great Issue—Government Spending

PROBABLY the most important question before the American people as the war draws toward a close and in the post-war period will be that of government spending. It will be so important because, owing to the huge national debt, taxes will be much higher than before the war, anyway, because so much government spending is being promoted, and because the more government spending is done the more numerous and important will be its effects.

There is no example in history of any nation ever having been enriched by government spending. There are numerous examples of nations having been ruined by it. And every political or economic danger with which the American people are confronted is caused or increased by past, current and prospective unwise or excessive government spending.

No economist opposes government spending on *real* public works that are needed. *Real* public works do not afford a field for private capital, and government investment in them does not compete with private investment. Parks, streets, ordinary highways, sewerage systems, buildings used for government purposes are examples of public works which contribute to public convenience, health or pleasure, and increase the value of private property.

Housing built and owned by government; airports, waterways, highways for *commercial* transportation; plants such as T.V.A. for producing power, and numerous other so-called "public works," are not true public works. They subsidize competition with private investment unless their users are required to pay all costs of their use, and thereby undermine the value of private property with which they compete.

Government spending on them increases either taxes or government debts, and provides the politicians in power with means of controlling votes. Heavy taxes take their largest toll from the great middle class, which must be depended on to accumulate the bulk of the nation's capital and to provide most of the brains for so investing and using it as to increase national production, wealth, income and employment. Whether the money for excessive government spending is secured by taxing or increasing government debts, it tends to drive out private enterprise and establish socialism.

State and local government expenditures in 1940 were \$9¼ billion, and probably will increase. Federal government expenditures after the war will be at least \$20 billion if, as is advocated, they include \$5 billion or more for real and so-called "public works." Whence is this \$30 billion a year to come? Tax revenues of state and local governments in 1940 were about \$8 billion; of the federal government, \$5 billion; total, \$13 billion. Are we to make total taxes after the war \$17 billion a year *more* than in 1940, largely to enable the federal government to spend \$5 billion a year on "public works"? Or are we, perhaps, to increase total taxes by \$12 billion a year, and risk uncontrollable inflation by adding for "public works" \$5 billion a year to a federal debt that will already be \$250 to \$350 billion?

All radicals and socialists promote huge government spending on so-called "public works." They are quite willing to undermine private enterprise. But many business men who profess devotion to private enterprise, in their own supposed selfish interest, also promote it. There is one infallible test that can be applied to every project. *Will it use the taxpayers' money in competition with any kind of privately-owned property or business?* If the answer must be affirmative, the project cannot be supported by any real believer in private enterprise.

Samuel O. Drumm,

WHERE DO THEY GO FROM HERE?



They go forward—not back but forward—unless they're mistaken about the America that they have defended.

Ten million of them, more or less. They'll want jobs. It's said that more of them will find these jobs in the *building and allied industries* than in any other. There's responsibility for you!

Married or getting ready to marry, they'll want homes. What kind of homes? Homes that are easy and pleasant to look at, and easy and pleasant to live in. They'll be sort of counting on more value for their money. There's opportunity for you!

Certainly the recent past will make bathrooms and kit-

chens more important than ever to them. That's where our opportunity and our responsibility will lie, and we expect to do justice to both—when the time comes.

Meanwhile, you'll understand that the craftsmen who made Case products for you, are now busy making them for these boys, for the war. W. A. Case & Son Mfg. Co., Buffalo 3.



CASE PLUMBING FIXTURES

HOT WATER SYSTEMS

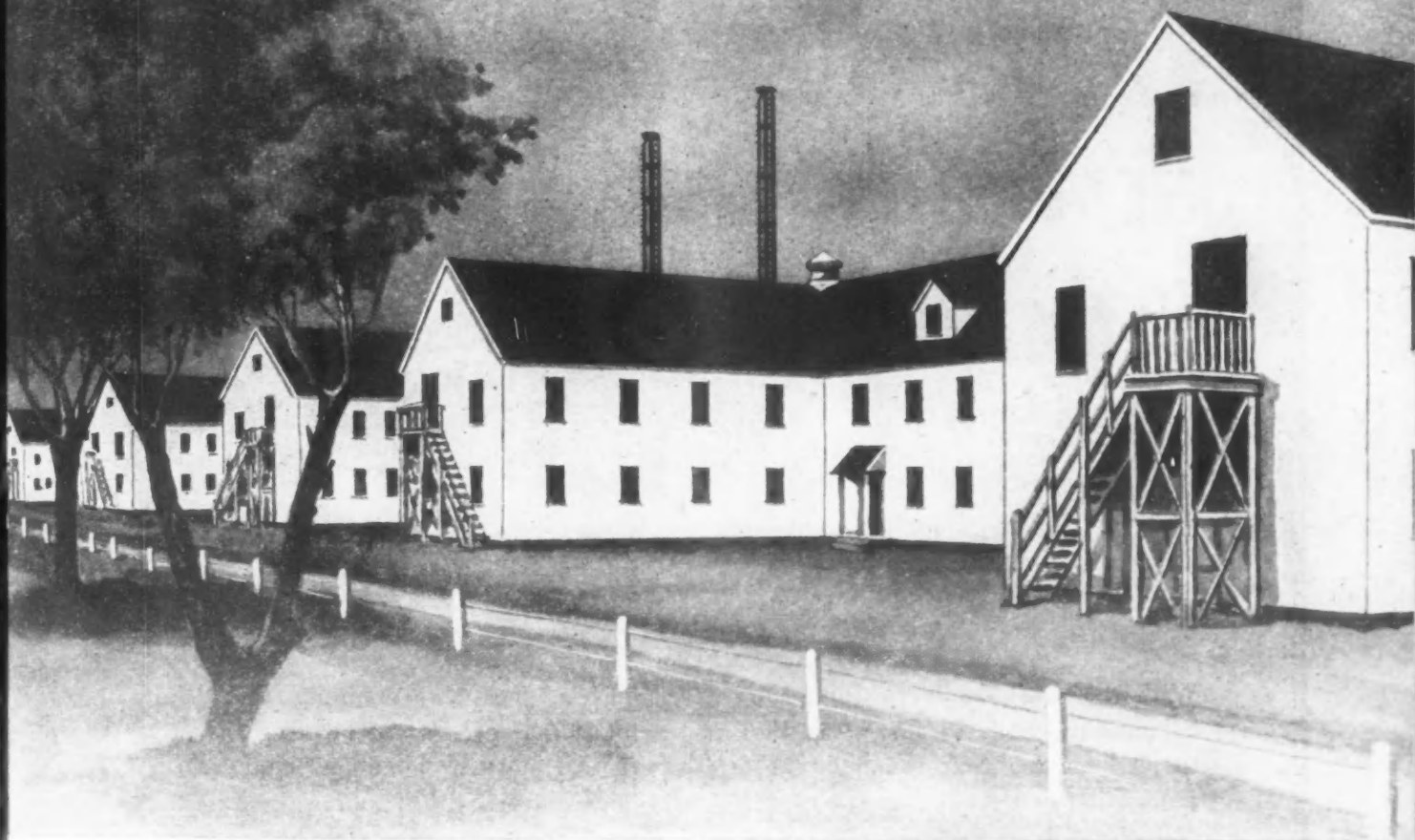
Give—all you can—to the National War Fund

1853
90
YEARS
AND 4 WARS
OF SERVICE
1945

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CUTTING MACHINES

will *custom-cut* tomorrow, too!



Long before prefabrication methods obtained widespread attention, DeWalt Cutting Machines had been *custom-cutting* lumber with a precision and accuracy heretofore unknown. That is why experienced DeWalt engineers were called upon to help lay out production cutting lines for the urgent program of building training stations, cantonments, hospitals and other service buildings. In the vast building program that is to come in the peace-time tomorrow, DeWalt will still be on the job, *custom-cutting* with speed and precision, saving many man hours and increasing efficiency.

De WALT PRODUCTS CORPORATION
Lancaster, Pennsylvania

TO HELP YOU HELP THE FARMERS



...win the battle of Production!

With the season's harvesting problems behind him, the farmer now has the time to plan for the next round in the farm production battle.

This is *your* opportunity!

Now is his chance to make repairs to home and service buildings . . . and to expand his production plant. And he's encouraged to do so by Uncle Sam.

But he still faces the twin shortages of manpower and materials.

That's where *you* come in! You can show him how Certain-teed products can take the place of scarce building materials . . . how easy they are to handle, and how they save time and labor.

. . . .

To help you help the farmer, Certain-teed has published this 20-page, illustrated handbook of available building materials and their uses. The first edition was gobbled up. The second edition is just off the press . . . available to Certain-teed Distributors in reasonable quantities.

Certain-teed

REG. U.S. PAT. OFF.

PRODUCTS

CORPORATION

120 SOUTH LA SALLE ST., CHICAGO 3, ILL.

Watch
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Cultural
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...

EVEN HE KNOWS THE DIFFERENCE

Watch your dog give himself a sun bath, luxuriously relaxed in its soothing, penetrating warmth. It's the *Radiant Heat* he likes—the same kind provided by a B & G Triple Duty System.



FOR GENUINE WINTER COMFORT THERE IS NO SUBSTITUTE FOR CONTROLLED RADIANT HEAT

No matter how well you build a house, *it is no better than its heating system!* Give your customers the kind they'll always thank you for—a B & G Triple Duty System. Give them heat which is controlled *automatically*—not by opening and closing the windows.

B & G Triple Duty Heating is a forced hot water system, which means that it provides *radiant, sun-like warmth*, sensitively controlled to avoid both over and under heating. Therefore it is a system of genuine comfort. A B & G Triple Duty System never delivers too much heat, hence fuel consumption and operating cost are held at rock bottom.

And last but not least, the owner has at his command a virtually inexhaustible supply of year 'round domestic hot water—heated by the same boiler that heats the house. All told, this is the heating system that makes a house a *home!*



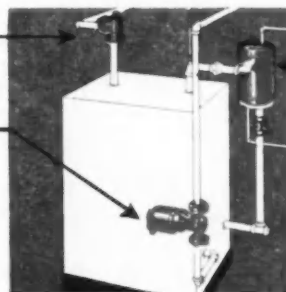
Ample hot water for kitchen, laundry and bath—24 hours a day—winter and summer.

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.

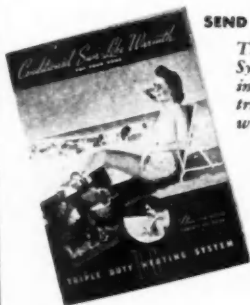


B & G INDIRECT WATER HEATER

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.

SEND FOR THIS BOOKLET

The B & G Triple Duty System is fully explained in this interesting, illustrated booklet. Your copy will be sent on request.




B&G TRIPLE DUTY SYSTEM
Forced Hot Water Heating

BELL & GOSSETT CO. • MORTON GROVE, ILLINOIS

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 ★ NOVEMBER

"SAVE FUEL"

UNCLE SAM SAYS...

U. S. RADIATOR SAYS... "Let's all pitch in and help keep America warm this winter!"

When Uncle Sam says "Save Fuel" he asks every one of us to share in the vital job of conserving critical materials and keeping the home fires burning this winter.

We, who are concerned with the manufacture, installation, maintenance and servicing of heating equipment, are lining up 100% behind this great program. No one can play a bigger part in insuring more comfort and better health for America. No one is in a better position to enjoy the good will engendered by an important job well done.

U. S. Radiator and Pacific Steel Boiler Division stand ready, as always, to give you every possible support in this major wartime undertaking. Whenever we can help you, your customers or clients with essential equipment or sound advice, don't hesitate to call on us.



FUEL SAVER RECOMMENDATIONS

- ★ Heat-seal all structures
- ★ Repair all system leaks
- ★ Clean heating plant regularly
- ★ Properly insulate boiler piping
- ★ Repair broken grate equipment
- ★ Follow manufacturer's directions for firing
- ★ Check radiator supply and venting valves
- ★ Remove improper radiator covers
- ★ Keep night temperature low
- ★ Maintain proper temperature level
- ★ Check controls regularly
- ★ Use less hot water
- ★ Frequent inspection of stoker or oil burner
- ★ Replace or repair all improperly fitted boiler or furnace doors

★ Use correct fuel

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AND PACIFIC STEEL BOILER DIVISION

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On and Off the Record

by **STRUCTOR**

News, Views and Comments

WASTED MONEY—A builder asked one of his ex-employees what he was doing with the big money he was making in a war plant. "Oh, I'm spending about half of it on liquor and women," he replied airily. "The rest of it—well, the rest of it I'm just wasting."

PLENTY OF DOUGH—Even though a good deal of the high earnings now enjoyed by many workers may be wasted, there is plenty of it going into bonds and other forms of savings. Numerous surveys show that post-war home improvement and home ownership will get a large share.

The most recent confirmation of this is a survey by the U. S. Chamber of Commerce. More than 1,500,000 families indicated they expected to buy or build homes within six months after victory, the value totaling more than \$7,000,000,000. *This was twice as much as they indicated they would spend for automobiles.*

Some 23 per cent expected to spend \$3,000 or less for a house; 27 per cent, \$3,000 to \$5,000; 18 per cent, \$5,000 to \$10,000; 12 per cent, more than \$10,000, and 20 per cent had not determined the amount they would spend.

WORKING CLASS—Economists tell me that smart builders had better figure on building most of their post-war houses for the working classes and lower middle income groups. They confirm what seems pretty obvious, which is that these are the people that are going to come out of the war with higher incomes and a much better financial position. It is the persons in our middle class and the well-to-do who are getting the big squeeze.

Houses between \$3,000 and \$5,000 will have a tremendous post-war sale, so that's the market to aim at.

BOOS FOR TEAR DROPS—Automotive engineers apparently feel the same way about industrial designers as builders do. At a recent meeting in New York, many of the "tear drop designs" and "air brush creations" of post-war models, which have been widely pictured by industrial designers, were greeted with cat calls and boos. The engineers feel that future development in automobiles will be a steady evolutionary process and that

in the early stages of the post-war period, models will be quite similar to those of pre-war.

The same holds for post-war housing designs, and the lunatic fringe of dreamy-eyed architects and sensational industrial designers are doing this industry tremendous harm by portraying things that cannot happen in the near future and may take years to develop, if ever.

TAXES AND TOMATOES—Any builder of houses takes tremendous risks. Unless he can make a fairly good profit, he certainly will not risk his hard earned capital.

That, gentlemen, is one of the most disturbing facts about the future of our industry. As one builder told me, "You won't risk breaking your neck to raise a thousand tomatoes if you know damn well that under the tax laws you can only keep fifty."

If private enterprise home building is to boom, adequate recognition will have to be made by the taxing authorities of the extraordinarily hazardous and up-and-down nature of the building business.

PLANNING NOW—As I talk to builders in widely separated parts of the country, I am constantly amazed by the extent of practical post-war home planning under way. This is a type of work that gets little publicity, for it is being done by thousands of builders all over the country.

A case in point is a good sized firm in southern Illinois. This firm has been building houses for many years and owns many fine home sites clear and free in fine residential areas close to town. In some cases, utilities are in.

This builder's business is greatly reduced and he is largely occupied with repairs and maintenance now, but his son-in-law, who has a background of practical experience, plus architectural training, is spending most of his time preparing plans, working on new subdivision layouts and studying any and all new ideas as to home materials, equipment and methods. To complete the picture, the firm owns enough income property, including some Title VI rental properties, so they will have ample capital to resume home building the day the stop-orders are lifted. The need for houses that day will be the greatest in the town's history.

NOT READY—Fritz Burns of Los Angeles, and President of the National Association of Home Builders, tells me that thus far his contacts with manufacturers in connection with the building of an experimental model home have revealed an amazing lack of preparedness for post-war building.

Burns reports that many manufacturers seem quite unprepared to supply anything approaching the miracle equipment of the future about which there has been so much talk. As a matter of fact few even have a post-war planning department which a builder can contact. Burns is willing to build as forward-looking or as radical a house as is practical, workable or salable, and is completely open to new ideas in materials and equipment, but thus far he says it looks as though, if the war were to end next month, manufacturers would be pretty badly "caught with their plans down."

WAR BABIES—The other day several hundred young Navy boys in New York flocked to the marriage license bureau the same day they were graduated. Their sweethearts came from all parts of the country for the marriage ceremonies. That's just one incident among thousands, all of which totals to the fact that the marriage rate is hitting new highs. Service men aren't waiting until after the war to marry.

What this means to the building business is pretty plain: after the war we will have hundreds of thousands of service men hastening home to their wives (and babies) and they are going to want good, livable houses in a hurry.

DOROTHY ROSENMAN—I had an opportunity recently to hear the vigorous and intelligent head of the National Committee on Housing, Dorothy Rosenman, talk plainly and rather convincingly about public and private housing. She pointed out quite correctly that some building men spend more time talking about the "horrible monster" of post-war public housing than they do about plans to try to bring about a solution to some of the problems that are vitally in need of attention. Her committee is made up of believers in both public and private housing and gives an opportunity for an exchange of ideas that is highly beneficial.



Monarch UNI-POINT Radial Saw Model X36AJ with welded steel frame table making mitre cross cut in a midwest plant. Model X36AE (at left) shows modern cabinet base with cupboards for tools and accessories. Both units, with 16" diameter saw, have a cross cut capacity of 4 1/4" in depth by 25" wide, ripping to 31" wide. Motors 1 to 5 HP and either manual across-the-line or magnetic switches are furnished as desired.

MONARCH UNI-POINT RADIAL SAW TURNS PENALTIES INTO BONUSES

"Wouldn't Part with UNI-POINT at Any Price."

Of course not; for by the unique principle of one-point cutting (saw always entering work at same point in table) production is increased as much as 200% on some jobs.

"Our UNI-POINT Saws Paid for Themselves in a Short Time."

Tremendous savings are effected in time, material, and labor by this wonder saw over inaccurate hand methods or one-operation-at-a-time machines.

"16 Hours a Day—Splendid Results."

Permanent accuracy is guaranteed the operator of a UNI-POINT, for all vital wearing parts are of hardened steel. Many UNI-POINTS are now working night and day, seven days a week on war work. They're built for hard, continuous service. No other radial saw has this built-in long life.

The price? No more for UNI-POINT, and look at what you get! Install one and see the difference. Send for details and prices of different UNI-POINT models. Quick deliveries still possible on AA priority.



AMERICAN SAW MILL MACHINERY CO.

60 MAIN ST.

HACKETTSTOWN, N. J.

Established 1903

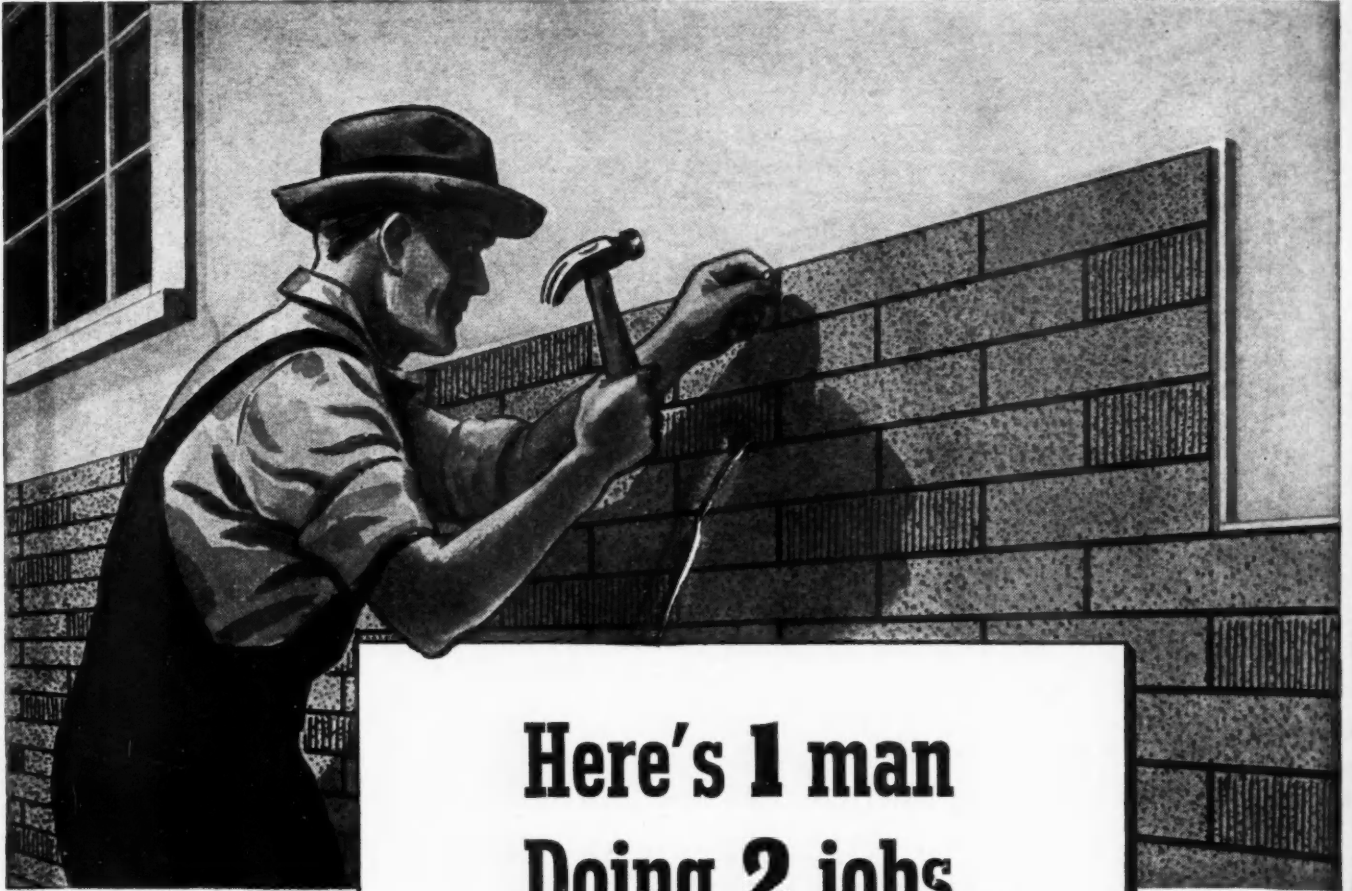
Radial Saws
Shapers

Saw Benches
Sanders

Band Saws
Mortisers

Jointers
Swing Saws

Planers
Lathes
Saw Mill Machinery



Here's 1 man Doing 2 jobs... with one product

Bothered by labor shortages? Troubled by critical materials?

You'll find the two-in-one advantages of Flintkote Insulated Sidings more valuable than ever.

In one, easy-to-install siding, Flintkote provides both excellent insulation properties and one of the handsomest surfaces that ever made an old house look new.

These sturdy sidings are made on a base of thick Flintkote Insulation Board which is first treated with weather-proof asphalt to an extent that does not impair its insulation value. Then a heavy coating of as-

phalt and a surface of colorful, fire-proof mineral granules are added to complete these unusual products.

They have the fine appearance of wire cut brick.

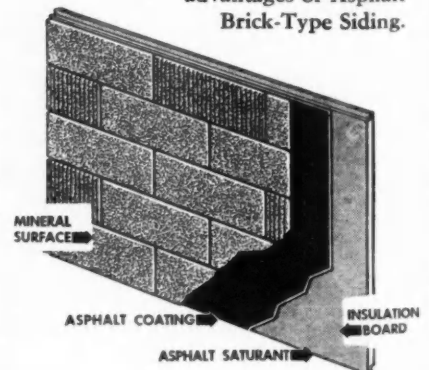
The "brick" siding comes in Red, Buff or Tapestry Blend. This same type of siding is also available in a "stone" design in the middle-west. Master panels are approximately 43" x 14". Combination Soldier Course Panels, Corners and Trim pieces complete this Flintkote quality line.

Ask your Flintkote sales representative for full information on Flintkote Insulated Sidings today.

The Flintkote Company, 30 Rockefeller Plaza, New York 20, N. Y.

Flintkote Insulated Sidings

Flintkote Insulated Brick Siding is a pleasing, rugged material which combines the known effectiveness of standard Insulation Board with the obvious advantages of Asphalt Brick-Type Siding.



ATLANTA • BOSTON • CHICAGO HEIGHTS
DETROIT • LOS ANGELES • NEW ORLEANS • WACO



Saran Tubing

CONSERVES HEAT

RETARDS MOISTURE CONDENSATION

The old problem of heat conductivity gets a new answer in Saran tubing. In this thoroughly practical thermoplastic tubing, developed by Dow, an extremely low degree of heat transfer is attained. Tests show that the thermal conductivity of Saran, in relation to copper tubing, is 1 to 4,500—a difference of far-reaching importance in many installations.

Saran, the basic plastic material from which the tubing is made, is inherently a good heat insulator. As a result, costly heat losses are decreased and

annoying moisture condensation definitely retarded. In addition, Saran's high resistance to a wide range of chemicals prevents tubing corrosion, even under most severe service conditions.

Further information on Saran tubing, its uses and installation procedure, is available on request.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

New York • Cleveland • Chicago • St. Louis • Houston • San Francisco
Los Angeles • Seattle

SARAN

DOW PLASTICS

ETHOCEL • STYRON



**CHEMICALS INDISPENSABLE
TO INDUSTRY AND VICTORY**



No more "guess-timating"

Far-sighted builders have found a way to end "guess-timating"—that often costly method of estimating both markets and construction.

For with Homasote Precision-Built Construction—the modern system of engineered housing—a builder can produce machine-perfect homes, tailored to suit any need or taste, with the minimum of construction risk.

But that's not all. There's no more "guess-timating" in sales either. Homasote is developing *now* vast, eager markets for Precision-Built Homes through exhibits of quarter-scale models in key department stores. 70% of the prospective home-owners visiting these exhibits have expressed their desire to own a permanent, post-war home. By the thousands, they are placing their names on Homasote's preferred list—joining Homasote's Own-Your-Own Home Club.



This demand has been created by a system of construction that has been developed through intensive research and then proved in actual world-wide performance.

Engineered housing

For seven years and at a research outlay to date of more than \$300,000, Homasote Company has been applying sound engineering principles to the problem of building a home. Homasote's purpose: to help the builders who use Homasote Building and Insulating Board (and the dealers who distribute it) sell more and better houses, with *assured* profits.

Result of this thorough study is Homasote Precision-Built Construction—a system which:

- (1) enables the local builder to achieve *for himself* all the engineering economies of prefabrication;
- (2) produces a machine-perfect house

at lower initial and operating costs; (one benefit of decentralized prefabrication is lower transportation expense);

(3) is based on the use of Homasote Board—oldest and strongest building and insulating board on the market—and other *standard* materials readily available in the local area;

(4) eliminates guesswork and the profit hazards of inexact estimating;

(5) is adaptable to any style, any size of house.

\$36,000,000 experience

The soundness of Homasote Precision-Built Construction has been proved in \$6,000,000 worth of pre-war, private homes erected by independent builders all over the country—and in \$30,000,000 worth of government war housing.

To the foresighted independent builder, Homasote Precision-Built Construction is the key to new post-emergency markets: low-cost housing projects constructed at a profit, large realty developments, machine-perfect homes in all price classes.

For more details, write
HOMASOTE COMPANY, Trenton, N. J.

HOMASOTE

Precision-Built

HOMES

Are you planning

or doing Rube Goldbergs for that building boom?



THESE DAYS, many home builders are filled with bright ideas about tomorrow.

At the drop of a pencil, they'll tell you:

"A building boom is on the way—sure thing!

"Thousands of war workers, now in trailers, or temporary shanties, will be on the hunt for nice new homes... Thousands more now with the Fighting Forces will come back, marry 'the girl' and want to set her up in a modern house... Yes—two thirds of America is crying to be rebuilt the minute the war is over!"

That's true.

But the building industry won't boom after the war because of need alone—any more than it boomed before the war when the need was almost as great. It's up to the home-building industry to light the fuse.



RUBE GOLDBERG-ED IN 1661.

With fan (I) flapping across the table, and weight (A) clunking past diners' ears, and gears (C and D) and ratchet (F) screeching overhead, this air conditioner would more likely terrify timid guests than cool overheated ones. Even back in the 17th century, people dreamed and planned new gadgets for the home—most of which (needed or not) never got built.

BETTMANN ARCHIVE

But—how?

Architectural Forum says: "Arouse public opinion and guide the planners in gradually making each community into a better place for your wife, your children, your neighbors, and you."*

And the editor suggests the way to do it is to reach "an informed group of active citizens in every community."

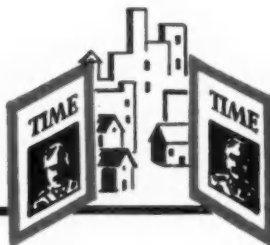
The most economical and effective way to reach this "informed group of

active citizens" is through the pages of TIME—the first-choice magazine of community leaders—the magazine they turn to for information to help them think ahead and plan ahead and see the shape of things to come. The magazine they believe in and vote their favorite over all the others they read.

*From "Planning With You," a 16-page illustrated booklet about post-war building which TIME will be glad to send you on request.

TIME

THE GATEWAY



TO THE BUILDING MARKET

• The strength value of wood lies in its fibres. Sturdy fibres give wood its structural strength, its endurance. Many years ago a new method of utilizing wood fibres was discovered. Logs were put into machines that tore them to pieces — reducing them to wood fibres.



• These fibres, the live, sturdy sinews of the tree, were then fabricated by a special process into large, strong, durable boards or panels called INSULITE. Insulite is also effective insulation—it insulates as it builds.

• The big boards of Insulite are quickly applied, each board covering a large area—effectively saving man-hours. As in World War I in 1918, cantonments, barracks and defense projects have been built with Insulite in record time.

• Insulite boards were packaged and shipped all over the world. Builders everywhere swung to Insulite, because of its many advantages. Used in frame structures, Insulite has four times the bracing strength of ordinary wood sheathing, horizontally applied.

• Insulite provides an effective barrier against extremes of temperature, because it insulates as it builds. Today, in various countries, our fighting men are comfortably housed in hutments constructed of Insulite.

• In home construction, too, Insulite has many advantages. Insulite provides, in one material, insulated, weatherproofed, windproofed, moisture-proofed construction.

No matter what your building problem may be, Insulite can serve you. Remember, Insulite brings you the strength and permanence of Northwoods Trees, in a modern package.



PACKAGING TREES
for building everywhere



LOOK FOR INSULITE IN THE RED PACKAGE

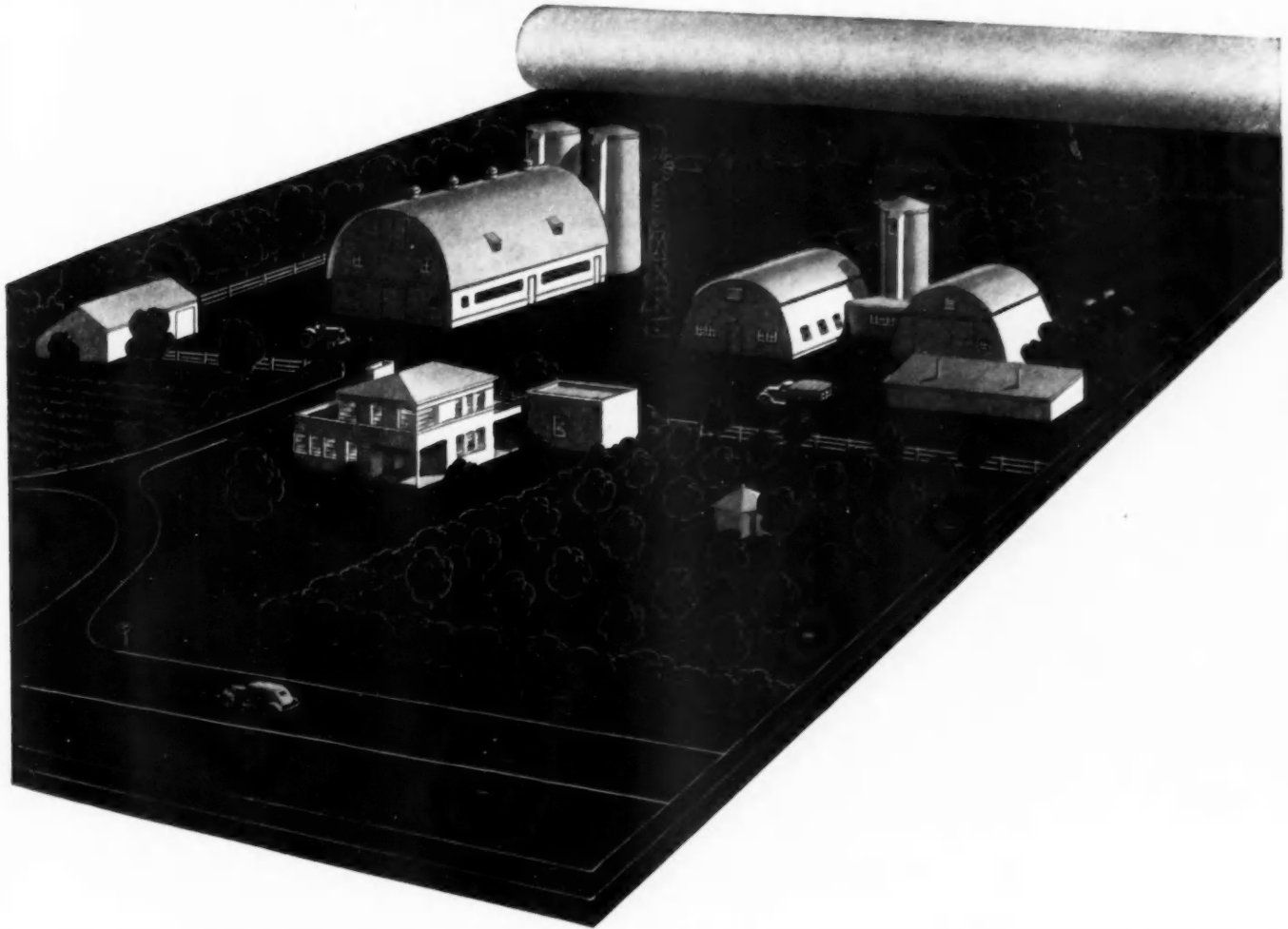


INSULITE
Division of Minnesota and Ontario
Paper Company
Minneapolis, Minnesota

... THE ORIGINAL WOOD

FIBRE STRUCTURAL INSULATING BOARD

EXPANDING THE SCOPE OF STEEL



While new materials will play an important part in the post-war world, their promise for the future is no more inspiring than that of established materials for which new uses and new methods of application are being developed in war production.

Strip steel by Stran-Steel is a case in point.

It is not a new material, yet under the stimulus of important military building assignments its scope has been greatly expanded. Stran-Steel engineering and experience make strip steel a more versatile, more economical material . . . well qualified to serve the building industry in the era that lies ahead.

STRAN STEEL

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

UNIT OF NATIONAL STEEL CORPORATION

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BOARD



With the Largest Audience of Any Radio News Program J-M Broadcasts are Building Good-Will for J-M Dealers and Contractors, Coast to Coast!

CBS TUNE IN

5 minutes of news, brought to you by Johns-Manville, Bill Henry reporting. Your CBS Station—8:55 p.m. Eastern War Time, Monday through Friday.

Five nights a week, at the best listening time of the entire 24 hours, the largest group of listeners to any news program pause to hear Bill Henry broadcast the news for Johns-Manville. And then Tony Marvin tells them interesting news about Johns-Manville, J-M products and the services of J-M dealers.

For almost two years this powerful J-M advertising campaign has been going on, month in and month out. It reaches

men, women and children on farms and in cities—from Maine to California. As a result, surveys show that Johns-Manville products and the J-M name are better and more favorably known to the public today than ever before.

Today, this acceptance for the Johns-Manville name is an important merchandising and consumer-selling asset for everyone who handles J-M products. We believe it will be even more valuable in the post-war period.

Johns-Manville
Building Materials

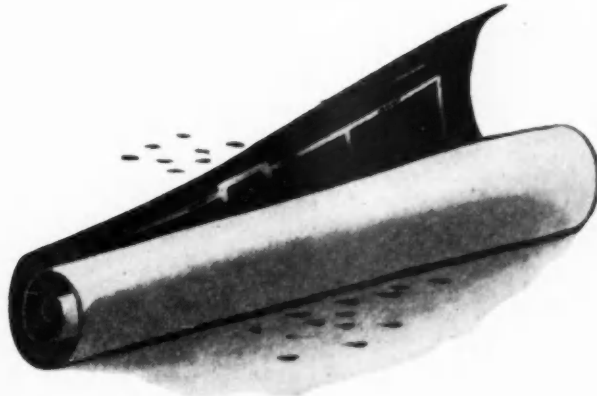
MORE SPACE?



WEATHER TIGHTNESS?



BEAUTY?



DURABILITY?



To answer their questions on postwar homes

...WATCH WOODwork!

Right now these questions are going on in the minds of thousands of postwar home planners. Actual surveys show that they have definite ideas and desires on what they want their postwar homes to be.

You can give them the answers to many of these questions with doors, windows, frames and woodwork of Ponderosa Pine. Here's how:

MORE SPACE—People want more space—and more windows—in their postwar homes. Windows of Ponderosa Pine provide an answer to both needs. Such windows, available in a great variety of stock sizes, make it easy and economical to have the bays, corner windows and window groups which add so much to the feeling of spaciousness in a home.

WEATHER-TIGHTNESS—Precision-made for proper fit . . . easily weather-stripped . . . Ponderosa Pine windows help cut down air leakage . . . make possible the weather-tightness which the war has taught people to

value. Remember, too, wood is a natural insulating material . . . and that storm windows of wood will be readily available in stock sizes.

DURABILITY—Wood has proved itself a durable building material—and modern toxic treatment can make windows, doors and woodwork of Ponderosa Pine even more lastingly satisfactory! Ponderosa Pine, too, takes and holds paint easily—a big advantage from the standpoint of maintenance.

BEAUTY—Stock windows, doors and frames of Ponderosa Pine express the beauty and charm of correct architectural design . . . and modern manufacturing methods make this charm available for any size or style of home for less.

SEND FOR THIS "IDEA BOOK"

This booklet—"The New Open House"—contains a wealth of ideas on planning postwar homes—is fully illustrated with photographs and diagrams. Send for your copy—it's free.



Ponderosa Pine

WOODWORK

THE BEST IS YOURS . . . WITH PINE

PONDEROSA PINE WOODWORK
Dept. YAB-11,111 W. Washington Street
Chicago 2, Illinois

Please send me a free copy of "Open House."

Name _____

Address _____

City _____ State _____

for **THIS** battle, G. H. Q.

★ Here's how you—yes, YOU—can carry out a smashing "pincer movement" against the Axis. Swing in on one flank with increased production of war goods! Drive in on the other with redoubled purchases of War Bonds through your Pay-Roll Savings Plan!

You're an officer in both of these drives. Your personal leadership is equally vital to both. But have you followed the progress of your Pay-Roll Savings Plan as closely as you have your production?

Do you know about the new Treasury Department quotas for the current Pay-Roll Allotment Drive? *Quotas running about 50% above the former figures?* You see, these new quotas are based on the fact that the armed forces need more money than ever to win the war, while the average worker has more money than ever before to spend. Particularly so, on a *family income* basis—since in so many families several members are working, now.

Remember, the bond charts of today are the sales curves of tomorrow! Not only will these War Bonds implement our victory—they'll guard against inflation, and they'll furnish billions of dollars of purchasing power to help American business re-establish itself in the markets of peace.

So get this new family income plan working at once. Your local War Finance Committee will give you all the details of the new plan. Act today!



This advertisement prepared under the auspices of the War Advertising Council and the U. S. Treasury Department.

LET'S KEEP ON Backing the Attack!

This Space is a Contribution to America's All-Out War Effort by

AMERICAN BUILDER

is at **YOUR** own desk!



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1905 The Electrical Age really began when American homeowners began to *insist* on Electric Lights in their new homes.

... AND AFTER VICTORY
HOME OWNERS WILL DEMAND

Electric Ranges!



1925 Then came the mounting demand for Electric Refrigeration and homeowners insisted on additional outlets for refrigerators and other appliances... Apartment houses had to provide Electric Refrigerators.



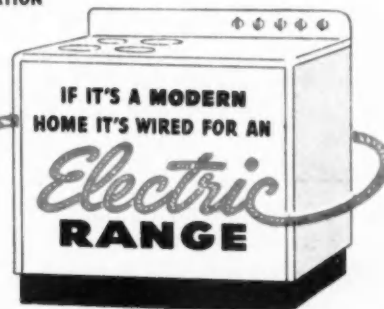
194V ELECTRIC RANGES WILL BE "MUSTS" after "V" day. To sell easily, the Houses of Tomorrow will have to be wired for Electric Ranges.

BEFORE THE WAR, the speed, safety, cleanliness and convenience of Electric Cookery was already well established. In 1940, 450,000 Electric Ranges were sold — in 1941, 780,000! The swing was on!

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

ELECTRIC RANGE SECTION, NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

Wire your houses
FOR EASIER SALES



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



READY FOR THE 64 DOLLAR QUESTION?

