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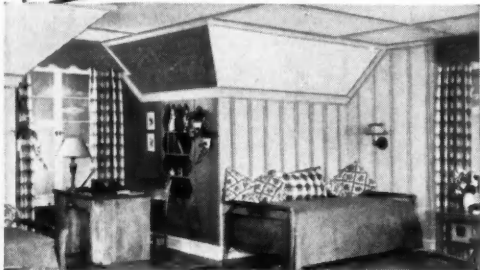
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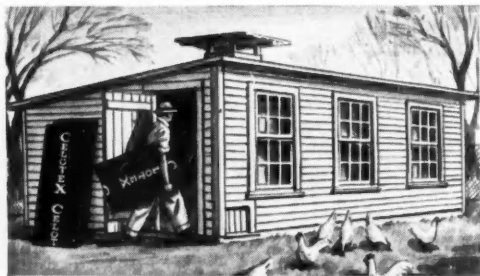
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 and Exterior Finish



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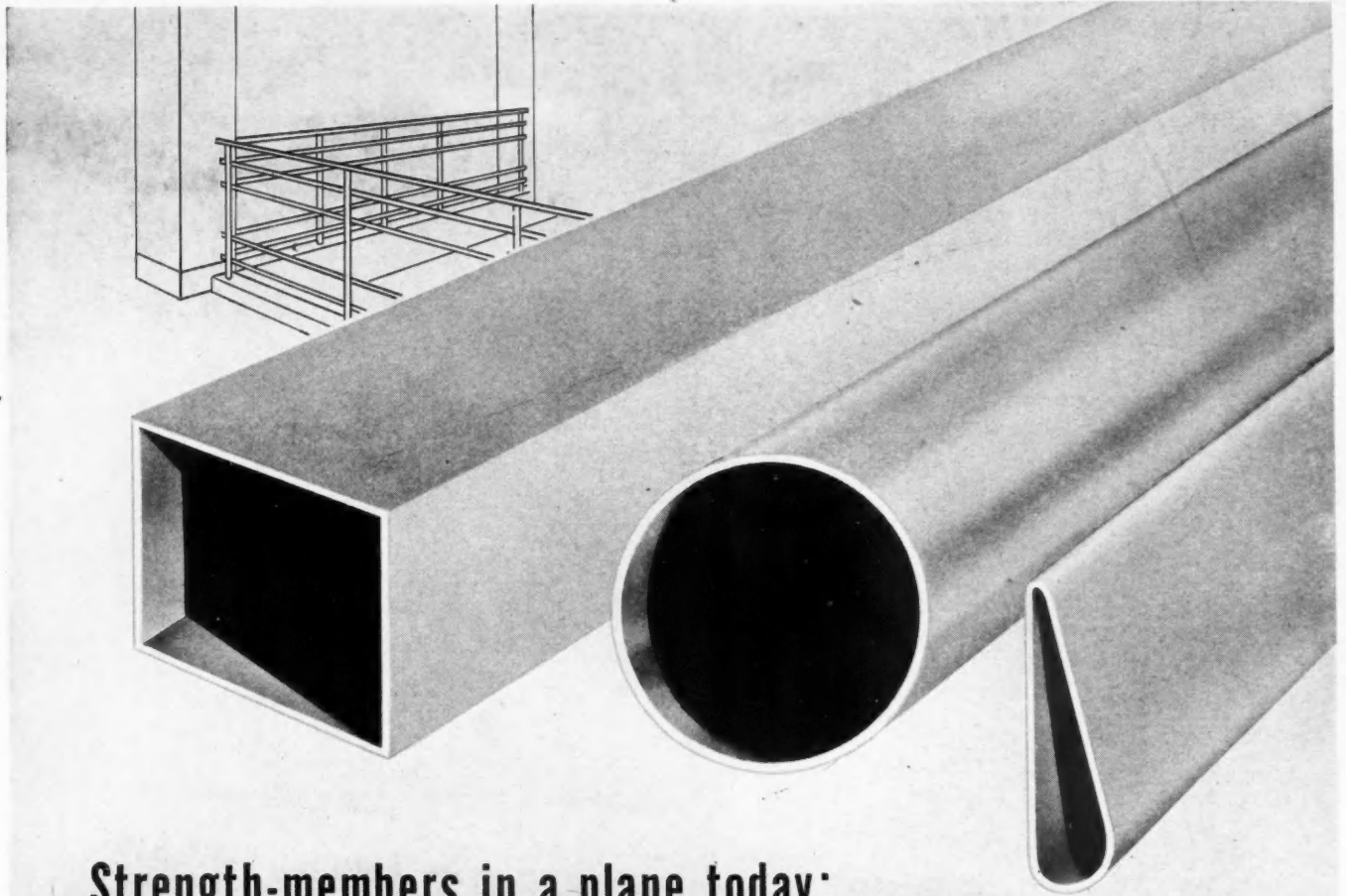
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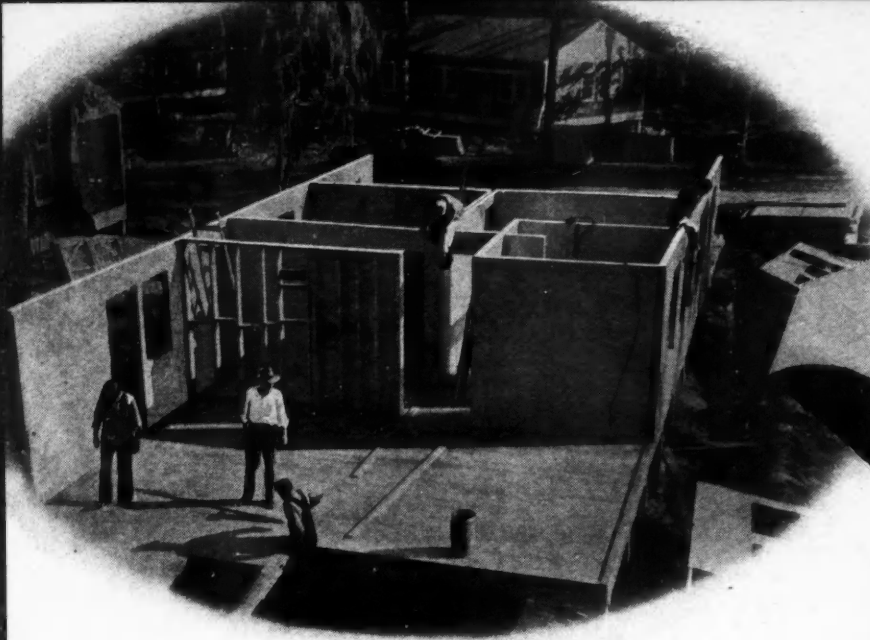
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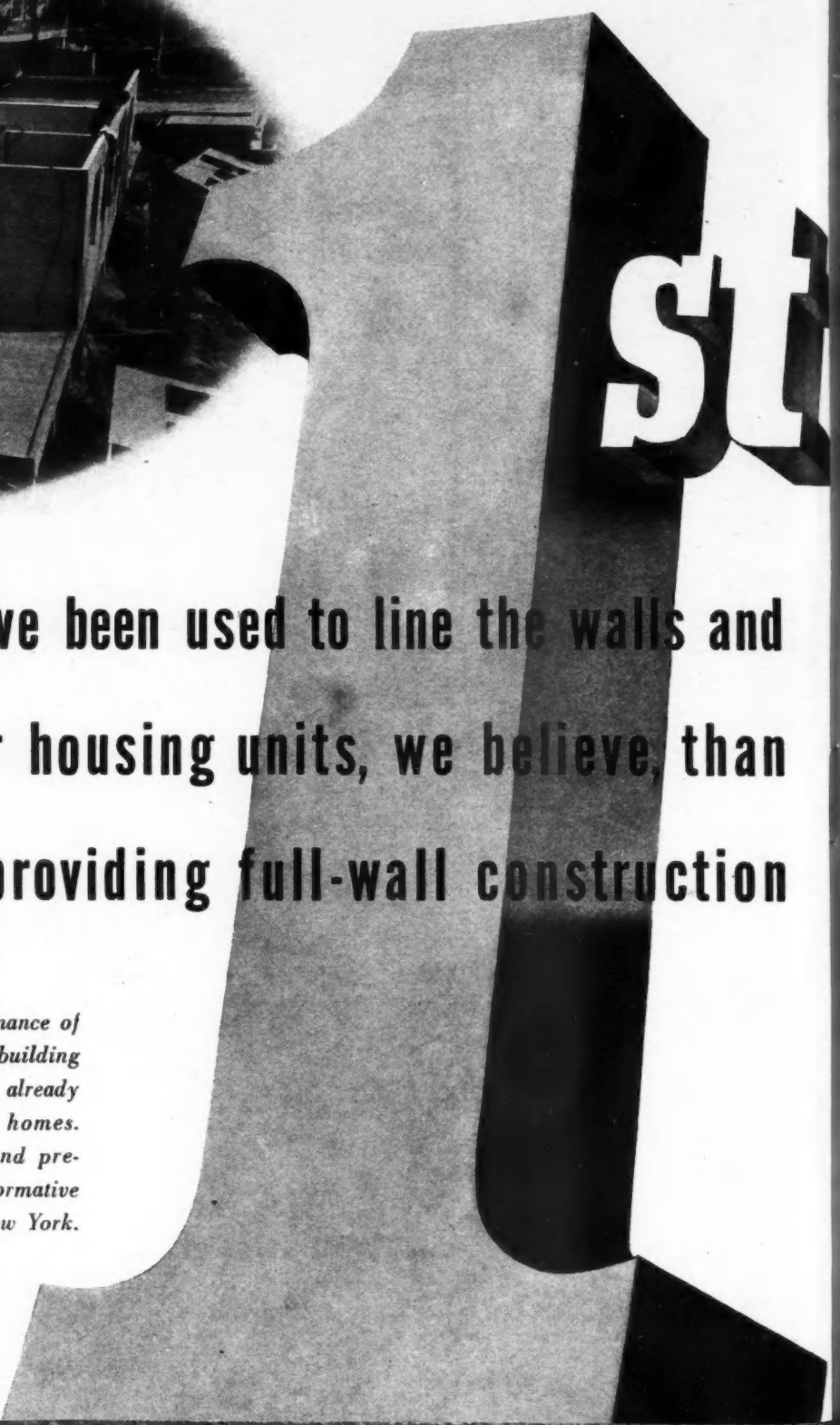
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AMERICAN BUILDER