**Is it easier to bore
a round hole,
Or to mortise
a square one?**

You're the winner when you use DEXTER-TUBULARS. You win in easier, faster installation, requiring far less time and expense.

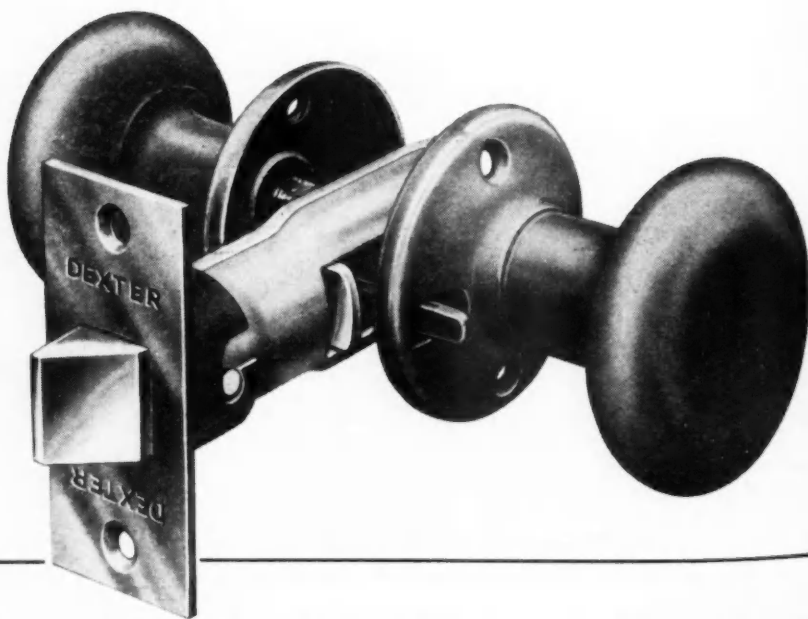
You'll never be sorry, because in addition to all of these advantages, DEXTER-TUBULARS are backed with a Life Time Warranty — your guarantee, and the guarantee to your customers that their satisfactory service will perform perfectly for the life of the building in which they are used.

DEXTER-TUBULARS conform with WPB Regulations, including Hardware Order L-236. You are invited to write for full details. Let us send you the "Commander Line" Catalog illustrating DEXTER-TUBULAR Locks and Latches, and Cabinet Hardware that conform with Federal regulations. Write today — no obligation.



Learn about the Dexter Bit-Guide — the tool that gives streamlined, factory production method to Dexter-Tubular installation. Simply clamp the Bit-Guide on the door — self-centering, no measuring — guides the boring straight and true. Ask your dealer for a demonstration and complete details.

DEXTER TUBULAR LOCKS and LATCHES



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

Washington News Summary

\$400,000,000 FHA Bill Signed by President

New Wage Policy for Both Government and Privately-Financed Building Activities

The National War Labor Board has laid down a new wage set-up for use in cases involving workers in construction industries. A nine-man tripartite agency including three representing the public, three the labor side, and three from industry now make up a reconstituted Wage Adjustment Board. The WLB gave this new Board jurisdiction over labor disputes and over voluntary wage and salary adjustments in private construction as well as in construction done for or financed by the United States Government.

No employee or group of employees is entitled automatically to a full Little Steel formula increase, according to the wage policies specified, and that employees receiving relatively high wages should get a smaller percentage adjustment than those getting lower rates of pay. When the Little Steel formula is applied to the wage rates in any one craft, some or all of the 15% otherwise allowable should be withheld in cases where the allowance of the full amount might have an unstabilizing effect on conditions in the industry or area of the country.

The WLB's announcement on the wage policy and the reconstitution of the Board is contained in its General Order No. 13. G. O. No. 13-A has been repealed.

A. F. of L. Committee Criticizes Lack of Attention to Housing in War Mobilization

In reviewing the war housing program, this committee of the A. F. of L. made suggestions as to the part labor should play in planning post-war work. The following paragraphs are quoted from the report to indicate how thoroughly the committee went into the war housing program to date.

"Provision of housing to the war workers, sufficient in quantity and comfort to meet the minimum needs

(Continued to page 70)

Both houses of Congress and the President rushed to the aid of FHA by passing and signing the Title VI bill in record time. In addition to the bill's provision for increasing FHA's insurance authorization by 400 million dollars, it extends Title VI to July 1, 1945, Title II to July 1, 1946, and Title I to July 1, 1947. The bill also gives FHA authority to increase the insurance premium under Title I from $\frac{3}{4}$ % to a full 1% if FHA finds it advisable to do so.

The hurry-up action on the parts of Congress and the President shows a growing interest in private war housing. This authorization given FHA makes provision for sufficient insurance to cover 100,000 privately financed housing units. There is a definite awakening to the fact that this country needs private operations in the war housing field and that it is essential to pave the way. Hence the substantial continuation of FHA.

American builders are grateful to Congressmen who recognized the need for this authorization, and also to Administrator Blandford and Commissioner Ferguson.

(Continued to page 70)

Help Promised Private Builders in the Way of Bath Tubs and Equipment

A large part of private war housing cannot be done without bath tubs because of the lack of financing for houses without this equipment. Due to constant pressure in Washington, favorable, quick action is indicated. A second request by NHA for the production of 163,000 cast iron bath tubs will be considered by top officials in FHA, NHA and WPB. Some opposition may be expected from the Army and Navy because they apparently don't consider such equipment necessary in war housing, but it is expected the authority for making these very much-needed tubs will be granted.

As for kitchen ranges, a quarterly production of 16,000 electric ranges has been approved. Gas ranges are available in some localities but a manpower shortage retards output. Electric refrigerators are becoming increasingly fewer. The type of motor is the same as that used in the production of bombers. The production of gas and kerosene refrigerators may be started to make up any shortage that may develop.

Keeping Up With Doings of Washington Boards Handling Building Items

As the war progresses and kinds of war housing gradually change, there comes the need for revision and policy-changing in the several boards having to do with building and building supplies.

The Office of Civilian Requirements of the War Production Board has announced the establishment of a Maintenance and Construction Section in the Wholesale and Trade Division. Its purpose will be to handle all problems relating to maintenance, repair, supplies, equipment and Construction requirements of wholesale and retail establishments.

It was explained that maintenance of operating facilities is of major importance in assuring proper distribution of consumer goods and that the job of the new section will be to determine essential operating requirements of both wholesale and retail establishments.

A realignment of WPB Divisions handling lumber, wood pulp, paper and paper products has been announced. The shift of the lumber division, as explained by Mr. Batcheller, was made to set up a closer coordination of the production of pulp wood with other forest products. The new bureau is organized under the direction of Harold Boeschenstein. A separate paper division under Rex Hovey, and a paperbox division under G. G. Otto now handle their respective fields.

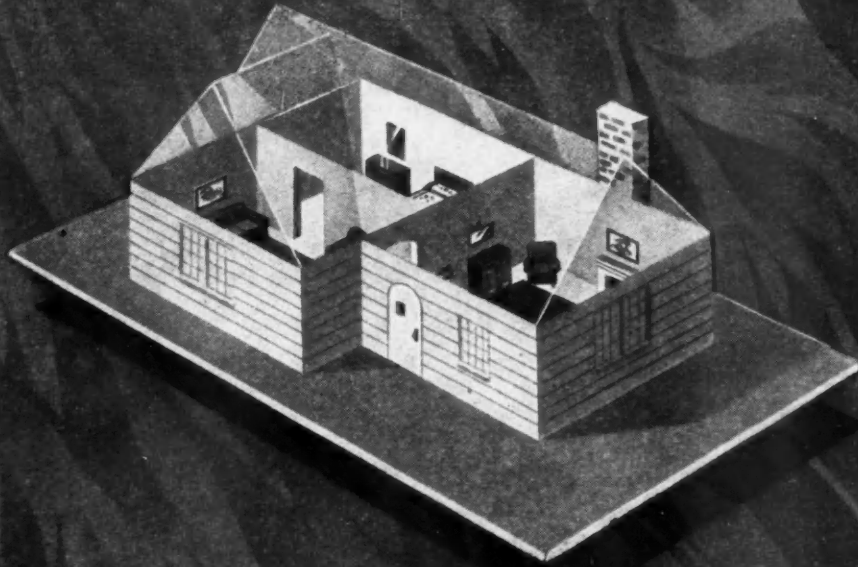
Two new lumber industry advisory committees of five men each have been announced by the Office of Price Administration. One committee represents the Western Red Cedar Industry and the other the Sitka Spruce Lumber Industry. OPA states that all the members of the committees are active in companies providing lumber and are well acquainted with the problems of the industry. It is expected they will further the good relationships between OPA and the entire lumber industry.

The War Production Board Executive Committee lately announced a statement of policy continuing the restrictions of construction of new facilities and reducing facilities under construction to the minimum necessary to the war program and for essential civilian needs.

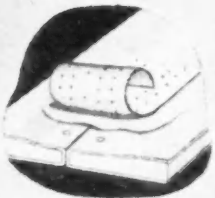
WPB states that this is done, "in order to conserve to the utmost all resources for the production of war

(Continued to page 70)

An Oasis in a Sea of Flame . . .



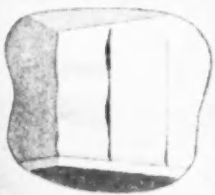
TAKES ANY FORM OF DECORATION—Any finish that is sprayed, brushed or pasted on may be successfully applied on Sheetrock; or it may be purchased already decorated—ready to apply.



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



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It is high time to call a halt to "tinder-box" walls and ceilings that may only add fuel to the flames. Sheetrock*, *the fireproof wallboard*, is made from mineral gypsum that cannot burn. It acts as a barrier to the spread of fire and provides a "fire-seal" to protect the building framework—"an oasis in a sea of flame."

Sheetrock makes enduring pre-cast walls and ceilings that take any form of

decoration or texture, with joints concealed by Perf-A-Tape* joint system or made a part of the decoration with beveled-edge Sheetrock.

You may buy the board already decorated in pastel shades or woodgrain effects. The job is completed as soon as the board is applied.

Twenty-five years have served to prove Sheetrock every step of the way in practical building application. Research and development have kept it well ahead of the times as a modern building material of beauty that saves time, labor and protects from fire.

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GYPSUM FIREPROOF ROOF DECK AND PARTITION

GYPSUM PRODUCTS • STEEL • INSULATION • ROOFING • PAINT

Big cities and grass roots building

THE reason why home building and small construction generally is so hard to regulate from Washington is that in its actual operation it is so largely a small town, *grass roots* business.

Washington officials, New York financiers and big city industrialists frequently make the same mistakes: they think of home building in terms of a few big cities and a relatively small handful of large firms.

Mass production complex wrong

Yet to those who have traveled the length and breadth of this land and have talked to thousands of builders, carpenter-contractors, material dealers, real estate men and others that take part in actual building, it is very apparent how wrong they are.

The effect of this big city, mass production complex is highly important to every builder because it has a strong bearing on legislation, material distribution, and finance.

If the policies of the home building industry are dictated by people who think of it in terms of big cities and mass housing, it will do great harm and seriously retard construction.

Cities rotten at core

The centers of the nation's biggest cities are rotten to the core. They are disintegrating and are losing population rapidly. This is because they do not offer the reasonable decencies of human life that Americans know are available in a country which possesses such vast resources in land and material wealth.

The remedy to this situation is not to appropriate billions of government funds to force people to continue to live in the dirt and grime of the city, but to make it possible for still more of them to move out to the country. Then tear down the old slums and turn them into parks and playgrounds.

Once we leave the big cities and consider the 93,700,000 people who live in towns of less than 100,000, or in rural areas, we find an entirely different concept of home construction and its problems. They make up more than 71 per cent of the population, and it is for them that the bulk of the new post-war housing must be built. The trend is definitely away from the big cities, and new highways, new forms of transportation will accelerate the post-war movement.

The war has shown the danger of life in big cities. Post-war plans for London show no intention to rebuild bombed slum areas, but rather to

provide homes scattered around the surrounding countryside where another blitz will not do so much damage.

Biggest future in smaller towns

In the United States there are more than 16,700 towns, villages and communities scattered through some 3,000 counties. Of the 715,000 houses built in 1941, more than 66 per cent were built in towns of less than 50,000, or in rural non-farm areas. The small town percentage will be greater, not less, in the years ahead. It becomes clear that we must think in terms of widely decentralized types of operation with many thousands of small firms operating in equal numbers of small towns, urban communities and semi-rural areas.

In formulating post-war finance plans and in planning new construction materials and methods, these facts should be borne in mind. So diverse and scattered are the factors in this industry that it is often very difficult to get figures. Careful estimates indicate that in a normal year there are as many as 100,000 residential builders and general contractors to consider. There are 25,000 lumber and building material dealers, many of them engaged in direct construction. There are thousands of carpenter and mason builders, real estate men, architects and financing firms involved. The United States Census reveals 113,898 men classified as construction proprietors, managers or officials.

It is true that there is a trend towards more efficient methods of operation that will simplify construction and lower costs, but this does not mean that the small builder and dealer is out, or that the small town, grass roots nature of this industry is going to be materially changed. What is needed is a better understanding of men and methods, and the removal of all restraints and restrictions that keep them from operating efficiently.

"My sincere congratulations on your October number. Please send me 100 copies immediately."—Frank W. Boykin, House Committee on Public Buildings and Grounds.

(Other comments on American Builder's 10-point Post-War Building Program will be found on page 80.)

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 LAY ASPHALT ROOFING IN WINTER

AMERICAN BUILDER FOR NOVEMBER 1943

STORAGE—Asphalt prepared roofings should never be stored outdoors or in any damp place before application. These roofings are waterproof when applied properly to a roof, but the non-weather side is usually covered with only a very thin coating thru which moisture may pass to the saturated felt. The freezing of soaked material damages it.

When the roofing is cold, the coating and saturant are relatively hard and brittle, so that any sudden bending causes cracking. If the outside temperature is below 60°F, the roofing should be stored in a warm place for 24 hours before application.

ON NEW WORK—In cold weather, while plaster is drying out, open a basement or first floor window and an attic window at opposite ends of the house. This will remove moisture-laden air. Otherwise the dampness is likely to warp the roofboards and swell them out of shape, making the shingles uneven.

WEATHER CONDITIONS—Extremes of temperature should be avoided whenever possible. Application should be made during clear, mild weather. Asphalt prepared roofings, particularly roll roofings, **SHOULD NEVER BE APPLIED AT TEMPERATURES BELOW 40°F**. Asphalt shingles are made more rigid than roll roofings and consideration should be given to that fact.

APPLICATION—Don't fasten the roofing until the curl is removed by allowing the sheets to lie flat in the sun or on a warm surface, or by rerolling the sheets the reverse way. Roll roofings should be unrolled slowly and with extreme care.

When it is necessary to fold shingles, as over a ridge or hip, they may require warming before they are bent. Don't heat the lap-cement over a fire. Should it thicken in cold weather, keep the cans in a warm place for 24 hours or place them in warm water before using until the material flows properly.

It is poor practice to walk on asphalt roofing at any time, but never during very cold weather.

HOW TO LAY BRICKWORK IN WINTER

AMERICAN BUILDER FOR NOVEMBER 1943

WEATHER NO OBSTACLE—Brick masonry of good quality may be built in cold weather if a few simple precautions are taken. For some classes of construction, such as summer resorts, winter is the only time when building can be undertaken.

MORTAR—Only Portland cement mortar should be used in freezing weather. If lime is used to make the mortar workable, it should be limited to a minimum quantity for lime delays the initial set. Freezing temperatures may injure natural cements, and all-lime mortar sets too slowly.

BRICK—Impervious bricks are laid with more difficulty than porous bricks. **DO NOT WET BRICKS** laid in freezing weather—bricks should be thoroughly dry. No ice should be on them when placed in the wall. Brick piles should be covered with tarpulins.

ADMIXTURES—Salt or calcium chloride are sometimes added to the mortar to lower its freezing point, but these substances may cause efflorescence later on the face of the wall and **SHOULD NOT BE USED** where appearance is a factor.

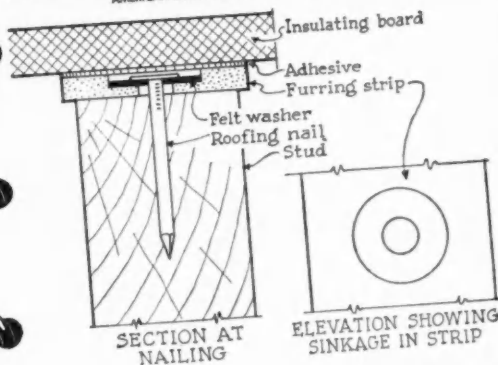
HEATING MATERIALS—A fire or salamander kept going near the mortar mixing box is desirable. All materials including bricks, sand, water, and cement should be heated in extremely cold weather. In moderately cold weather only the mixing water and bricks will need to be heated to 140°F. Flues carrying heat thru piles of aggregate are alright in smaller work, **PROVIDED** that material near the flue is not used.

A thermometer that is reliable should be used. Guesswork is likely to cost the builder money. No material should be used that is heated to over 165°F since it will "flash set" the cement mortar.

SCREENS—A space inclosed with tarpulins and heated with salamanders provides greater comfort for the workmen and insurance against freezing after the work is placed. **DO NOT USE COAL**, use coke. Coal gas can be harmful to the workmen.

HOW TO AVOID INSULATING BOARD CRACKS

AMERICAN BUILDER FOR NOVEMBER 1943



The relatively high expansivity of fiber insulating boards with variations in humidity has made paneling necessary to conceal unsightly joints. The National Bureau of Standards has developed several methods, of which the method described herewith is one, to eliminate the usual nailing. These attachment methods allow the entire surface of the wall to expand or contract as a unit, permitting the successful application of any decorative treatment normally applied to a plaster wall without restriction as to surface design because of the ultimate certainty of cracks appearing at the junction of the wall board units.

The furring strips occur on each stud and are made of pressed fiberboard. The insulating boards are fastened to the furring strips with adhesive, using temporary nailing to hold them until the adhesive sets.

It is essential to keep the boards unrestricted at the edges, which should be concealed with trim fitting snugly against the board but **NOT FASTENED TO IT**. Swedish putty works well as a crack filler for following painting or papering.

How to Keep Jobs Rolling All Winter

Practical pointers on ways and means of avoiding cold weather delays on city and farm concrete jobs

WINTER work is important work, this year more than ever. It is important to go on making money, and it is important that a lot of remodeling and upkeep jobs keep rolling. This is especially so on farms because repair work and new work are essential for the storing and handling of farm production. While many items in the lumber list are hard to get, there are other materials that can be used, among them concrete.

With a few simple precautions, there is no reason why winter concreting can't keep apace with any form of construction during cold weather. Because heat hastens hardening and cold retards it, the closer the temperature gets to freezing, the more attention must be paid to drying concrete. Freezing weather won't hurt concrete that has had a chance to cure from 4 to 5 days, and sometimes even a shorter period if the drying condition has been ideal.

If you intend to pour concrete at 40 degrees or less, it is necessary to heat sand, pebbles and water before mixing. Because the cement is such a small portion of the mix, it does not need heating. Sand and pebbles should be heated separately so they won't become mixed and result in a badly proportioned concrete.

Any improvised heater, such as an old culvert pipe, steel boiler, or section of a smoke pipe in which a fire can be kept burning, will answer the purpose. Pile the sand and pebbles separately and rake them over occasionally to insure even heating. Water can be heated in a large kettle or boiler, or an old steel drum will serve the purpose. 150 degrees F. is as high as the heating should go. Above that temperature the aggregate may cause what is known as a "flash" set when coming into contact with the cement.

Trenches for foundations should be dug before freezing weather, and snow and ice should be removed from forms before concrete is poured. The temperature of the concrete should be at least 80 degrees when poured. Cover the top of the concrete with canvas, or straw or hay to give it protection. If manure is used, put it on top of a layer of building paper or roofing material, never directly on the concrete. Such protection should remain in place for 4 or 5 days.

Be sure to examine the concrete carefully

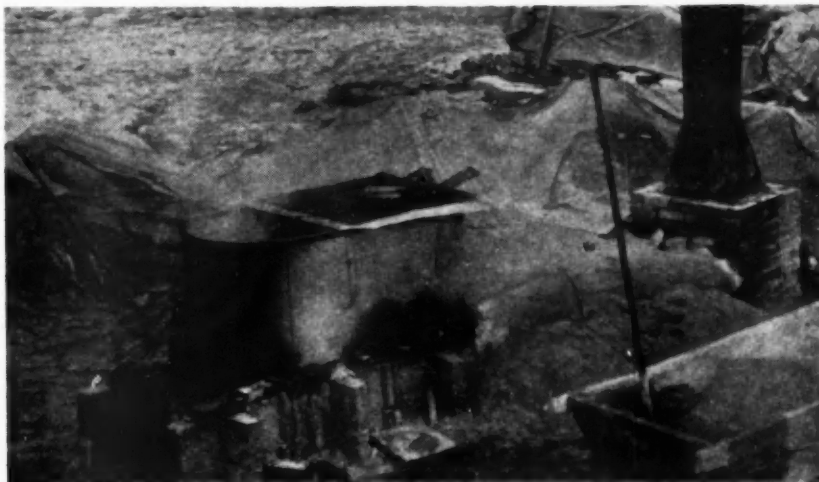
(Continued to page 85)



FRESHLY poured foundations are protected against freezing by covering with waterproof building paper and then with a layer of dry straw or hay.



SAND and gravel can be heated by piling it over a metal culvert pipe or other improvised heater in which a fire can be kept going.



WATER can readily be heated in an old farm watering tank or an old metal oil barrel. Be sure they are clean before using.





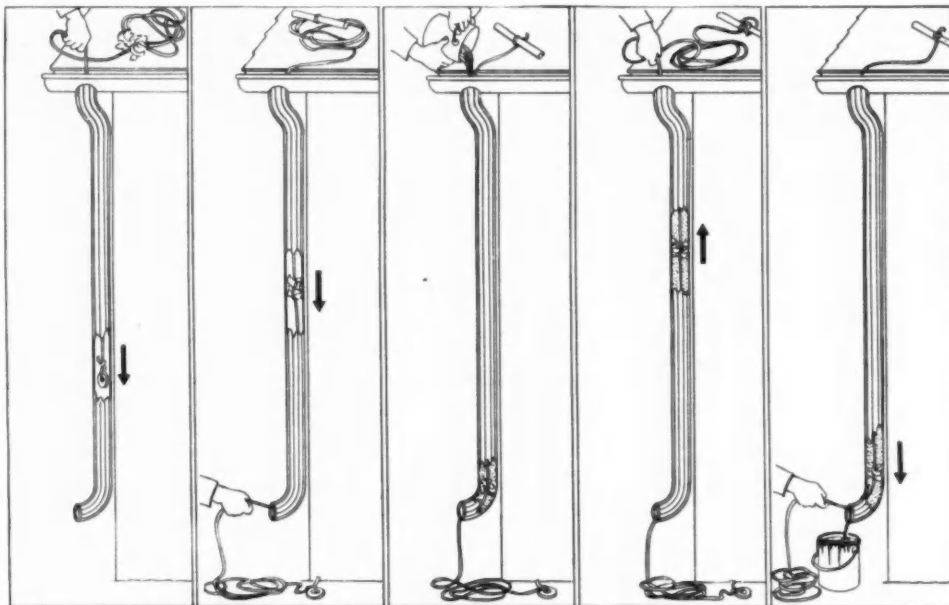
How-to-Do-It Pointers on Small Wartime Jobs

Useful ideas for builders who are busy taking care of their home communities

How to Save Downspouts by Painting Them Inside

SHEET metal downspouts are not replaceable these days so they're worth the best of care. Painting the inside is important to their long life, but difficult. Here is a simple way to do it,

as pictured below. First, tie a weight to the end of a piece of stout cord a little more than twice as long as the downspout and drop half the cord through. Tie ball of rags, which serves as a plug at the bottom of the spout, at this mid-point.



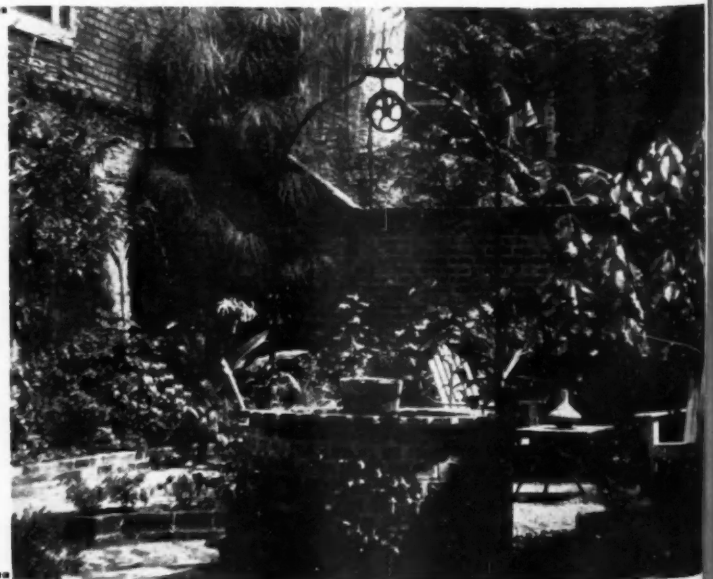
Next, pour about a quart of red lead slowly down the pipe and put bucket under bottom of spout. Now pull the rope up through the pipe and after it has reached the top, back down and out through the bottom, spreading the paint on the interior surface. Allow bucket to remain under pipe to catch surplus paint draining out.

SIMPLE method of painting inside of downspouts pictured in five steps; needed are length of cord, a weight, a wad of rags and a can of red lead.

How to Build a "Garden Well" Fish Pond

FOR the home owner who is making the most of his yard as a recreation spot, this fish pond disguised as an old well becomes a center of interest. It is built of brick and lined with waterproof cement. If the wrought iron frame and pulley are unavailable even second hand, for the duration, a rustic wood frame can be rigged up instead. Aquatic plants float on the water, along with the wooden bucket. Whereas the one pictured here in the patio of the New Orleans home is used the year 'round, northern climates would require a pipe for winter drainage.

THIS decorative garden court well is really a novel fish pond.

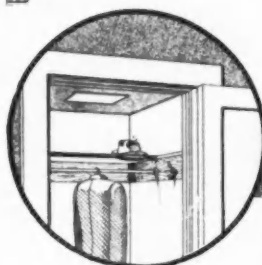
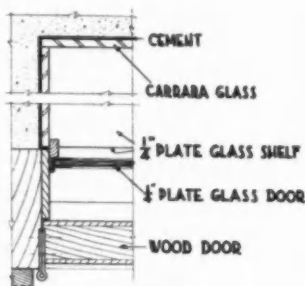


How to Remake Closets into Deluxe Storage Units with Non-Critical Materials

ONE of the really quality jobs that can be done today, to the delight of every home owner, is dressing up closets with glass. Beyond the attractiveness added, there is a practical value in making these storage spaces dust-tight and easy to clean, and contents easy to see.

The linen closet, as detailed at the right, offers one of the best closets for this treatment. Space above the bottom drawers can be lined with a light-colored Carrara glass cemented in place. Shelves are 1/4-inch plate and the dust-stop door, also of plate, mounted in a light wood frame or, if it can be found, showcase metal framing. This latter feature can be omitted, but full value is obtained only by making the installation complete as shown. A flush lighting fixture in the ceiling adds sparkle to the interior and displays the contents.

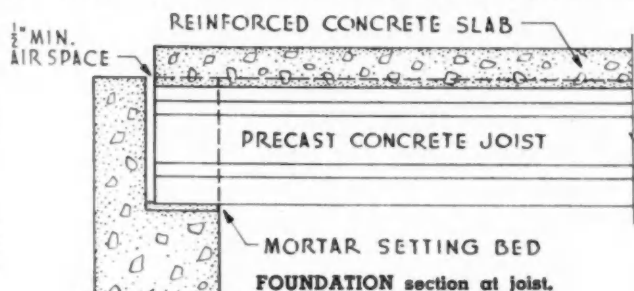
A somewhat limited but similar treatment is possible in other closets in which the upper shelves can be of plate glass instead of hard-to-get plywood or 1-inch stock. Here again, items on such upper shelves are easily seen from below.



ABOVE: Details for glass lining, shelves, door of linen closet; left, glass closet shelf.

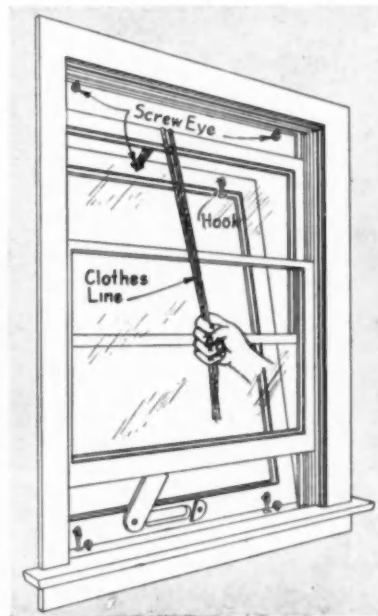
How to Form Concrete Joist Pockets

PROPER placing of precast concrete joists for slab floors is important. Below is joist pocket detail in section and plan. These are formed from 1/4-inch to 1/2-inch larger on all sides than joists or beams; forms are beveled and oiled for easy removal.



How to Hang Storm Sash from Inside

WITH handy men and husbands in the services or away from home, many builders will probably be called on by their customers for assistance and advice on getting storm sash put on this winter. Here is an easy way to do it: Put in small screw hooks at the four corners of the storm window and a strong screw eye in the middle of the top rail. To put on storm sash lower the upper sash and pass a length of clothes line out, down and back in below the raised lower sash and through the strong screw eye. Now the storm sash can be raised from below or eased out through the widely opened lower half of the window, with the projecting end supported and gradually raised by means of the clothes line. When the storm sash is fully outside the two bottom hooks are made fast to their eyes, the top of the storm window is hauled in snug and its hooks are fastened, the clothes line is removed and the job is done.



STORM sash can be put in place from the inside by using 4 hooks and eyes, 3 screw eyes, and a length of clothes line.

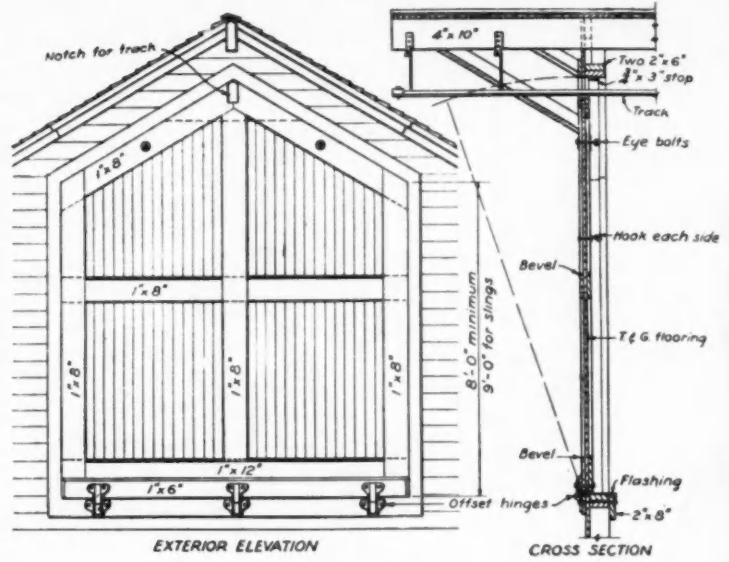
How to Figure for Snow Loads

WITH many new emergency types of construction replacing conventional methods, it is well to carefully figure snow loads of buildings you might be putting up this winter. For total horizontal area covered by a roof of less than 45 degree pitch, make the following maximum allowances in pounds per square foot of area according to location: Minnesota, Michigan and Northern New England, 30 lbs.; St. Paul, Buffalo, Albany and Boston areas, 25 lbs.; Chicago, Cleveland and New York City areas, 20 lbs.; Wheeling, Pittsburgh and Philadelphia areas, 15 lbs.; St. Louis, Cincinnati and Baltimore areas, 10 lbs.; and Southern and Pacific states, 5 lbs. per sq. ft.

How to Build a Haymow Door

BUILDERS in rural areas who are busy keeping the nation's farm structures in top production shape are frequently called upon to install or rebuild a haymow door. This barn detail is important to tight storage, and putting a good one together is a specialized problem. At the right is detailed a stout, tight, hinged hay door that will give long, satisfactory service. It calls for 1 x 8 frame members on both sides of a panel of T & G flooring. Rails are beveled for drainage.

While this construction is recommended, it might be necessary to substitute on some of the lumber, or even use second-hand stock. The hardware should be obtainable although the offset hinges might have to be replaced with regular strap hinges heavy enough to carry a load according to size.



ELEVATION and cross section of hinged door for a hay mow, detailed for use of track.

EXTERIOR ELEVATION
HINGED HAY DOOR
CROSS SECTION

How to Figure Wood Shingles and Nails Rapidly for Reroofing and Residing

TWO important wartime home maintenance jobs are reroofing and residing. They are necessary on many old houses to keep them weather-tight and warm. To help on quick figuring for such work, the table at the right will be found useful. It shows the three most commonly used exposures for red cedar shingle over-roofing, and sidewall double coursing. For each are given the bundles, size and weight of nails required per square.

SHINGLES AND NAILS FOR EACH SQUARE OF OVER-ROOFING

	Bundles	Size Nails	Weight Nails
16-inch shingles, 5 inch exposure.....	4	5d (1 3/4-inch)	3-1/3 lbs.
18-inch shingles, 5 1/2 inch exposure.....	4	5d (1 3/4-inch)	3 lbs.
24-inch shingles, 7 1/2 inch exposure.....	4	6d (2-inch)	3-1/3 lbs.

SHINGLES AND NAILS FOR EACH SQUARE OF DOUBLE-COURSING

	Bundles	Size Nails	Weight Nails
No. 1 16-inch shingles, 12 inch exposure	1-2/3	5d* (1 3/4-inch)	1 1/8 lbs.
No. 2 16-inch shingles, undercourse	1-2/3	3d (1 3/4-inch)	5/8 lb.
No. 1 18-inch shingles, 14 inch exposure	1-3/5	5d* (1 3/4-inch)	1 lb.
No. 2 18-inch shingles, undercourse	1-3/5	3d (1 3/4-inch)	1/2 lb.
No. 1 24-inch shingles, 16-inch exposure	1 7/8	5d* (1 3/4-inch)	7/8 lb.
No. 2 24-inch shingles, undercourse	1 7/8	3d (1 3/4-inch)	3/8 lb.

(*Small Headed.)

HOW TO DO IT • HOW TO DO IT • HOW TO DO IT • HOW TO DO IT • HOW TO DO IT

How to Be a Local Expert on Fuel Conservation

ALL reports indicate that fuel conservation is going to be one of the big wartime jobs this winter. Builders can render a vital service to their communities and create numerous jobs by taking a lead in this work. All forms of publicity are now in full swing pointed to the home owner. The following list gives complete coverage on 48 main points to check; with them, any builder can be an expert.



Insulation of Walls and Ceilings

1. Application of insulation to the ceiling of the top floor will save from 10 to 20 per cent of the yearly fuel costs.
2. Application of insulation to walls of a residence will save from 10 to 20 per cent of the yearly fuel cost.

3. Application of insulation to walls and top floor ceilings will result in an increase in the inside wall and ceiling surface temperatures. This will result in increased comfort and decreased fuel costs.



Storm Windows and Storm Doors

4. Application of storm windows and storm doors will result in a fuel saving of 10 to 25 per cent.
5. Application of storm windows will raise the inside window surface temperature and thus result in increased comfort and fuel savings.
6. Application of storm windows will permit the maintenance of higher relative humidities inside the structure with-

out condensation of moisture and formation of frost on window surfaces.



Air Leakage

7. The installation of weatherstripping to doors and windows will result in fuel savings of 5 to 10 per cent.
8. All windows and doors should be kept closed except to maintain a minimum of ventilation.
9. If heat is reduced or shut off entirely from bedrooms, storage rooms, etc., door cracks leading to these rooms should be plugged in order to prevent drafts of cold air from entering the remainder of the house.
10. All fireplace dampers should be tight fitting and maintained closed during heating season except when in use.
11. All doors leading from heated por-

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How to Build a Lumber-Saving Utility Building

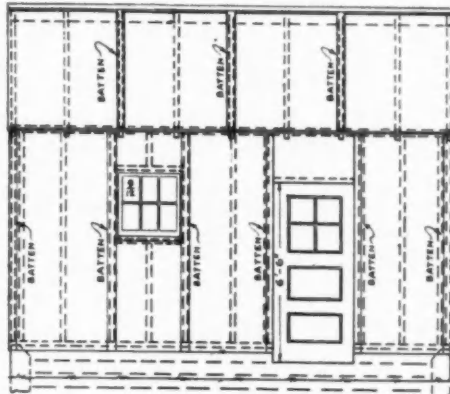
THE drawing below shows construction details for a small building, this one being a two-room milk house, which uses a minimum amount of lumber. Sheathing for roof and side-

walls is replaced with Stonewall asbestos cement board. Floor is concrete. Framing and millwork are only uses of lumber and these could be second-hand if new is unavailable.

Other uses for this type of construction will be found in both rural and urban areas for such buildings as garages, chicken houses, small utility buildings, etc. The walls both inside and out are sanitary and can be easily washed. Finish will stand rough treatment.

BILL OF MATERIALS

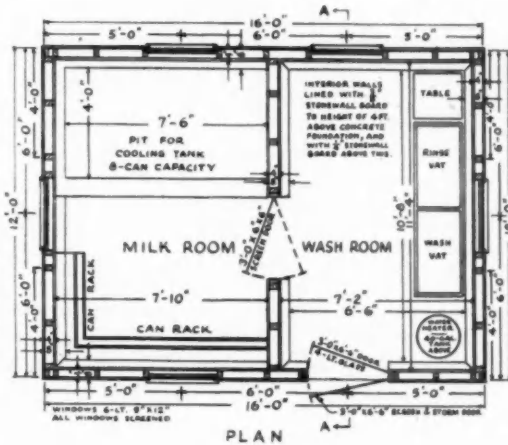
- 8" Concrete Foundation Walls 14" above grade and extending down below frost line. Additional 4" height of walls on two sides of cooling tank.
- 5" concrete floor
- 4 Pcs. 2" x 4" x 16'-0" Plates & Ridge
- 5 Pcs. 2" x 4" x 12'-0" Sills, Plates & Partition Cap
- 1 Pc. 2" x 4" x 10'-0" Sill
- 2 Pcs. 2" x 4" x 4'-0" Sills
- 1 Pc. 2" x 4" x 6'-0" Sill
- 54 Pcs. 2" x 4" x 8'-0" Studs
- 2 Pcs. 2" x 4" x 10'-0" studs
- 2 Pcs. 2" x 4" x 12'-0" studs
- 4 Pcs. 2" x 4" x 4'-0" Headers
- 2 Pcs. 2" x 4" x 12'-0" Headers
- 2 Pcs. 2" x 4" x 18'-0" Gable End Studs
- 18 Pcs. 2" x 4" x 8'-0" Rafter
- 5 Sash—9" x 12"—6-Lt.
- 1 Door—3'-0" x 6'-6"—4 Lts. in upper panel
- 2 Screen Doors—3'-0" x 6'-6"
- 5 Window Screens
- 24 Sq. Ft. Screen Wire above Partition
- Hardware for Doors
- Galv. Pipe for Can Rack
- 22 Pcs. 4'-0" x 8'-0" x 1/4" Stonewall Board for Sidewalls & Roof
- 9 Pcs. 4'-0" x 8'-0" x 3/8" Stonewall Board for Lower 4' of Interior Walls & Partition
- 8 Pcs. 4'-0" x 8'-0" x 1/4" Stonewall Board for Upper 4' of Interior Walls & Partition
- 350 ft. Stonewall Board Battens 3" x 3/16"
- Cooling Tank and other equipment
- Nails and Caulking Compound



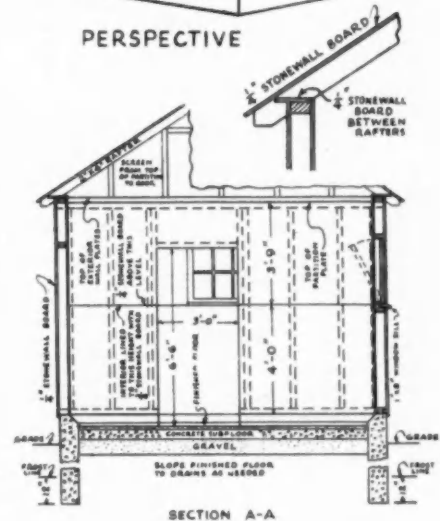
FRONT VIEW



PERSPECTIVE



PLAN



SECTION A-A

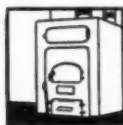
HOW TO DO IT • HOW TO DO IT • HOW TO DO IT • HOW TO DO IT • HOW TO DO IT

tions of the house to unheated attic spaces should be well sealed to prevent leakage of cold air.