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In these days of paper shortage and paper rationing you can help by making your copy of *American Builder* do double or triple duty. Pass it on or lend it to your friends and customers.

You have already noticed that, with the March issue, *American Builder* reduced its trim size slightly. This step has resulted in a considerable saving in paper and will enable us to continue to maintain our standard of service.

65th Year Vol. 65, No. 4

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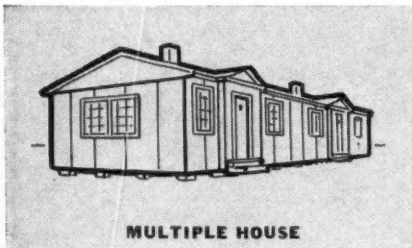
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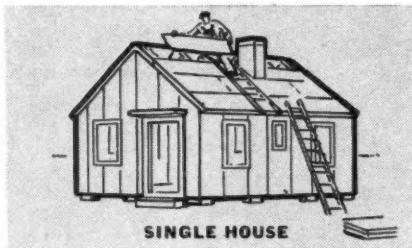
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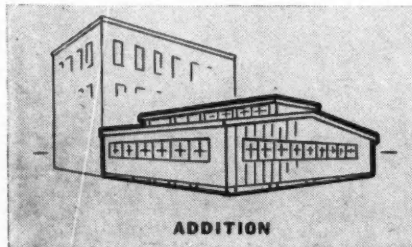
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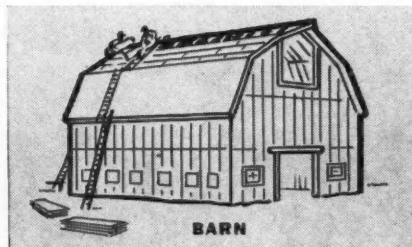
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Publisher's Page

Promoters of Class War

THOSE who believe free private enterprise best for all the people must defend and advocate it now because *during the war* there is being disseminated among wage earners so much propaganda for what is called "economic democracy." Here is a typical statement in a recent book: "One of the best ways . . . to defeat Hitler is to make . . . our blueprint for a new world known as definitely and clearly as possible to our own people, to the German people and to the world right now . . . It means inducing our privileged classes to sacrifice their privileges. If they are not willing to make the sacrifices . . . they must be forced." Note especially the word "forced."

Who are meant by "privileged classes" is shown by the policies advocated to establish "economic democracy." These always include taxing and government spending which directly or indirectly would transfer many or all kinds of property from private to government ownership. This would be "economic democracy" because everybody would jointly own all the government owned. It would abolish the "privileged classes" because it would prevent anybody from owning enough property to derive a large income from it; and reduction of large incomes would increase small incomes. That is the theory.

But our most important class is the middle class. It consists of millions who, while not rich, own the great bulk of all property—farms, other real estate, corporation bonds and stocks, life insurance. They consider it a right, not a "privilege," to get the largest incomes they can by their individual initiative, efforts and thrift. That they will resist policies promoting so-called "economic democracy" intended to equalize incomes regardless of inequalities of ability, effort and thrift was shown by the way they voted at the last election. And if, as the writer quoted suggested, "force" should be used on them, they undoubtedly would meet it with force.

What this plainly means is that those who advocate a "blueprint of a new world" as one of the best ways to defeat Hitler actually are advocating one of the best ways of promoting class strife in this and other countries. They say their "blueprint" is necessary to strengthen the morale of the wage earning class during the war. But its advocacy tends to undermine the morale of the middle class, which also is contributing its sons, its work, and much more taxes and brains to the war effort.