12. Over a period of years there may be a separation of the window and door frames from the exterior building materials because of continual expansion and contraction of these frames and materials when subjected to varying temperatures. Air leakage through such cracks may be largely eliminated by filling, or, as is commonly termed, "calking" these cracks and crevices.

13. Air leakage through cracks between the upper and lower sashes of a window may be eliminated by the application of a piece of cellulose tape to joints.

14. The air leakage into basement areas should be reduced to a minimum so that the heat escaping from the heating plant is put to good usage in eliminating cold floors above the basement. All broken basement windows should be repaired, cracks should be well calked.



Steam and Hot Water Heating Systems

15. For highest efficiency all steam and hot water piping should be quickly freed of air during operation and completely filled with steam or hot water.

16. Any steam or hot water pipes which are not actually used to aid in heating rooms should be well insulated.

17. Any radiators which are not in use either should be covered or the lines leading to them should be disconnected.

18. Any objects which shield radiators such as drapes and curtains, magazines, cabinets, etc., should be removed in order to obtain the maximum output.

19. Any collection of dirt between the sections or fins of radiators or convectors should be removed to obtain maximum radiator efficiency.

20. For maximum efficiency, radiators

should not be covered with a coating of bronze or aluminum paint. The radiator efficiency may be improved as much as 10 per cent by the application of ordinary oil paints, preferably dark color.

21. Some fuel saving may result and some increase in radiator efficiency may be experienced if a surface of high reflectivity is placed behind each radiator. Much of the heat which normally would be absorbed by the surface of the wall back of the radiator would then be reflected into the room.

22. If a forced circulation hot water heating system is used, the motor bearings of the water pump should be oiled at least once each season.

23. Any insulation missing from the boiler covering should be replaced to reduce the loss of heat from the boiler to the basement.

24. All flue surfaces should be cleaned periodically, preferably with wire brushes and a vacuum cleaner. Collec-

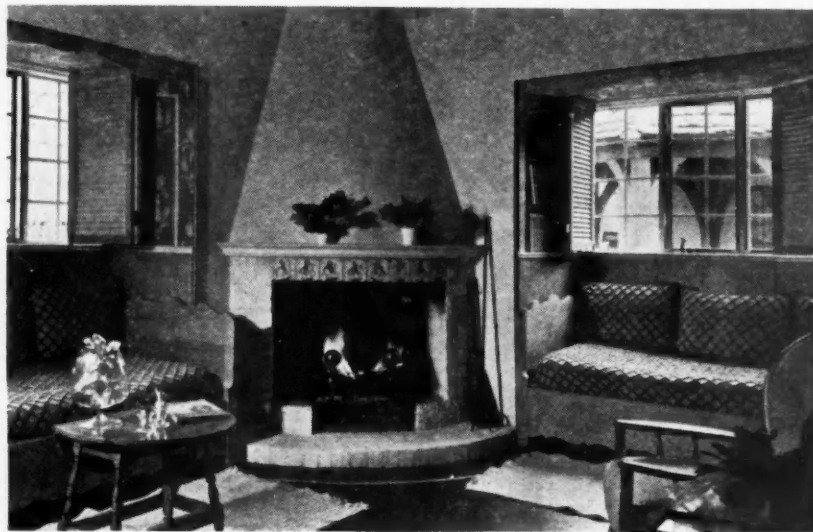
(Continued to page 72)

JOBS YOU CAN SELL TODAY



—and ideas for your
post-war portfolio

INFORMAL MODERN—For home owners who want a clean-cut treatment, here is a simple fireplace you can build that is almost rustic in its informality. Mantel is rough-sawn plank; the painted used brick of fireplace are continued in the outside wall; interior wall is of horizontal V-jointed boards. Note interesting hearth pattern.



CORNER FIREPLACES

—Left, California Modern treatment of a corner has an interesting fireplace design between built-in settees which allow full enjoyment of the fire by the whole family. At right opposite, another way to use a corner fireplace; this one can be used as a decoration if it is impossible to build a chimney, or on a porch can be used for broiling over charcoal.

Fireplaces Are Home Centers

COLONIAL CHARM—While simple in treatment, there are a number of good fireplace ideas in the illustration to the right. The built-up mantel moulding frames both the large opening and its adjoining wood locker, a handy provision for any fireplace. The nicely detailed book case at the left is carefully tied into the whole design.



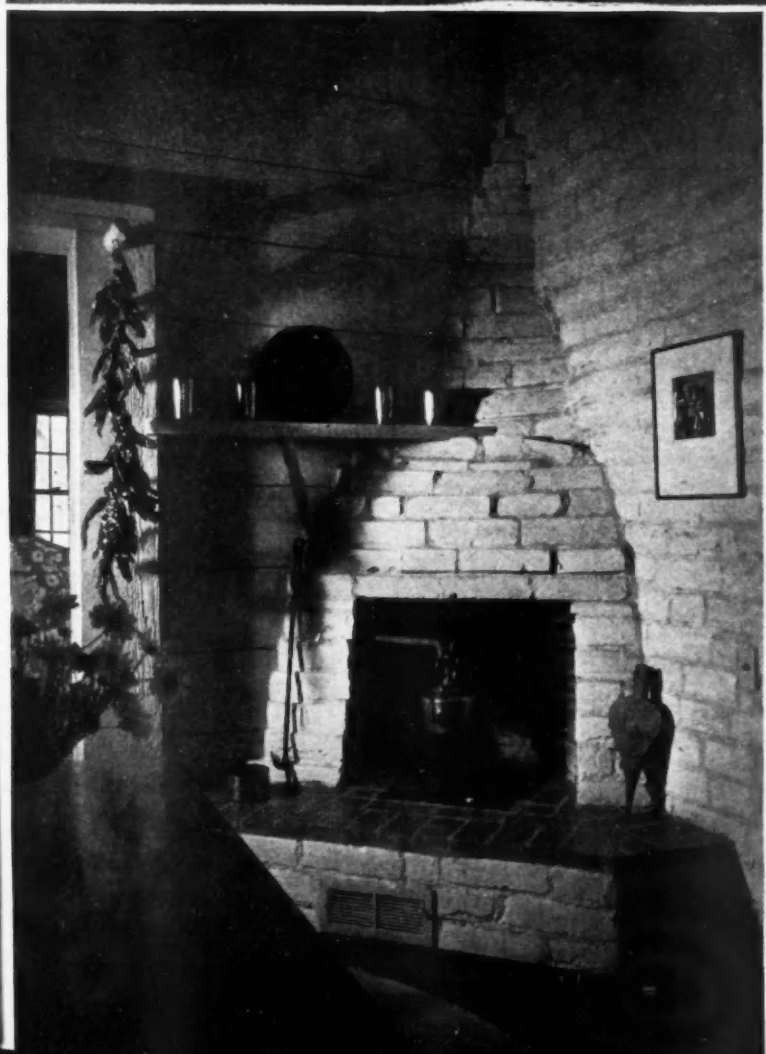
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BEAMS AND PANELING—Hand-hewn beams and knotty pine are carefully detailed in this Early American living room, with a simple fireplace the central feature. The twin bookcases and cupboards are well done. Hand-carved mantel decoration is a novel touch.



NEVER has it been truer than now that the fireplace is the center of the home, around which the family will gather on cold winter evenings. It is cheerful, warm, and saving of furnace fuel. If you will make a canvass of your customers, you will find many who have living room fireplaces not now being used because they are out of repair. If extensive rebuilding is necessary, a fireplace heating unit can be installed for greatly increased efficiency, where such units are still locally available.

Many fireplaces in use would, with new "faces," add much more attractiveness to the room. To give an up-to-date effect, a red brick facing may be painted white, or, to give a distinctly modern note, the brick may be covered over with mirror, and dark mantel woodwork painted to fit into the room's color scheme. Other fireplace ideas are given on these pages.



LEFT: Large military camp project under construction; pre-cutting shed and lumber stock pile in left background, pre-cut members in foreground, barracks in right background. Below, multiple squaring of studding on saw.



How to Figure Lengths of Framing for Precutting

In this second article on use of power saws for gang cutting operations, T. C. Combs tells how to compute exact lengths

INDOOR work, including development of plans, schedules and material lists, is as important to the construction of buildings using pre-cut framing as the follow-through on the job. The most successful projects are built mentally and on paper before the first stake is driven. Precut framing is itself advance planning as well as a short cut in office work.

The first step is to determine what standard sizes of framing members are required. Stud length is the key dimension to simplified pre-cut wall framing. Despite the fact that there are only two or three preferred ceiling heights for dwellings, neither the construction industry

nor the lumber industry has thus far adopted a standard-length stud. But lacking official promulgation, the most used stud length is 7'-9". Here is why:

Most ceilings are 8'-0" (finish floor to finish ceiling). In fact, most building codes and housing laws establish a minimum 8'-0" ceiling. A 7'-9" stud provides this, with either S 2 E or S 4 S plate stock and with normal floor and ceiling coverings. It permits using the sole plate and top plate as nailing strips for 8'-0" wall coverings (or multiples of two and four feet).

The next most important dimension for simplification of wall framing is header framing height. Most doors are

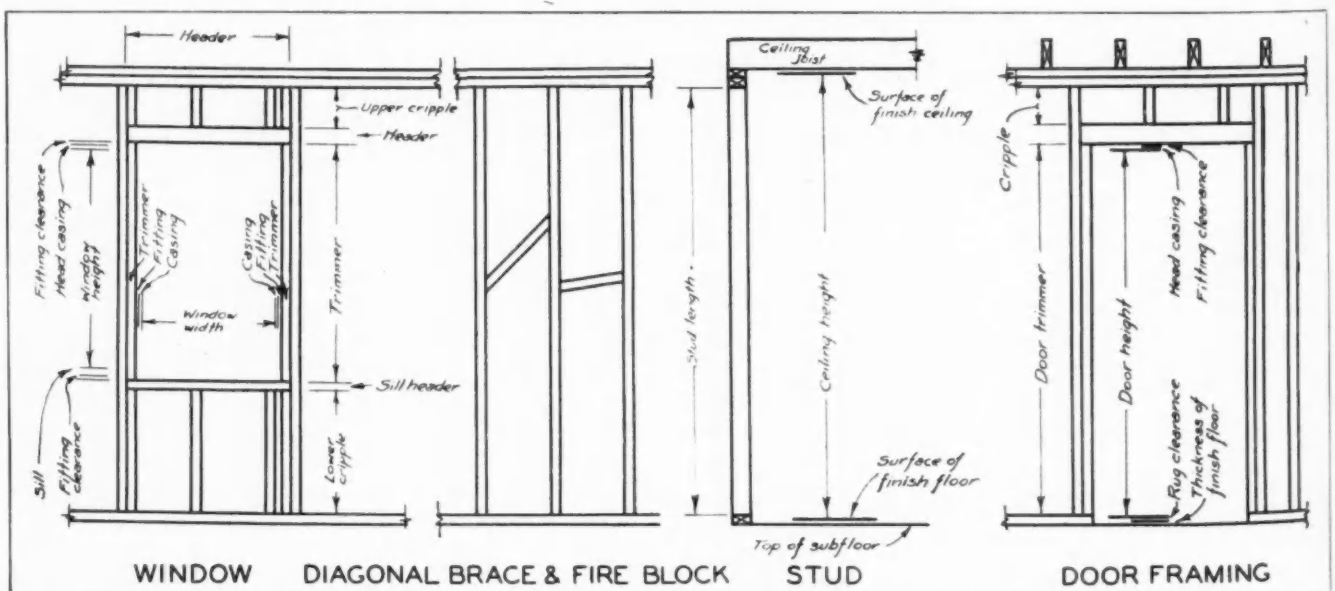


FIG. 1: Standard wall framing members usually scheduled in a pre-cutting operation; lengths are computed from conventional spacing.

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6'-8" and this normally also establishes the framing height for windows, with window headers framed the same height as door headers.

The drawing (Fig. 1) illustrates the extent to which standard stud length and header framing height can simplify Precut Framing. Working to a standard not only reduces the number of different lengths required but also permits advance cutting of parts which can be held in stock and supplied on very short notice, ready to use. The dimensions indicated also show how lengths of vertical members, "standard" or not, can be scheduled.

Key horizontal dimensions are controlled by stud spacing and widths of openings. A chart can be readily prepared for anyone's own standards. Lengths of wall framing members are computed by following Fig. 1. Lengths of members for the most widely used schedules will be listed in a later article.

Examples of computations to find exact lengths based on the various fixed measurements follow:

Stud Length: Finish ceiling height plus thicknesses of ceiling, finish floor and covering, minus the thicknesses of double top plate and single sole plate. Example: A 7'-9" stud, 1 5/8" plate stock, 3/4" ceiling and 25/32" flooring provide ceiling height of 8'-0-11/32".

Door Trimmer: Door height, plus flooring thickness, plus rug clearance, plus head casing thickness, plus fitting clearance, minus thickness of sole plate. Example: For a 6'-8" door, 25/32" finish floor, 1/2" rug clearance, 3/4" head

casing, 1/4" fitting clearance and 1 5/8" sole plate, the practical length of door trimmers is 6'-8-11/16".

Upper Cripple: Stud length, minus length of door trimmer, minus header thickness.

Example: For a 7'-9" stud, 6'-8-11/16" door trimmer and 3 5/8" header, length of upper cripple is 8-11/16". Upper cripples for windows are usually the same length as for doors.

Window Trimmer: Window height, plus sill thickness, plus head casing thickness, plus fitting clearance. Example: For a 4'-0" window, 2 1/2" sill, 3/4" head casing and 1/4" clearance for fitting, length of window trimmer is 4'-3 1/2".

Lower Cripple: Stud length, minus lengths of upper cripple and window trimmer, minus thicknesses of upper header and sill header.

Example: For a 7'-9" stud, 8-11/16" upper cripple, 4'-3 1/2" window trimmer, 3 5/8" upper header and 1 5/8" sill header, length of lower cripple is 2'-3-9/16".

Door Header or Window Header: Width of window or door, plus thickness of side casings, plus fitting clearance, plus thickness of trimmers.

Example: For a 3'-0" door, 2 side casings at 3/4" and 1/4" space on each side for fitting and 1 5/8" trimmers (2) length of header is 3'-5 1/4".

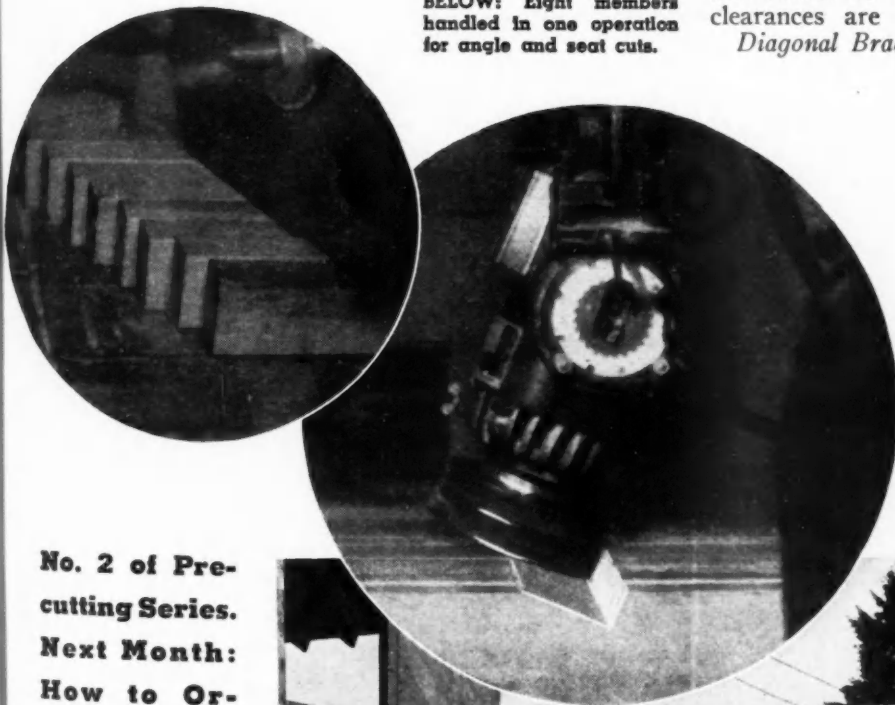
In an alternate method of framing, headers run from nearest stud to nearest stud. With this, the 3'-0" door will occupy 3 stud spaces less one stud thickness and will require a header 3'-10 3/8" long. With multiple windows, thicknesses of mullions, additional frames and fitting clearances are of course recognized.

Diagonal Brace (Cut in): The diagonal distance between studs along a line running from sole plate to top plate through the number of stud spaces occupied. Example: For a "run of six" stud spaces with 7'-9" studs 1 5/8" thick, run is 94 3/8" and rise is 93".

Fire Block: For horizontal blocking, length is the distance between studs, i.e., 14 3/8" for 1 5/8" studs 16" c.-c. For herringbone blocking, a rise of 2 1/2" between studs is typical.

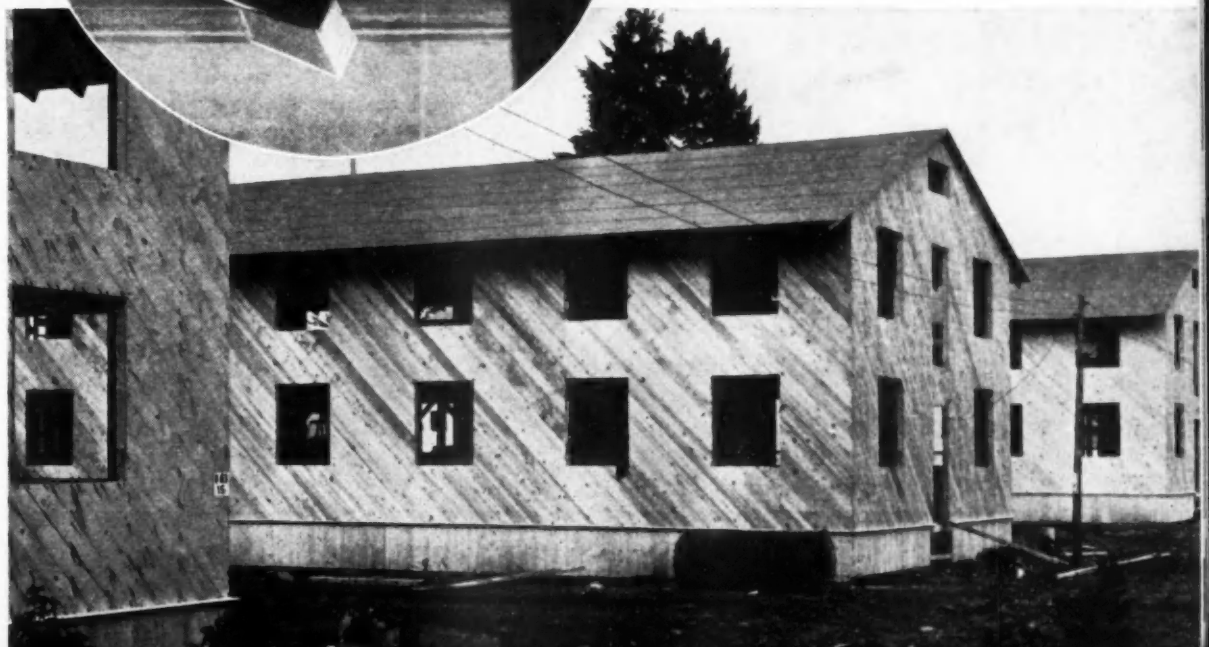
The third article in this precutting series will explain how to organize a shop for most efficient production of framing members.

BELOW: Eight members handled in one operation for angle and seat cuts.



No. 2 of Precutting Series. Next Month: How to Organize a Shop

CLOSE-UP of barracks for which all material was precut. Notice lack of scrap. On projects such as these, 100 carpenters have been kept busy nailing for each power saw precutting on job.



How Simms of Portland Builds Better

**Complies with latest priority regulations
and finds war workers approve his private-
ly financed and constructed small homes**

OREGON home builders, confronted with the competition and confusion arising from the greatest concentration of public war housing in the nation, are nevertheless carrying on with a substantial program of new home construction both for rent and for sale. These private-enterprise building projects of the Pacific Northwest are carefully planned and located with an eye both to the present war-housing need and for the expected post-war market.

The necessary priorities are, of course, secured, the designs are drawn to conform to the present minimum standards and the bill of materials for all "critical" items



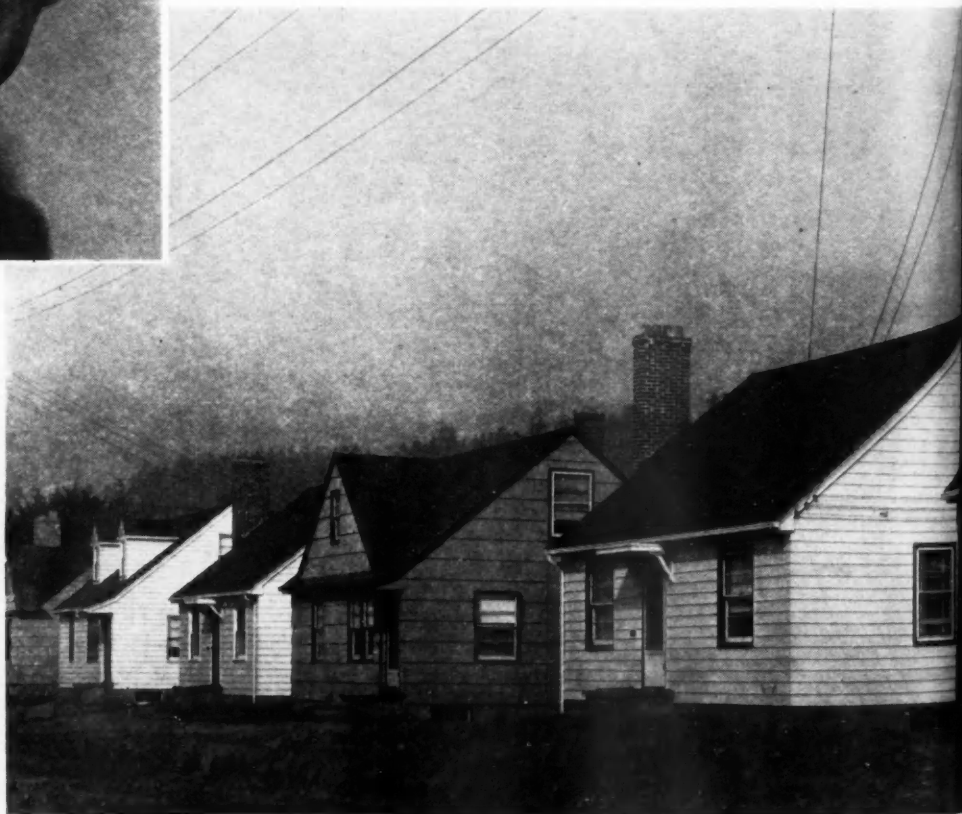
L. C. SIMMS

is listed on the War Production Board's Form PD-105-A, and officially approved before the orders are released.

Scanned thus from every angle, and okeyed, and then successfully constructed and placed on the market, and finally endorsed by the house-occupying public, these homes *must be good!* *American Builder* is happy to be able to publish, for the benefit of other builders, a series of these Standardized War Home Models as selected by the National Association of Home Builders from among the best current work of its members.

Prominent in the Portland, Ore., home building world is L. C. Simms, head of Franklin Homes, Inc., and president of the Portland Chapter of National Association of Home Builders. Long identified with quality construction in the larger-homes field, Simms has now turned wholeheartedly to the wartime job of creating small homes for war workers, and has carried over into this work many of his established ideas and practices, notably those pertaining to width of building site and variety of exterior design. By employing good architectural talent and exercising his own experience-trained judgment as to what the people want, some very satisfactory small home neighborhoods are being produced.

One of Mr. Simms' current developments, illustrated here, is a group of 15 homes in southeast Portland built to sell at \$5150 to \$5350. These houses, standing on lots 52 by 95 feet, have 4½ and 5½ rooms with tub



**OREGON builder packs
plenty of livability and
style into these war
workers' homes despite
drastic war restrictions.**

er War Housing

Third of American Builder's series of Standardized War Homes complete with PD-105-A Materials List

OPEN planning makes interiors seem large and ample in one of L. C. Simms' buyer and government-approved small war homes.



bath, full excavated basement, forced warm air central heat, electric kitchen range and electric refrigerator. Four different basic designs are used, each subject to numerous outside changes in roof lines, windows and entrances to give variety.

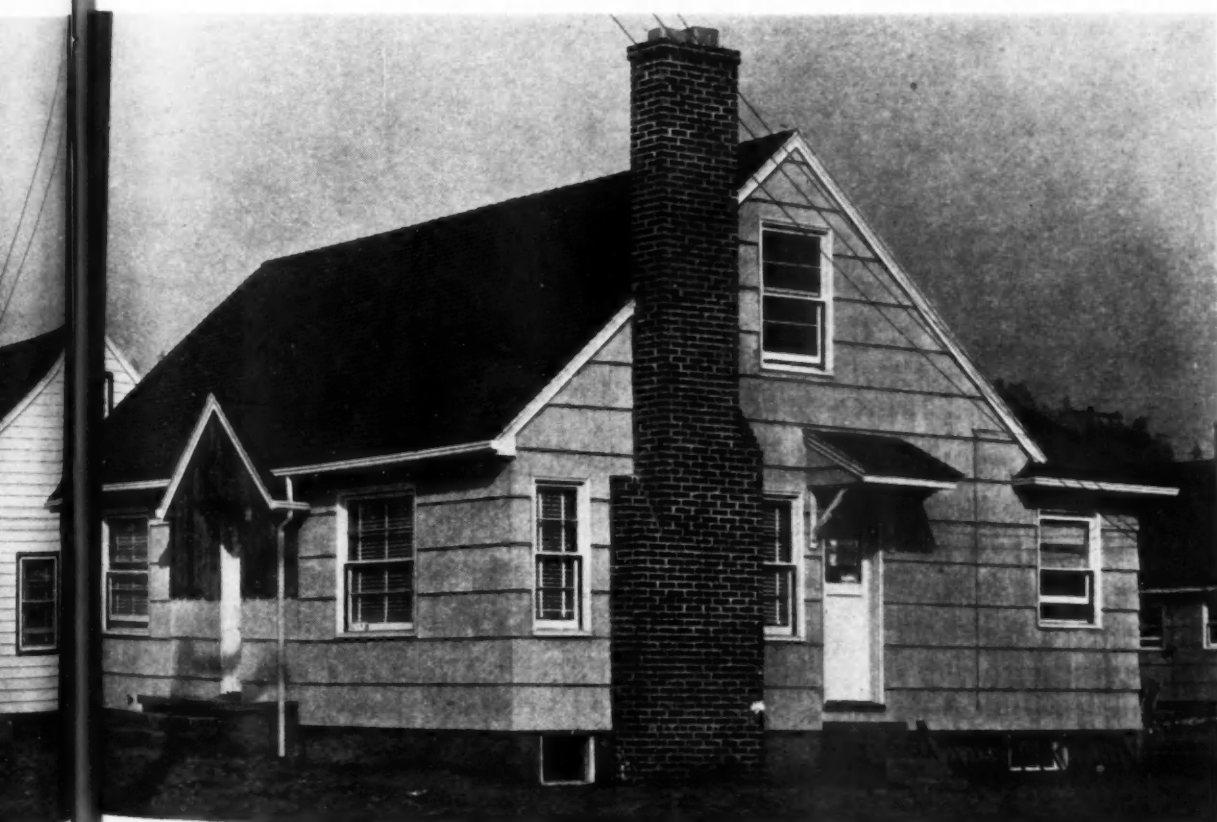
Thirteen of these houses were sold before completion, Simms reported recently to an *American Builder* editor. He also revealed plans for a new project, then being considered, that would provide a fairly large group of homes of somewhat smaller size but on larger lots, homes that could be offered at about \$3500. This subdivision would have plots 75 by 100 feet—good rich soil, suitable for a real victory-garden appeal to the war worker in that area.

This would be important now, Mr. Simms believes, as part of the war food effort and also permanently in the

post-war period because of the city's mild productive climate and the popularity of horticulture and gardening among Portlandites.

This subject of what the prospective home buyer of today wants has been much debated at the weekly dinner meetings of the Portland Home Builders Association. With a present membership of 110, this group meets every Monday night for an informal dinner and entertainment or enlightenment, by a guest speaker. However, it is the swapping of ideas among the members themselves that seems to hold the interest and bring out the attendance of Portland builders, according to President Simms.

This weekly open forum feature is billed as "What's on your mind?" and it brings out current problems and their solution in a very timely and helpful way. The



STREET scene of Simms' attractive war housing units built by his firm, Franklin Homes, Inc., Portland, Ore. Full plans and material list appear on the following two pages. Double coursed cedar shingles add to charm of this month's model.



INTERIORS are bright, attractive and modern. Here is the popular kitchen-dining alcove feature which would not be expected in war housing, a plus value for Simms.

builders get to know each other on a friendly, co-operative basis and everyone is benefited.

Simms has been a leading spirit from the start among the home building contractors and operative builders in the Portland area. He has helped to make a strong, going concern of the local Home Builders Association, to affiliate it with the National Association, and to create close, harmonious relations with the Portland Real Estate Board

and the strong local building money men. As a result, the Portland home builders are forging ahead, in line with and in spite of the government "directives" to carry out their programs. They are contesting at every turn the bureaucratic assumptions of authority that have proved such an insurmountable obstacle to needed and necessary home front building service in so many communities.

APPROVED LIST OF MATERIALS FOR SIMMS 5-ROOM HOUSE
Recorded on WPB Form PD-105-A by L. C. Simms, Portland, Ore.

Item	Quantity per dwelling unit	Panel board, including enclosures & fuses (No. of circuits, 6)	Sets	Lighting fixtures, exterior	Cost	\$10.00
Fireplace dampers	No. 1			Incandescent lamps-bulbs	No. 10	
Nails for gutters and downspouts	lbs. ½	Fuses, cartridge, non-renewable (0 to 30 amp.)	No. 6	PLUMBING & DRAINAGE		
Bolts & screws for ditto	lbs. ½	(31 to 60 amp.)	No. 4	Bath tubs	No. 1	
Flashings—steel sheets	lbs. 15	Interior wiring		Lavatories	No. 1	
LATH & ACCESSORIES		Covered neutral cable, 30 lin. ft. of 14 gage copper wire	lbs. 1	Water closet with tank	No. 1	
Corner & joint reinforcing	lbs. 20	Insulated single conductors, 50 lin. ft., 8 gage	lbs. 9	Laundry tray	No. 1	
Corner beads, exterior angles	lbs. 20	Nonmetallic sheathed cable, 400 lin. ft., 2-wire, 12 and 14 gage	lbs. 13	Cast iron soil pipe & ftgs.	lbs. 300	
Nails & staples (lath)	lbs. 10	Nonmetallic service cable, 15 lin. ft., 3-wire, 8 gage	lbs. 2¼	Drains	lbs. 1	
BUILDERS & CABINET HARDWARE		Switch & outlet boxes, nonmetallic	No. 20	Pipe, steel	lbs. 180	
Door hardware	Cost \$20.00	Pull box & cabinet	No. 1	Pipe, fittings	lbs. 20	
Cabinet hardware	Cost \$ 5.00	Plates, nonmetallic	No. 8	Caulking lead	lbs. 40	
Window hardware	Cost \$10.00	Receptacles	No. 8	Flashing, ferrous sheet metal	lbs. 5	
Garage hardware	Cost \$ 3.00	Switches	No. 5	Hangers, supports & misc. iron	lbs. 2	
Venetian blind hardware	Sets 6	Conduit fittings	lbs. 5	Oakum	lbs. 6	
Shade fixtures	Sets 7	Lighting fixtures, interior	Cost \$25.00	Water supply pipe, steel or wrought iron	lbs. 225	
Brackets for handrail	No. 6			Water supply pipe fittings, steel or w. iron	lbs. 25	
Wire nails & staples	lbs. 200			Valves, 2" or smaller	lbs. 3	
ELECTRICAL				Sill cocks	lbs. 2	
Service equipment, including enclosures (No. of circuits, 6)	Sets 1			<i>(Continued to page 92)</i>		

attractive popular are which in war r Simms.

A result, in line to carry every turn at have led and any com-

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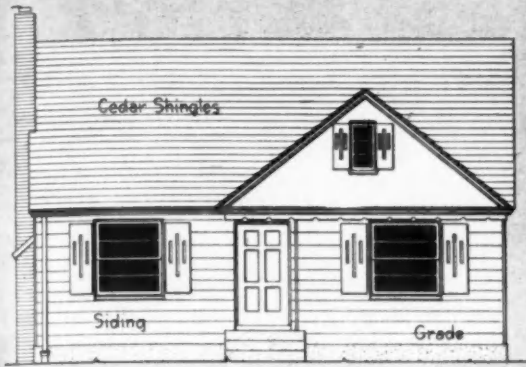
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FRONT ELEVATION

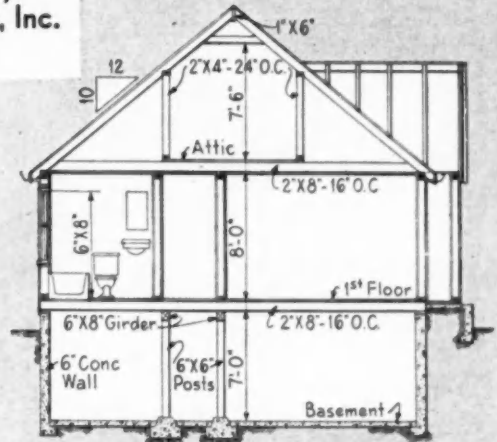


LEFT ELEVATION

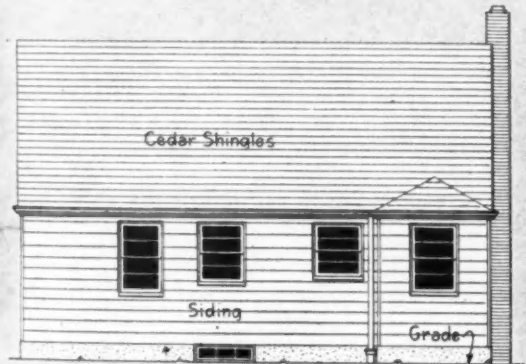
War Housing Unit Built By
L. C. Simms—Franklin Homes, Inc.
Portland, Oregon



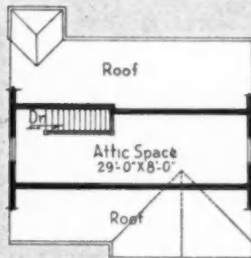
RIGHT ELEVATION



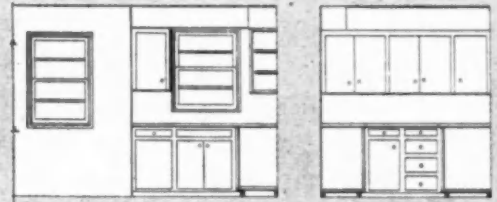
CROSS SECTION



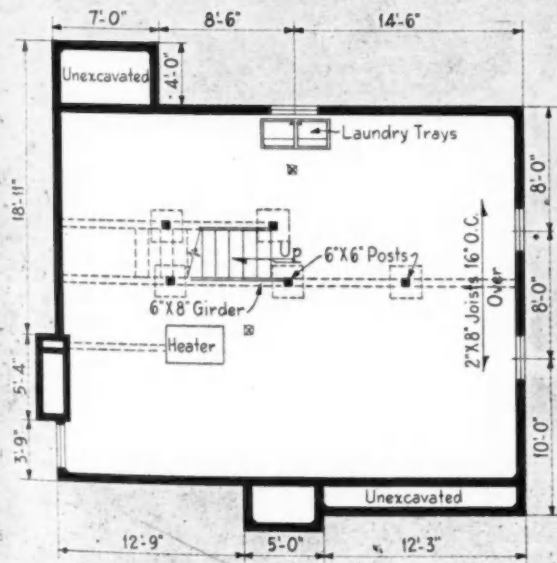
REAR ELEVATION



ATTIC PLAN



KITCHEN CABINETS




BASEMENT PLAN



FIRST FLOOR PLAN

**DO YOU KNOW
What the Future holds
for YOU?**



**SMART
PEOPLE
are
planning
Their Home
NOW!**

In a perfect, close-in Northwest suburb only 28 minutes from the "Loop" with good transportation. In a home-loving community with friendly neighbors... a beautiful community where the air is clean and healthful... a thriving community of shopping centers, movie theatres, churches, schools and everything to meet your living needs.

With suburban properties being rapidly snapped up in view of congested living conditions, we urge you to MAIL THE COUPON NOW—for choice location selection. You will not be obligated in any way.

**Just \$210
Full Down Payment
STARTS YOU
Small Monthly Payments**

- No Assessments
- Sewer • Water
- Gas • Light
- Sidewalks in and paid for

ADDRESS BOX RE-92, CHICAGO HERALD-AMERICAN, CHICAGO

I will appreciate receiving full details about your NORTHWEST location offer and Home Ownership Plan. No obligation.

NAME ADDRESS CITY

NOW! IDEAL HOME COMMUNITY

Plan to Live in the



Spacious homesites . . . wide lawns . . . safe streets
. . . all improvements . . . swimming, golf, etc.
Only 23 minutes northwest of the loop. 48 trains daily.
Over 100 homes already up in this section.

**ONLY \$200
STARTS YOU**

MAIL COUPON TODAY

Box R. E-47, Chicago Herald-American
Please send me details of your unusual home community offer.

Name

Address

Buy WAR BONDS Today



for YOUR HOME of Tomorrow

Start now to make those dreams come true. Low monthly payments like rent make possible a home of your own instead of landlord's receipts. Live in just 28 minutes northwest of the Loop. Excellent transportation—52 trains daily—low fares. Excellent shops, churches and all city conveniences.

**ONLY \$150
STARTS YOU**

Box R.E.-103, Chicago Herald-American
Without obligation please send me details of your northwest home community offer.

Monthly payments
\$26.83

Name

Address City

How Chicago Builders Are Creating

WHILE local, state and national organizations and committees have been talking and making big plans for post-war homes, Chicago builders and developers have put into successful practice sales methods which will assure the public immediate and definite action on these post-war homes.

Old timers well remember the boom real estate days which followed the cessation of hostilities of World War I. Seemingly overnight, property values—both vacant and improved—zoomed to unheard of heights. Rentals rose, apartments became scarce, and the rush to the land was on. The public, failing to find apartments at any price, frantically looked for homes and failing in this search, looked for desirable sites upon

which to build their own homes. A highly competitive consumer's market for choice lots was the result.

The demand for homes in the Chicago area during the past two years has been phenomenal. Priorities have satisfied but a scant percentage of the public. Prices on existing homes have risen accordingly and the ceiling is not yet in sight. Builders and developers with their fingers on the pulse of the home seeking public, aware of what will probably be the aftermath of this war, are utilizing the benefit of their years of practical experience by aiding and preparing the public now for their post-war homes and helping to avoid a short-lived boom later.

The metropolitan daily newspapers have been the

COME OUT -- OPEN ALL DAY
Today and Labor Day

Get Started Now!

\$150 STARTS YOU!

For You and Your Family HOME OF TOMORROW



Live in the country where taxes are low, only a stone's throw from the city limits. Large garden plots, where you can have freedom and security and where your children can grow and play in safety. Bus to door. Excellent school facilities. Golf course adjacent to property.

Higgins Road & Devon Ave.
 Take Higgins Bus at Milwaukee and Lawrence or Drive Out. Central, Milwaukee, Harlem and Foster Avenues lead into Higgins.

DOUGLAS MANOR HOMES

INSURE
Your **INDEPENDENCE**

BUY NOW!



YOUR HOME

is your rightful heritage and now is the time to make your start towards the postwar home you've longed for . . . the home that will bring a new thrill to you and your family . . .

- ✓ In a perfect, close-in Northwest suburb — only 28 minutes from the "Loop" with good service to the Douglas Aircraft Plant.
- ✓ In a home-loving community with friendly neighbors . . . a beautiful community where the air is clean and healthful . . . a thriving community of shopping centers, movie theatres, churches, schools and everything to meet your living needs.

With suburban properties being rapidly snapped up in view of congested living conditions, we urge you to MAIL THE COUPON NOW — for choice location any way. You will not be obligated in any way. And just think — only \$210 starts you.

Only \$210

FULL DOWN PAYMENT
 Small Monthly Payments
 No Assessments!
 Sewer, Water, Gas, Light, Sidewalks In and Paid For

ADDRESS BOX RE-105, CHICAGO HERALD-AMERICAN, CHICAGO
 I will appreciate receiving full details about your NORTHWEST location offer and Home Ownership Plan. No obligation.

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

\$150 STARTS YOU

TOWARD



A HOME OF YOUR OWN

80 trains daily . . . just 23 minutes west of the loop. Sewers, water, sidewalk . . . no assessments. Plan now to live in an established home community with schools, churches, shops, etc.

Box R. E-71, Chicago Herald-American.
 Send me details of your "Home of Your Own" without obligation.

NAME.....
 ADDRESS.....

ABOVE: Sample ads from current campaigns which are selling future homes now to be built when possible.

Post-War Sales

Practical copy suggestions for newspaper advertising that will assure a ready-made market for homes by selling home sites now.

perfect media for getting their message across to the public. Week after week, their advertisements advised the public "Plan Now For Your Post-War Home"—with convincing arguments as to why a home site should be purchased now. Sample copy from several current campaigns is reproduced above. The response was amazing and most gratifying and yet, it should

have been fairly obvious as to what the final result would be.

Selling copy points out that vacant home sites are one of the very few commodities that have maintained a pre-war price balance. Once the war is over the thousands of home seekers will cause these prices to climb. Therefore, the far-sighted home seeker who purchased his lot before the rush will find that he made a smart investment. Then again, in many cases, his war bonds will aid materially in the building of his own home.

To those who plan to build a home, it is of prime importance to find the right home site. The person who invests in one now and builds immediately after the war will find the financing made easier, since most
(Continued to page 90)

Progressive Ideas Born of War Pressure Will



Foresee big post-war non-residential construction volume in spite of tremendous war program; lessons learned will help bring old plants up to date and save on new ones to be built.

UNDER the pressure of wartime necessity, architects, builders and engineers evolved tradition-breaking new methods for rapid construction and the utilization of different materials. This made possible the record conversion of existing industrial plants and the fast-paced creation of completely new buildings.

Much of the "know-how" gathered in this building race against time will constitute advancements in design and construction bound to figure importantly in the tremendous building and remodeling program of residential and industrial construction in the post-war period.

Ingenious devices to get around priorities and short-ages may well establish the future hair-line margin of profit necessary to create a good product for less money.

While leaders in the field like Albert Kahn Associated Architects and Engineers, Inc., do not forecast a general trend in any one of the popular developments such as windowless plants or complete industrial air conditioning, they do see these progressive ideas utilized increasingly to meet specific needs.

This same organization, composed of 25 partner-associates and 450 other specialists, holds firmly in the belief that keen business competition at the termination of the war will sponsor extensive remodeling of plants and many new constructions. At that time manufacturers will be unable to get by with obsolete plants that are hindrances to the most economical manufacturing of any given product.

Successful manufacturing in the coming era will be

heavily dependent upon the complete efficiency of the physical plant. Factories at that time must be carefully designed to meet exacting needs of the job to be done.

Running counter to a general assumption that the great number of buildings constructed during the war will find the country plant-poor after the war, wartime building is seen as a factor directly leading to post-war remodeling and further construction.

Many of the structures which admirably met the rush needs of the war producing period will be found hopelessly inadequate for the peacetime requirements of the same organization. In some instances, where the two groups of products are widely different, it may even be less expensive to scrap the original building and design a totally new plant.

The very limitations of time and critical materials responsible for challenging architects and engineers to achieve new construction feats in some cases led to the erection of buildings ideal for war production but ill-adapted to conversion later.

Facts on Commercial and Industrial Structures Bearing on Post-War Market

CONSTRUCTION of manufacturing buildings will average well over a billion dollars for the last four years. Non-war industries have not participated in this vast program.

OF ALMOST 250,000 filling stations by pre-war count, the majority will require either rebuilding or extensive repairs.

END OF WAR will find thousands of plants in need of re-conversion, repairs and modernization. Many new plants required to bring facilities up to wartime standards of others.

MILLION AND A HALF retail stores offer big post-war market; expect two to four hundred thousand modernizations in first year of peace, with 90 to 100 million dollars spent on store fronts alone.

Change Commercial and Industrial Building



ABOVE: Night construction, Dodge Chicago plant, world's largest.

Specific examples of physical plant arrangements necessarily pitched to the full-tilt production of armaments and not desirable for a period when the plant is no longer employing three shifts a day and operating 100 per cent capacity every hour, are heating, materials handling and lighting controls.

In some recently-built plants a master switch controlling twenty or thirty circuits may have been a time-saving construction feature. In normal operation, individual switches might well be a means to significantly curtail overhead expenditure.

Makeshifts Not Suitable for Normal Operation

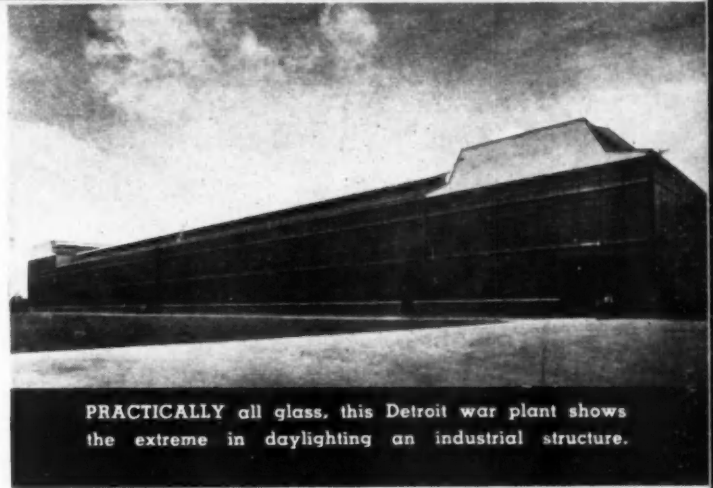
An even more striking example of a duration arrangement ill-suited to ordinary economy is an especially ingenious solution to a boiler need the Kahn organization evolved at one plant. Unable to get the desired equipment, the organization instituted a nationwide search for any boilers not in use. The yield was three totally different boilers from the standpoint of size, state of repair, antiquity and fuel. Under careful arrangement and reconditioning this diversified equipment was set up to do the big war job cut out for it. However, in a peacetime era, the utilization of this same make-shift equipment may be both wasteful and unnecessary.

"As the need for substitutions arose during the war, we strove to plumb all conceivable possibilities so that every forced change would equal or better original methods and materials," states Louis Kahn in pointing out the many war-born discoveries that probably will appear as post-war construction advancements.

Among the priority-dodges apt to play a role in the future are factory sash of wood rather than steel, and plastic types of flashing which have pinch-hit for copper and galvanized iron.

When wartime pressure for speed and economy dictated the use of concrete for one-story factories, the old concept that such building material was ill-suited for one-story factories was brushed aside and new types of concrete construction now proving to be preferable to structural steel in some types of plants were developed.

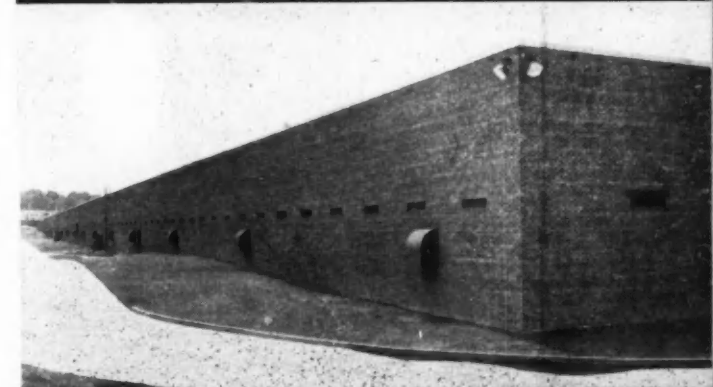
In the design and construction of the Dodge-Chicago plant, largest industrial structure in the world, the Kahn



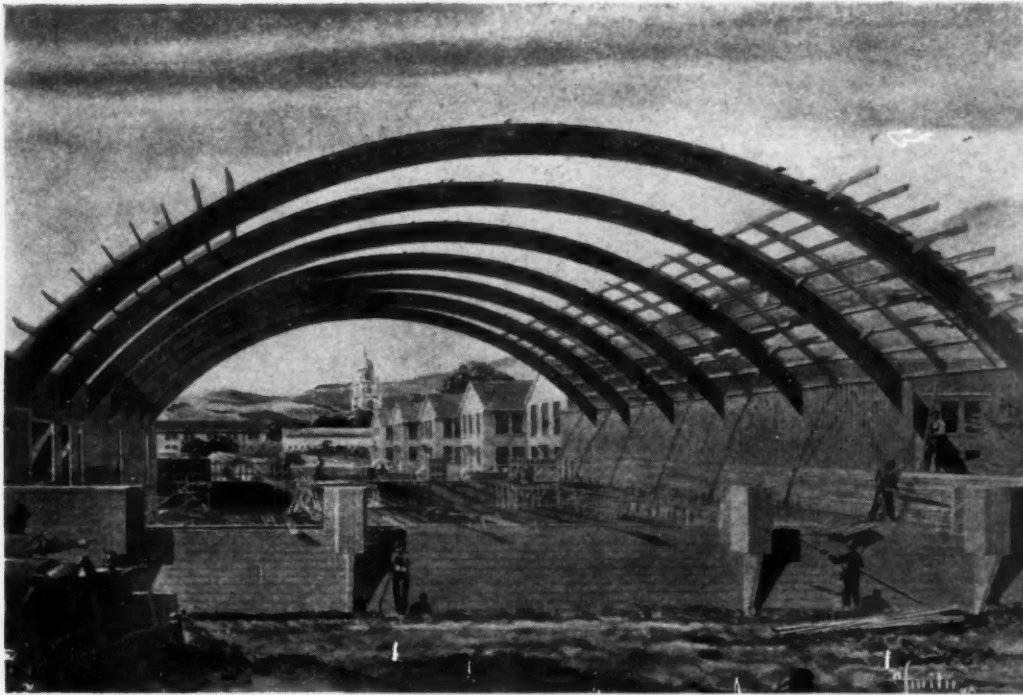
PRACTICALLY all glass, this Detroit war plant shows the extreme in daylighting an industrial structure.



NEW METHODS were used recently in laying this concrete roof which covers the world's largest industrial plant.

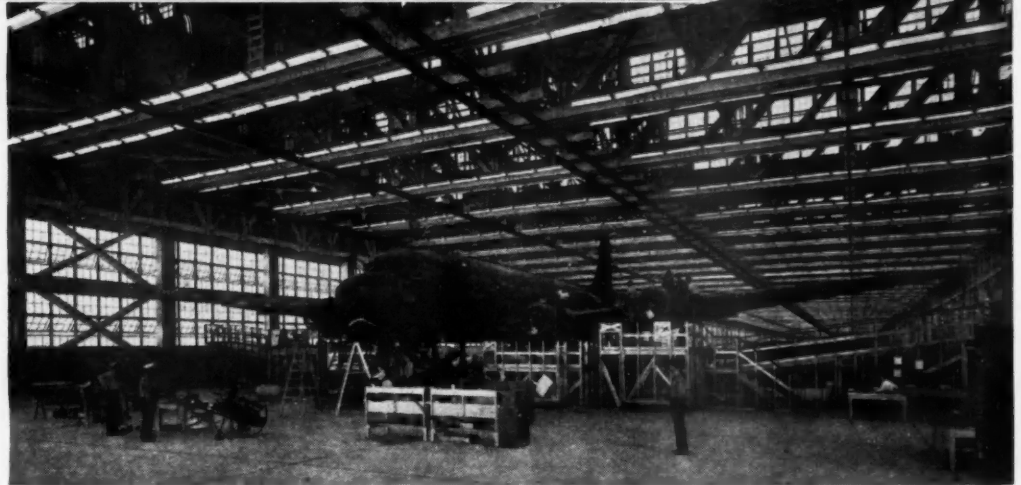


IN CONTRAST to the glass-enclosed factory above, this aeronautical building is windowless, air conditioned.



GIANT span laminated trusses built up with resin glue and wood have been used extensively in war construction. The 3 hinged arches shown at the left were fabricated by Timber Products with thirty-seven $\frac{3}{4}$ x8" boards in each of the three sections which span 117 feet overall.

PUTTING the finishing touches on a big 4-motor bomber in a huge all-timber assembly plant where more than 30,000 tons of steel and other metals were saved by laminated wood construction. Note lighting fixtures mounted along wood trusses.



organization was called upon to execute an even more ingenious plan. This huge building whose walls encompass the entire production job from foundry to final test cell, came under restrictions of materials. Designs and building contracts called for structural steel, but before the plant got underway a WPB ban eliminated any hope of getting this material. The revision of plans occasioned a few headaches and sleepless nights, but the building problem was solved by the development of an entirely new type of construction, low in cost, with a minimum of critical materials and without loss of operating efficiency.

The much-debated issue of whether the future bids fair to be an era of large self-contained plants or a period of less industrial concentration stimulates a wide variety of opinion. However, many foresee a greater distribution of industry throughout the country.

During the war, it is pointed out, plants have been scattered over a wide area including the agricultural south and midwest. Here new sources of labor in machine operation have been developed. After the war industry may find it expedient to build near this new supply of skilled workers.

Additional favorable factors for dispersed manufacturing are the wider availability of power, cheaper rentals, taxes and other non-production costs.

These cost factors are bound to be a primary issue for future management that must give careful thought to the location, construction and layout of plants if it is to cut costs to a minimum and so be able to exist in a period of keenly competitive business.

The coming exploitation of plastics, should it follow the pattern of development set by the automobile industry, would also indicate a period of many small plants in scattered sections from which parts are drawn for assembly in a home factory.

The cost factor will even dictate the rate of expansion of industrial air conditioning. The utilization of air conditioning will depend on its essentiality to manufacturing accuracy or its direct effect in justifying higher plant or office building rentals.

Similarly, no clear-cut future is indicated for windowless plants. Disbelieving in a general trend toward the elimination of windows, one Kahn specialist on windows relates the story of a war-built factory erected with high windows of special glass lacking the clarity of transparent panes. These windows were devised to conform completely with the blackout ideas then in vogue.

The plant was opened in midwinter, and the windows survived the cold weather period. But after the first balmy days of spring, the rate of window breakage stepped-up far above normal. Special vigilance revealed that when-

Wartime necessity has evolved the know-how for speedy and economical reconversion and construction of our commercial, industrial plant to peacetime operation.

ever a guard's back was turned, the bench hands would pick up a wrench or the nearest heavy object and hurl it through the windows. They wanted the feel of that outside air.

Yet only the day shift benefited, and since this plant worked a full 24 hours, it had two other shifts to whom the method of lighting was not important. It is logical to assume that if this particular plant is converted to civilian production after the war, and works only a day shift, the installation of regular windows may be desirable. Even the operators of some windowless plants are not sure the idea is right, and while this indecision remains, certainly no trend is indicated. Future structures will be designed according to the ideas of the operator as to specific function and needs of the individual plant.

Commercial Modernization Offers Big Post-War Market

Although specific trends in details of post-war plant construction and equipment cannot definitely be charted at the present time, the common denominator, the practical adaptation of factories to the work at hand, is clearly indicated. Industrial needs for meeting new civilian requirements and fulfilling the backlog of business point to great post-war activity.

Further, to sell the tremendous volume of consumer goods that such plants will turn out, several hundred

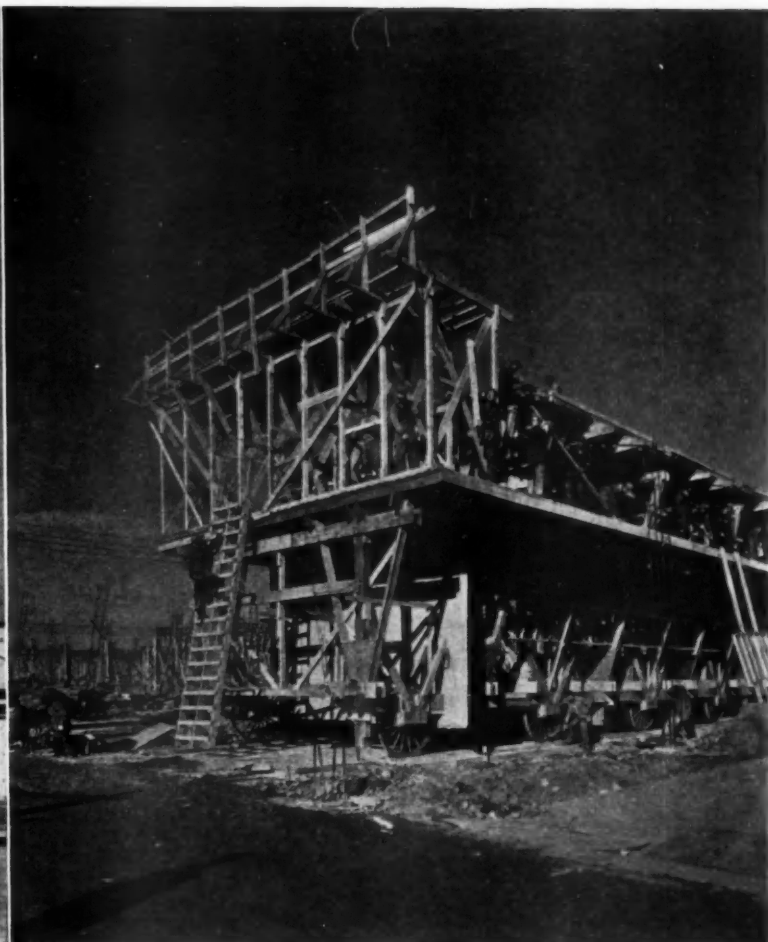
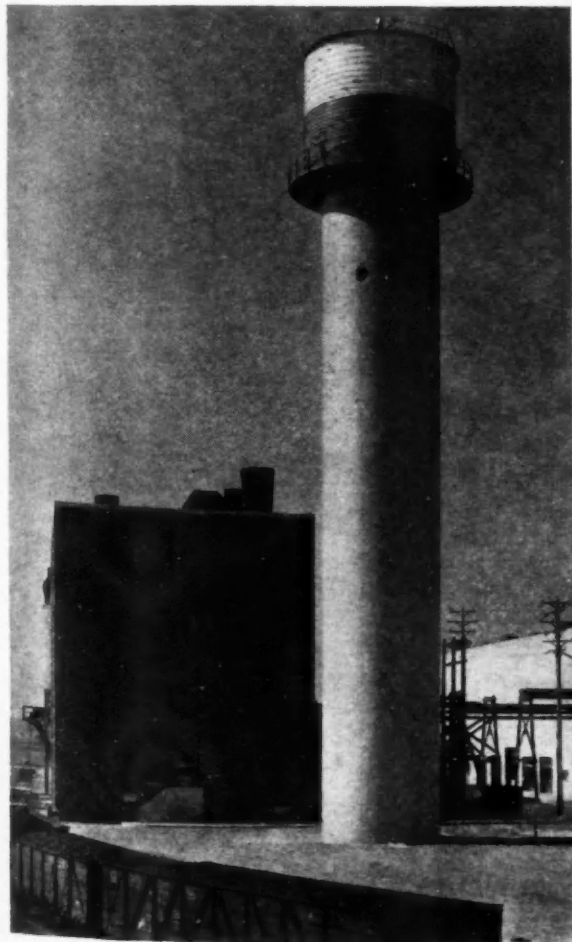


RADIANT heating installation going into a recently completed war plant. This system with heating coils buried in 6-inch floor slab holds promise of wider post-war commercial and industrial use.

thousand retail stores are expected to be modernized. In modernization of store fronts alone, from one to three hundred million dollars will be spent by retail merchants in the United States in the first year after the war ends, according to estimates collected by R. L. Clause, president of Pittsburgh Plate Glass Company.

(Continued to page 94)

BELOW: War dictated that the familiar steel water tank be redesigned in wood with concrete support; at right, traveling concrete roof form.



What Will War Do to Tomorrow's Home?

Some possible effects of war change and air-mindedness on housing seen by David Bareuther

WHILE statesmen ponder the possibilities of making this a better world, builders have the opportunity to plan better villages, better suburbs, and better cities. What effects will this war have on the American home of the future?

What will the post-war house look like?

What will this rapidly changing world do to specifications for location, site, design, construction, equipment, decoration, costs?

These are questions the builders, bankers, architects, and material supply men are thinking about today. Some of these men are doing their thinking in fox holes and pup tents, in strange occupations in war industries, amid hurry-up defense housing projects, even in havens of temporary retirement. But wherever they are, they are quietly planning on the post-war house.

There is nothing visionary about their calculations, for these are practical men who have learned the hows of experience. They realize for instance, that the steady trend toward larger homesites before this war undoubtedly will continue relentlessly when peace is signed. In the past they produced virtually the same priced popular suburban dwelling over a period of years on 50-foot plots, 75-foot plots, quarter acres, third-acres, and finally on half-acres. They watched the expansion and improvement of transportation steadily open new horizons for their operations.

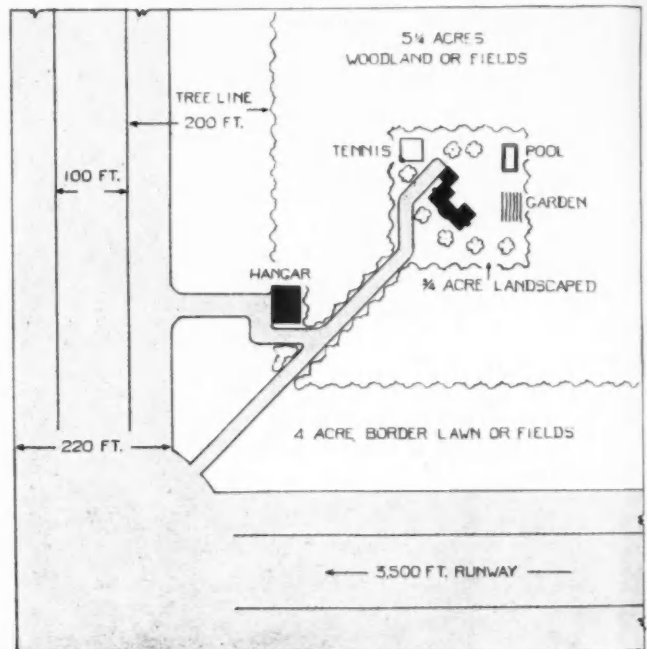
When such trains as the Zephyr and Hiawatha heralded a new era of rapidly "going places" these builders envisioned two-acre suburban plots far out from cities in picturesque woodlands with a half-acre landscaped in

the center for economical upkeep, and they planned much the same house again to be sold together with two acres of land for the same price as before.

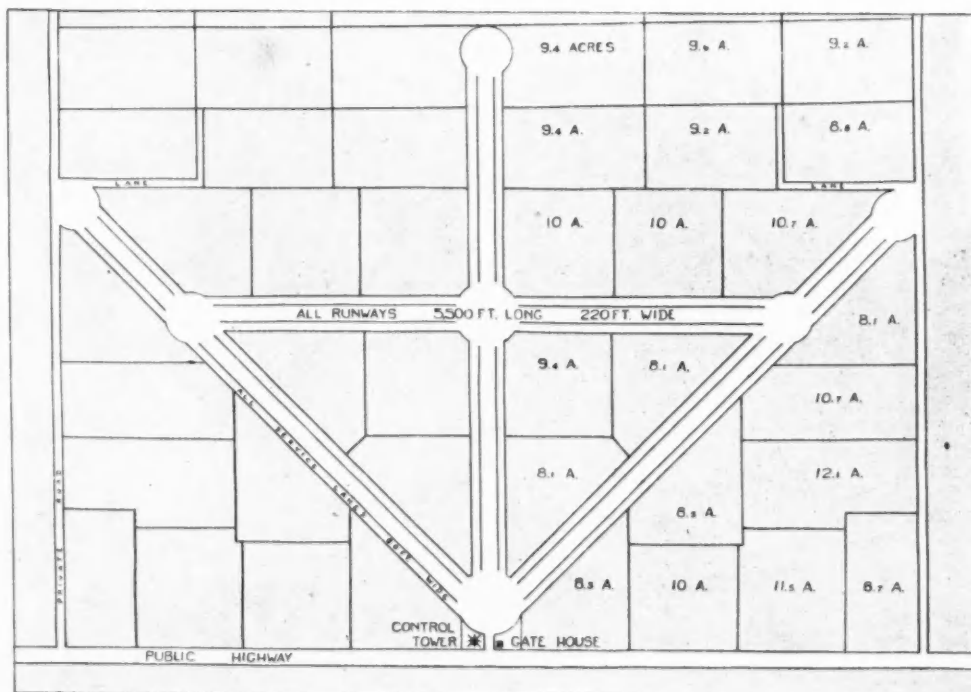
Today these men are watching aviation, keenly aware of the pronouncement that as many or more aviation-trained people will emerge from this war as were familiar with automobiles after the last war!

The Air Power of a Site

The present generation's air-mindedness unavoidably will be reflected in the location and site of the post-war home. If Mr. "X" Gunner, or "X" Bombardier can fly 300 miles with the greatest of ease while Caspar Milque- (Continued to page 90)



ABOVE: Suggested plot plan of 5 1/2-acre site for an aviator commuter not desiring to cultivate land; would allow maintaining three-quarters of an acre of landscaped grounds in the center of a private woodland park. Hangar is at edge of unobstructed setback from runways.

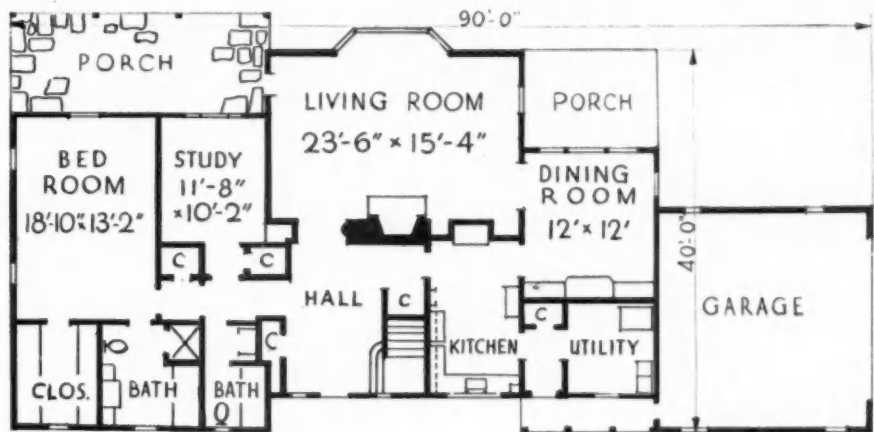


Subdivided for Returning Aviators

LEFT: Plan for 40 aviator commuters, a tract of 477 acres, 300 miles, or about an hour from a metropolitan center, subdivided into 40 little farms averaging 10 acres each. Runway shoulders will provide service lanes for groundings traffic. Homes will be set back on each parcel.

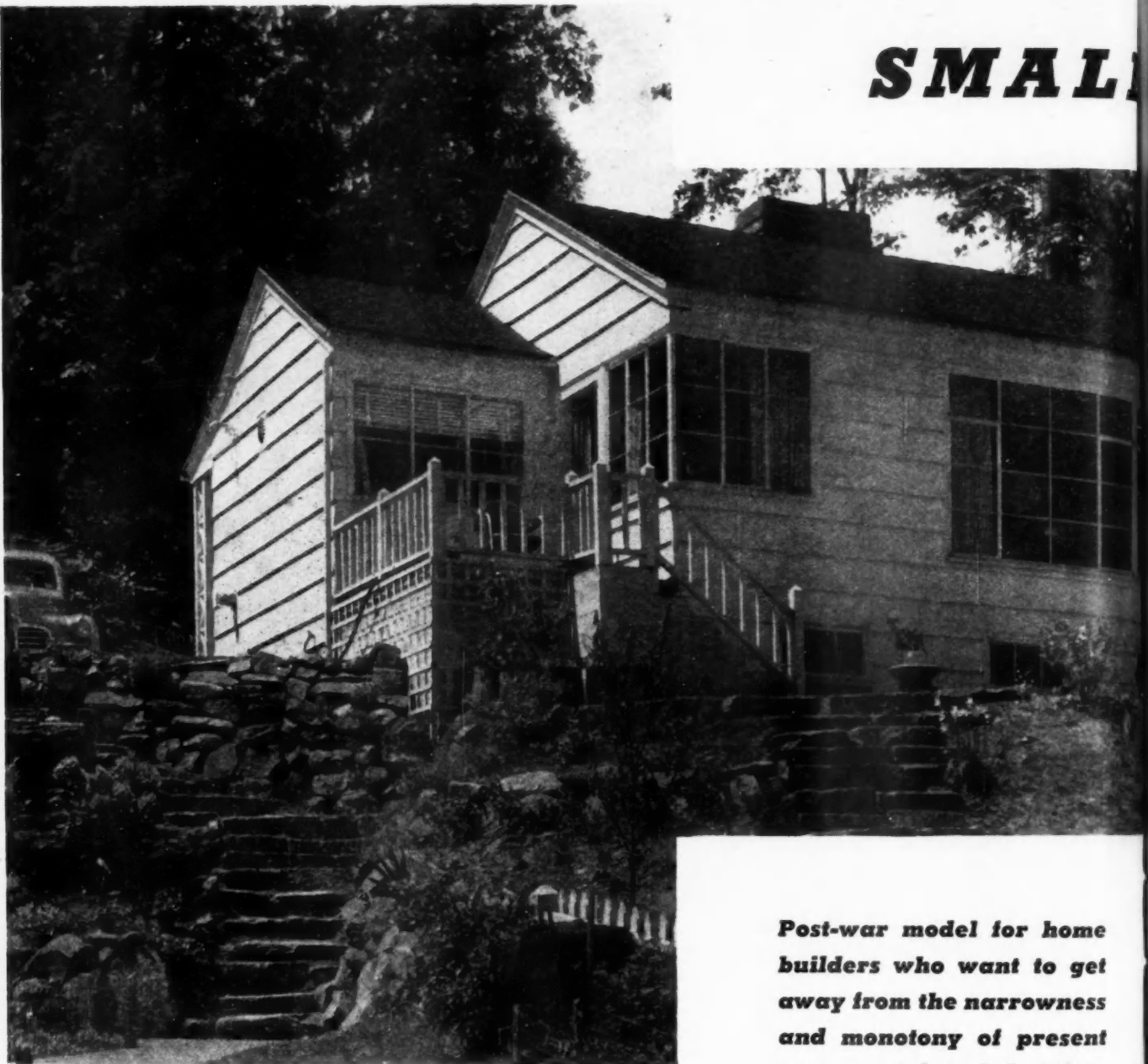


**One of the Last
Before Priorities
Built by a Long
Island Builder
for His Own Use**

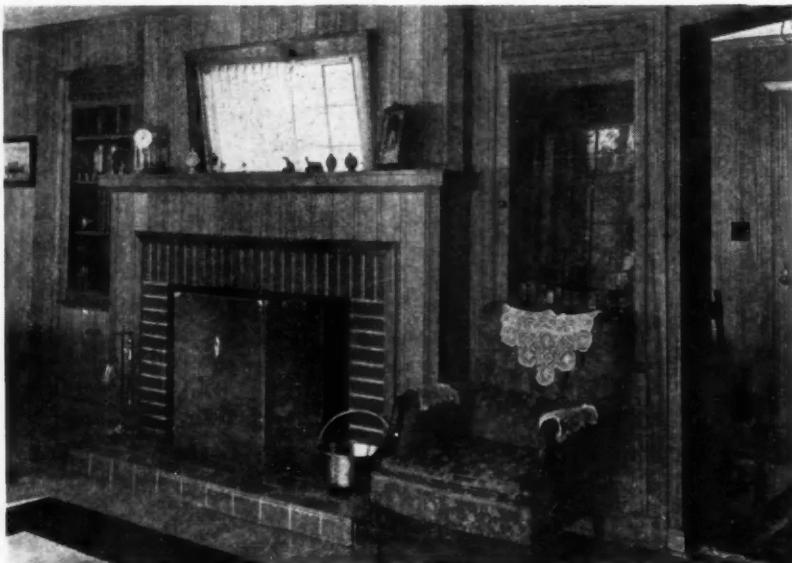


**FOR POST-WAR LIVING
IN THE COUNTRY**

ON A HALF-ACRE PLOT IN THE COUNTRY, this house at Lawrence, L.I., built and owned by Lou Goldschmidt, builder and developer, illustrates a type of post-war design suitable for country property. All principal rooms face on a private lake in the heart of Sutton Park; two awninged screen porches take full advantage of the picturesque setting. The plan is arranged to eliminate a basement; utility room houses heating and laundry facilities. Extra bedroom space is available on the second floor. The view at top of the page shows "rear" facing roadway. Exterior is limestone and hand-split shakes with a variegated heavy Bangor slate roof. Edwin Kline was the architect.

SMALL HOME

Post-war model for home builders who want to get away from the narrowness and monotony of present war-restricted housing.

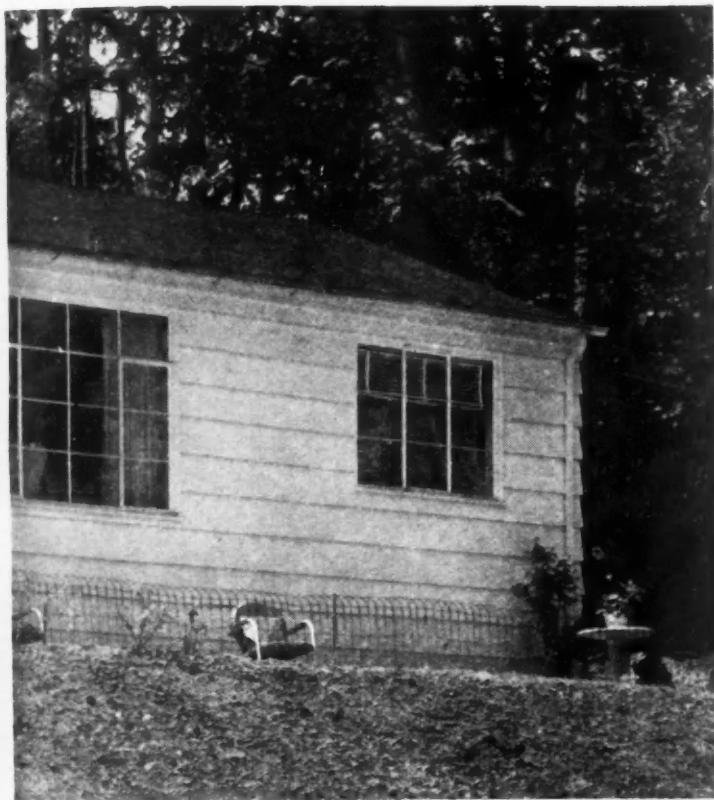


THE fireplace side of the living-dining room in this Northwest home displays the mahogany wall finish to excellent advantage. Flanking cabinets are nicely detailed.

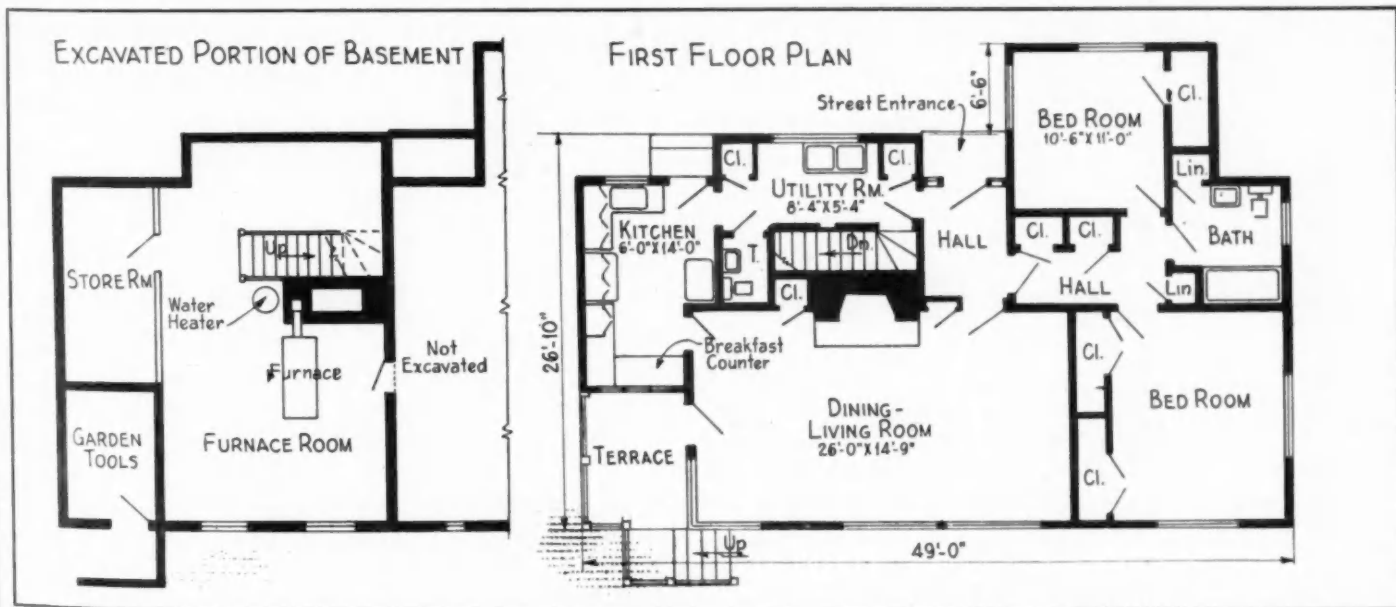
THE HOME of Charles P. Constantine, veteran Seattle advertising man, on Mercer Island, overlooking Lake Washington, is offered by American Builder's Plan-it-now Department. As a forward-looking design, a "view house" of great individuality and charm, it is complete in every detail, yet of moderate size and cost. It is a model, obviously, for many a post-war home building project which will be erected in protest to, or relief from, the small rooms and drab sameness of much of the present war housing.

This unusual small home was designed by Max A. Van House, architect, and built by D. J. McPhee for Mr. and Mrs. Constantine. It features a broad living-dining room, finished

Home With BIG Outlook—



THE living room and master bedroom face the rear in this home near Seattle so that picture windows take advantage of the view.



FIRST floor utility room, plenty of storage, excellent circulation provide modern livability in four rooms and part basement.

in Honduran mahogany and provided with immense picture windows overlooking the lake. A big mirror above the mantle, set at an angle, reflects

the outdoor view. The floor is oak plank type. Outside walls and roof are, of course, of red cedar shingles, a favorite building material with Mr.

Constantine, since he has been identified for more than a quarter of a century with the advertising and promotion of Pacific Coast red cedar.

BUILD UP YOUR SALES PORTFOLIO OF POST-WAR DESIGNS



Title VI War Duplexes Show Low Rent

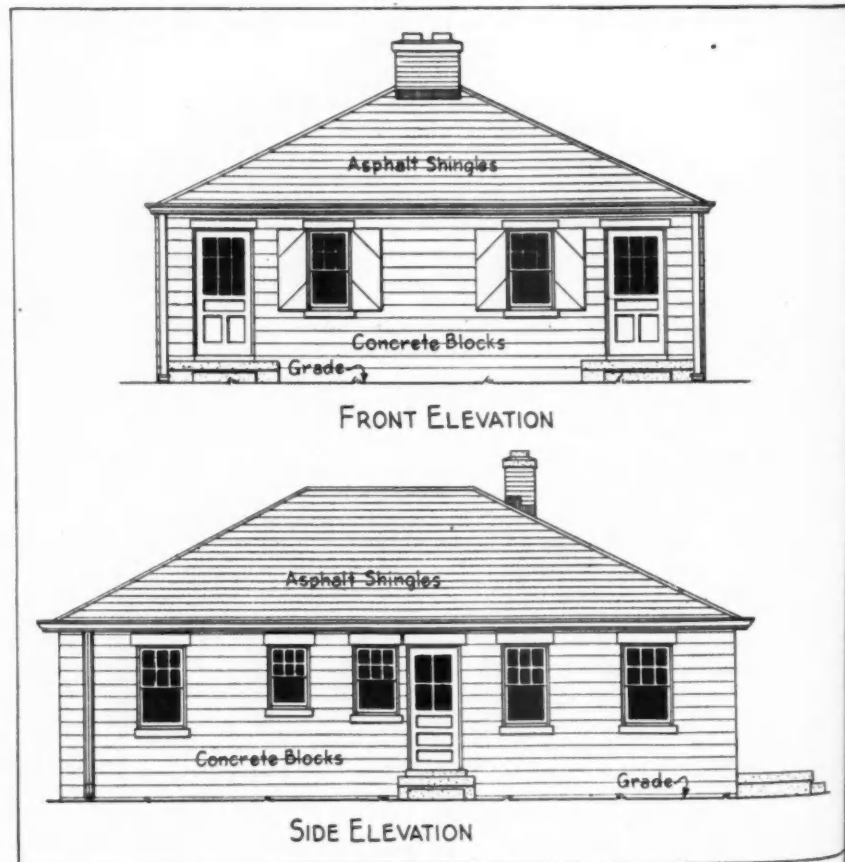
WITHIN the attractive small homes pictured above, F. C. Tucker of Indianapolis accommodates two war workers' families. These units are really detached three-room apartments, two to a building. Each consists of a combination living room and dinette, bedroom, bath and kitchen. Storage space including bedroom closet is simply organized in the center; it contains the hot water heater with adjacent flue which also carries the space heater in the living room.