Much too little is being done to nullify propaganda for government policies promising wage earners a "new world" regardless of effects on the middle class. Wage earners must be educated to a realization that they and the middle class must prosper together in proportion to their contributions to the general welfare, or that neither can prosper. Any wage earner in this country can rise into the middle class, but only by practicing the middle class virtues of initiative, working regardless of union rules, saving and investing.

Current propaganda encouraging wage earners to believe they can benefit permanently by union methods and government policies intended to exploit the middle class is communistic, undermines national unity during the war, and threatens bitter and ruinous class strife after the war.

Samuel O. Drumm,

"SAVE THE WHEELS THAT SERVE AMERICA"

*Ask Your Chevrolet Dealer
to check your truck*



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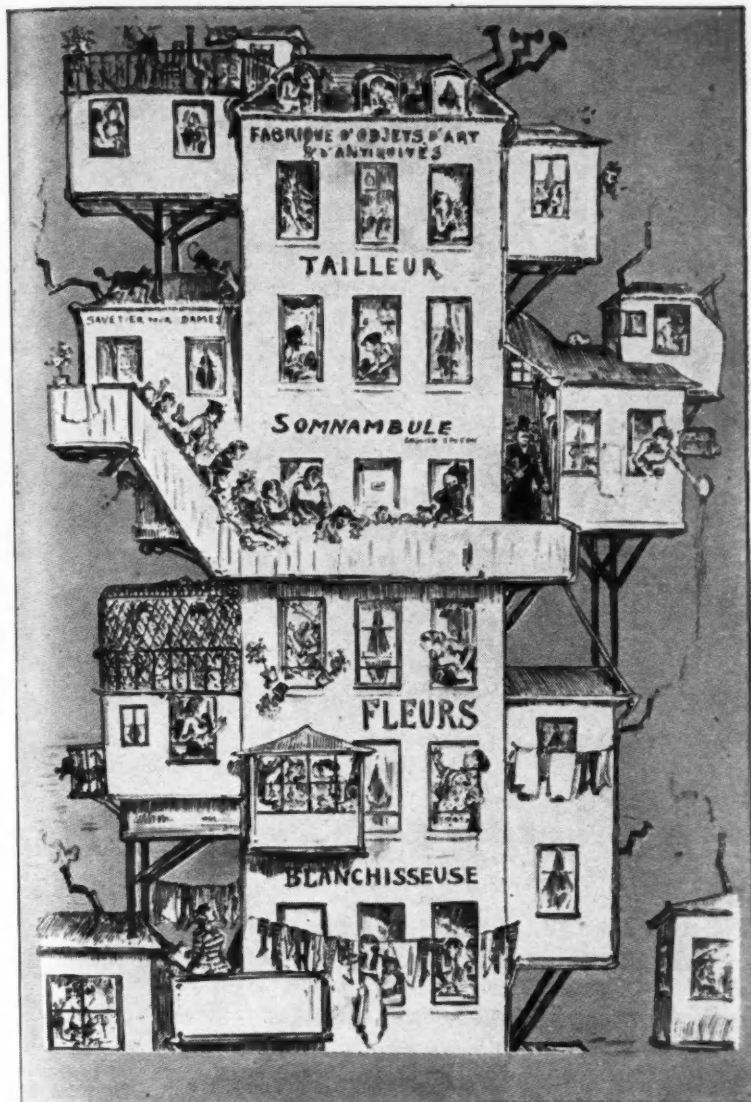


SEE YOUR
LOCAL

CHEVROLET

DEALER
TODAY

HEADQUARTERS FOR SERVICE ON ALL MAKES AND MODELS



DOODLED IN PARIS, 1882. Even in Paris 61 years ago the need for new housing had artists dreaming, architects planning, builders seeing rosy visions of fat contracts to come. Here the French caricaturist Albert Robida anticipates a skyscraper 18 floors high made of a new substance called "papier agglomere."

Are you *Doodling* or Planning for that Building Boom?

IF YOU'RE COUNTING on a building boom after the war—counting on it just because there is a big need for new housing—maybe you're just building castles in Spain.

There was a crying need for new dwellings before the war—but no boom. Remember?

The fact is, need alone does not necessarily mean demand. So, to help you *create* demand as quickly as possible after Victory comes, we offer this

Plan for building Post-war Building markets

1. Get ready to make sales the minute peace comes.
2. Prepare to stimulate confidence in new techniques, materials, designs.
3. Interest both men and women, because they jointly decide when and how to build a house.
4. Stir up prospects for non-residential building.
5. Get the middlemen on your side.

You can do all five of these jobs in one magazine, *TIME*. For through *TIME*:

You can tap the dammed-up post-war buying power of over a million *TIME*-reading families with 2½ times the income of the average U. S. family... you can get your new product known to America's most important people*—the men and women whose lead others follow.

You can stir up the house-building urge in both men and women readers (*TIME* is read by over 1,000,000 men and

over 1,000,000 women—they prefer *TIME* 7 to 1 over all the other magazines they read that carry advertising)... you can reach not only home prospects, but the bankers and executives who decide yes or no on non-residential building (again and again they vote "*TIME* is our favorite magazine").

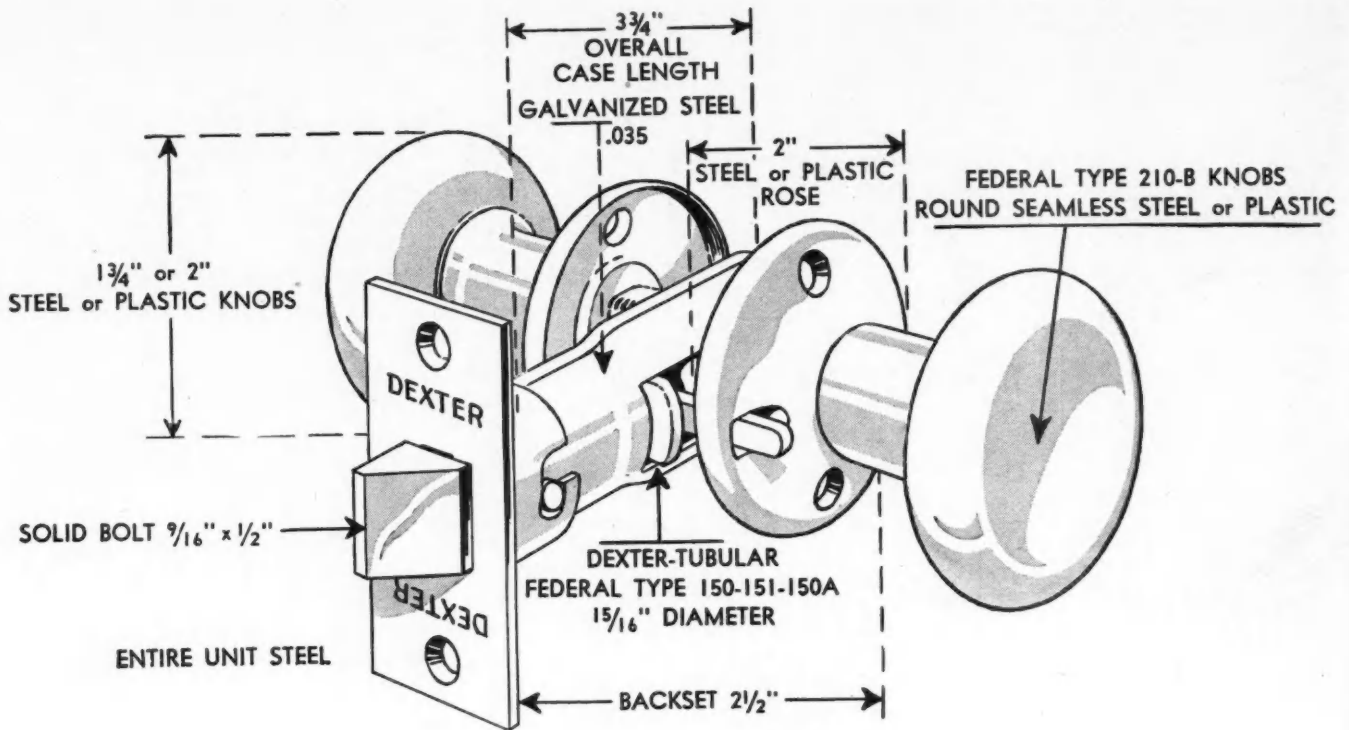
And in *TIME* you back up your trade paper advertising with extra impressions on thousands and thousands of the top men in construction and finance.