The project consisted of ten double units which meet the FHA requirements for Title VI Mortgage Insurance.

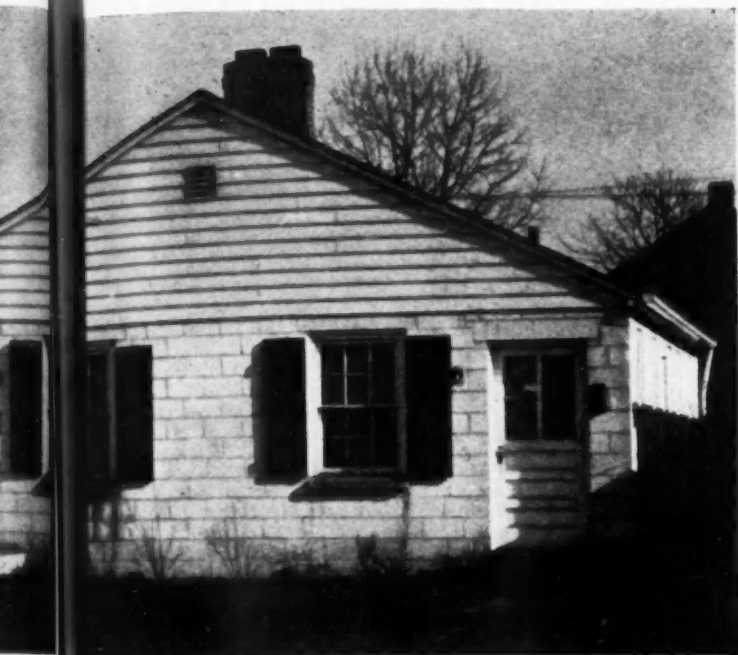
Included in Mr. Tucker's past building experience was the construction of a number of gasoline service stations for a group of major oil companies. When he started on his war housing career it was perfectly natural that he should draw upon his past to work out a substantial, compact rental unit.

His familiarity with concrete masonry construction and the availability of the required units within a short trucking distance of the project were factors in his choice of materials. Beyond these was the major necessity of saving such critical

materials as steel, lumber and metal items. The exterior walls are concrete block with interior partitions in narrow units of the same material. Concrete floors were laid over cinders, topped with a moisture-proof membrane of double thickness, asphalted paper. These floors were finished smooth and marked off in a tile pattern; tenants could use whatever floor covering was desired.



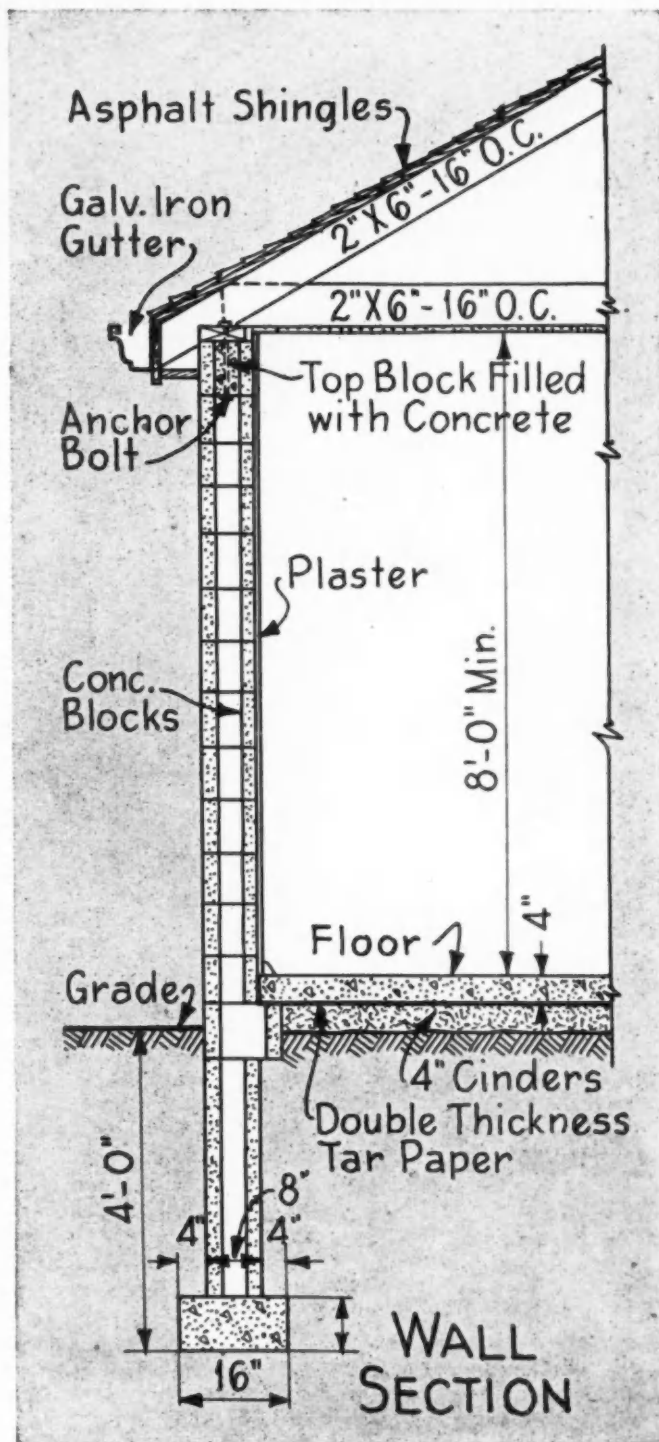
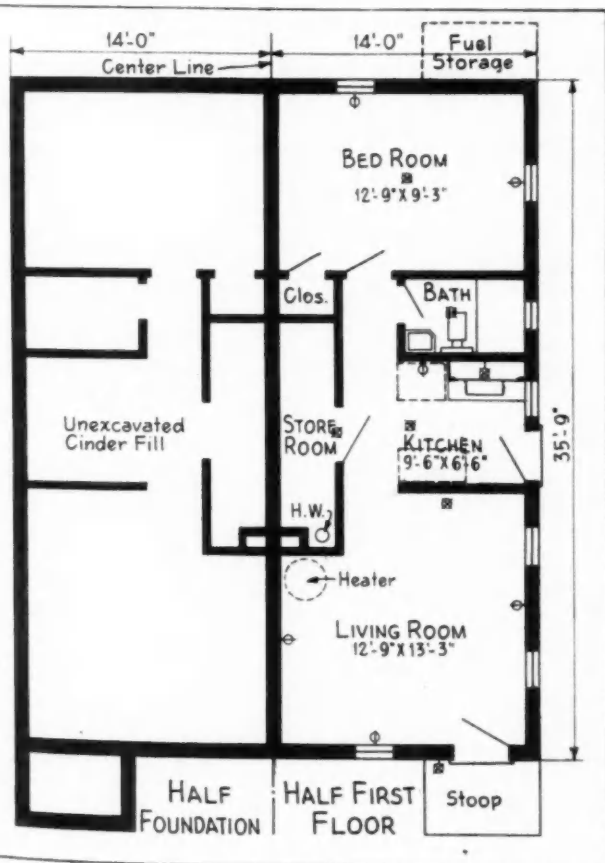
TWO elevations and half plans of foundation and first floor as shown at the right demonstrate how F. C. Tucker builds attractive, economical two-family units within 28x36 overall size. In these three-room apartment type accommodations, the kitchen is screened from living and dining portions by a stub wall with through hall to enlarge kitchen space. Plumbing is economically grouped.



F. C. Tucker of Indianapolis Builds Substantial Two-Family Masonry Homes to Rent to War Workers at \$27.50 a Month per 3-Room Unit

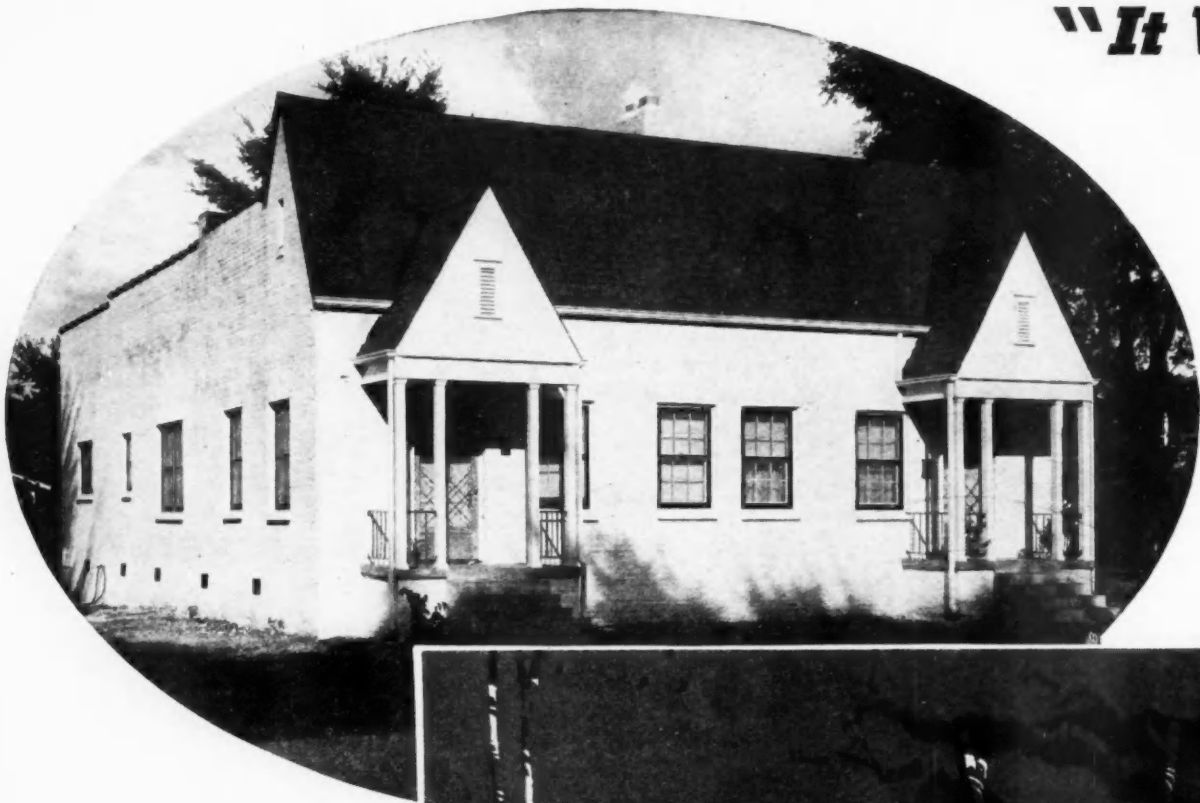
Possibilities

Mr. Tucker reports that while these units were an innovation in that area and were found to be very satisfactory for low rental housing purposes, he believes that more of them could be built to advantage in Indianapolis. It is quite possible that in the post-war market, housing of this type, constructed by private builders on a larger scale, will fill a definite need.

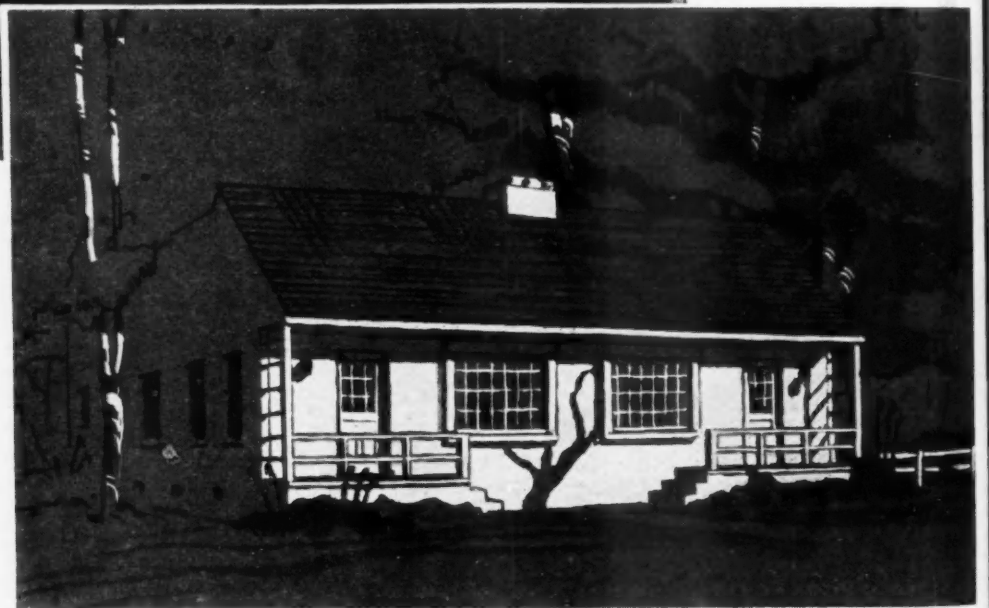


WALL section indicates sound masonry construction of these homes; critical materials reduced to minimum (wood gutters now for metal).

"It Would



ABANDONED Birmingham garage which was made into duplex for war workers is shown above, as published in January *American Builder*. Sketch at right shows how talented young architect suggests it might have been done to give it architectural charm.



THE conflict between idealism, good taste and good architecture on the one hand and the practical mechanics and economics of remodeling jobs on the other was never better illustrated than in the sketches above.

Here are two remodeling jobs, pictured in the January *American Builder*. They represent the practical, economical building methods as practiced in the field by many successful builders. Often such jobs are done without benefit of architectural service; frequently they are located in areas where an architect is not available.

Pictured below each of the jobs is a drawing or sketch by J. Murray Hueber, fifth year architectural student at Syracuse University. Hueber thought the remodeling so bad he prepared these sketches to illustrate how much better they might have been. *American Builder* leaves it to its readers to decide whether he is right.

Questioned regarding the sketch of the remodeled garage, Bedford F. Seale who did the job said "Hueber has changed the front roof line of the building, which we estimated would have cost \$500 to \$700 more than we charged for the work—quite an important item.

"This would likely have killed the job for us, as it hung fire for several months while the woman owner sought to raise the necessary funds.

"Admittedly, Mr. Hueber's design on paper is most attractive. We did not change the roof line at all, merely recovered it."

This controversy puts the spotlight on two important building and architectural problems, namely, (1) although our colleges and universities are training thousands of young architects they do not seem to get out into the "grass roots" areas of the building business where their services can be put to work on the hundreds of thousands of small building and remodeling jobs. (2) Far too often the perfectly sound and desirable ideas of architects, both young and old, run up the cost of a project so much that it would be killed if their ideas were allowed to prevail.

Certain it is, that the present trend is toward a demand on the part of the public for more skilled, qualified architectural service, and a better quality of design.

The incident which led to preparation of the above sketches by young Hueber was a letter written by his

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Have Been Better This Way"

Idealistic young architect criticizes remodeling jobs. Builder replies: "It would have cost too much your way"

father Paul Hueber, registered architect of Syracuse, to *American Builder*, as follows:

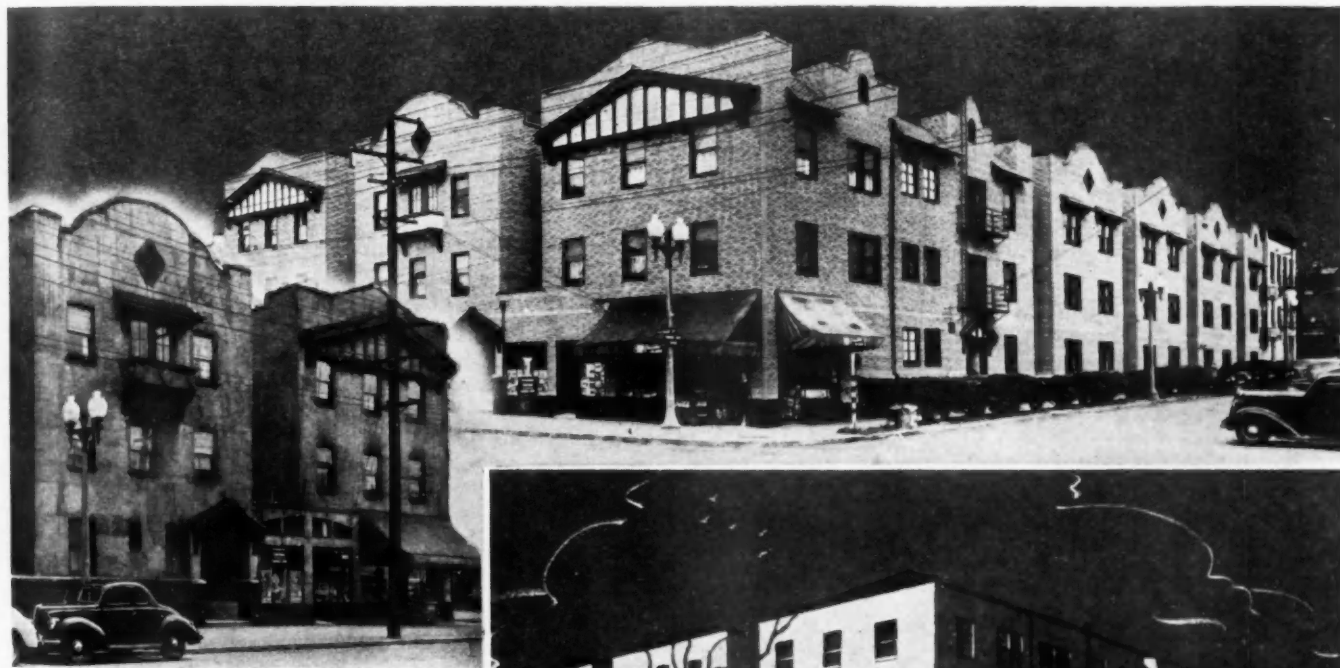
"The articles on post-war housing in the *American Builder* were of such interest to me that I ordered five copies—two for leading realtors, one for the publisher of a local paper (who wanted the data in preparation for some editorial work) and two for the Department of Architecture at Syracuse University where my son is in the fifth year architecture.

"As you know, most students have 'gone modern' like the architectural magazines—a bit ahead of the public as your articles proved.

"I felt sure I'd win one round with my son with the help of the issue of your magazine. All went well until

then invited young Hueber to send in his ideas, with the results shown here.

Under the pressure of wartime housing demand, countless thousands of remodeling and conversion jobs are being carried out throughout the country. On very few of these does a qualified architect even get called in. There are many reasons, including the current scarcity of architects. One important reason in both war and peacetime is the fact that many such jobs are speculative on the part of the builder and he hesitates to risk a good-sized architectural fee on a job that may fall through. In other cases the size of the operation is so small that the qualified architect is not interested in working at it, since the size of his fee would necessarily be small.



OLD apartment and store building shown above as it was remodeled and pictured in January *American Builder*. At right young architect J. Murray Hueber pictures modern treatment of same building.

the students hit page No. 62 and then No. 64—the only sour spots that really made some modern stuff look good.

"Anyhow, I lost round 'one.' Kindly have your art editor, or someone, be more careful and help us 'old' architects win a fight once in a while with our 'modern' sons."—Paul Hueber, registered architect.

American Builder replied to this letter to the effect that one remodeled garage actually made into two houses for war workers today is worth many pages of theoretical projects on paper that never get built. *American Builder*

A solution now being worked out by many builders and building firms is the addition of a qualified architect to the staff or a working arrangement with an independent local man. Many architects, however, refuse to consider an arrangement of this type.

(EDITOR'S NOTE: *American Builder* will welcome and publish letters from readers who wish to express their opinions on this subject.)

Parsonage Gets Needed Wartime Reconditioning



OLD Alabama parsonage had about reached the end of its habitable days; "before" plan at right shows inconvenient arrangement.

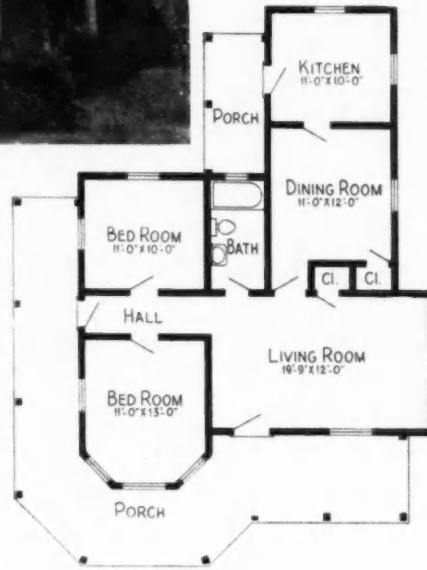
AN outstanding remodeling job at a cost of less than \$1,000 was recently done on the parsonage of the Presbyterian Church at Carbon Hill, Ala., by Contractor Joe Allen of that town—a job that might be done in many other towns in the country.

Very little critical material was used in the remodeling, this including some wiring for a number of electrical outlets placed in the various rooms. This was permitted under the head of necessary repairs of a dwelling and also for a religious institution.

The old house in its dilapidated condition was more or less a disgrace to the church. The roof leaked, the rambling porch was about to fall down and the general appearance of the house bad, although basically of sound construction.

The changes as decided upon by Contractor Allen in cooperation with the pastor, the Rev. D. A. McRight, included the complete elimination of the porch which extended around two sides of the house and the erection

Dilapidated structure is salvaged with very little critical material. Religious purposes help make such jobs possible.



of a new one of more pleasing design across the living room front of the house. The circular front of the front bedroom was eliminated to give this room more space and to improve the exterior appearance of the house.

Removal of the bathroom constituted the chief improvement in the interior arrangement of the house. Its old location opening onto the living room was changed into a closet opening onto the back bedroom and the bath relocated in an idle hall space between the two bedrooms. The exterior wall of the house was extended out about 3 feet in order to make more room for the bath and at the same time leave space for a hallway in which a circulating heater was placed. A flue for the heater was built. A

place not completed when photographed was built at the end of the living room.

As rooms in the old house were dark, this was remedied by installing double windows all the way around and in every room, including five windows in all for the living room. Old materials in the house were used as far as possible in the remodeling. For instance lumber in the porch columns was used to build new window casings. A closed-in back porch was built and new floors laid in two rooms.

As Contractor Allen has a war job with a mining company he did most of the work on his off days.



NEW front is neat and, when landscaped, will be attractive. Changes in plan indicate more closets, windows and better location for bath.



C
CRAN
PLUM
NATION

CAN YOU GUESS? *What America Wants in Postwar Housing*

QUIZ ON CRANE PUBLIC PREFERENCE POLL

Check your guess with the answers shown below.

WE asked 200,000 home owners and prospective home owners to vote on their preferences in equipment for the home they plan to build after the war.

The main purpose of this survey was to aid Crane designers and engineers in developing a postwar line of plumbing and heating which would suit the tastes and desires of tomorrow's home owners.

However, the thousands of answers we received are so indicative of the thinking being done today by tomorrow's home owners, that we believe you would be interested in learning

more about it.

Obviously, no survey can cover all the factors that influence final selection such as cost, desires of other members of the family, etc. The replies, however, do represent an interesting cross-section of public opinion and as such can be of great value to anyone interested in postwar design or construction.

You might like to check your thinking with this expressed opinion of America's future home market. You will find the actual percentages of the questions in this quiz at the bottom of this page.

- 1 ...% What percent prefer a single bathroom with combination tub and shower as against two bathrooms with shower stalls?
- 2 ...% What percent want a powder room?
- 3 ...% What percent want a shower over the tub?
- 4 ...% What percent prefer a small kitchen? (6x9 Ft.)
- 5 ...% What percent prefer a medium-sized kitchen? (9x12 Ft.)
- 6 ...% What percent prefer a large kitchen? (14x16 Ft.)
- 7 ...% What percent want a breakfast nook in the kitchen?
- 8 ...% What percent prefer storage cabinets in the kitchen rather than a separate pantry?
- 9 ...% What percent want the sink under the window?
- 10 ...% What percent want a basement?
- 11 ...% What percent want a utility room instead of a basement?
- 12 ...% What percent prefer steam or hot water heating?
- 13 ...% What percent prefer warm air heating?

ANSWERS

- 1 ... 72%
- 2 ... 79%
- 3 ... 73%
- 4 ... 12%
- 5 ... 53%
- 6 ... 32%
- 7 ... 61%
- 8 ... 74%
- 9 ... 90%
- 10 ... 62%
- 11 ... 31%
- 12 ... 47%
- 13 ... 42%

THE questions shown are only a few taken from the Crane Survey. A more complete digest of the results of this poll augmented with statistical data is presented in an interesting book which will be sent without charge to anyone desiring a copy.



CRANE CO., 836 S. Michigan Ave. Chicago 5, Ill.

Please send me a copy of "What America Wants in Postwar Housing."

Name

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Appraising Slums for Redevelopment



This important phase of slum clearance by private enterprise supplements last month's general article on this subject.

TO CLEAR blighted rural and urban areas for private redevelopment, a basis upon which slum buildings and land can be appraised must first be determined. The huge task of rebuilding blighted areas will depend upon the formulation now of a basis of appraising that will afford federal and municipal authorities some approximate idea as to the total cost of the acquisition of slum land.

As a general rule, the value of land is the sum of all the net land incomes that will probably accrue or be developed from the use of the land, discounted for the period of time that it is predicted will elapse before the incomes are to be received.

To obtain an income from urban land, it is usually necessary to erect a building upon it. But a single 25 ft. lot has very little value in a slum area because an owner could not erect a new building that would yield an economic return if he built in the middle of a slum area.

On the other hand, land, under old buildings which are producing an income has a value based on the net income remaining after taxes, return, and depreciation on the old improvements are deducted.

In view of the conditions in a slum it should be assumed that the economic life of these old structures will be very short under the best conditions, and that the existing net income will continue for just a limited time. Unless the land is thus devalued, the cost of assembling it will be prohibitive.

Unfortunately, extensive tracts of land probably cannot be acquired in blighted areas, even under powers of condemnation, at a cost that will be less than their economic value as part of a new large scale redevelopment.

The costs of blighted land are augmented by the further necessity of paying for old structures that are to be wrecked. An old building on a typical 25 x 100 foot lot with a net income of \$50 a month might well cost \$5,000 to acquire. This would be equal to paying a site price of \$2 per square foot or \$200 per front foot. For this reason it is seldom economically feasible to develop new communities of moderate density on land now densely occupied by old structures, because of the high cost of site acquisition.

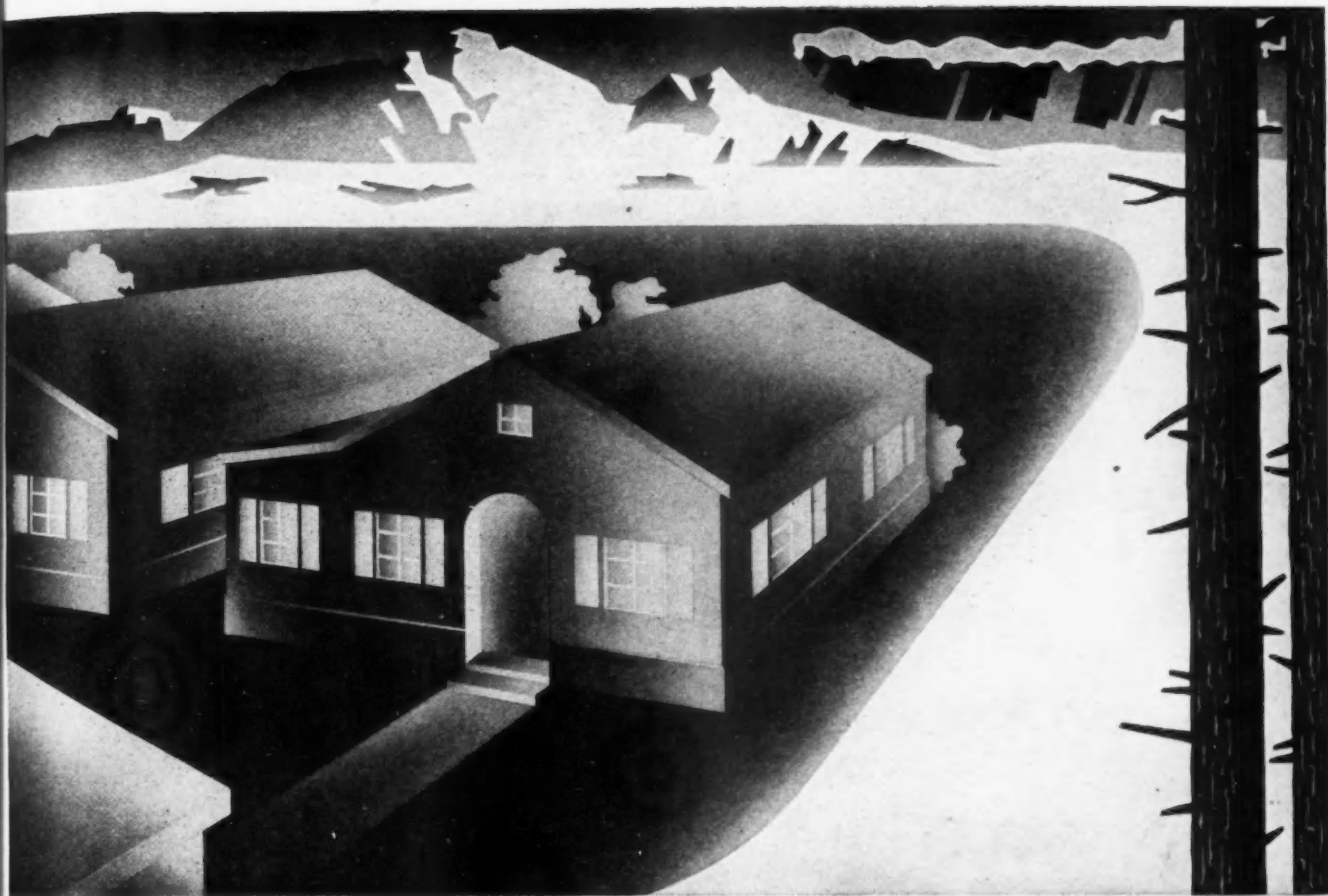
Opposing this cost, however, is the economic question of whether we can afford to pay the price of allowing the streets, schools, sewer and water systems of these central areas to lie unused while tremendous sums are invested in new schools, streets, sewers, and added transportation facilities. To continue to expand our cities may mean complete loss of revenue from the blighted areas and probable bankruptcy of the central city.

Inasmuch as it is contemplated that the job of rebuilding the slums will be done chiefly by private enterprise after the task of assembling the land has been achieved with governmental assistance, the following six means whereby economics can be effected in acquired land, are suggested:

(1) Appropriate authorities can foreclose the lien of taxes delinquent for more than a reasonable period, say five years, and provide an entering wedge for the program of redevelopment.

(2) Cities can rigorously enforce all health and building laws requiring demolition (in lieu of moderniza-

(Continued to page 93)



MAKE SUMMER SPEEDS on winter jobs

The temperature is below freezing . . . may stay there for many weeks. A much needed war-housing project must be finished in double-quick time. One answer to your problem is Atlas High-Early cement.

American builders time and time again have turned to Atlas High-Early to help them meet winter war-time construction schedules. It gains strength rapidly and produces serviceable concrete so quickly that often forms may be stripped in 24 hours instead of the customary 3 to 5 days.

This means savings in time, equipment, heating, and manpower. Forms can be re-used more quickly, placing schedules can move ahead faster, heating, protection and curing time

can be slashed—often as much as 70%.

You need no change in mix or in accepted methods of good concreting when you use Atlas High-Early. Handle it as you would normal cement with the assurance that its quick-hardening properties will help you speed the job. For further information and for experience records of other jobs, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, New York.

CHECK ON ATLAS HIGH-EARLY for Wartime Construction

Because Atlas High-Early cement gains strength rapidly—produces serviceable concrete in one-fifth the usual time on some jobs, it—

1. **Permits earlier use** of concrete, and thus gives owner earlier occupancy.
2. **Saves manpower** when such conservation is needed most—releases men for new jobs more quickly.
3. **Conserves lumber.** Forms may be stripped sooner—often in 24 hours instead of from 3 to 5 days—and re-used. Hence fewer sets of forms may be needed, saving time, labor and lumber.
4. **Shortens time required for protection and curing** as much as 70%. This saves fuel and releases tarpaulins and salamanders for other work more quickly.
5. **Reduces overhead** by saving time, manpower and equipment.

AB-H-60

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



SAVE TIME IN WARTIME WITH Atlas High-Early Cement

A UNIVERSAL ATLAS PRODUCT



PLANNING THE POST-WAR HOME

THE MILLION or more homes predicted annually for many years after the War are being planned now and the desire for Red Cedar Shingle roofs and double-coursed side walls is being created by our national advertising in Home Building and Farm periodicals.

A survey by architects and builders shows that post-war housing will give preference to the Cape Cod and modified Colonial designs,

and this is where double-coursed Red Cedar Shingle side walls are ideally fitted because of their beauty, economy, and long life.

Fill in the coupon below for a set of blue prints of correct shingle application—have these handy in your files for ready reference.

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

RED CEDAR SHINGLE BUREAU, 5508 White Bldg., Seattle, Wash. AB 11-43

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

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BRIEFLY TOLD:

TSA's November 1 advertisement in Life Magazine, featuring "The Suburban Home" with semi-circular kitchen and living room, is bringing in a flood of inquiries which promises to beat the outstanding record of previous TSA ads.



New "Suburban Home" folder, now being distributed, includes detailed heating plan, floor plan, interesting notes by D. Allen Wright, architect. As a special feature, the Modern Kitchen Bureau of The Edison Electrical Institute has designed a modern arrangement for the semi-circular kitchen.



TSA dealers report an unusual amount of consumer interest in current Timken magazine and newspaper advertising. Aggressive dealers are compiling valuable lists of prospects planning to build new homes after Victory.



The next issue of Timken Heat* (Timken's magazine for dealers and their employees) will contain an authoritative article by Dr. W. V. Howard of the Oil & Gas Journal on "Exploration Methods and Their Probable Effect on Future Oil Reserves." Also a story on "Cleaning Oil Strainers" with complete information on the latest factory-approved methods.



We have received many appreciative messages from dealers on our policy of maintaining a full staff of service representatives in the field during this emergency—another Timken service to dealers.



Less than 1/2 of 1% of all Timken users have substituted coal for oil. An excellent testimonial to user satisfaction, when you consider the pressure put on to substitute coal for oil.



Timken dealers really appreciate the simplicity of the Timken Burner when they try to keep less reliable, more complicated burners in operation.

*We'd like to send you a sample copy. Please write on your letterhead and mention this ad.



Good will shot to - - - !

You hear it every day —

Can't get the oil burner started . . . can't get a service man . . . don't know what to do!

But you seldom hear this about Timken Silent Automatic.

First, Timken Silent Automatic burners are designed and built to require *less service* — and to be *easy to service* when something does go wrong.

Second, Timken Silent Automatic dealers and mechanics know how to fix burners so they *STAY* fixed . . . thanks to factory training manuals and schools, backed up by expert advice from factory field men, new printed service aids, and frequent factory mailings to Timken owners.

Right now, a new 16-page booklet is

on its way to Timken owners all over the country, packed with suggestions on how to keep equipment in good condition and reduce the need for service.

This interest in users' welfare is earning for Timken and its dealers one of the best reputations in the industry. Supported by strong advertising campaigns in magazines and newspapers, and the finest of selling tools, this public acceptance will help to sell a powerful lot of new equipment after Victory.

There's a long record of success behind the Timken franchise. We'd like to tell you how you can profit from it.

After Victory, Timken will be ready with improved heating and air conditioning equipment and other new products for the home.

TIMKEN *Silent Automatic*

Quality Home Appliances—for Comfort, Convenience and Economy

Division of THE TIMKEN-DETROIT AXLE COMPANY, Detroit 32, Michigan



War Housing Items from the CAPITAL

By Frank W. Cortright

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



Wheels Grind Slowly—The Home Builders Emergency Committee was lately in session here. Problems involving labor, material and equipment shortages were discussed at length with the government officials responsible for their supply. Assurances of faster processing and a more satisfactory allocation of bath tubs, ranges, gypsum board and other items were given the four sub-committees who followed through after the two-day discussion period. A full week has now elapsed and we can find no tangible evidence of action although we are advised that many beneficial directives are in the making.

Cold Weather Ahead—Builders priorities and options on land expire daily. The patience of many mortgages is being badly strained. Projects in some parts of the country have come to a standstill through lack of materials. Applications for mortgage commitments continue at a low level. In the meantime, agencies of government charged with the war housing program argue among themselves over matters insignificant in their proportionate relationship to the total supply of materials and manpower.

West Coast Muddle—Although many war production centers are listed as "hot spots," California, Washington and Oregon head the "must" list in WPB. The reason for this is obvious. Most materials of war are approaching their maximum plateau of production. On the other hand, the production of aircraft and ships still must be greatly increased. A large part of this load is scheduled for West Coast plants and yards where the housing available is totally insufficient to meet the manpower recruitment schedule. Los Angeles, for example, may soon be assigned another 13,000 priorities—12,000 private and 1,000 public. The over-all job of some 85,000 dwelling units for the entire West Coast area is critically endangered at this moment by red tape. For almost the first time in two years insistent demand for relief comes not only from the builders, but from plant managers and regional government officials.

Time To Demand—Hardly a day has passed in Washington since Pearl Harbor that some official of government has not met our plea

for materials and equipment by saying, "Would you take these materials for housing at the expense of planes, guns and tanks for our boys at the front?" Our answer to this has always been, and will continue to be, that the very plants which must supply our boys with these things will fail to produce them unless sufficient and adequate housing is provided for the workers. Only recently has this fact become apparent to some key men in WPB and to some top officers in the Army and Navy. It is now clear that unless our priority ratings for all materials are adjusted to parity with the Army-Navy ratings, the entire program will bog down this winter. It is quite clear that the time has now arrived for those interested in war housing to stop requesting and start demanding!

Postwar Billions—Senator O'Mahoney of Wyoming proposes that chief reliance be placed on private capital in financing housing and other job producing projects during the postwar period. As the head of the sub-committee of the George Committee on Post War Economic Policy, he has filed a report dealing mainly with conditions on the West Coast. In fact, he has gone so far as to suggest that it might be well to reappraise all federal programs involving contributions to the states and their local subdivisions for various public works. In this connection, he points out that "while the national credit has been under great strain, the fiscal condition of the states seems to be improving." According to the Census Bureau, many cities are reporting a budget surplus. A recent estimate indicates that this budget surplus for the states has reached the figure of \$1,000,000,000. Material given Senator O'Mahoney by the Federal Reserve Board indicates that there are ample reserves of private funds to stimulate jobs "which the nation will need to substitute a prosperous peace economy for the present war economy." It is believed that the money in the country today available for investment amounts to \$77,500,000,000—twice as much as was available in 1939. In concluding his report, Senator O'Mahoney expresses the opinion that "the trend toward State Socialism can only be retarded by the substitution of private and local expenditure and investment in fields which are private and local."

FPHA Steps In—As a preliminary step toward formulating its postwar housing program, the FPHA has announced that it will start receiving applications for federally-aided projects, and has sent instructions to this effect to its regional offices. Even though no funds are now available for federal contributions toward such a program, it is felt that the work of accumulating applications can be started. It is obvious that by encouraging the submission of applications, FPHA will build up pressure in many localities for a new federal program. If the various housing groups in cities across the country begin planning developments in a serious way, public interest in the proposals is bound to be stimulated, and this in turn will influence congressional action. In fact, each federal bureau in charge of a construction program, or that supplies aid for such a program, was requested by a recent executive order to begin lining up projects for the postwar period. With the admirable objective of providing postwar employment for three million workers they propose the construction of 1,500,000 new homes annually by private enterprise and by using public funds! They propose that, by coordinating the activities of public and private interests, "modern homes for all families in all communities" will be provided! They are especially interested in the middle group now "stranded between the floor of private housing and the ceiling of public housing." However, private initiative can and will develop plans involving the utilization of federal credit on a long-term low interest rate basis. The challenge is thrown down to us in such phrases as "If private building still prefers quick speculative profits from wasteful shoestring operations, then public housing must expand its field accordingly."

Tenants Question—During the last several months, representatives of war housing tenants councils have been meeting to discuss certain phases of living in public housing projects. They have discovered a general similarity in their problems, and are appointing delegates to represent them in certain matters of importance. Approximately 50,000 families in the San Francisco Bay Area believe that there is a need for united action. Three of the subjects brought up in a prepared pamphlet are: "Relationship Between Tenants and Management"; "Registration for the Coming National Election," and "What Happens to the Projects and To Us, Their Inhabitants, After the War?"

Relief Maybe—The Home Builders Emergency Committee met here this week in executive session. Tuesday was spent in a forum session with government officials. The writ-

(Continued to page 68)

A VAST CONSTRUCTION PROGRAM LIES BEHIND THE ARMY'S TRAINING



WHAT price war? The cost of war construction alone runs into billions of dollars. Turning American civilians by the millions into highly-skilled fighting forces required the construction of huge camps, for training purposes . . . quickly!

Here too as in the construction of airplane factories, armament plants and all other industrial projects of war, Lehigh Cement found an essential place. In much of this work serious delays were eliminated by the use of Lehigh Early Strength Cement, which makes concrete of service strength in 1/3 to 1/2 the time required by normal cement. To cite just two examples: concrete in camp roads in use within 24 hours, and superstructures of buildings started the day after concrete for foundations was placed.

The time-saving advantages of Lehigh Early Strength Cement apply, often at reduced cost, to concrete construction of all types and for all purposes—public and private.

The Lehigh Service Department will gladly answer all questions on uses of Lehigh Cements.



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

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

(Continued from page 66)

ten reports of sub-committees, without exception, reflected a far more sympathetic attitude on the part of some divisions of government than has ever existed in the past. Assurances of early relief in both materials and procedures were given. This optimistic statement must be modified with a word of warning. Lumber is the number one problem. Manpower and equipment in the woods is still woefully inadequate. The demand for boxing and crating is steadily increasing. OPA's price controls necessarily must be continuously adjusted. No early relief is in sight and builders today must

exert great ingenuity, time and money in obtaining this most critical of all materials. Furthermore there is a serious shortage of manpower in some FHA offices. Administrative officials assure us they are doing their best. Therefore in spite of the good intentions of WPB, NHA and FHA the going will still be tough and the risks of builders undertaking new projects substantial.

FHA Perks Up—Deputy Commissioner Draper advised that FHA is now receiving notification by NHA of priority allocations sufficiently far in advance to permit them to prop-

erly prepare for the additional load. By temporarily shifting personnel from less critical areas, FHA offices have been in a much better position to function effectively during peak periods. The four recently appointed assistant zone commissioners have been instrumental in ironing out problems in the field and many of their recommendations have resulted in improved conditions in the local offices.

Postwar Estimates—There is no question but that the postwar construction job will be immense. Expert economists and planners are agreed that the home builders' contribution to the postwar employment program is one of really great importance. The best thinking of these experts is within the framework of a ten-year demand by the following groups: (a) the accumulated normal demand unfilled during the war years; (b) an unusual demand resulting from immense war earnings and savings; (c) the demand from migration to new areas; (d) the war veteran demand and (e) an unusual demand resulting from more economical construction methods. Estimates vary from as low as 800,000 units annually to 1,900,000 units as a yearly average. Whatever the number may be, it is apparent that even the most pessimistic estimates will not be reached unless the procedural and legislative groundwork is carefully laid well before the war ends.

Important Subject—A sub-committee of the Lanham Committee under the chairmanship of Congressman Manasco held its first hearings recently. In official language, it is charged with "studying and providing for the orderly disposition of surplus lands, buildings, fixtures and facilities appurtenant thereto; as well as surplus war plants owned by the United States and by corporations owned or controlled by the United States, acquired or constructed for use in the prosecution of the war." Excepting for the problem of providing for full employment in the postwar period, there is probably no subject of greater importance than the proper disposition of the billions of dollars worth of lands and facilities directly or indirectly owned by the government. No less than six bills have been recently introduced in the House dealing with this problem. The conclusions reached by this committee will be of far-reaching interest and importance.

Slum Rebuilding—Private builders are expressing interest in the Urban Land Institute plan as proposed in the Wagner Bill. The first step in the rebuilding of slums is reclamation of the land encumbered with obsolete structures. Through an extension of federal credit to the

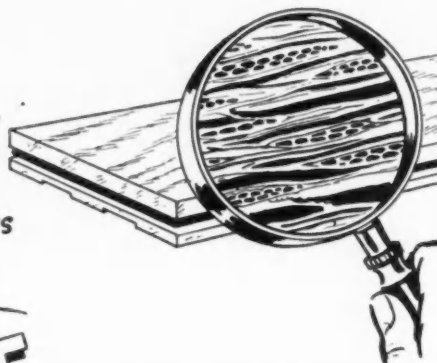
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Have You Heard ?



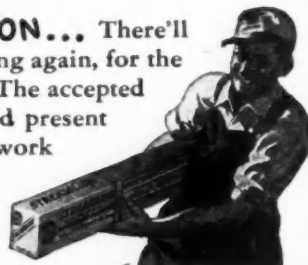
33 1/3% OF THE 40,000,000 AMERICAN DWELLINGS ARE OVER 50 YEARS OLD. OVER 6,000,000 DWELLING UNITS WILL BE UNFIT FOR USE BY 1945. THE POSTWAR BUILDING MARKET WILL BE HUGE !

WOOD HAS THOUSANDS OF TINY PORES. BECAUSE THE "BRUCE-WAY" METHOD IMBEDS THE FINISH IN THESE PORES, STREAMLINE FLOORING RESISTS SCRATCHING AND MARRING.



THE STREAMLINE FLOORING USED IN THE PAST 3 YEARS WOULD LAY A FLOOR 6 FEET WIDE FROM NEW YORK TO SAN FRANCISCO.

AND AFTER THE WAR IS WON... There'll be plenty of Bruce Streamline Flooring again, for the postwar building and remodeling market. The accepted floors of the future—as those of the past and present—will be products of E. L. Bruce Co. The work being done today by wood technologists and chemists in Bruce laboratories is your assurance of this fact.



Factory-Finished
STREAMLINE HARDWOOD FLOORING

Trade-Mark Reg. U. S. Pat. Off.

A PRODUCT OF E. L. BRUCE CO., MEMPHIS, TENN.



Photograph by Maynard Parker

DESIGN FOR DAYLIGHT ENGINEERING

One glance at the exterior of this home tells you that it is designed *with daylight engineering* in mind. Before you step inside you know that the rooms will be bright and cheerful . . . that there will be a distinctive air of spaciousness that only a generous use of glass can provide.

Through use of corner windows and large window areas completely around the house this home employs many of the principles of daylight engineering. Add to this exterior design the use of decorative glass in the walls inside and the home becomes

flooded with welcome daylight throughout. Panel mirrors, too, materially help stimulate the effect.

Daylight engineering is one of the most important "wants" of tomorrow's home builders. And it is the one convenience that is within the means of every home. For it costs no more to build with glass than it does with any other material. High-quality Libbey-Owens-Ford Glass and Blue Ridge Decorative Glass are available for every daylight engineering need. Libbey-Owens-Ford Glass Company, 25113 Nicholas Building, Toledo 3, Ohio.



LIBBEY • OWENS • FORD

QUALITY *Flat Glass* PRODUCTS

(Continued from page 68)

city governments, the land can be secured on a reasonable basis. In addition to using federal funds on a long-term, low interest rate plan, it will be the obligation of cities to plan good neighborhood layouts and protect new residential areas with proper zoning. Furthermore, the States will be expected to grant the cities certain necessary authority, and to expand their existing condemnation rights. The entire construction job will be up to private enterprise—no public funds will be used for this purpose. Having a common objective, the home builders and ULI should work shoulder to shoulder in supporting the Wagner Bill. The rehabilitation of slum

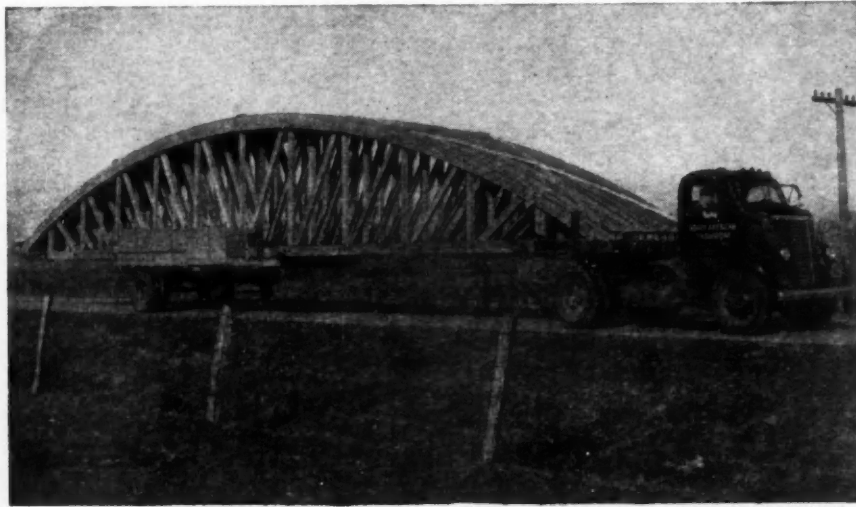
and blighted areas must be considered an important part of postwar construction. Public consciousness is rapidly awakening to the seriousness of this problem in metropolitan areas in the country. It is now apparent that the private home building industry must devise ways and means to produce decent, sanitary shelter for this "ill-housed one-third." This means that an unprecedented volume of housing must be produced at steadily lower cost.

* * *

\$400,000 FHA Bill

(Continued from page 29)

The increase in Title VI authorization will permit private builders to



PHOTO, COURTESY RILCO LAMINATED PRODUCTS

Delivered on the Dot . . . LAUCKS-GLUED ARCHES

A RCHES of wood and glue . . . by-passing critical materials . . . are delivered on time to hundreds of wartime construction jobs today.

Thus glue chemistry and practical gluing experience combine again to do an outstanding production job. Another example of the way I. F. Laucks, Inc., is helping many of the largest makers of laminated construction.

Whether you are making or specifying laminated arches and beams, boatcraft, aircraft, or

housing, etc. Laucks—world's largest makers of waterproof and water resistant glues—can help you. For Laucks glue and Laucks service—wire, write or phone America's glue headquarters.

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

• Don't forget, LAUX REZ, the pioneer resin sealer and primer, protects wood as rust-proofing protects metal.



LAUCKS CONSTRUCTION GLUES
Consult LAUCKS—America's Glue Headquarters

complete their share of NHA war housing as approximately 85% of all privately financed war housing requires Title VI insurance. Under this Title, private lending institutions are protected against loss.

The extension of Title II, which enables the insuring of mortgages on existing houses, will let FHA continue normal operations in this important part of the home mortgage market. Title II embraces FHA's peacetime program and it is pointed out that *refinancing* and sale of old houses has a strong bearing on the new home market.

Title I extension assures a continued supply of consumer credit for home repairs and improvements, Mr. Ferguson pointed out. Currently, the Title I program is an important source of financing for the conversion of existing structures to provide additional war housing units under local conversion quotas established by the National Housing Agency. Title I loans are widely used to finance essential repairs to existing houses and the installation of fuel conservation improvements. Insurance under this title may be a valuable instrument for quickly providing needed employment immediately after the war when homeowners will seek to finance repairs and improvements deferred during the wartime period of shortages.

* * *

Keeping Up With Washington

(Continued from page 29)

supplies and equipment. In accomplishing this result, the Board will in each case seek a minimum consumption of materials and manpower, together with maximum utilization of existing facilities and equipment."

To carry out this policy, a facilities committee was established and the former industrial and non-industrial committees were abandoned. The new committee will be headed by Donald M. Davis, with Roy W. Johnson, C. Ridgley Lee Jr. and Frank W. Herring acting as deputy chairmen.

* * *

A.F. of L. Committee

(Continued from page 29)

of millions of war workers newly recruited to man strategic war production, has received the least attention in the mobilization of our country for war. Yet housing has been consistently the most important factor in the recruitment of war workers to the essential jobs, and in the ability of these workers to keep up a sustained maximum contribution to war production.

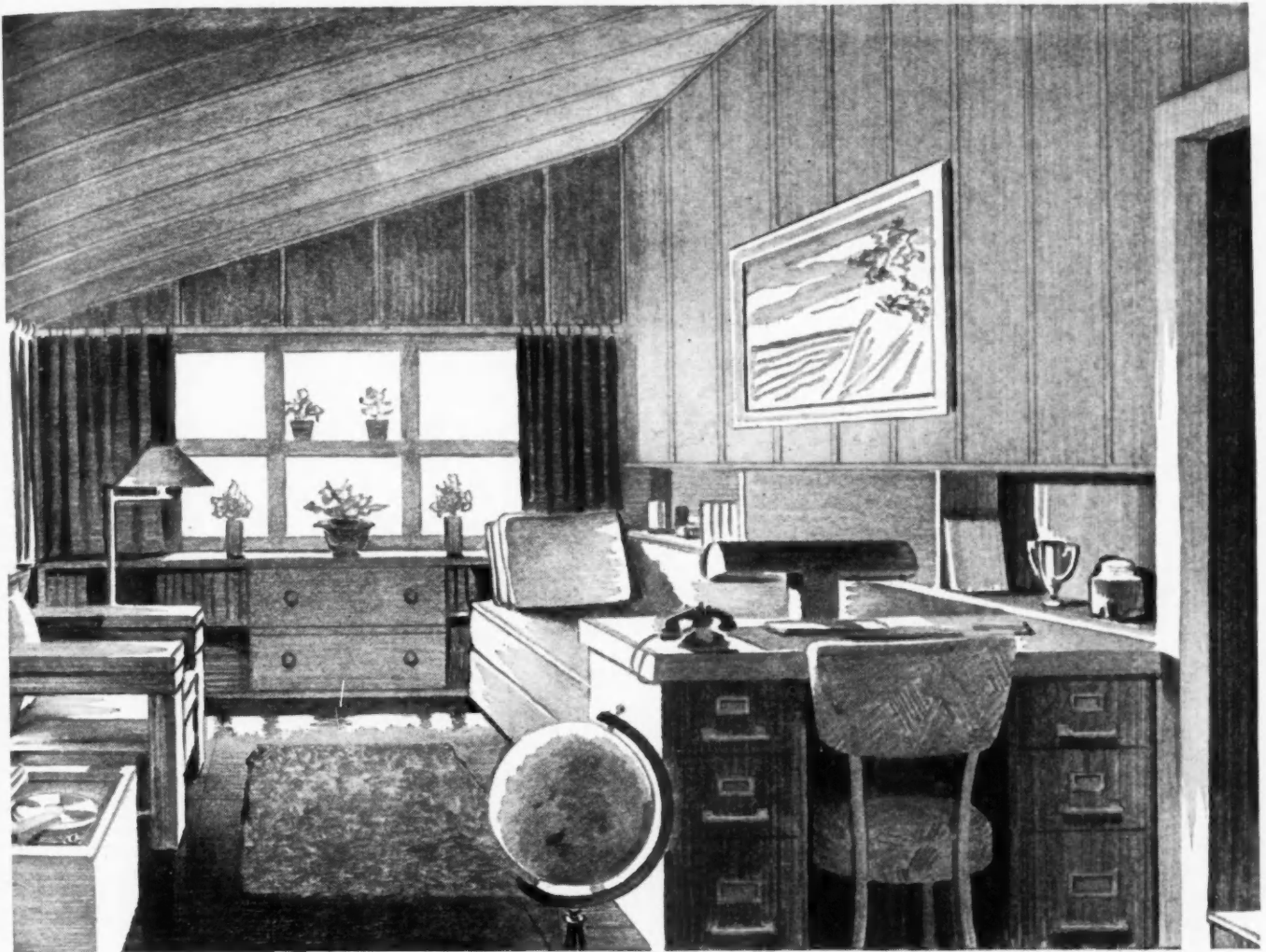
"That lack of proper housing was one of the chief obstacles in the expansion of our war production became a glaring fact. Where in a single com-

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A Temlok Idea that pays for itself

SHOW a prospect how his sunporch can earn money for him, and he's almost sure to be a customer. To begin with, Armstrong's Temlok De Luxe Board makes it easy, and inexpensive, to turn space like this into an extra bedroom. And this factory-finished insulating board makes a mighty comfortable home for a war worker, well worth the rental that pays for the job.

First, show your prospect what the finished job will look like. Use an attractive enlargement of the above sketch. We'll send you one free.

Second, show samples of Armstrong's Temlok De Luxe

and explain how it builds, decorates, and insulates walls and ceilings in one simple operation—at one low cost.

Third, explain how easy it is to plan distinctive decorative effects, and how the cream-colored surface of Temlok De Luxe Board forms an ideal background for the furnishings he wishes to use in this spare room.

It's surprising how much profitable business you can pick up with this simple sales formula—extra business which is easily scheduled between other jobs. And it's business which you can handle easily, for Temlok De Luxe requires no unusual skill or special tools. Any competent workman can complete a Temlok remodeling job like this, working by himself.

Free Enlargements of this and other sketches, and samples of Temlok De Luxe, are yours for the asking. Write today to Armstrong Cork Company, Building Materials Division, 1611 Ross Street, Lancaster, Penna.

ARMSTRONG'S TEMLOK INSULATION

SHEATHING • LATH • BOARD  DE LUXE INTERIOR FINISH

(Continued from page 70)

munity half a million workers were brought in to take war jobs and provision of decent living quarters was not assured them, disruptive friction and mounting tension was bound to follow. This tension came to a breaking point in the summer of 1943. Race riots broke out in half a dozen communities with violence and bloodshed in Beaumont, Mobile, and Detroit. In every instance lack of housing and the resulting overcrowding were listed as the foremost cause of the disorders.

"Direct effect of the lack of housing on war production began to show even earlier. Abnormal rates of absenteeism and unprecedented labor turnover were attributed by both employers and pub-

lic officials studying the problem to the lack of adequate housing. Shortages of housing and transportation have been established beyond dispute as the prime factors in the slackening of the pace in war production in many localities in the late summer of 1943."

* * *

Temporary Price Measure Facilitates Shipment of Wall Board to West Coast

Because gypsum wall board, lath and sheathing is critically needed for the completion of government housing projects in California, Washington, Oregon and Arizona, the Office of Price Administration has announced an upward adjustment in dealers' prices.

es. The action provides for mid-west plants to ship to the west coast at f.o.b. plant prices plus full freight on orders by dealers holding WPB AA-3 priority ratings or higher. Dealers may add to their increased costs the dollar mark-up they get on normal purchases from west coast plants. It will be noted, however, that dealers must have at least the priority rating mentioned above.

* * *

Prefabricated Housing Manufacturers Organize

The Prefabricated Home Manufacturers Institute is the name given to a new association in the homebuilding field. The announcement states the activities will be dedicated to the advancement of health, happiness and security for increasing numbers of families by making available homes of greater quality, comfort and economy through the application of modern mass production methods.

It is stated the new Institute will be located in Washington under the direction of a general manager and staff.

* * *

How To Be a Local Expert on Fuel Conservation

(Continued from page 37)

tions of soot on the flue surfaces may reduce the efficiency of the heating plant as much as 5 per cent.



Warm-Air Heating Systems

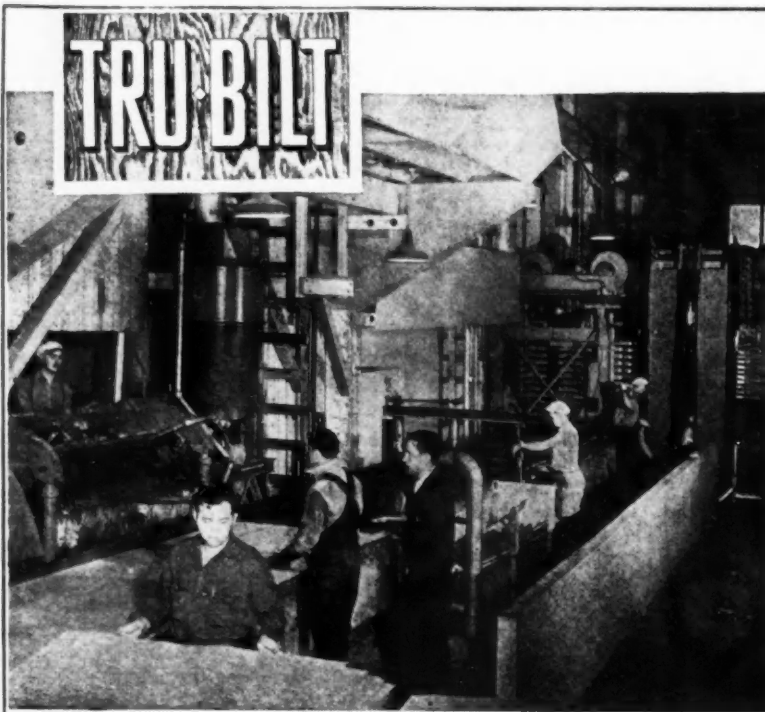
25. The air filters of a forced air heating system should be either cleaned or replaced at least once each year or oftener if necessary.

26. With both gravity and forced air heating systems all the joints in both the supply and return air ducts should be sealed with strips of asbestos or made tight in some other approved fashion. However, the entire duct work should not be covered with a layer of asbestos paper as the change in color and nature of the surface when covered with paper will increase instead of decrease the loss of heat from the ducts.

27. All supply and return air registers and grills in both gravity warm air and forced air heating systems should be open and unobstructed. In no case, should furniture, rugs, or other articles be allowed to prevent the free flow of air through these openings.

28. With a forced air heating system, additional heat is required if outdoor ventilation air is taken into the unit and distributed throughout the house. The most economical operation of the heating plant will be obtained when the introduction of outdoor air is entirely eliminated and all air passing through the heating unit is 100 per cent recirculated from the room.

(Continued to page 74)



BETTER EXTERIOR JOBS WITH TRU-BILT RESIN-BONDED PLYWOOD

BUILDERS are recognizing the superiority of TRU-BILT, resin-Bonded, waterproof plywood.

It is manufactured by an exclusive process developed by us which includes a continuous assembly line and other features that assure a minutely synchronized, uniform and superior product that is *immune to moisture*.

TRU-BILT can supply your needs in sizes up to 72" x 144".

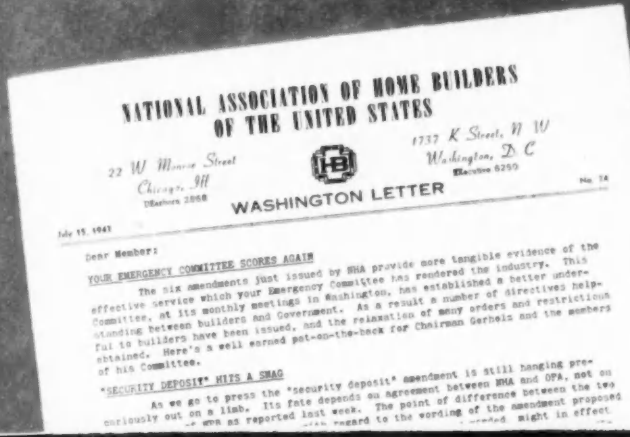
Our entire output is now devoted to the most important and exacting war needs.

WEST COAST PLYWOOD CO.
 ABERDEEN, WASHINGTON

Manufacturers of DOUGLAS FIR PLYWOOD

BUILDERS!

GET THIS
*Washington
News Letter*
EACH WEEK



Guard Your Future

Powerful and highly competitive interests have their eyes on post-war building. They would like to take over your business after the war. Today you need eyes and ears and a voice in Washington as you never needed them before.

Let the weekly *Washington News Letter* of the National Association of Home Builders be your eyes and ears in Washington. It will tell you about every happening that affects the building business, about legislative changes and how to interpret government directives. It will tell you what is going to happen, what has been planned and what you should do about it.

The National Association of Home Builders is your voice in Washington. It represents you when you need it. It sees that your interests are considered

when decisions are made and when plans are prepared.

You can't afford to do this job alone yet you can't leave it undone. Neither can the "other fellow" do the job without your help. We are all in this business together. For the first time the nation's home builders have *one big* national association.

The *Washington News Letter* of the National Association of Home Builders is the biggest value for the least money that you can buy today. The industry needs it. You need it. It will help you stay in business. It will help you save money. You can prove its value without charge or obligation. Send the coupon below for the special Free Trial Offer to the National Association of Home Builders.



FRANK W. CORTRIGHT

The weekly *Washington News Letter* is edited and written in the shadow of the capitol dome by Frank W. Cortright, Executive Vice-President of the National Association of Home Builders.

This advertisement sponsored by Fritz B. Burns, president of the National Association of Home Builders of the United States.

Special FREE TRIAL OFFER:

Act now. Send the coupon and you will receive without charge or obligation the next four issues of the *Washington News Letter*. Or, join now. You will receive the *Washington News Letter* for 58 weeks and full, active membership in the National Association of Home Builders to the end of 1944—all for \$10.00. It is the biggest value you can buy today. You will find it the best \$10.00 you ever spent.

USE THIS COUPON NOW

National Association of Home Builders of the United States AB 11
1737 K Street, N. W., Washington, D. C.

CHECK ONE

- Please enroll my name as a Member of the National Association of Home Builders. Check enclosed () Send Invoice () Payment of \$10.00 entitles me to all membership privileges and weekly copies of the *Washington Letter* for the balance of this year and all of 1944.
- Without charge or obligation please send me the next four issues of your *Washington Letter* and full information about the National Association of Home Builders.

Name _____
Firm _____
Street & No. _____
City and State _____

(Continued from page 72)

29. In gravity warm air heating systems all return air ducts should be insulated from any high temperature source of heat. If this is not done, the air returning to the furnace will be heated before reaching the furnace and this will reduce the ability of the system to circulate air by gravity.

30. If a cast iron furnace is used in conjunction with a gravity warm air heating system, the joints between the castings of the furnace should be reset and recemented every three or four years by a reputable heating contractor.

31. The motor and blower bearings of a forced air heating system should be oiled at least once each heating season.

32. The flues and heating surfaces of any air heating system should be cleaned of all soot periodically to maintain highest efficiency. A deposit of soot on such heating surfaces may reduce the overall efficiency of the heating plant as much as 5 per cent.

Domestic Hot Water

33. A hot water storage tank should be thoroughly insulated to reduce the loss of heat from the hot water in the tank to the surrounding air.

34. All leaky hot water faucets should be repaired to eliminate this waste of both water and heat.

35. If it is found necessary to allow water to run during cold weather to prevent freezing of piping, this defect in

the piping system should be repaired. The application of insulation at the correct points will usually eliminate the necessity of running the water.

36. The amount of fuel required for heating domestic hot water may be reduced by heating only during morning and evening hours and never heating water above a temperature of 140 F.

Maintenance of Correct Temperature Within the Heated Structure

37. Appreciable savings in fuel may be effected by the maintenance of the lowest practical temperatures within the heated structure. It is usually possible to maintain much lower temperatures during the night time hours than during the day time hours to effect even further savings.

38. Reduce or turn off completely all heat supplied to unoccupied spaces. If there is any danger of damage by freezing in such cases, maintain the temperature slightly above freezing at all times. In the case of radiators in unoccupied spaces, the simplest means of shutting them off without causing damage to the radiators or the piping is to cover them.

39. If a structure is to be unoccupied for several days, the temperature may be reduced to 45 or 50 F. It should be kept in mind that if the temperature is reduced much lower than this, there may be some damage by freezing of pipes in walls or of plumbing because the temperatures to which such pipes are exposed would be somewhere between the indoor temperature and the outdoor temperature.

40. Install thermostatic control, if possible, to prevent overheating and a consequent waste of fuel.

Combustion Efficiency

41. If automatic fuel is being used in the heating installation, the percentage of carbon dioxide in the flue gases should be checked by a reputable heating contractor in order to ascertain whether the fuel is being fired with maximum efficiency. In addition, the chimney draft and the stack temperature should also be checked. For best results, all of these determinations should be made by instruments as it is virtually impossible to determine the correct setting for firing a fuel by any other means.

42. All heating installations firing automatic fuel should be equipped with automatic draft regulators in the stack for maximum efficiency. Without such a device it is impossible to set any installation for maximum efficiency under all conditions as the stack draft will vary considerably with changes in outdoor temperature and wind velocity.

43. The fuel input to an automatic heating installation should be adjusted to the lowest practical value which will satisfy the heating requirements during the coldest weather conditions.

44. If the heating surface of a boiler or furnace is insufficient to satisfy the maximum heating requirements and still maintain reasonable efficiency, it may be

(Continued to page 76)



SAVE FUEL

A tight-closing, easy-operating door . . . replacing creaky, leaky, hard-to-handle types . . . will pay for itself in lowered heating costs on almost any type of commercial or industrial building.

THE BARCOL OVERDOOR

was used to conserve heat and improve operating efficiency at this city traction bus garage entrance . . . on the record of three preceding installations . . . and in spite of a tough overhead trolley wire problem (solved by Barcol engineers).

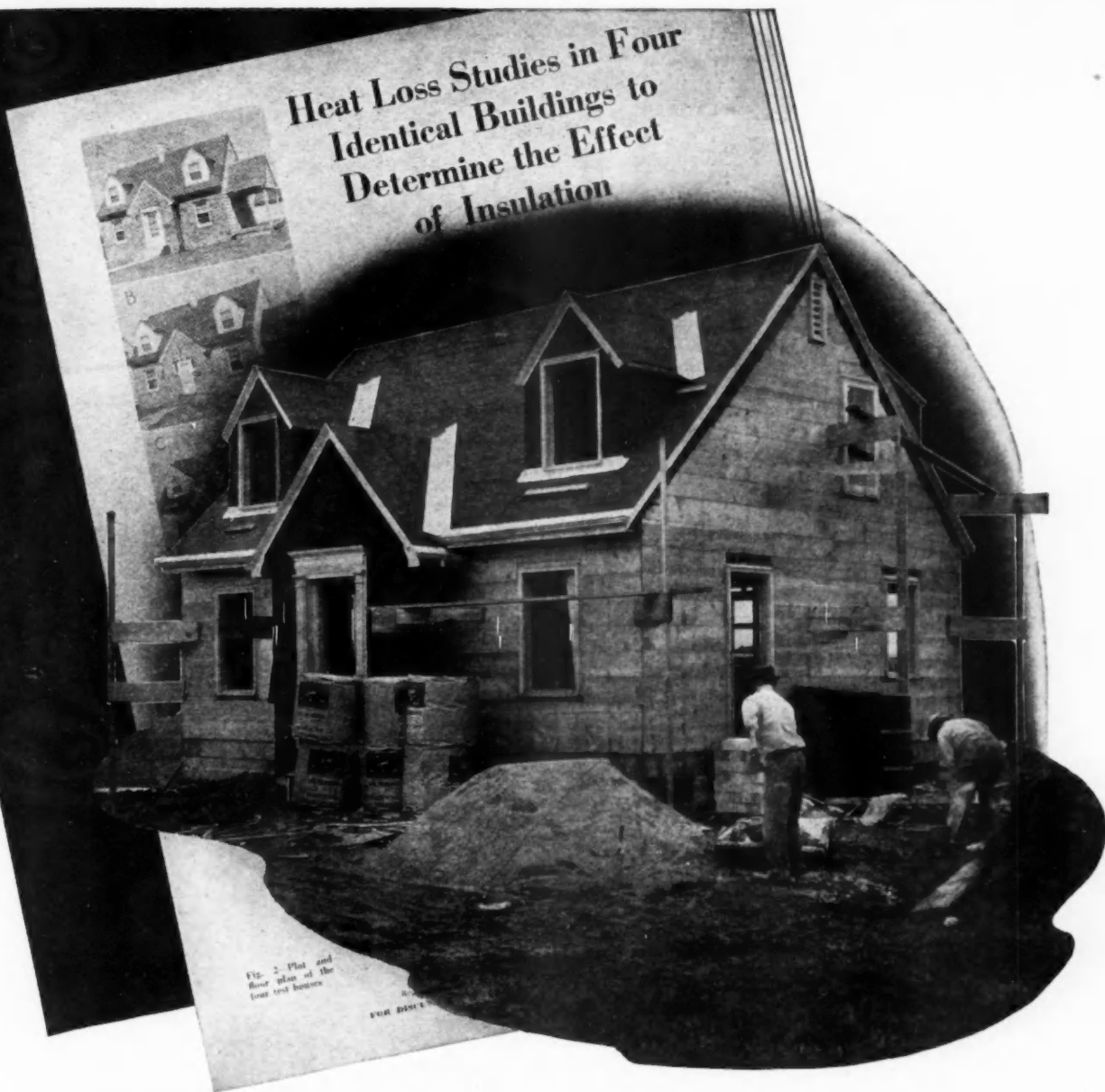


FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

BARBER-COLMAN COMPANY

104 MILL ST.

• ROCKFORD, ILL.



**Heat Loss Studies in Four
Identical Buildings to
Determine the Effect
of Insulation**

Fig. 2. Plan and floor plan of the four test houses.

What Improvements Will Come From These NEW Insulation Facts?

Two purposes are served by the recent extensive insulation tests made by the Wood Conversion Company with four identical test houses.

The first is the compiling of new facts about insulation . . . new findings on such important subjects as heat loss, insulation thickness and fuel saving.

A copy of the report on the Wood Conversion insulation tests as it appeared in the journal of the American Society of Heating and Ventilating Engineers is yours for the asking. Keep up to date on insulation—mail the coupon for your copy.

The second purpose is a substantial addition to the vast body of research which has made Balsam-Wool a leading insulation in the past . . . and which will make it outstanding in the postwar era. For the new findings are just another step in the Balsam-Wool program of constant improvement.

WOOD CONVERSION COMPANY
Dept. 119-11, First National Bank Bldg.
St. Paul, Minnesota

Please send me complete scientific data on the Wood Conversion Company insulation tests.

Balsam-Wool
SEALED INSULATION

Name.....

Address.....

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

(Continued from page 74)

possible to increase the heating efficiency of the installation by the use of a fuel saver.

45. If hand-firing of coal is used in the heating installation, care should be taken that the methods of firing are those which will result in a minimum waste of fuel.

General

46. A minimum loss of heat through windows will result if all shades and drapes are fully drawn during the evening and night hours and if the shades are half drawn during the day hours. Drawing of shades and curtains will not

only result in a reduction in heat loss through the windows but will also raise the average surface temperature of the room and thus result in a greater feeling of warmth to the occupants for the same temperature conditions within the room.

47. A considerable saving of fuel may result if all windows are kept closed during the night hours. From the standpoint of actual ventilation requirements, there is sufficient leakage of air from the outside of the house to the inside of the house to take care of any needs from a health standpoint. The necessity of opening windows in bedrooms during night hours is principally psychological.

The only time when opening of windows in a residence during winter months is fully justified is for elimination of odors.

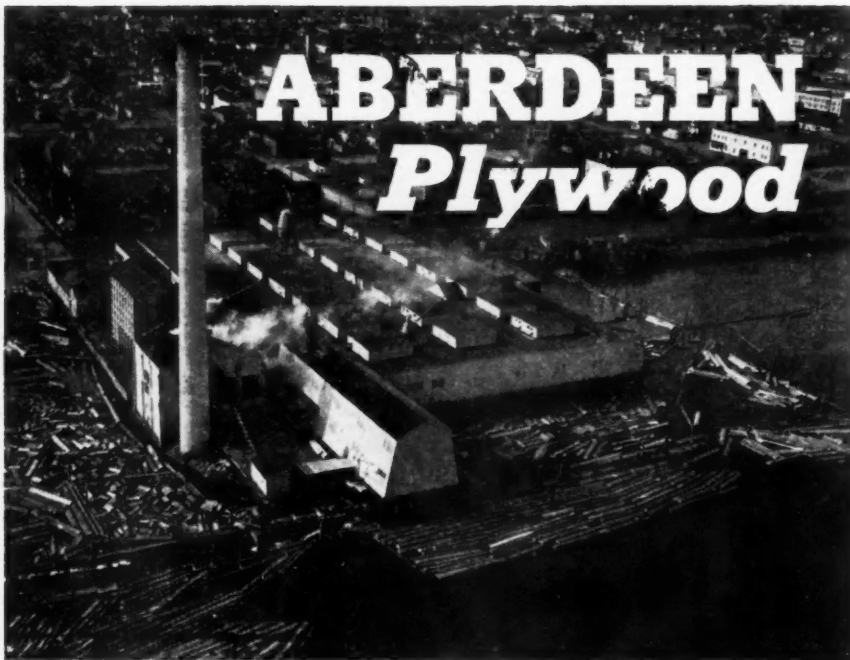
48. Some rooms which are heated during normal times and which have very high heat losses may have the heat cut off for the duration of the war without any undue discomfort. For example, heated garages are a luxury, as the amount of fuel required to heat the average garage, even when attached to the house, is great in comparison with the advantages gained. Sunrooms are also unusually very difficult to heat because of the excessive glass areas. The heat supplied to such rooms may often be entirely disconnected or greatly reduced without any undue discomfort.

• • •

War Bonds Urged as Future Down Payments

Pointing out that the first thing in home ownership is financing and that the down payment is the first financing problem, Western Homes Foundation, Seattle, advises families to start digging the foundation of their future now with War Bonds.

"War Bonds offer a golden opportunity to solve this problem between now and the end of the war," says W. C. Bell, Foundation Chairman. "For example, the purchase of a single \$50 bond each month for the next two years would mean total cash savings of \$900 at the end of that period, or an amount sufficient for a 20 per cent



For POST-WAR BUILDING

A HUGE BACKLOG of civilian building needs is awaiting the conclusion of the war. Aberdeen Plywood will be available immediately—for the same machinery that produced it for war will produce it for peace, without retooling or plant conversion.

Aberdeen Plywood's uses in global war stretch all the way forward from the barracks to the fighting front. Many new uses, developed for war, are adaptable to peacetime building. Modern plant and adequate personnel trained in precision production make Aberdeen Plywood a name to remember.

ABERDEEN PLYWOOD

MANUFACTURERS OF HOT PRESS DOUGLAS FIR PLYWOOD



APCO
HOT PRESS

Corporation
FOOT OF ALDER STREET
Aberdeen, Washington



"I'm Diggin' for the Future"

down payment on a home with a total cost of \$4,500. Actual monthly outlay would of course be \$37.50, the cost of a \$50 bond.

"On the schedules in effect for the financing of home ownership before the war the monthly payment for a 20 year, 80 per cent loan on a \$4,500 home would be \$23.76. When the home is occupied, with monthly cost fixed over a long period, the family need not fear rents rising from inflation or other causes."

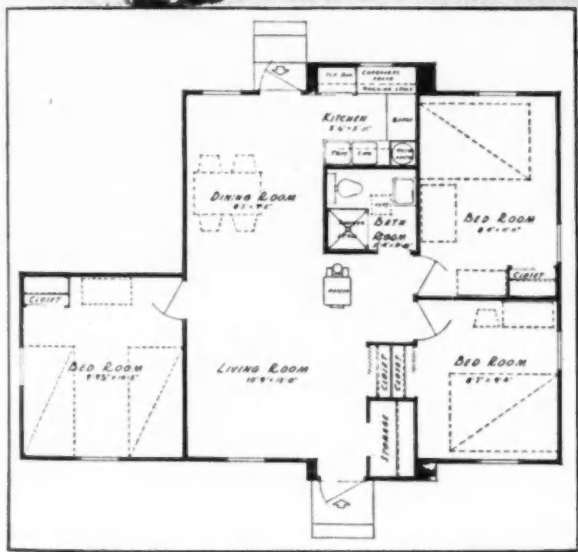
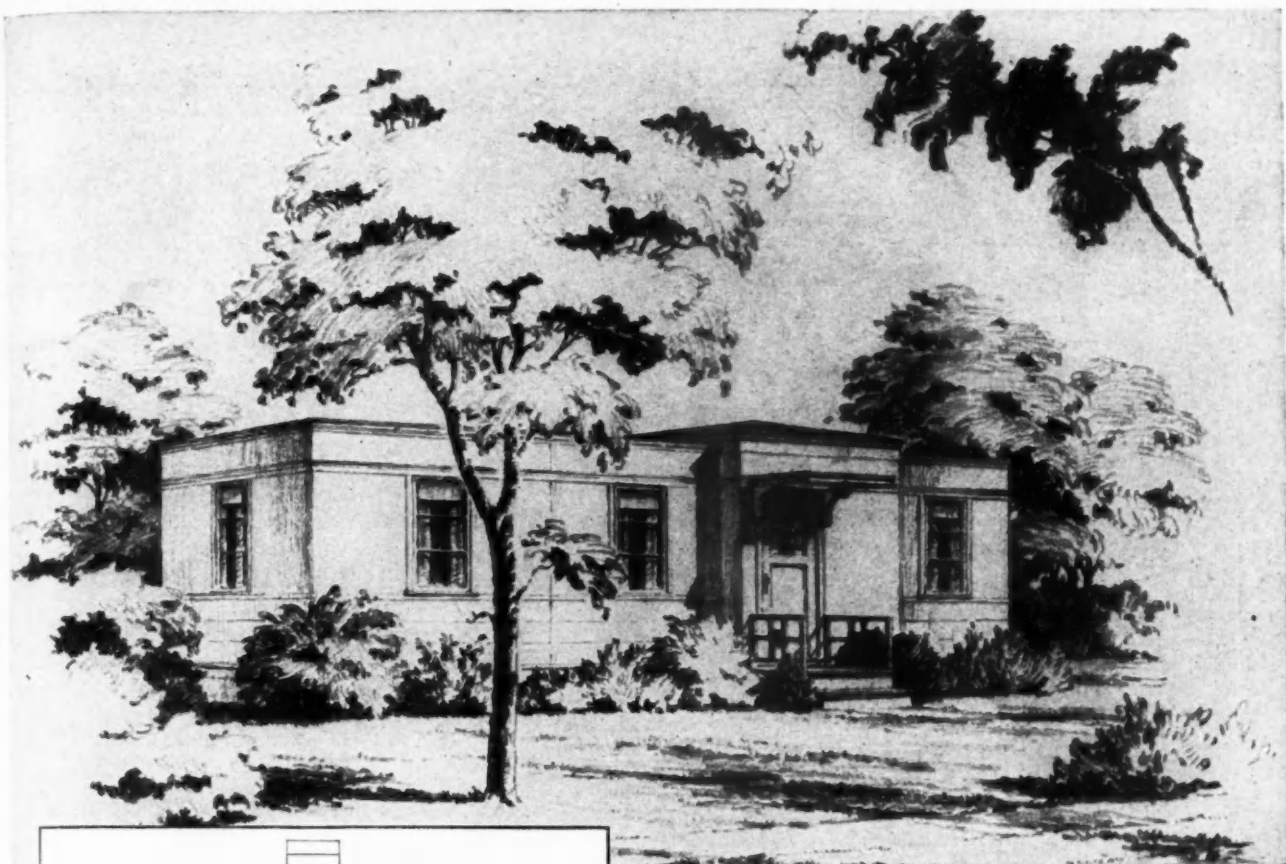
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Additional Information
Upon Request

USHERING IN A *New Era*

PIONEERING in the manufacture of factory-built homes to meet the nation's emergency housing needs, Palace has developed a plan of free-standing housing whereby vacant lots in subdivisions already provided with public utilities can be quickly put to use.