As you know, *TIME*'s advertising pages are rationed for the duration of paper curtailment. But *TIME* will continue to present certain facts about its audience in this space—for we feel that such information is important right now to your thinking about your advertising program after the war.

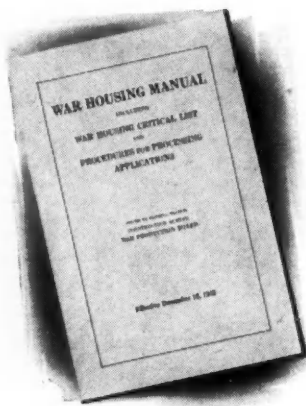


GATEWAY TO THE BUILDING MARKET • 9 ROCKEFELLER PLAZA, NEW YORK, N. Y.

* These people include executives and editors, congressmen and college presidents, government officials, mayors, radio commentators and 21 other groups of leaders—all of whom have recently voted "*TIME* is America's most important magazine."



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DEXTER-TUBULAR

Saves Important Man Hours in War Economy

REQUEST YOUR COPY FROM
NEAREST W.P.B. OR F.H.A. OFFICE

Published by the United States Government, effective as of December 12, 1942, "War Housing Manual" covering maximum specifications on all critical building materials. Here is an official volume that tells you what is available for building; NOTE — Tubulars are always optional and Dexter-Tubulars conform in every detail. You may procure a copy — without cost. Apply W.P.B. or write National Brass Company.

WHAT IS AVAILABLE TODAY WITHOUT PRIORITY . . .

Cabinet Hardware and Dexter-Tubulars illustrated in the regular catalog are, in many instances, still available. Lines are broken — you may not find the finish or design desired — but we will advise you of the closest alternates. Remember — available without priority while existing stocks last. As always, we are here to co-operate and serve you — don't hesitate to ask . . .

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Washington News Summary

Congress Supports Private Housing

On Projects Below \$10,000 See Regional WPB Offices

Knowledge of L-41 Repair and Maintenance Section Essential for Contractors

"Maintenance and repair" means such work as is necessary to keep a structure or project in sound working condition or to rehabilitate a structure or project or any portion thereof, when the same has been rendered unsafe or unfit for service by wear and tear or other similar causes. The term does not include any building operation or job where a structural alteration or change in design is to be made. However, different materials may be used and different types of articles, chattels or fixtures (but of the same general nature) may be incorporated, provided that there are no structural alterations or changes in design. No building operation or job may be part construction and part maintenance and repair as the terms are used herein, but if any construction is to be done the entire building operation or job is construction. Maintenance and repair does not include the reconstruction or restoration of a structure or project or portion thereof, destroyed by fire, flood, tornado, earthquake, etc.

In determining whether or not a certain structure has a \$200, \$1000, or \$5000, limitation, it is stated "where part of a structure or project falls within one class, and other parts within another or other classes, the predominant designed use shall determine the classification."

Certain jobs have been defined as construction which in the past might have been thought to be repair or maintenance. Construction includes the laying of asphalt tile, linotile, cork tile and linoleum, if the same is cemented to or in any way affixed to the construction, and the application of siding or roofing to a portion of a building or structure which is not in need of maintenance and repair.

New Order to Affect Farm Dwellings, Fire Jobs, Stores, Offices

Authority to begin residential, agricultural, and many types of commercial construction, costing less than \$10,000, can now be obtained from the Regional Offices of the War Production Board.

Not affected by the new order are publicly-financed housing projects and privately-financed war housing units built under Title VI of the National Housing Act. Publicly-financed housing construction applications will continue to be processed in New York. Privately-financed construction applications are already processed in the field. The new order, however, does affect farm dwellings, multiple residential construction, and residences permitted in cases of hardship, fire and dispossession. It also includes remodeling and renovations.

Agricultural construction, including barns, silos, and other farm buildings, will now be processed in the field. Commercial construction, which is also covered by the order, includes such buildings as stores, garages, laundries, office buildings, warehouses, theaters, places of amusement, roads, service stations, and other similar structures.

Construction Machinery Needed in War Zone

The necessity for putting into use all construction machinery now standing idle throughout the country has been stressed by officials of WPB's Construction Machinery Division. Lack of full utilization, according to reports from WPB regional offices, is seriously hampering the war effort.

Building construction is declining, but the demand for almost every kind of construction equipment is mounting. This seeming paradox is explained by the fact that construction equipment has many uses other than

Restrictions on Ownership Questioned; Right to Buy Home Is Considered Basic

Government Will Build Roads To Open Development of Many Inaccessible Stands of Timber

Although it is rumored that the Title VI bill has passed Congress, and is now awaiting the President's signature, as this issue goes to press it has not yet become law, which means that FHA funds to be used by private builders constructing war housing have been exhausted and have not been replaced. This same thing happened last year from April 1st to May 27th when FHA funds were exhausted and no commitments were issued.

Title VI unquestionably will pass, but until it does the efforts of private builders will be retarded, and if their energies cannot be adequately applied the entire war housing program will slump.

Fortunately shining across the path, like a beam of sunshine entering the doorway of a darkened room, is the attitude Congress is taking toward privately constructed housing. One of the delays in handling the Title VI bill was a misunderstanding that pointed out congressional feeling. Some members of

(Continued to next page, col. 3)

in building operations. Track laying tractors, cranes and shovels, graders, bituminous and concrete machinery, and jaw and roll crushers are used for clearing, grading and paving work at airports; for repair of bombed air fields, and clearing away air-raid debris; for building military roads and bridges; and for loading and unloading the huge cargoes that must go with the fighting men.

Approximately 350,000 items have been registered. Greater utilization of these machines must be obtained.

Washington News Summary

Preference Ratings Can Be Assigned to Tools and Equipment

Under a new order now effective preference ratings may be assigned not only to construction material but also to tools, machinery or equipment which will be located in the project and which will be used there in the manufacturing or processing of goods or the performance of services. Ratings may also be assigned to any material which will be used in connection with the construction of the project, including hand tools, repair parts for construction machinery, forms, scaffolding, and the like. Construction machinery and fuel are not included.

New order, P-19-h, also restricts the builder to the use of only that critical material which is authorized by WPB. Critical material in excess of allowances may not be used, regardless of whether taken from stock, or made available by gift or loan.

Utility Connections Granted on Projects Allowed Under L-41

Advance approval of limited utility connections for construction or remodeling projects permitted under L-41 was granted in Supplemental Utilities Order U-1-d issued Mar. 10. Material for an electric, gas, or water connection must cost less than \$1500 in case of underground connection or \$500 in the case of other construction.

In the case of an industrial or commercial consumer, not more than 60 pounds of copper may be used in an electrical connection or 250 pounds of iron and steel for gas or water service. In the case of domestic consumers, the material cost limitation is the same, but amount of material must be held within limits established by the Housing Utility Standards.

92,000 Units Under Public Housing Plan Placed on Contract

Approximately 92,000 publicly financed housing units for war workers were placed under contract during the first two months of 1943, Commissioner Herbert Emmerich of the Federal Public Housing Authority announced Mar. 20.

This two-month record compared with about 90,000 units placed under contract during the final four months of 1942 and represented more than one-sixth of the total volume of publicly financed war housing started since the beginning of the war housing emergency in the summer of 1940, approximately 273,000 units of which have been completed.

Restrictions on Delivery and Sale of All-Fabricated Metal Windows Amended Under L-77

Restrictions on the sale and delivery of completely fabricated metal windows in distributors' and manufacturers' inventories were removed Mar. 19 when Limitation Order L-77 was amended.

The amended order also changes the basis for manufacture of such windows. Hereafter, a rating of AA-3 or higher will be necessary. Amended order, however, takes cognizance of the fuel shortage by permitting manufacture, without a rating, of metal storm windows from material partially fabricated prior to the issuance of Mar. 19 order.

Queets Corridor Sitka Spruce To Be Cut; Government Now Invites Bids from Contractors

Indicating a possible change of front with regard to public forests, Secretary of the Department of Interior, Harold L. Ickes, has authorized the cutting of Sitka spruce on the Queets Corridor on the Olympic peninsula in the state of Washington. The Queets Corridor contains the finest remaining examples of the once extensive rain forests of the Pacific Northwest and while under the jurisdiction of the Department of Interior, is not an integral part of the Olympic National Park. Bids from contractors interested in taking out the airplane spruce, have been invited.

Release Plywood Remnants

Amendments to plywood limitation order L-150, effective Feb. 11, releases some odds and ends of plywood from the general freeze order. Plywood rejected by the grading process, such as plywood not meeting the commercial standards, is released. Plywood which has been pro-

duced by a producer by "cutting back" rejects is released. Also plywood in the form of strips, odd sizes and scrap, resulting from the processing for use of standard panels, is released. These scraps, pieces, and irregular sizes can be sold through dealers.

Congress and Housing

(From preceding page, col. 3)

Congress were under the impression that an extension of the public war housing program was being proposed in the provisions of the Title VI bill. They were against it. They also felt that the FHA was to blame for the establishment of priority regulations that are harassing building in various places. This was not true, but the impression can be understood when the paradox is considered that the NHA has control of regulating the disposition of privately financed war housing.

Congress, likewise, is beginning to question the recent restrictions against sale of housing as imposed by the policy agreement of NHA and WPB. As the right of home ownership in this country is basic, the regulations standing in the way of home ownership can be viewed askance. Of course, it is obvious that these regulations can well apply in areas which will be abandoned after the war. Workers should not be required to purchase houses either there or elsewhere, unless they choose to do so. But it becomes quite another matter when those who wish to do so find they have a series of OPA, WPB and NHA hurdles to jump before they can buy a house, even though the purchase of the house would leave a vacancy to rent to war workers.

There are evidences, however, that official Washington has awakened to the facts of war. The U. S. Department of Agriculture's Forest Service has been requested to construct or improve 97 roads to reach stands of timber and deposits of chrome, tungsten and other strategic metals. Many of these roads are in National forests which indicates that government resources are about to be used in the war effort.

Recent estimates show that, although badly distributed, there is still plenty of standing timber in the country for all present emergency needs. If through Government action, plus the action recently taken by the Southern Pine Association, more lumber is produced this year, it is probable that some of the difficulties in the building field will be overcome.



Steel to Bridge the Gap Between Thought and Execution

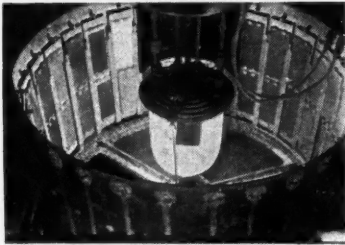
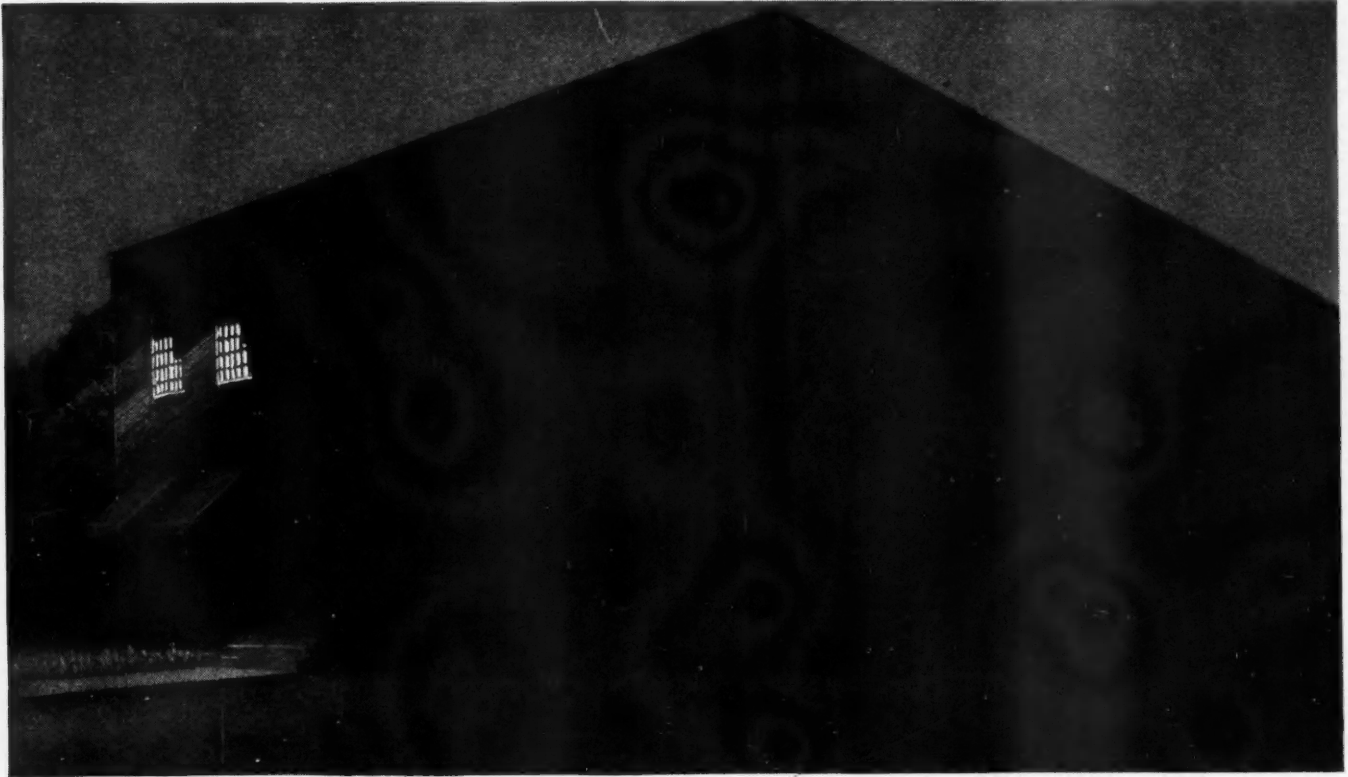
OUT of Stran-Steel's wartime research and developments, steel will emerge as a new medium of expression—flexible as the mind of man, and adaptable to all his concepts. It will take shape tomorrow in fresh and varied forms of architecture, where time-worn limitations are overcome to achieve new scope and efficiency in building.