Completely factory-built, factory-assembled and factory-equipped—with plumbing, heating and lighting equipment installed at the factory—Palace dwelling units are transported from factory to building site by motor truck, and are ready for occupancy practically upon arrival.

With one basic unit, as many as four variations in room arrangements can be supplied to meet the needs of each individual family. The units are provided either without bedrooms or with as many as four bedrooms, as desired—and with or without toilet, shower and bath.

Low in cost, yet conforming in every respect with the war housing requirements of the Federal government as to floor areas and building standards, Palace dwelling units offer the ideal solution to the problem of quickly supplying additional housing facilities in any section of a city where they may be needed.

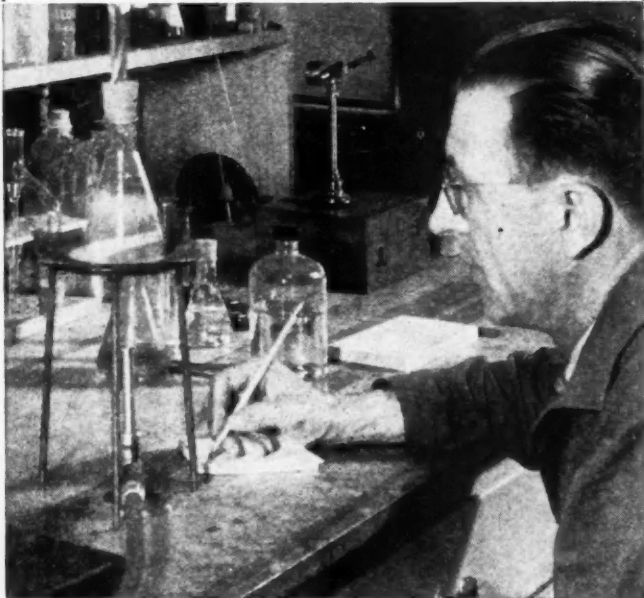


CORPORATION

Flint, Michigan

BOILED IN OIL

Boiling chips of Western Pines in oil is a feature of the Bidwell-Stirling test to determine moisture content. To know this precise amount is often essential in our Research Laboratory experiments with Western Pines.



In these wartime days, as in the days of peace, the Western Pine Association Research Laboratory is constantly experimenting to determine new values, new uses, and to improve manufacturing procedures for the Western Pines.



WESTERN PINE ASSOCIATION

Yeon Building, Portland (4) Oregon

*Idaho White Pine *Ponderosa Pine *Sugar Pine

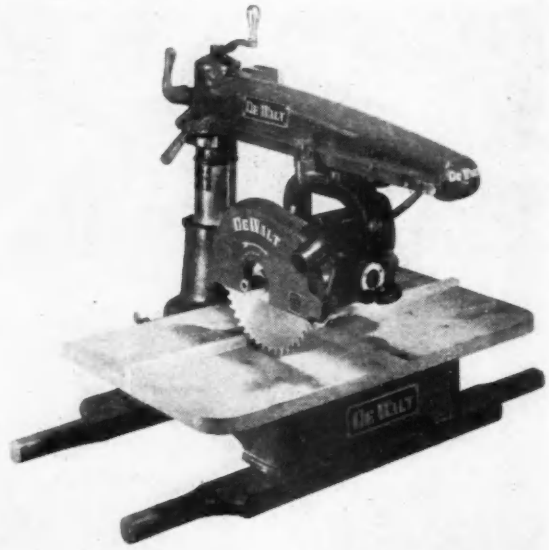
*THESE ARE THE WESTERN PINES

Wartime Products Help

New Portable DeWalt Radial Saw

DEWALT Products Corporation, Lancaster, Penn., announces a new portable model radial cutting machine, built especially for cutting right on the spot, thus saving materials handling, cutting time, and relieving manpower for other jobs. It is ideal for use on the job or around the plant, since two men can easily carry it.

It will cross cut material 14" wide by 1", 12" x 3" with 12" saw, and rip from 0" to 26" wide. It will also miter, rip, bevel cut off, double miter, and bevel rip. With such tools as dado heads, shaper cutters, router bits, and others, this machine is actually a woodworking shop in itself.



PORTABLE radial cutting machine may be used on job or around plant.

This new machine is available in 1½, 2 and 3 HP sizes. The direct drive motor is protected type, Formex Fiberglass insulated, and provided with sealed ball bearings that require no lubrication.

Improved Fluorescent Unit

CHANGES in design of P-7, the fluorescent extension cord unit with a multiplicity of uses, now permit lighting fast lamp change; ends have been rounded; rigid hanging hook is riveted to the end cap; the white Miracoat reflector provides maximum efficiency light output.

This unit, a product of Sylvania Electric Products, Inc., Ipswich, Mass., utilizes the small 6-watt fluorescent lamp which provides a very adequate amount of cool, glare-free illumination in those tight, hard-to-get-at places.



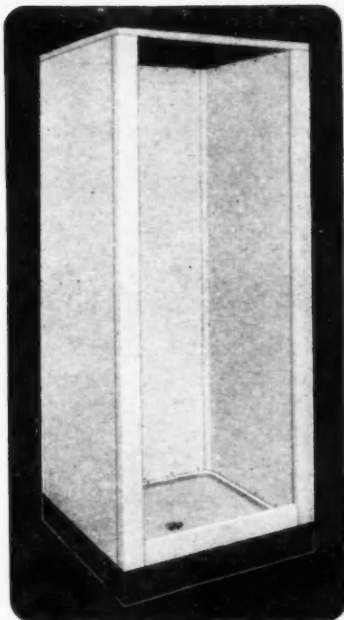
FLUORESCENT extension cord unit is streamlined.

Builders Keep Busy

Prefabricated Shower Cabinet

A NEW wartime shower cabinet which can be erected in less than twenty minutes and is particularly suited for use in industrial plants, camps and cantonments, wartime housing, institutions, and for remodeling work, has been announced by the Fiat Metal Manufacturing Co., 1205 Roscoe St., Chicago. Known as the Fiat Volunteer, it requires only the permissible amount of critical materials, yet still offers the strength and rigidity essential to lasting construction.

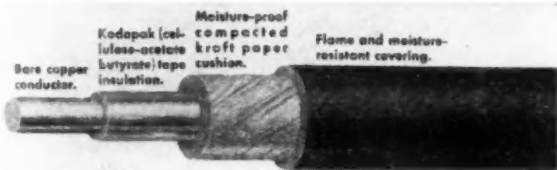
Tension locking joint, front stiles, top trim and the threshold are formed of rust-proofed steel. Wall panels are made of tempered, hard-pressed, treated fibre-board, and are finished with waterproof baked-on enamel. Receptor is of reinforced concrete, non-slip, leak-proof, and non-absorbent, occupies a 32" x 32" floor space and is 75" tall. All parts have been carefully formed to eliminate raw edges inside the cabinet.



WARTIME shower cabinet may be erected in 18 minutes.

Rubberless Building Wire

A NEW type building wire called Hazapak, whose insulations and protective coverings contain no critical materials, is being produced by The Hazard Insulated Wire Works Division of The Okonite Company, Wilkes-Barre, Pa. The copper conductor is insulated with a synthetic (cellulose-acetate butyrate) tape and further protected with a heavy layer of moisture-proof compacted kraft paper.



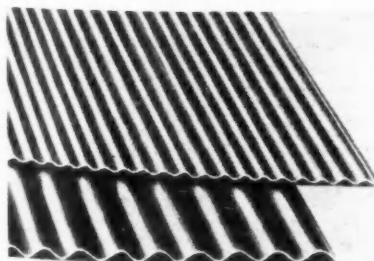
BUILDING wire saves on critical materials.

Hazapak wire is available in all regular building wire sizes for 600 volt ratings and can be supplied in all standard colors with full surface identification markings and footage measurements.

Metal Cored Roofing Sheets

A NEW corrugated roofing with a steel core protected by an elastic, rubber-like material on the surfaces has been announced by Cheney Metal Products Co., Trenton, N.J. The covering is combined with the steel at high temperature to give a durable, gray-colored surface. Sheets come in 4, 5, 6, 8, 10 and 12-foot lengths, 26 and 27½ inch widths, 26 to 20 gauge inclusive.

NEW roofing comes in 1¼" and 2½" corrugations.



Zip!
Zip!
Zip!

and another Grand Rapids Invisible is Installed!

Just three screws, quickly and easily put in place is all that is needed to install a Grand Rapids Invisible Sash Balance! This is an important speed feature in mass production of double hung window units for prefabricated homes and should be investigated by all now in production or who contemplate serving this rich field.



GRAND RAPIDS
Invisible
SASH BALANCE



Engineering Service

Inquire now about our competent engineering service on the installation of Grand Rapids Invisible Sash Balance in window assemblies especially suited to mass production of double hung window units for prefabricated homes in housing projects. This service will help you and help the nation's war effort, as well as prepare you with invaluable post-war planning knowledge.

GRAND RAPIDS HARDWARE CO.
GRAND RAPIDS • • MICHIGAN



Building concrete lane at housing project for Naval Ordnance Depot workers in Nebraska.

Footings and floors in place for concrete masonry homes near Ordnance Depot.



War Construction Still Needs Concrete Men

Expediting the war effort is still the first duty of concrete contractors and concrete products manufacturers.

Needs for war housing, war industry and military camp improvements are not yet satisfied.

Concrete contractors can help the war effort by calling on war industrial plant superintendents and military post engineers to show how their services can expedite essential repairs, extensions and new construction.

- Concrete construction for any of these vital purposes requires minimum use of scarce materials. Transportation is saved because the bulk of concrete materials is usually available within short hauling distance of any project.

Information sheets and "How to do it" booklets have been prepared to help contractors expedite concrete construction for war industrial plants, military posts and farms. These are available on request.

PORTLAND CEMENT ASSOCIATION
Dept. A11-3, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the uses of concrete...through scientific research and engineering field work

BUY MORE WAR BONDS

COMMENT ON AMERICAN BUILDER'S 10-POINT POST-WAR PROGRAM

AMERICAN BUILDER's 10-point program "to give home building back to private enterprise and assure post-war prosperity," as published in the October issue, has created extensive comment in the nation's press and by individuals in all branches of the industry. The 62,000 copies of this issue, which was devoted to the creation of a workable post-war building program by private enterprise, went to all members of Congress, to trade associations, many newspapers and hundreds of individuals in government and business enterprise in addition to its regular building industry readers. Some of the early comments received include the following:

Use private funds—Taft

Washington, D. C.

To the Editor:

Thank you for the October American Builder. As you know, I am very much interested in housing, and hope that we can work out a practical post-war plan, depending largely on private funds and increasing home ownership. I shall read with interest.—ROBERT TAFT, Committee on Finance, United States Senate

Need gradual transition—Patman

Washington, D. C.

To the Editor:

I have read with extreme interest your plan for a post-war housing policy as given in your October issue.

It is my belief that we should attempt to effect a gradual transition from our present rather rigid system of federal control to one such as you suggest which will permit the private operator more latitude than he now has.—WRIGHT PATMAN, Chairman, Select Committee on Small Business, House of Representatives.

Uncle Sam as referee

Washington, D. C.

To the Editor:

Being in the lumber and building material business (Arnold Lumber Company, Kirksville, Missouri), and also a member of the Public Buildings and Grounds Committee here in Congress, I take quite a bit of interest in your magazine. Any suggestions you care to give will be appreciated.

The one thing I am most interested in is to cut out non-defense spending, get the war over as soon as possible, get Uncle Sam out of competition in all lines of business, then assign him to the position of referee so that industry and business men can get going again.—WAT ARNOLD, Public Buildings and Grounds Committee, House of Representatives.

When Congress acts

Washington, D. C.

To the Editor:

You may be sure that when Congress is dealing with matters pertaining to private building and home ownership, I will keep your recommendations in mind.—PHILIP J. PHILBIN, Congressman from Massachusetts.

To the point

Detroit, Mich.

To the Editor:

Your 10-point program for putting the building industry back into normal channels is very much to the point and, we believe, a step in the right direction.

We wish to thank American Builder for initiating this program.—R. C. RESTRICK, President, Restrict Lumber Company.

Wants private enterprise booklet

Toledo, Ohio

To the Editor:

Please forward to our firm your publication on "How to Preserve Enterprise" as mentioned in the October American Builder.—J. H. BERKEBILE & SONS, General Contractors.

The Name **HOPE'S** Guarantees
818 **HOPE'S** 1943



Residence at St. Petersburg, Fla., Wm. B. Hayward, Arch't.

Until current stocks are exhausted, HOPE'S Steel Windows are available without priority certificate. After Victory, Hope's new developments, improved service and lower prices will bring the outstanding advantages of steel windows to broader markets.

HOPE'S WINDOWS INC., Jamestown, N. Y.

BUY WAR BONDS

*for Your
Post-War
Plans...*

**SMALL HOMES
OR APARTMENTS**

TRAVERSE BAY MFG. CO.
(Affiliated with The Parsons Co.)
15000 Oakland Ave.
DETROIT, MICH.



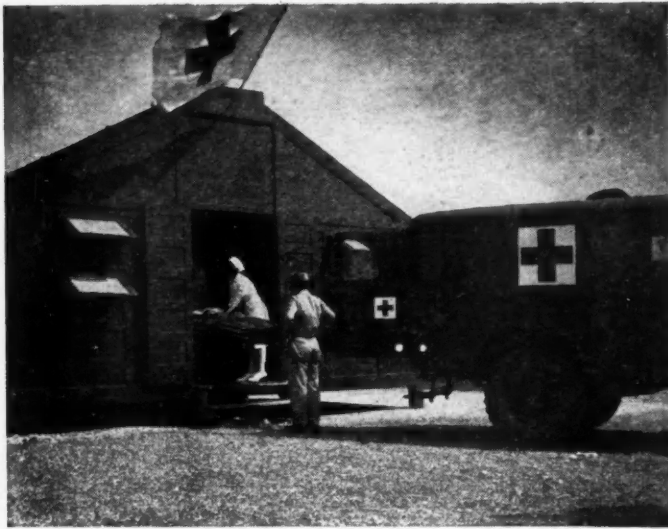
THESE boys and girls who are going to enter the post-war market for millions of ultra-small homes are going to demand from you something new, different and better. Especially in detail and in space arrangement.

Let Parsons Pureaire Kitchen free you from obsolete convention to build the home or apartment house that will meet this new demand.

Whole subdivisions of Pureaire equipped ultra-small homes, and apartments everywhere, have proved Pureaire ability to meet every kitchen need. And no cooking odors! That's patented.

Investigate — right away! But remember—none for sale till after Victory.

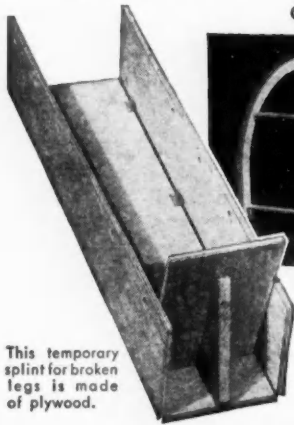
PARSONS Pureaire KITCHENS



DEMOUNTABLE HOSPITALS

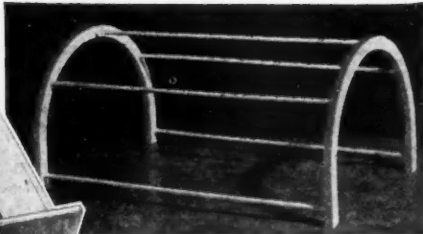
...another of Douglas Fir Plywood's hundreds of war uses!

● Following close behind our soldiers on the fighting fronts are scores of demountable hospitals built of Douglas Fir Plywood by National Housing Company of Dallas, Texas. Because these sturdy, lightweight, easy-to-clean units can be quickly taken down, transported to a new location and re-erected, they are doing much to speed and facilitate the all-important work of the Medical Corps . . . It is service like this now that will make Douglas Fir Plywood more useful to you after Victory than ever before!



This temporary splint for broken legs is made of plywood.

OTHER HOSPITAL USES:



The U-shaped ends of this hospital bed cradle are sawed from durable Douglas Fir Plywood.

DOUGLAS FIR PLYWOOD

Real Lumber
MADE LARGER, LIGHTER
SPLIT-PROOF
STRONGER

TO HELP SPEED VICTORY
the Douglas Fir Plywood Industry is devoting its entire capacity to war production. We know this program has your approval.

NEW WAR USE FOLDER gives a photographic review of many of the ways this Miracle Wood is serving our Armed Forces. Write for your free copy. Douglas Fir Plywood Association, Tacoma, Washington.

American Builder Expands Circulation Activity

PLANS for a vigorous expansion of *American Builder* circulation in the building industry commensurate with expected post-war expansion of building volume were laid at a meeting of *American Builder* circulation heads at Chicago last month.

Noting a sharp turn upwards in the magazine's circulation, officials in attendance expressed confidence that the end of the war will see the beginning of one of the most active building markets in history with more individuals in need of the type of information provided by *American Builder*.

Recent promotions in the circulation department have been announced which will materially strengthen and expand the activity of this important division. Herbert E. McCandless, former assistant to the president of Simmons-Boardman Publishing Corporation, has been elected vice-president in charge of circulation. Edward A. Sand has been appointed circulation manager of *American Builder* and William L. Taylor, field superintendent.

Appointment of McCandless as vice-president culminates twenty-three years of service with Simmons-Boardman. Sand joined the staff of *American Builder* two years ago, bringing a sound background of experience in direct mail advertising and magazine circulation selling. "Bill" Taylor also joined the staff of *American Builder* two years ago and has since traveled extensively building up circulation representatives and making friends and contacts for the publication in the field. A staff of ten field representatives of *American Builder* will serve this industry under the new circulation program and will be expanded as conditions require.



WAR AND POST-WAR problems are discussed by AMERICAN BUILDER circulation heads at Chicago conference. LEFT: William L. Taylor, field superintendent. CENTER: Herbert E. McCandless, vice-president. RIGHT: Edward A. Sand, circulation manager.

Home Builders to Meet at Cleveland

WARTIME housing for today, peacetime building for tomorrow, and the outlook for private builders in the post-war years to come, will be discussed by leaders in the nation's building and construction industry at the Home Builders' War Conference, sponsored by the National Association of Home Builders of the United States, to be held at Cleveland, Ohio, November 15-17, it was announced by Fritz B. Burns, Los Angeles, Calif., president of the National Association of Home Builders. The Hotel Cleveland will be the Conference headquarters and present indications are that this will be the largest gathering of builders under one roof in the nation's history.

Outstanding authorities in the country's building industry and top ranking government housing officials from Washington, D.C., will be on the program. Principal speakers at

The Conference are: John B. Blandford, Administrator of the National Housing Agency, at Washington, D.C.; Earl S. Draper, Deputy Commissioner of the Federal Housing Administration, Washington, D.C., and Brigadier General S. C. Godfrey, the Air Engineer of the Army Air Forces, who recently returned to Washington headquarters, from a global flying tour of 45,000 miles made in 260 flying hours.

The program covering a wide range of topics will afford an opportunity for discussion of vital war, and post-war problems confronting all those in the field of building and construction and allied industries. Although attention will be focused on wartime problems, complex in character, the program will also cover many matters of interest to all builders. Some of the major topics for discussion will be the role to be played by private enterprise in the final clean-up of the war housing job begun in 1941; how private builders can meet the need which public housing intends to meet by using the taxpayer's money; WPB restrictions and the outlook for securing tubs, ranges, refrigerators and heaters; what will be built when L-41 is relaxed; the role of the private builder in meeting the challenge of the 10,000,000 postwar homes program and the legislation and procedure which the National Association of Home Builders must secure to enable private builders to have a full participation in such a program, will be among the questions discussed at the Conference.

Grove Leaves Hotpoint; Goes With M-H

W. A. ("Art") Grove, formerly director of advertising and sales promotion, Edison General Electric Appliance Company (Hotpoint), Chicago, has joined the firm of Addison Lewis and Associates, Minneapolis advertising agency, as account executive on Minneapolis-Honeywell regulators and other accounts. Before going with Hotpoint, Mr. Grove was connected with the Curtis Publishing Company, as advertising sales representative for the Saturday Evening Post in Chicago office territory.



W. A. GROVE

"Art" Grove is widely known throughout the home appliance industry because of his active participation in association and industry promotional activities. He has twice served as Chairman of the Plan Committee of the Modern Kitchen Bureau and for five years was Chairman of the Electric Range Advertising Committee of the National Electrical Manufacturers' Association. He is also a former director and vice-chairman of the Association of National Advertisers.

Urban Construction Now Planned to Go Ahead as Soon as War Bans are Lifted, Runs in Billions

DEFINITELY planned construction that is ready to be built as soon as war bans are lifted and materials are available apparently runs into several billion dollars according to the National Association of Real Estate Boards' 41st semi-annual survey of the real estate market.

In the 287 cities covered by the Association's survey, there is approximately \$1½ billion worth of construction definitely planned. Only building that is actually "on the boards" and ready to go as soon as the war is over was included in the report. Planned construction averaged \$516 per person for the combined population of the reporting cities. If this average prevailed for the whole nation, it would indicate that there is a deferred backlog of construction running over \$30 billions.

Long-delayed public works, some of which would take five years or more to complete, are the biggest single group of projects that are already well assured for immediate post-war construction. Sewer systems, streets and hospitals are frequently mentioned. Airports—commodious airports—are

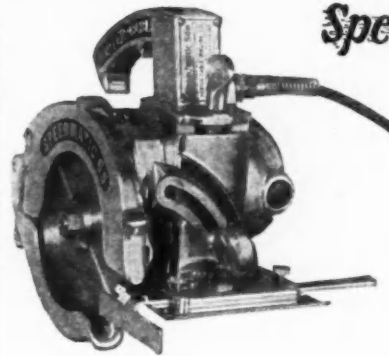
(Continued to page 84)

SAWING
FITTING
FINISHING

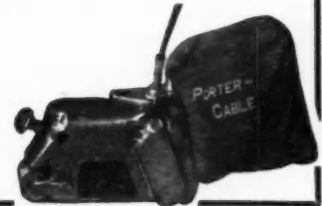
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SAW



TAKE-
ABOUT
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make a fast-working team

THE SPEEDMATIC SAW is perfectly balanced for one-hand operation in any position. The helical gear drive delivers more cutting power—11% more efficient. The blade enters the cut at 7,000 revolutions per minute—so fast it practically feeds itself! True support by the wide shoe makes Speedmatic easy to manipulate.

THE TAKE-ABOUT SANDER has an extra powerful motor, silent chain drive, ball bearings throughout. Its sustained power and high speed eat up jobs that ordinarily mean laborious planing and hand sanding. Ideal for fitting and touch-up of doors, sash, frames, panels.

BOTH TOGETHER will help almost any building job go smoothly, economically, efficiently. In these times when every minute counts, you can't afford to be without these powerful, sturdy, reliable tools. See your dealer or Porter-Cable representative (name in phone book), or write us for literature.

PORTER-CABLE MACHINE COMPANY

1721-11 N. Salina St., Syracuse, N. Y.



Picture

tomorrow's kitchen for tomorrow's home owner

It's a far cry from the battlefront kitchen to the comforts of home, but America's men and women are always thinking of home—making mental comparisons between the products of the field kitchen and the food that mother used to serve.

Here at Bilt-Well, skilled designers and artisans are making ammunition boxes, barrack lockers and other war essentials while planning and designing the most livable homes for America when America's fighting forces return. May we tell you what Bilt-Well products are now available?

CARR, ADAMS & COLLIER CO.

Dubuque, Iowa

BILT WELL
WOOD + WORK

BILT-WELL NU-STYLE
UNIT-WOOD KITCHEN CABINETS

(Continued from page 83)

on the list. And private residential construction for normal civilian use is on its toes waiting for the go signal. Known ready-to-start home building projects outbulk the ready-to-start public construction in very many of the reporting cities. Since we now have a dwelling shortage in some 88 per cent of our cities, a shortage nationally of about one million housing units, private residential construction should certainly rise to first place as post-war building actually gets under way, the Association points out.

Home building and other residential construction already planned averages in the reporting cities a total of \$22 per unit of population. This would indicate a national urban home building program ready-to-go already exceeding \$1,600,000,000.

Private post-war non-residential construction already in sight averages \$4 for every person in the population of the reporting cities. Projected, this indicates a \$298,000,000 national building program.

City planning and re-planning, or community study of various kinds to get ready for extensive rebuilding, is already under way in 55 per cent of the reporting communities. This is going forward in various ways under city planning commissions, some of which are being reconstituted and given new funds to do the job, or under mayor's committees, or joint civic or business committees, with real estate board committees as active participants.

Many cities are studying their relation to future air transport, including air freight-transport. Great new industrial structures sprung up to meet war needs may have changed the pattern of industrial growth for many cities. For this reason cities are making a more active study than ever before of the proper relation of industrial areas to the general city plan and to the future development of their entire metropolitan area. Such study is now going on in 58 per cent of the reporting communities.

Biggest single problem of urban rebuilding is the rejuvenation of the badly decayed older sections that are the dirty collar around many a central business district. Only by

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of American Builder and Building Age published monthly at Chicago, Ill., for Oct. 1, 1943.
 State of Illinois }
 County of Cook }⁹⁸.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Joseph B. Mason, who having been duly sworn according to law, deposes and says that he is the Editor of the American Builder and Building Age and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are: Publisher, Simmons-Boardman Publishing Corp., 105 W. Adams St., Chicago, Ill.; Editor, Joseph B. Mason, 105 W. Adams St., Chicago, Ill.; Managing Editor, R. E. Sangster, 105 W. Adams St., Chicago, Ill.; Business Manager, Robert H. Morris, 105 W. Adams St., Chicago, Ill.

2. That the owners are: Simmons-Boardman Publishing Corporation, 30 Church Street, New York, N.Y.; Stockholders of 1 per cent or more of the total amount of stock are: I. R. Simmons, 15 Hillcrest Dr., Pelham Manor, N.Y.; P. A. Lee, Hopatcong, N.J.; Henry Lee, Hopatcong, N.J.; E. G. Wright, 398 N. Walnut Street, E. Orange, N.J.; S. O. Dunn, 105 West Adams Street, Chicago, Ill.; C. E. Dunn, 3500 Sheridan Blvd., Chicago, Ill.; L. B. Sherman, 575 Sheridan Road, Winnetka, Ill.; Mae E. Howson, 105 West Adams Street, Chicago, Ill.; Spencer Trask & Company, 25 Broad Street, New York, N.Y. General partners of Spencer Trask & Company are: Edwin M. Bulkley, 817 Fifth Avenue, New York, N.Y.; Acosta Nichols, Cold Spring Road, Oyster Bay, N.Y.; Cecil Barrett, Bar Harbor, Me.; C. Everett Bacon, 16 Erwin Park, Montclair, N.J.; P. Malbone Blodgett, 65 Patterson Ave., Greenwich, Conn.; Arthur H. Gilbert, 440 Park Ave., New York, N.Y.; Henry S. Allen, 407 Highland Ave., Orange, N.J.; William Kurt Beckers, Ridgefield Road, Wilton, Conn.; Edwin M. Bulkley, Jr., 220 Madison Ave., New York, N.Y.; J. T. Foster, Parsonage Lane, Greenwich, Conn.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is..... (This information is required from daily publications only.)

JOSEPH B. MASON, Editor.

Sworn to and subscribed before me this 1st day of October, 1943.
 [SEAL] ANNE A. BOYD.
 (My commission expires Dec. 10, 1943.)

complete large-scale replanning and rebuilding can their character be so radically changed as to fit them for satisfactory modern home neighborhoods. Getting the land together for such a project is the key to the problem. Since a bill is now before Congress introduced by Senator Wagner at the request of the Urban Land Institute to help cities get the land assembled for rebuilding by private enterprise in accordance with a comprehensive city plan, the Association asked each city to estimate the size of local blighted areas that call for such rebuilding. Reports from 117 of the cities with a combined population of 26,613,722 persons estimated a total of 110,909 acres in older sections of these cities as ripe for such rehabilitation. This is an average of four acres of blight for every thousand citizens in the entire combined population of the reporting cities.

How to Keep Jobs Rolling This Winter

(Continued from page 33)

before removing either protection or forms. A little hot water poured on the concrete is a good way to test it. If well hardened, the hot water will have no effect. On the other hand, if the concrete is frozen, hot water will soften it.

Calcium chloride in the concrete mix helps to hasten quick setting and makes for early strength, all of which is added protection in winter concreting. Calcium chloride comes in 100-pound, moisture proof bags. Two pounds of flakes added to the aggregate, or two pounds dissolved in water added to the mixing water, per 100 pounds of cement, is the proportion recommended.

Early curing and early strength cement hardens as much as 60 to 70 per cent faster than regular cement, so this type is especially suitable for use in cold weather work. It definitely needs protection while curing, but allows forms to be removed quicker thus speeding up the job.

Concrete floors for barns, poultry houses, milk houses
(Continued to page 86)



Photo by Office of War Information

Old Hands..Old Skills..New TOOLS

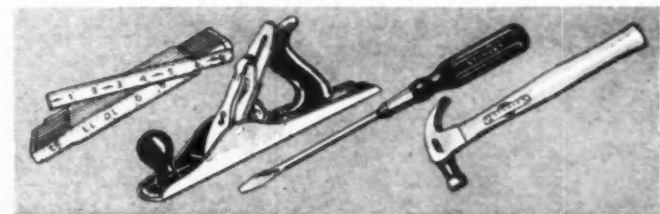
Old-timers by the hundreds of thousands are loyally meeting the nation's critical need for experienced craftsman.

The skills they bring back to the job were acquired when the war cry was "Remember the Maine!". But the Tools they and their younger co-workers use, for the most part, are *new*.

In thousands of shipyards and boat building shops, the demand for Stanley Tools is unceasing, and supplying these, and other primary war needs, is Stanley's number one job.

Stanley Tools for normal needs will be hard to obtain until the war ends. Take good care of the tools you have, and order new tools only for essential use. Stanley Tools, 133 Elm Street, New Britain, Conn.

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STANLEY TOOLS

"The Tool Box of the World"

When you're in Pittsburgh

STOP AT

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PITTSBURGHER



Hub of Pittsburgh war activity—head-quarters for the Nation's "Busy People", the big, new PITTSBURGHER is more than ever 1st choice of men and women who want to get things done!

400 OUTSIDE ROOMS
ALL WITH BATH & RADIO

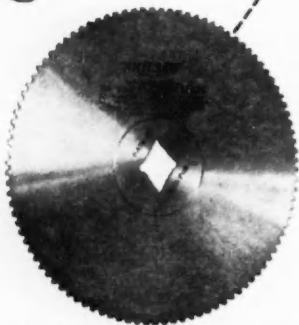
Singles \$3.30 to \$4.40 Doubles \$5 to \$6.50

A KNOTT HOTEL

Jos. F. Duddy, Mgr.



**HAVE YOU EVER CUT
CORRUGATED METALS
WITH
SKILSAW?**

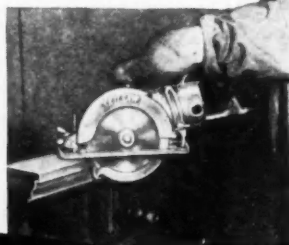


• Here are lots of other jobs your SKILSAW will do . . . easier, better, faster! With a FRICTION BLADE (illustrated at left) SKILSAW swiftly cuts flat or corrugated metals for siding or roofing . . . formed decorative bars for store fronts . . . stainless steel, brass, lead and iron. Of course, with its regular lumber-cutting blade, your same SKILSAW still speeds all

the jobs you've always used it for. • Now is the time to learn about *all* the different work you can do with SKILSAW . . . to cut costs on more operations . . . to save time . . . to get yourself bigger, more profitable contracts in the days to come. Ask your distributor for a demonstration NOW!

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With a FRICTION BLADE, SKILSAW swiftly mitres a decorative metal molding.



SKILSAW PORTABLE ELECTRIC **TOOLS**
 ★ MAKE AMERICA'S HANDS MORE PRODUCTIVE ★

(Continued from page 85)

and other farm buildings can be readily laid in cold weather. They are easy to protect from severe temperatures by covering with tarpaulins or straw. All refuse must be cleaned out and the clean floor graded to required level. The soil should be compact. If the soil doesn't have good drainage, a layer of cinders or broken stone should be leveled over it before the concrete is poured.

The mixture recommended for floors is 1 sack of cement, 2¼ cu. ft. of sand, and 3 cu. ft. of pebbles or broken stone. This amount of mixtures takes about 5 gallons of water if the sand is moist. It is also recommended that such floors be laid in one course, or full-thickness at one time. Where forms are used, the lumber should be smooth and firmly held in place with stakes.

In cases where it is desired to put a concrete floor in a building in which livestock is housed, the floor can be laid in sections. The body heat from the animals will assist in tempering the atmosphere and less precautions against freezing will be necessary.

Watch Cold Temperatures Carefully

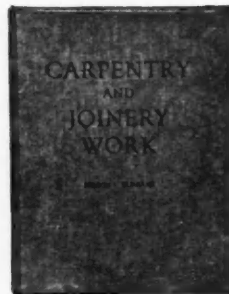
However, in any cold weather operation using concrete, it must be appreciated that concrete cures much slower in cold weather than in warm. For instance, standard concrete will reach a strength of 2500 lbs. per sq. in. in 6 days at a temperature of 70 degrees, but at a temperature of 40 degrees it will take 14 days to develop that strength. High early strength cement, while it cures much faster, also takes longer in cold weather. This type cures in two days at 70 degrees but takes about 5 days at 40 degrees.

Concreting in cold weather is entirely feasible with adequate protection, but care must be exercised to have extra precautions available if the weather suddenly turns down to freezing or below. When the work is inside a building, artificial heat can be used, such as oil or coke burning salamanders. If the work is outside, it must be thickly covered with layers of building paper and straw or hay.

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, 8½x11 inches. Cloth Bound, \$3.00

BOOK DEPARTMENT

AMERICAN BUILDER AND BUILDING AGE
 30 Church Street New York, N. Y.

Other concrete jobs include driveways, walks, basements, porch steps, as well as making fence posts inside a building for use in the spring. The farmer has some time on his hands during late fall and winter months, and can be relied upon for help. Because his time put in on the job relieves the contractor from hiring a helper, the job will cost less and be a talking point in influencing the farmer to have jobs done at this time of year.

Because many farmers have been short-handed, most of their attention has been concentrated on farming. Buildings have been neglected, roofs have been allowed to deteriorate to the point of being in need of repairs, and doors left to sag. Many a tool or machinery shed leaks and side boards are loose and afford poor protection for articles stored in them.

Asphalt roll roofing and shingles are available generally, and late fall is the time to patch and fix things up for the winter. Roll roofing can be applied to the sides and roofs of sheds after they have been nailed and braced. Barn and house roofs can be patched, flashings repaired, and loose or rotted siding nailed down or replaced. In many instances new roofing may be indicated, especially over hay mows where dripping water can easily create instantaneous ignition in the hay.

Interior remodeling of houses in defense areas where there is a housing shortage offers inside winter work that can keep a lot of builders busy. Making extra rooms by building partitions, or finishing off attics with available wallboard will keep things rolling during winter months. This work is definitely necessary and priorities for materials needed, and the materials, are usually available.

Garages usually need repair work, especially the doors. They can be taken off, squared up and braced, painted, and rehung so they will operate satisfactorily when snow and ice appear on the scene. The concrete floor and apron may need patching and protected from water getting in and freezing. All these things suggest other winter work that needs doing, and will help avoid idleness this winter.

**FOR
THE THOUSANDS
OF HOMES
THAT NEED**



NEW LAUNDRY TRAYS

Here is a real opportunity for wide-awake contractors.

With laundry service greatly curtailed, thousands of housewives are facing washing problems with obsolete laundry trays, or worse still, with no trays at all.

These problems can be eased by installing permanent Perma-Gloss laundry trays which are once again available to fill this need.

They have been installed in tens of thousands of pre-war homes and today are a salvation for their users.

There is nothing more sanitary than a Perma-Gloss laundry tray. Its gleaming white surface is easy to clean. There is no paint or enamel to peel, no iron to rust and stain clothing. The tray is acid-proof, not merely acid resistant, and will withstand thermal shock.

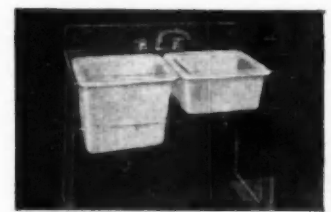
We will gladly send you full details on sizes, prices and delivery.



B-570—
"Perma-Gloss"
Flat Rim Tray.



B-582 — "Perma-Gloss"
Two Compartment Flat
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B-574—"Perma-Gloss" Flat Rim
Sink & Tray in Combination.

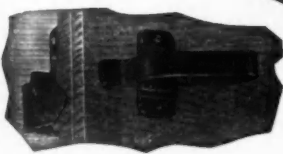
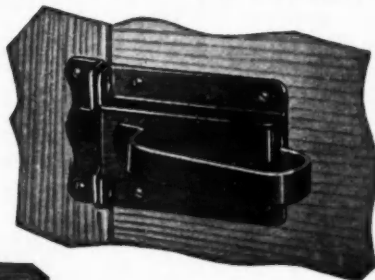
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**LATCHES THAT
CAN BE LOCKED!**

**DANDY REVERSIBLE No. 847!
FOR SWINGING DOORS—POPULAR PRICED.**

Center screw covered by latch bar at all times.

Convenient padlock eye for security.



Furnished with back latch to protect door from damage, from wind, etc.

Here is a quickly installed, economical and efficient latch for swinging doors. Fits right or left hand doors without changing spring. Long latch bar permits space up to 5/8" between door and jamb.

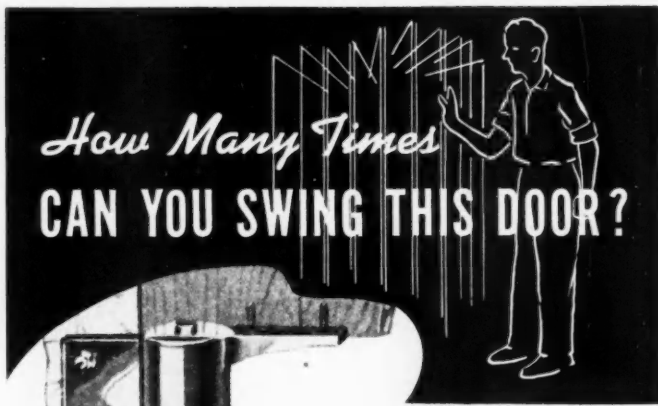
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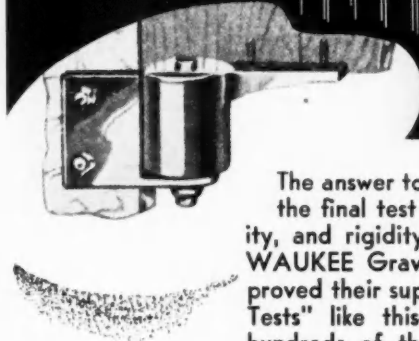


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METUCHEN • NEW JERSEY



How Many Times
CAN YOU SWING THIS DOOR?



The answer to this question would be the final test of the design, durability, and rigidity of the HINGE. MILWAUKEE Gravity Pivot Hinges have proved their superiority by actual "Use Tests" like this—proved in terms of hundreds of thousands, of in-and-out "swings" without noticeable wear, sagging or loss of alignment.