No less important than the developments which Stran-Steel has already made is the vast fund of technical knowledge that is being acquired. Stran-Steel's broad engineering background will serve the construction industry well in days to come.

STRAN STEEL

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

UNIT OF NATIONAL STEEL CORPORATION



The light that never fails



Scientific Research— Tells you NOW how *Carey* PRODUCTS will be serving you in Future years!

High up in the Carey Research Laboratory, an ultra-violet ray lamp burns day and night. This lamp is a unit of the scientific equipment used in testing products of Carey research—lighting the way to better building products.

In this Carey Laboratory, nothing is taken for granted. Raw materials are torn apart to determine their fitness. Every formula—every finished product—is checked and re-checked. Carey Asphalt Roofings, for instance, are subjected to temperatures as high as 220 degrees—as low as 30° below zero—to the end that we may know in advance that they will stand up to any temperature in any climate. Likewise, other Carey Products: heat insulations; mineral wool; roof coatings and cements; products of asbestos-cement; must withstand gruelling tests to prove their ability to give outstanding service.

In this unceasing research, which has been going on for years, we are still looking ahead, past the war emergency, to the time when we can again supply all the Carey Products required by the nation's civilian economy—Products that will be even longer lasting and better values than the building industry has previously known. For details, address Dept. 10.

THE PHILIP CAREY MANUFACTURING COMPANY

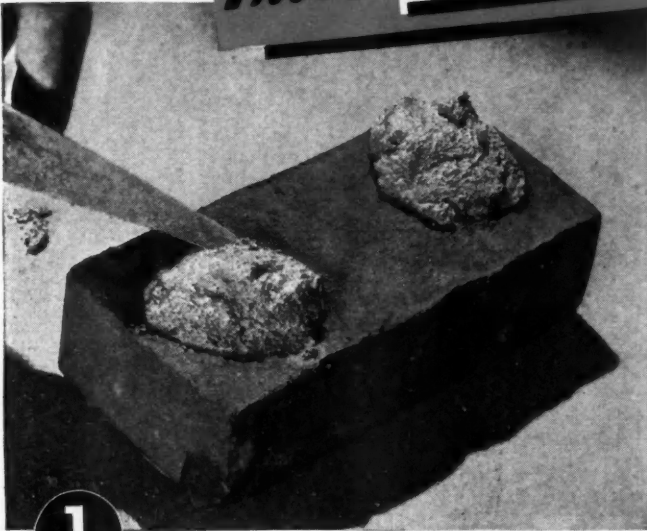
Dependable Products Since 1873

In Canada: The Philip Carey Company, Ltd.

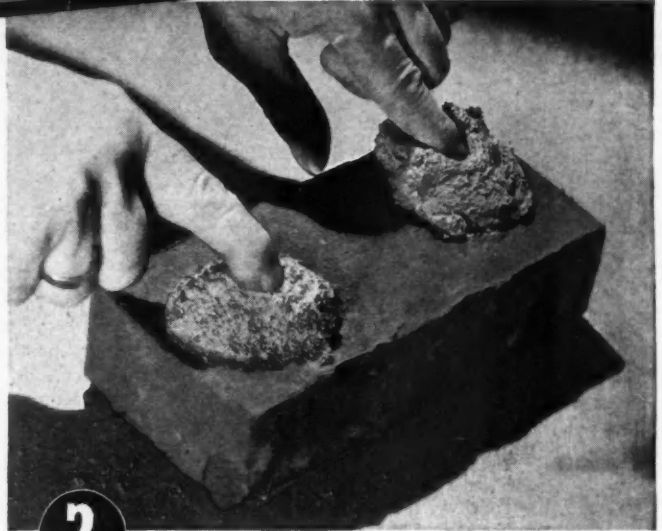
Lockland, Cincinnati, Ohio

Office and Factory: Lennoxville, P.Q.

MAKE THIS TEST -
Prove **BRIXMENT is BEST!**



1 Slap a small amount of Brixment mortar, and an equal amount of 50-50 lime and cement mortar, on a brick. Wait a minute, then feel each mortar.



2 Test each mortar. You will find that the Brixment mortar stays plastic *far longer* than the other mortar. This proves *greater water-retaining capacity*.

BRIXMENT Mortar Has **Far Greater Water-Retention!**

WATER-RETAINING CAPACITY is the ability of a mortar to retain its moisture, and hence its plasticity, when spread out on porous brick.

High water-retaining capacity is of *extreme importance* in mortar. If the mortar does not have high water-retaining capacity, it is too quickly sucked dry by the brick; the mortar stiffens too soon, the brick cannot be properly bedded, and a good bond cannot be obtained.

Brixment mortar has extremely high water-retaining capacity. It strongly resists the sucking action of the brick. Brixment mortar therefore stays smooth and plastic when spread out on the wall.

This permits a more thorough bedding of the brick, and a more complete contact between the brick and the mortar. The result is a better bond, and hence a stronger and more water-tight wall.



BRIXMENT

For Mortar and Stucco

Louisville Cement Company, Incorporated, Louisville, Kentucky. Cement Manufacturers for Over a Century.

On and Off the Record

by *Structor*

News, Views and
Comments

FROGS JUMP—"Of course we expect change and progress in the building industry," a large manufacturer of millwork told me. "That includes prefabrication. The trouble about it is you can't tell how far a frog can jump by looking at him."

SUB-ASSEMBLIES—This millwork man believes that prefabrication will take the form of sub-assemblies that builders can put together on the job, in their own way. Windows and doors will be built into standard panels. A corner sub-assembly might be built. These would be made by millwork firms and distributed through dealers to builders. On the job the builder would erect his standard window, door and corner units, then string plates across them and place studs in between. Such a system would be flexible; it would also bring considerable economies to the fitting of doors and windows.

200 A DAY—I spent one day last month going through the big Texas plant of a firm making prefabricated hutments which are being shipped all over the world to the armed forces. An astonishing record has been made: more than 200 units a day are made in this one plant. In one month more than 5,000 were produced and shipped.

The standard hutment is a 16' x 16' plywood structure of waterproof plywood. The manufacturers expect a large post-war market for this product for extremely low cost housing and for vacation camps and other uses. Since units are demountable, they can be sold on a conditional sales contract and taken back if the payments are not met.

The units are packed in crates; eight are carried in one 50 ft. freight car. Under a special freight classification they carry a rate almost as low as rough lumber. The cost of shipping a typical unit from Texas to Maine is only \$55.

LIBERALIZE L-41?—Many building men feel that order L-41 should be liberalized to permit more construction, maintenance and repair activity. They point out that some building materials are available in abundance and that building labor, most of which is over draft age, is available.

However, Washington representatives of the building industry say that we are lucky to have as much construction as

we have. They point out that WPB was about to reduce the allowable farm construction from \$1,000 to \$200, but that this was staved off by farm interests.

Farm structures such as hog houses, brooder houses and grain bins are in great demand and are needed if farm production is to increase. Lumber and other building materials must be made available for such work. But there is considerable doubt of relaxation of L-41 in regard to other types of civilian construction—at least for the present.

LUMBER IN 1943—Very little lumber will be available in 1943 except for essential civilian uses and for war construction, insiders of the industry say. Vast demands for boxing and crating will continue and will absorb a large part of production. At the same time labor shortages and other problems have greatly reduced lumber production at the mill. Stocks of lumber, on average, are very low.

CRATING—Builders and lumber dealers who have woodworking equipment are urged to get into production of crating, boxing and similar wood products for the war effort. Whatever ratings are necessary are being granted and this is proving a healthy business to tide over.

FILE FOR PERMISSION—WPB officials have pointed out that building men in critical areas can build many structures—if they are really needed—by obtaining permission from the local WPB office. They concede that many structures may be necessary to the war effort or to civilian morale.

The best way to find out is to file an application.

LUMBERMEN'S PROBLEM—Well known manufacturers of quality lumber have a problem that's easy to understand but hard to solve. Government buyers are *TELLING* them what to make and taking all of their production because the Government wants a high quality made according to certain specifications. Thus there is little left for the average buyer who in ordinary times takes the bulk of the lumber.

The sore spot is that there are thousands of small "pecker wood" producers who have sprung up over night and are permitted to sell to anyone willing to

accept the low quality, unstandardized product they make.

Thus the quality producer is being penalized in favor of the here-today-and-gone-tomorrow operator.

U. S. WANTS EQUIPMENT—Construction equipment is in tremendous demand for the war effort and WPB is urging all contractors to turn in everything they have. Even though building construction is declining, need for this equipment is acute because it goes into so many uses in actual battle areas. Tractors, cranes, shovels, graders and similar equipment are needed at airports to repair bombed air fields, to clear away air raid debris and to build military roads and bridges and to load and unload cargoes.

Practically the entire output of new construction machinery is now going to the armed services, but the demand far exceeds the supply.

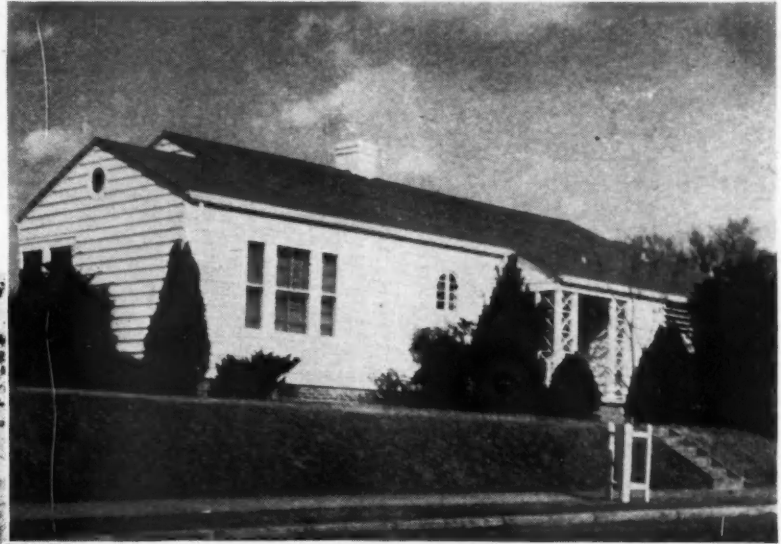
POST-WAR DELUSIONS—Refrigerator and automobile manufacturers have joined those of us in the building industry who are alarmed by the flood of "pencil dreams" being fed the public about post-war products. There is no limit to the flights of fancy of an architect, industrial designer or clever artist in depicting the wonders of the post-war house, refrigerator, or what not. But production experts and the men who have to meet payrolls know that the world can't be changed over night and they feel that many of the day dreams are merely promising the public the impossible.

Any manufacturer will tell you that it is not a sound policy to start bragging about some remarkable new product until you have at least a few models built, tested, and a distribution system set up. In the case of houses, we have been flooded with fantastic pencil dreams of structures which have never been built, using material and equipment which has not yet gone into production, let alone subjected to "on the job" testing.

FARM FHA?—Establishment of a system of mortgage insurance for farm mortgages similar to that on homes by the Federal Housing Administration was recommended at a recent meeting of the Mortgage Bankers Association. A proper system would prevent inflation in land values as well as too drastic deflation.

.....a PLEDGE

to the **NEW HOMES
OF TOMORROW**



BUY WAR BONDS REGULARLY
that homes like these will endure

Much is being said about the kind of homes to be built after the war. Some predict new designs and room arrangements; innovations like movable partitions, etc. Others foresee no radical change, believing a majority will prefer the conservative which has survived a century and more of come and go in extremes of architectural style, preserving the beauty and simplicity which mark the homes of good taste throughout America.

lines and right angle corner windows; glued-up panels for movable partitions; woodwork for built-in features. And for the traditional, our manufacture will resume its pre-war range of hardwood and pine products, long recognized as the Standard of Comparison.

Bradley will be ready with lumber products for both when Victory gives home-building the green light again. For ultra modern, we'll have smartly designed hardwood flooring and trim to harmonize with bold horizontal interior

Thus, to all our customers in the lumber and building trades whose forbearance under the restrictions of war we recognize and commend, we pledge all-out production for peace, that they shall be adequately supplied with BRADLEY BRAND products which qualify in full for the new homes of tomorrow.

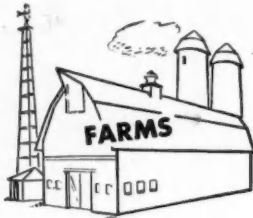


BRADLEY LUMBER COMPANY of Arkansas
WARREN, ARKANSAS



Who Says
You Can't Get
Building Business?