Above
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Gravity
PIVOT HINGE
on Lavatory Door

STANDARDIZE ON COMPLETE MILWAUKEE BUILDERS HARDWARE...
... for New Buildings, repair, replacement on housing, factories, public buildings.

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AFTER VICTORY**



BENNETT FIREPLACE CO.
NORWICH, N. Y.

CATALOGS AND HOW-

99—WELDING STAINLESS STEELS—A book of 64 pages and covers, beautifully and profusely illustrated by means of full-color perspective drawings and diagrams, has been issued by Allegheny Ludlum. Designed to interpret the techniques commercially employed in the welding of stainless steel by the accepted processes, it tells the welder what to do, how to do it, and the basic reasons why. It is an elementary, practical instruction manual for the student or beginner in stainless steel welding, and also a complete technical explanation helpful to production men, engineers, designers or metallurgists.

The book is divided into six chapters: Effects of Heat on Stainless Steels; Metallic Arc Welding; Atomic Hydrogen Welding; Oxygen-Acetylene Welding; Electrical Resistance Welding; and Welding Pluramelt Steels.—Allegheny Ludlum Steel Corp., Brackenridge, Pa.

100—PRESSURE-TREATED WOOD—Uses of pressure-treated lumber in construction and in industry are discussed in a 26-page book, entitled, "Economical and Permanent Construction with Pressure-Treated Wood," just published by Koppers Co., Wood Preserving Div. This book is designed to serve as a guide in material selection for engineers, architects, contractors, builders and maintenance supervisors. Most of the book is taken up with illustrations of typical installations of preserved wood in the following fields: General construction, farm buildings, highways, industry, marine, oil, mining, railroads, and utilities.

A special section of the book explains the processes by which lumber is treated to protect it against decay, fire, acid, termites and marine borers. Another section deals with termite control. Still another suggests the engineering service the company offers in determining the proper treatment of lumber to assure permanence under severe conditions.—Koppers Co., Wood Preserving Div., Pittsburgh, Pa.

101—HOW TO OPERATE A PORTABLE GP DEWALT—A new "Instruction Book" issued by the DeWalt Company gives complete operating instructions, step by step, from the uncrating of the machine, through the many types of operations which are possible for this one machine. A price list of parts, aligning instructions, and ending with a list of 11 cautions to be followed by the users. Photographs or diagrams illustrate every step described in the text.—DeWalt Products Corp., Lancaster, Pa.

102—INDUSTRIAL MAINTENANCE PAINTS—The Valdura line of heavy duty industrial maintenance paints are listed in a new catalog issued by the American-Marietta Co. Fully illustrated, the catalog provides application suggestions, product descriptions and technical data in complete detail. Attractively printed in two colors, it is easily handled and filed. The maintenance man or purchasing agent can plan his paint requirements and know the characteristics of drying, coverage and application by using this ordering catalog.—American-Marietta Co., 43 E. Ohio St., Chicago 11, Ill.

103—COLEMAN SERVICEMAN'S HANDBOOK—A valuable little 24-page handbook has been published by The Coleman Lamp and Stove Co., and is now available to consumers as well as to this company's dealers, with a view to aiding consumers in getting as much service as possible from Coleman products, and aiding dealers in their efforts to stay in business for the duration and until restrictions are lifted on new products. Instructions are given for servicing Coleman irons, lamps and lanterns, camp stoves and auto trailer stoves, radiant heaters, gas ranges and stoves, gas plants and oil heaters.—The Coleman Lamp and Stove Co., Wichita, Kans.

TO-DO-IT INFORMATION

104—FANS AND BLOWERS FOR INDUSTRIAL INSTALLATIONS—A new 40-page catalog, No. 14-B, "Axial Flow Fans and Blowers," pictures and factually describes each fan and blower in the Hartzell line, and gives standard test code air deliveries for every size in which each fan is made. Of particular value to factory officials concerned with ventilation and cooling and drying of products are a number of pages devoted to formulae used in calculating air deliveries under various conditions. The catalog is arranged and indexed for quick reference.—Hartzell Propeller Fan Co., Piqua, Ohio.

105—PLYWOOD IN THE POST-WAR ERA—"In Service on All Fronts" is the title of a new 16-page booklet which emphasizes the many developments brought to the plywood industry by the war, and stresses the peacetime applications of these developments. This booklet includes more than 30 photographs illustrating the wartime uses of plywood, such as flat plywood products, molded, metal-faced, waterproof, and tubular plywood products. Several pages are devoted to aircraft parts, and another page shows recent developments in the boat field. Plans for the peacetime use of plywood are given prominence and attention is directed to the research work which is now being done in the company's laboratories.—United States Plywood Corp., 616 W. 46th St., New York City.

106—PLUMBING FIXTURES AND FITTINGS—Kohler Co. has just issued a new 16-page catalog showing and describing its "Win-the-War" line of plumbing fixtures and fittings. These products, manufactured of non-critical materials, are in use not only in camps and bases but in factories, ships, hospitals and war housing. Bodies of fittings are made of cast iron with a plastic protective coating, and working parts are of brass for efficiency and durability; parts have been made interchangeable. The numbers of patterns and sizes have been reduced in order to conserve raw materials and to facilitate manufacture.—Kohler Co., Kohler, Wis.

107—CATERPILLAR TOOLS OF WAR—"War and Peace" is the title of a recently published booklet, presenting a word-and-picture story of how Caterpillar products of peace became tools of war almost overnight. Photographs and paintings are used to illustrate modern machinery at work on both peacetime and wartime operations. Also stressed is the fact that this same equipment will be able to switch back to peacetime work with the same speed.—Caterpillar Tractor Co., Peoria, Ill.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department, (November, 1943)
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

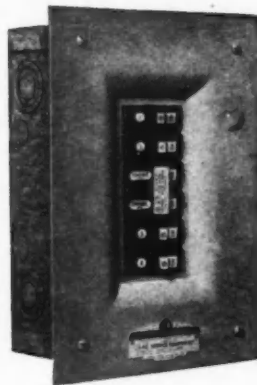
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*Please note that occupation must be stated if full service is to be given.



The pleasing appearance of this Service Equipment is noteworthy. It combines Type AC Thermag D. P. 35 Amp. Circuit Breaker for range circuit, and 4 S. P. Type AC Thermag Circuit Breakers for light and appliance branch circuits. (Cat. No. SE41-3L7F—list price \$11.00.)

The homes of the future will be better homes

Many will include the improved materials and equipment which will be available after the war. But they will be planned for "livability" above all else.

The electrical distribution systems, as heretofore, will be a vital factor in this livability. Greater protection against the hazards from short circuits and harmful overloads will have the careful attention of builders and home owners.

Write for
Bulletins
63 and 67

which describe these products in detail—with wiring diagrams, suggested specifications, etc. Then, for complete satisfaction, specify them for the buildings you will erect... Frank Adam Electric Co., Box 357, St. Louis (3), Mo.

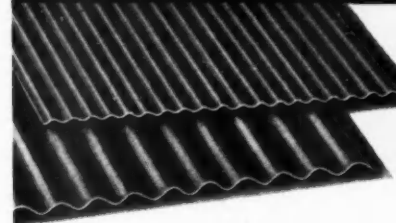


SERVICE EQUIPMENT

supplies both the convenience desired and the protection needed. It will be installed in many of these new homes—because Service Equipment is preferred by so many builders, contractors and architects.



CHENEY METAL PRODUCTS CORRUGATED ROOFING



The Permanent Successor To The Old-Fashioned Corrugated Iron Roof

CHENEY Corrugated Roofing is made from sheets of hot rolled pickled steel, heated to high temperatures and combined under pressure with stearine-cottonseed pitches and pulverized slate so that the steel core is completely protected with a very elastic rubber-like material that will not run at high temperatures or crack or peel at low temperatures. Cheney Corrugated Roofing will resist heat, cold, moisture, fire, smoke fumes and salt air. It weathers to a pleasing grey color and does not require painting. The long life and low cost of Cheney Corrugated Roofing make it the ideal roofing material for Industrial and Farm use. Meets government specifications. Made in all standard sizes and gauges.

Distributors: Some territories still open—write us.

Write for descriptive folder

CHENEY METAL PRODUCTS CO., Trenton 5, N.J.

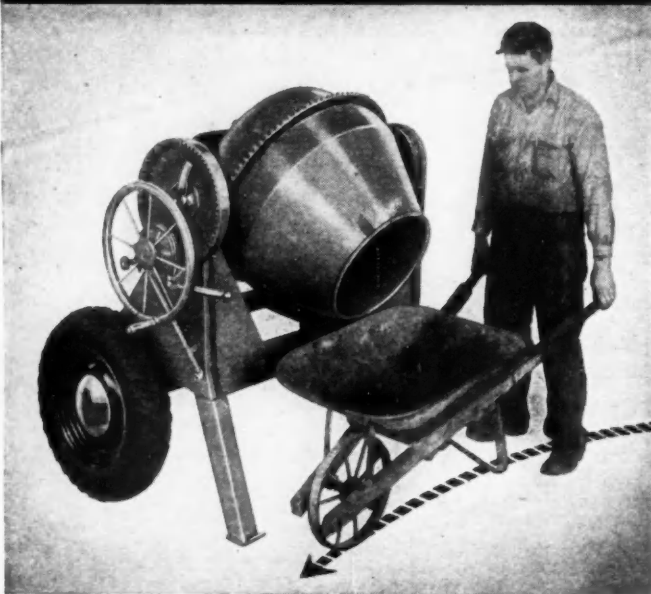


Keep busy with *Tile-Text*

Low in first cost—easily and quickly installed. Tile-Text falls well within the limitations placed on residential remodeling. For example, it costs less than \$200 to install the average basement play room with Tile-Text or to cover the floor of a residential kitchen. Tile-Text is non-critical and highly practical for installation on concrete sub-floors at or below grade. Here's your opportunity to keep busy during this period of restricted construction. Tile-Text is still available promptly in a good range of colors and sizes. Write today for our attractive, full color catalog. "Floors That Endure."

The Tile-Text Company Chicago Heights
Illinois

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

What Will War Do to Tomorrow's Home?

(Continued from page 52)

toast is motoring 30 miles, the "Xs" are going to live about 10 times farther away from the city than Caspar with his old-time restrictions of a 50-mile suburban radius.

Furthermore, a 300 to 500-mile radius will not mean access to one metropolitan center alone. It will mean a location in Iowa that is as readily accessible to Chicago and Kansas City as it is to Omaha, St. Louis, St. Paul, and Milwaukee. It will mean a spot in upstate New York, perhaps, that is just as convenient to Montreal, Boston and Buffalo as it is to New York City.

In such locations land values are still within reason, which is important. The Civil Aeronautics Administration requires a runway at least 100 feet wide and 1,500 feet long for the average 4,000-pound civilian plane. That runway must be 200 feet wide and 2,500 feet long for planes weighing 15,000 pounds.

It is not only within the realm of possibility, but also economically expedient, that after this war a tract of 477 acres of desirable terrain in Iowa or New York State, for example, will be subdivided into 40 little farms averaging 10 acres each, for 40 airplane commuters!

Instead of streets and avenues winding through such communities, the farms will be served by surface transportation along the shoulders of great runways. These runways, forming a cross inside of a V, will cope with winds from every direction as well as serving the needs of the entire community. They can be 220 feet wide including their 60-foot shoulders, and 3,500 feet long—two-thirds of a mile, for maximum safety, as shown in the accompanying community plan.

Each homesite in this flyers' town, ranging from 8 to 12 acres, will have an unobstructed set-back of 200 feet from the runway proper in order to give planes an adequate safety margin 500 feet in width. This set-back border will be planted in lawns or fields to exclude trees or other hazards. The remainder of each farm will be unrestricted. The family not desiring to cultivate or tend that much land will be able to maintain a half-acre, or three-quarters of an acre of landscaped grounds in the center of a private woodland park.

Even aside from such far-flung influences, aviation is certain to have some effect on the design of the post-war home. The helicopter, capable of landing on a small flat roof, is now being introduced into submarine patrol by the British. Though still in the experimental stage it demands the attention of every foresighted builder and prudent real estate investor.

Industry, also as one result of aviation research, is ready with light metals and plastics that can do more to revolutionize construction than did Bessemer's well known discovery. This country controls three times more aluminum than iron. The annual production of both aluminum and magnesium is now being increased by 1000 per cent. Lighter, cheaper, more durable dwelling construction appears inevitable.

One of the primary tasks that will confront builders after this war—and this goes doubly for architects—will be to keep the public trust on a level keel under the stresses of violent influences

* * *

How Chicago Builders Are Creating Post-War Sales

(Continued from page 47)

mortgage and financial institutions, follow the FHA pattern of financing a lot, free and clear, thus enabling a person to secure a large enough loan to build his home without delay.

Many of these developments in the Chicago area were planned before the war. As a result relatively inexpensive utilities as well as other improvements were put in at pre-war labor costs. In many instances the purchaser can get

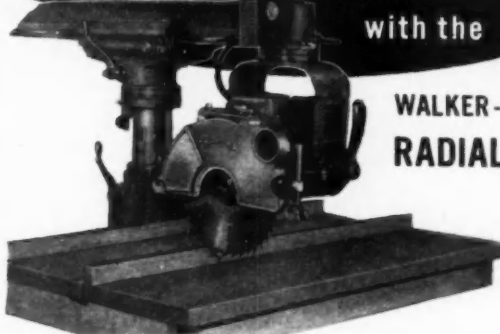
a home site now for less than the cost of the improvements alone.

Little wonder than that the Chicago builders and developers found a ready and willing consumer market, once they found the right approach.

One builder in particular had run countless advertisements on lots and received little or no response. His salesmen, when questioned, admitted that the public was not interested in lots, but in a post-war home.

This set the builder to thinking. After all, the war had tied home building into a knot, and yet there were untold numbers of people who were anxiously awaiting the day when they could build a home of their own. Many of them had a vague idea of where they would like to have

GET AHEAD OF THE Bad Weather



with the

WALKER-TURNER RADIAL SAW

If you're worried about winter weather catching you with several unfinished contracts, investigate the Walker-Turner Radial Saw now. It can pull you out of the hole.

This versatile machine saves so much time and manpower, while turning out accurate work faster, that you can easily meet the most urgent and exacting schedule. It crosscuts, rips, miters, dados, shapes, routs and tenons—with quick changeover from one operation to another—cuts metals, wood, plastics, terra cotta, tiles, transite, etc.

Sliding ram design eliminates overhanging arm, affords clear view of work. Patented geared, shockproof motor permits deep cuts with smaller blades. Promptly available for war work. Send for literature. Walker-Turner Co., Inc., 10113 Berckman St., 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 SURFACES

UNCLE SAM WON'T LET YOU DOWN!

**PLAN YOUR HOME
today!
BE SURE OF SECURITY
& HAPPINESS
tomorrow!**

WEST—
23 minutes from loop.
80 trains daily—fast
electric service. Close
to Buick, Amertop and
Electro-Motive area.

SOUTHWEST—
Close to Southwest side
with excellent transpor-
tation. Close to Dodge,
Chrysler, Studebaker
and other plants.

NORTHWEST—
26 minutes northwest
loop. Excellent service
close to Douglas plant.

Every American is entitled to own his own home. Get the most out of life! Gain the advantages in independence and privacy that are rightfully yours by Living in Your Own Home! You need not postpone the fulfillment of this heritage any longer than the lifting of restrictions on materials. Our properties are excellently located to churches, shopping centers, movie houses, parks and everything that the American family really wants. In very thriving suburban built-up communities, where you will really enjoy living, away from the smoke and noise of the congested areas.

Mail Coupon Now

ONLY \$150 STARTS YOU
Very Low Monthly Payments

Please Check Location Preferred
 West Southwest Northwest
 RE 42, HERALD-AMERICAN, CHICAGO, ILL.
 Without obligation, send me full details.

Name: _____ City: _____
 Address: _____

ANOTHER copy approach in advertising the post-war home

this home, but few indeed the number who had definitely laid their plans or selected a home site. In other words, the desire was there and all that was needed was a definite and concrete plan which could be crystallized into action once building was resumed.

He changed his style of advertising and featured a home with suggestive copy. The copy pertinently advised the home seeker that now was the time to plan and prepare for his post-war home.

Very little mention was made of a lot, in fact, he

(Continued to page 92)

**THE
UNIVERSAL
CHOICE**

**METAL TRIMS
TRADEMARKED
CHROMEEDGE**

Trademark Reg. U.S. Pat. Off.

In B & T Metal Trims trademarked Chromeedge, the lustrous permanent beauty which metals alone can produce is translated into trims that are unsurpassed in both decorative and functional value. Preparing for the day when B & T will turn again from vital war work to the fabrication of quality metal trims,

STILL AVAILABLE

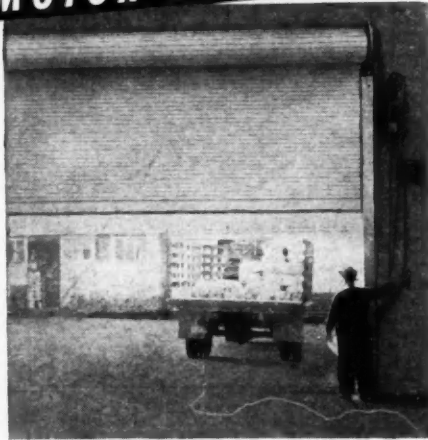
we are planning still further improvements in the utility, beauty, and service for which the name Chromeedge has won wide approval.

Many rolled metal trims for a variety of requirements, from stocks on hand before war. Immediate shipment. Write today for details.

The B & T Metals Company
COLUMBUS 16, OHIO

Two Wartime Advantages

**COILING UPWARD ACTION
MOTOR OPERATION**



Kinnear Motor Operated Wood Rolling Doors open or close quickly at the touch of a button. The heavy-duty motor does the work, saves time and labor.

And *coiling upward action* saves floor, wall and ceiling space! The doors open out of the way, safe from wind or traffic damage. *Kinnear Wood Rolling Doors* also assure highest economy of war-vital metals! Strong inter-lapping wood slats form a rugged

curtain that blocks out wind and weather, yet presents a neat appearance. Any size, for old or new buildings. Manual control only, if desired. Write for details today! The Kinnear Mfg. Co., 1560-80 Fields Ave., Columbus, Ohio.



3-M ACOUSTICAL TILE ADHESIVE



The fast setting and firm bonding qualities of 3-M Acoustical Tile Adhesive have made it a "best seller" in the building field. Other 3-M Adhesives are doing a job for the builder with speed and dependability—such as adhering wallboard, and as a sealant under metal or plastic mouldings.

A 3-M Adhesive Engineer will be glad to help you with your adhesive problems. Just fill in coupon below.

MINNESOTA MINING & MFG. CO.
SAINT PAUL MINNESOTA

Gentlemen:
Please have a 3-M Engineer call to discuss our adhesive needs.

Name _____ AB1143
Dept. _____ Company _____
Address _____
City _____ Zone _____ State _____

dropped the word entirely and began talking about home sites. The salesmen were cautioned against the use of the word. Home site, specifically, was the language of the home seeker. It brought up visions of a home.

The results speak for themselves. This builder's organization, which had a five man sales staff early this year, has already grown to eighty men. Two of their original developments have been sold out and to date they have sold upwards of 1,000 home sites.

What made this and other organizations' efforts succeed was the common sense realization that the public was not interested in merely buying a lot for speculation. They pictured the advantages of home ownership and the fulfillment of this desire in their advertisements. They had architects prepare plans and draw up perspectives, thus visualizing to the prospective home owner the type of home which he could build after the war. In other words, they were not merely selling a piece of land—they were helping to make possible eventual home ownership.

To a growing number of buyers has come the realization that at last his own home is in the making.

L. C. Simms PD-105 List

(Continued from page 44)

	Quantity per dwelling Unit
Domestic hot water heater and storage tank, wood burning, 30 gal. capacity.	No. 1
HEATING	
Output capacity of system, maximum net hourly	Btu. 51025
Ditto per sq. ft. of dwelling area	Btu. 65
Ditto per dwelling unit	Btu. 51025
Total hourly heat loss of dwelling area per dwelling unit	Btu. 51025
Dwelling area of structure	Sq.-ft. 800
Dwelling area of dwelling unit	Sq.-ft. 800
Furnace, forced warm air including fan, blower and motor, output capacity 60,000 Btu. or less	No. 1
Duct connections and fittings	lbs. 350
Hangers & fastenings	lbs. 5
Registers, ferrous metal	No. 6
Grilles, nonmetallic	No. 2
Firing equipment sawdust burner	No. 1
Smoke pipe with fittings	lbs. 20
HOUSEHOLD EQUIPMENT	
Cooking range, electric over 2500 watts	No. 1
Refrigerator, mechanical (subject to PD-427 approval)	No. 1
WOOD	
Dimension lumber (2" nominal or thicker)	B.M. 5139
Board lumber	B.M. 3162
SUMMARY OF CONTROLLED MATERIALS	
Total carbon steel	615.5 lbs.
Copper wire & cable	25.25 lbs.



ASBESTOS - CEMENT SHINGLES and SIDING NOW AVAILABLE

For Necessary Repairs and Maintenance Without Cost Limitation
The Government has removed restrictions on home repair and replacements made with asbestos shingles and siding, where such work is actually needed for property maintenance. Naturally, home owners are eager to take advantage of this opportunity to protect their property.

Roofing and Siding Repairs made with

Careystone ASBESTOS - CEMENT SHINGLES and SIDING

will help increase the flow of war-vital "long-fibre" asbestos. Do your share to help the nation, your neighbors, and your own business by making all needed roofing and siding repairs with asbestos-cement products. Address Dept. 16.

THE PHILIP CAREY MFG. COMPANY • Lockland, Cincinnati, Ohio
Dependable Products Since 1873
IN CANADA THE PHILIP CAREY COMPANY LTD. Office and Factory, LENOXVILLE P. Q.

Appraising Slums for Redevelopment

(Continued from page 62)

tion and rehabilitation) of all unfit or unsanitary structures. Under condemnation or any other form of acquisition it should not be necessary for the public to pay for a property a price which is predicated upon earnings produced in violation of fire or health regulations, or from earnings derived from use of the property contrary to law. Owners of such property should be required to provide proper conditions within their buildings or to board up the property. This would make the owners more willing to accept reasonable offers for their property. They could no longer support claims for valuations based on income derived in violation of the law.

(3) Incomes from blighted residential properties may all tend to be reduced by the building of new and better homes on the edge of the city and in suburban areas. This will start a filtering up process which will result in evacuation of the lowest level of housing. The abandoned properties can then be acquired at a lower valuation than is possible when they are occupied under the pressure of war conditions.

(4) In replanning blighted areas it is usually not feasible to abandon entirely the pattern of existing streets. It is entirely possible, however, to close sections of certain streets and make use of these portions of land to provide recreational or parking areas which would otherwise have to be acquired by purchase. It is estimated that frequently as much as 25% of the street area in present blighted areas could be utilized for parks or other purposes. The use of land occupied by these unnecessary streets would lower the average acquisition cost of the entire redevelopment project.

(5) The cost of acquiring land could be greatly reduced if the reversionary rights at the end of a period of time, say 10 years, were purchased instead of the right for immediate possession. Thus, suppose there is an old house on a lot 25 x 100 feet which on the basis of its income is valued at \$6,000. Of this amount \$5,000 might be attributed to the building and \$1,000 to the land. If the building is over 50 years old, it can be assumed to have 10 years of economic life and that within 10 years the building will be worthless. The sole value then remaining will be in the land. The first value of which is \$1,000. The owner could be compensated today for his reversionary rights in the land accruing 10 years hence as follows:

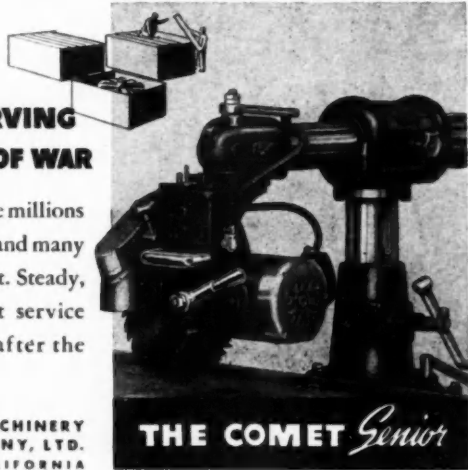
The present value of \$1,000 due after 10 years, discounted at 6% would be \$558. If a municipal or public body is purchasing the land, it is probable that the interest rate would be as low as 2½%. Thus the total cost of this site at the end of 10 years, including interest at 2½% would amount to \$714. By buying the reversion, the land would ultimately cost the public for redevelopment, only about 29 cents a square foot instead of \$2.40 a square foot, if the entire rights were acquired. The redevelopment corporation would not get the use of this property

(Continued to page 94)

Comets SERVING IN ARSENALS OF WAR

Munitions plants use millions of feet of lumber—and many use Comets to cut it. Steady, high-speed Comet service will be for you—after the War.....

CONSOLIDATED MACHINERY & SUPPLY COMPANY, LTD. LOS ANGELES, CALIFORNIA



THE COMET Senior



SAMSON SPOT SASH CORD

the most durable material for hanging windows



WHERE THE NEED IS GREATEST
Samson Braided Cords Serve Best
Now and Always

SAMSON CORDAGE WORKS
BOSTON 10, MASS.



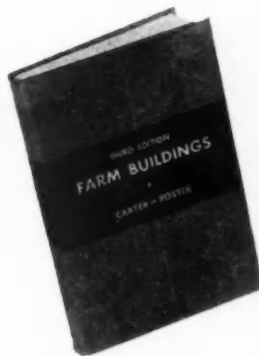
Reg. U.S. Pat. Off.

Builders! Architects! Plan Now For Future Building

FARM BUILDINGS

Third Edition

By Deane G. Carter
and W. A. Foster



Rural housing is growing in importance. Here's a book that helps you to prepare for future business. Practical, packed with vital information, this revised edition of FARM BUILDINGS contains the most up-to-date material available on the subject. It covers such topics as materials, structure, cost, environment and arrangement. It places emphasis on the economic aspects of farm buildings; on analysis of rural housing problems and on basic or unit planning. A book every architect and builder interested in the future of his profession should read. Order your free trial copy today!

404 Pages Illustrated \$3.75

ON APPROVAL COUPON
JOHN WILEY & SONS, INC.
440 Fourth Avenue, New York 16, N. Y.

Please send me a copy of Carter and Foster's FARM BUILDINGS on ten days' approval. At the end of that time, if I decide to keep the book, I will remit \$3.75 plus postage; otherwise I will return the book postpaid.

Name
Address
City and State
Employed by.....

AB&A-11-43



MODEL 85
CAPACITY 2 3/4"

with A *Mall Saw*

Light weight is combined with perfect balance to make this powerful, fast-cutting saw safe and easy to use with either hand. It will cross-cut or rip rough or dressed lumber, make complicated mitre cuts, pocket cuts, cut metal, cut and score stone, concrete, and tile with an abrasive wheel.



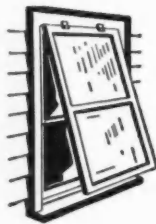
A handy time and effort-saving tool for carpenters, builders, lumber dealers and others engaged in War Work. Three other models with 8", 9" and 12" blades and 2 1/2", 3", 4" cutting capacities also available for Victory Construction.

Literature and prices upon request.

Back the Attack—Buy War Bonds

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

—protection in the public interest—



to increase the

durability of **wood storm sash-**

—to give them increased resistance against possible deterioration, laboratory science has developed minimum standards of toxic preservation—a treatment designed to supplement the natural, lasting qualities of wood products under the severe demands of modern construction.

NATIONAL DOOR MANUFACTURERS' ASSOCIATION
McCORMICK BUILDING - CHICAGO, ILLINOIS

Seal of Approval—The Identification of a Product Meeting N. D. M. A. Preservative Minimum Standards



FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEETS

for 10 years, but since the purchase of the entire interest at once would involve a subsidy sufficient to make good the difference between the cost and the lower economic value, the total charge or subsidy assumed by the public would be minimized.

(6) The value for redevelopment projects could be absorbed by the difference between the interest rates on federal government obligations and the interest paid by private land development corporations. The federal government lends a municipal corporation \$1,000,000 to buy a blighted area which has an economic resale or leasehold value of only \$500,000 to a private redevelopment corporation. The municipal corporation, however, might have to pay only 2% interest on the \$1,000,000 loan from the federal government or \$20,000 a year, while it might lease the land to the private redevelopment company for 6% on a \$500,000 valuation, or \$30,000 a year which would be sufficient to pay the interest and amortize the principal of the government obligation on a long term basis.

It has been estimated that there may be as many as seven or eight million residential quarters in blighted areas today. The cost of rebuilding the slums in American cities may run to approximately \$50,000,000,000 in that case. But until a method of appraising slum properties is developed that will apply fairly to all owners of property within the clearance area, the cost of redevelopment will not only be unknown, but will vary according to the resistance provided by groups of owners.

In this regard, it is essential that property in a slum clearance area be devalued in consideration of the surroundings and neighborhood conditions, and that "special favor" and "inside information" leading to speculative purchase of such property be given a swift kick in the pocketbook by the appraisers in charge.

* * *

Commercial and Industrial Building

(Continued from page 51)

Several research organizations have recently completed studies of retailing in the post-war period. Some analysts seem inclined to look for an increase in the number of retail stores after the war. But even if the number of retail stores goes no higher than the present figure of about a million and a half we certainly can expect that two to four hundred thousand of these retailers will undertake modernization in the first year of peace. If only two hundred thousand store fronts are planned and installed in that first year of conversion to normal business, the total expenditure will run in the neighborhood of 90 to 100 million dollars.

There will be a psychological reaction to dimouts, black-outs and all the other necessary but depressing manifestations of war, it is believed.

Hence, the post-war store that is attractively bright and fresh-looking, both day and night, will be the one toward which war-weary shoppers will automatically turn. Anything about a store that is drab will carry with it a reminder of war days—and will be a deterrent to trade. Drabness which

7 ft
RAPID-FIRE GLAZING

Drives' em in at machine-gun speed

Red Devil
AUTOMATIC DIAMOND POINT DRIVERS

Speed up Victory! Glaze with one hand. Efficient from EVERY position and angle. Securely holds clips of 100 DIAMOND POINTS which won't bend or corrode and drive into hardest wood • Red Devil Diamond Points 3/8" and 1/2" are available in boxes of fifty sticks of 100 each (5,000 points).

LONDON P. SMITH, Inc. • IRVINGTON, N. J., U.S.A.

Glaziers and Painters Tools and Machines Since 1872

interest
e good
conomic
public

might have remained hidden during wartime dimness will come to light and the store that cannot measure up to peacetime requirements will appear exaggeratedly dull by contrast to its neighbors.

The store front is the first thing a prospective shopper notices and it is the one feature which has suffered most through wartime restrictions in lighting and renovating. It is the store front therefore upon which most emphasis should be placed in restyling the establishment to meet peacetime needs.

Modernization of store fronts, however, is far more comprehensive in scope than a mere slicking up done with some paint, a little soap and water, and possibly a new plate glass window.

It involves, often enough, the complete redesign of the doors, entrance, facade and show windows. It must be made inviting in every detail if it is to perform its double function of displaying wares to advantage and of tempting the customer inside.

Foresee Wider Use of Glass

Many architects and industrial designers feel that this can best be accomplished through the more extensive use of glass. They are confident that its further use and acceptance will open up ever wider fields for its application.

In general an increase in street window display space is desirable. Most stores require ample room in order to display their wares to advantage without crowding. Furniture stores in particular could be cited as an example.

Although it is not always possible to increase the actual dimensions of the store window, an irregular design of the entrance way can be made to produce the same results, at the same time presenting a pattern that is far more attractive to the eye.

Irregular setbacks, novel displays, convenient door locations, and decorative patterns in sidewalk and vestibule treatments are all important factors in the design of the post-war store.

Obviously, plate glass will be used for the window display. Besides this, plate glass can be used to advantage in the interiors of many shops for shelves, recesses and mirrors, while glass blocks provide counters that are practical and distinctive.

The interior should not be neglected, naturally. It would show poor judgment to dress up the store front and leave the inside much as it has been for years past. No customer should be tempted by a brightly attractive exterior and then thrust into a gloomy shop with which no effort had been made at modernization. The interior and exterior of the store should be kept in harmony, both pleasing, without clashing in design.

These are the problems which occupy the thoughts of wise American store owners, experts assert. The foresighted merchant is not sitting idly by, merely hoping that the war will end and permit him to resume his peacetime trade. He is thinking in terms of what that trade will be. He is conscious of what kind of store he must have in which to best offer his wares.

There's Money with DeLuxe For You Modernizing KITCHENS



Here is a profitable building outlet. Homes everywhere are prospects. Every housewife wants a modern kitchen. DeLuxe Kitchen Units (made of wood) bring every advantage of convenience and beauty—at lowest possible cost. Available in a wide selection to fit any floor plan.

Write today for complete catalog showing typical installations—and name of nearest distributor. Address Dept. AB1143.

Build This Modern Fireplace

In Your Post-War Homes!



Yes, regardless of any changes in post-war homes—there will always be a fireplace.

More than 125,000 Heatilator Fireplaces now in use—under all conditions—are proving every claim we ever made for it.

This great success of Heatilator is adding a new talking point to the living room. It not only provides a smokeless fireplace, but one that circulates the heat.

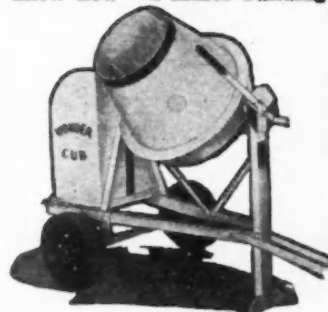
HEATILATOR INC., 611 E. BRIGHTON AVE., SYRACUSE 5, N. Y.

HEATILATOR Fireplace

They're Man Savers! WONDER SMALL JOB MIXERS



Light enough to handle... heavy enough to last. Backed by over 30 years of "know how" in Mixer building.



FAMOUS WONDER "CUB"... a husky "wheelbarrow-full-per-batch" Mixer. Available on steel wheels or skids. Hand or power drive.

NEW WONDER 3"... a half-bagger on any mix up to 1:2½:4. Double V-Belt Drive. Available on steel wheels with efficient air-cooled engine or skid mounted for pulley or separate motor drive.

Get FREE Wonder Small Mixer Catalog.

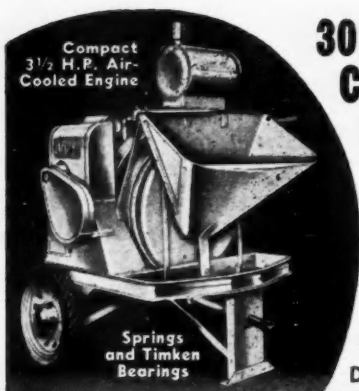
CONSTRUCTION MACHINERY CO. WATERLOO IOWA

in at
n speed

it from
of 100
nd drive
1/2 are
points).

U.S.A.

1872



Compact
3 1/2 H.P. Air-
Cooled Engine

Springs
and Timken
Bearings

30% to 40% MORE CONCRETE with this MIXER!

Load the Measuring Batch Hopper (12" lower) while you mix and discharge — fast as power loader. Criss-Cross "Re"-Mix Drum, Accurate Measuring Tank (siphon type). End discharge design. Get catalog, prices. The Jaeger Machine Co., 521 Dublin Ave., Columbus, Ohio.

JAEGER 3 1/2 SPEEDLINE



AMERICAN FLOOR SANDERS SAVE MAN POWER

The War Program calls for SPEED, and the American Standard floor sander by actual performance has proven itself 25 to 40% faster than machines formerly used. We have machines in stock and will help you obtain authority to purchase the sander you need.

Write today for details and prices.

THE AMERICAN FLOOR SURFACING MACHINE CO.
611 So. St. Clair St. Toledo, Ohio

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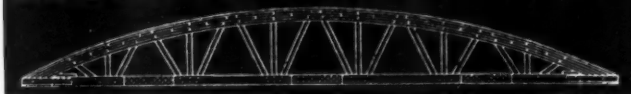
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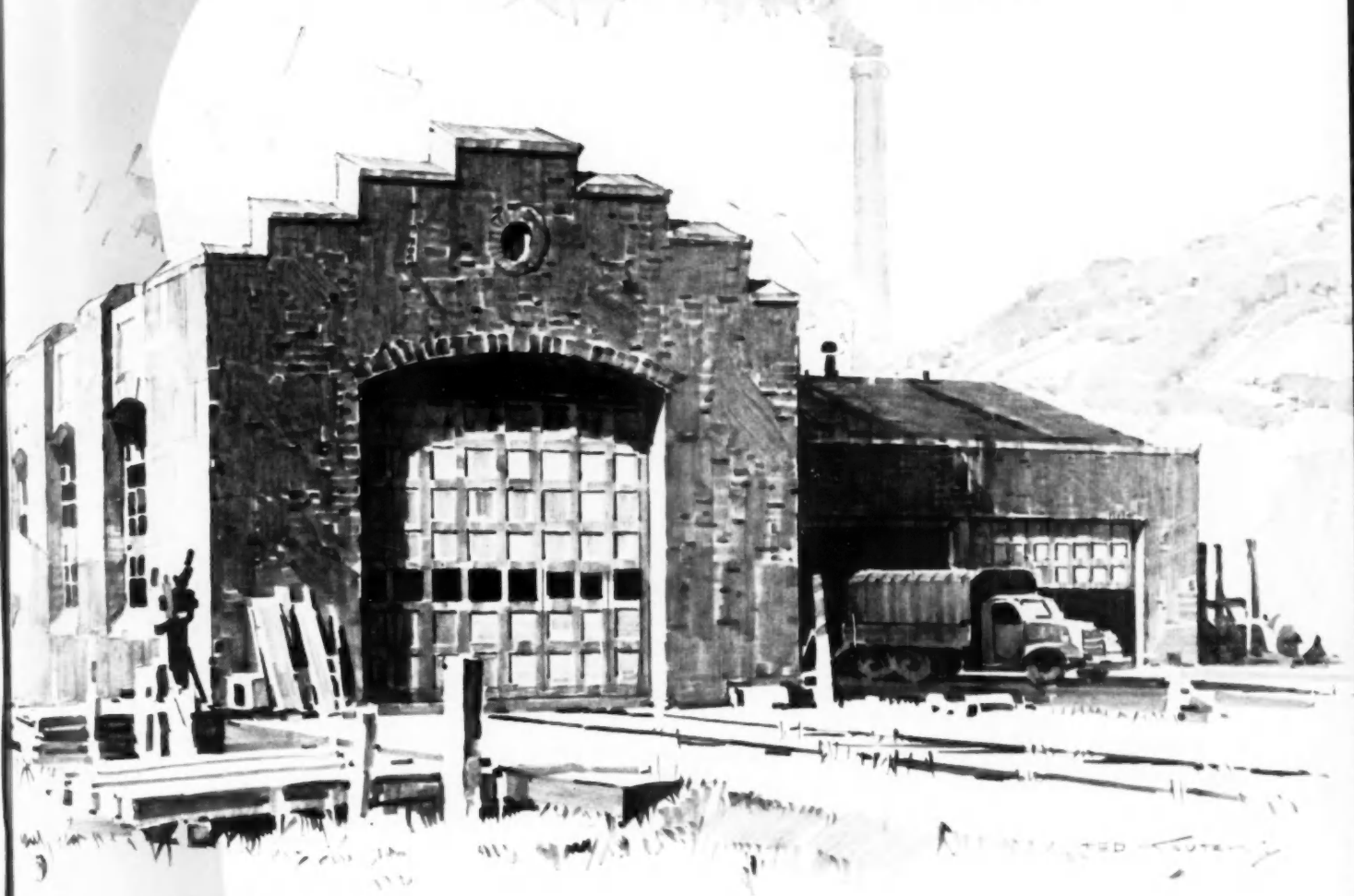
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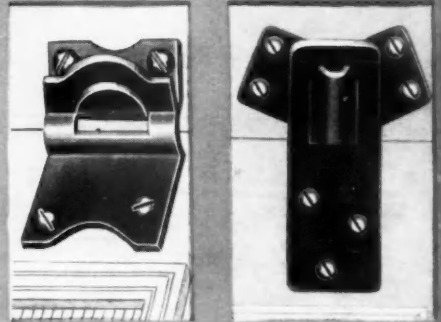
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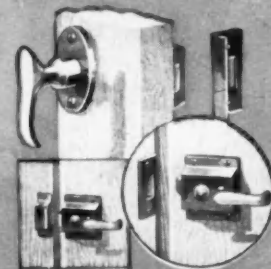
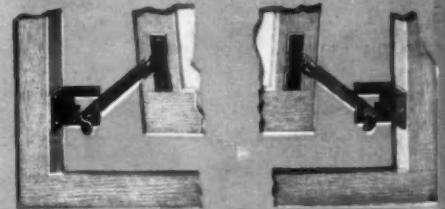
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