Sensational Demand in All Markets for New STONEWALL Board



STONEWALL GETS BUSINESS TODAY!

1. **It's Available**—You can really get it.
2. **Quick Installation**—Large 4'x8' sheets made in 3/16"—1/4"—3/8" thicknesses.
3. **All-purpose Material**—Uses almost unlimited. Can be sawed or scored, nailed and drilled.
4. **Low Cost**—Sells in all markets.

● Stonewall is today's big news in building materials! Dealers country-wide are doing a land-office business on this remarkable war-born product.

FARMERS are grabbing it for hog-houses, chicken-brooders, milk-houses and all-around building use.

FACTORIES welcome it with open arms for partitions, ducts, heat barriers and general construction and maintenance.

HOMES find many uses for Stonewall Board for repairs and remodeling—and it's a natural for war-housing.

Stonewall recaptures the business denied to you because of shortages of lumber, plywood, hard-board and sheet metal. Made of imperishable asbestos-cement, Stonewall is a strong, *fireproof*, permanent building board which in many respects actually out-performs "gone-to-war" materials. The field is unlimited—and Stonewall is *available*. See your Ruberoid salesman or write today.

The RUBEROID Co.

Executive Offices, 500 Fifth Ave., New York, N. Y.
Address Dept. A442

CHECK THESE FEATURES

- ✓ Strong, Durable
Low Cost
- ✓ Fireproof
Rotproof
Vermin-proof
Termite-proof
Ratproof
Rustproof
- ✓ Dapple Grey
Needs No
Painting
- ✓ Can Be Nailed
Sawed, Drilled
- ✓ Easy To Clean
Can Be Hosed
- ✓ Smooth, Flexible
- ✓ And It's
Available



STONEWALL

A Product of The RUBEROID Co.



THE field kitchens of Guadalcanal and Africa are models of efficiency for their particular job — keeping our soldiers well-fed; but there is small resemblance to the kitchen at home.

Your sons and our sons are going to get a tremendous kick out of coming back to the comfort of sitting at a table with a white cloth and eating "home cooking." Home is the place they are longing for — and are fighting for — the place they will cherish and improve with all the wonderful new conveniences that they can possibly afford. And what a market that will be!

We at Youngstown Pressed Steel recognize what an important part the kitchen will play in this new peace era and are preparing to give Youngstown dealers the finest kitchen sales opportunities they have ever had. YPS kitchens will be worth waiting for.

It's OUR WAR let's fight it NOW!

Youngstown
PRESSED STEEL DIVISION

OF MULLINS MANUFACTURING CORP.
WARREN, OHIO

BUY WAR BONDS - STAMPS

Letters

*Facts, Opinion and Advice
Welcomed for This Dept.*

We Get the Idea

Harrisburg, Pa.

To the Editor:

We have been builders for 45 years and never in our lives have we had to stop work. We have paid all our bills and have been successful.

Now we are having a great deal of difficulty in securing priorities from the FHA and just in the last four weeks they have returned three applications.

This is a defense zone and we are badly in need of apartments and homes, and I cannot see why we should not be allowed to convert old homes into apartments, even if we cannot build new homes.

We have a branch of FHA in this city but they know absolutely nothing about the situation and even do not know how to fill out the forms for applications. They are only drawing their breath and salary.

It appears to me that this is high time for all lumber dealers, builders and journals to drive on Washington for constructive legislation. If I cannot get priorities I cannot buy lumber.

We hope that you get the idea and can do something about this matter. We are Charter Members of your paper.—**CHESTER M. SHEFFER**, Builder.

Endorse 100%

Watertown, S. Dak.

To the Editor:

We have read with a great deal of interest your Publisher's Page every month.

Your page in the March issue is especially interesting, and we want you to know that we endorse your views 100%, as we do most of your editorials. We need a great deal more of this kind of publicity, and while we do not have a magazine to publish our ideas, nevertheless we spread them by word of mouth all we possibly can.—**GEO. NYGAARD**.

Planning Prefabs

Austin, Tex.

To the Editor:

For the past year we have been in the prefabrication business, working 100 to 150 men. We have not built any houses but have been working on other Government projects in the prefabricated line.

We are now working on our own prefabricated, post-war home. We do not feel that people are going to change their ideas overnight and take on some of these flat roofed, modernistic homes. It is our

hope to be able to put a house on the market with any number of designs.

We are interested in hearing from some of the people who are working on plumbing and finishes for the walls in the kitchen and bath. Tile, which we have used heretofore, will be out of the question.

We would appreciate greatly if you would put us in touch with firms in reference to plumbing, for we feel that more can be done with this one item than anything else in the savings in a home.—**J. K. EICHELBERGER**, Capital City Lumber Company.

Materials Available

Cleveland, O.

To the Editor:

Could you tell us where we could get hold of an article about a Public Housing project in Washington, D. C.—a monument of stupidity and error?

Your editorial of February was right to the point. We made a survey here and found there was sufficient material in Cleveland to easily take care of 1500 frame houses. Insulation sheathing and beveled siding, of which we have more than plenty, are now dead stocks on our hands. Conservatively there is some \$200,000 tied up in these two items we can't move.

We have sent congratulatory telegrams to Robert Taft and Harry Byrd on their stands.—**IRVING WATERBURY**, Secretary, Cleveland Lumber Institute.

Enough Government Building

Colorado Springs, Colo.

To the Editor:

When, oh when, will the time come when the war administration will release its priority on building materials.

Surely we must have about enough army camps and air bases by now. Here's hoping the Government will release priorities to private builders for defense housing or for two or three room cottage camps around overcrowded cities and factories. This could be done under FHA or private capital.

And if you want it done efficiently—just call on private industry. The government can do it with the taxpayers' money and let the army engineers or the politicians run the show. A good show they can put on too. That's not business as we have known it though.

Of course if we are going to change over to national socialism anyway, as some fellows predict, then it makes no difference.—**JOHN C. OTTEMANN**, Building Contractor.

Preparing for Post-war

Toronto, Can.

To the Editor:

With the intention of again going into the building business after the war, I have disposed of the plants pictured on this letterhead, feeling this a good time to prepare for post-war building, and I am writing you.

Should there be anything regarding the building of single homes which any of your advertisers would care to send me I would appreciate receiving it.

At one time you passed such information on to your advertisers and if you still do this or plan on doing so in the future, you might keep me in mind. I will not do any building until after the war, but am now gathering all possible information.—**GEORGE G. VENESS**.

"Soft Answer Turneth Away Wrath"—Maybe

Detroit, Mich.

To the Editor:

Here is a letter from one of the current crop of bewildered builders and what we consider might be a soothing answer, if any; as such, it was carried on the cover of the February *Bildor*.—**BUILDERS ASSOCIATION OF METROPOLITAN DETROIT**.

A BUILDER WRITES:

We applied for priorities in the first week in December. Nearly three months have elapsed—and we are still waiting.

Why should it take three months to act on a priority application, when everyone is crying about the housing need? Is 1943 to be a duplication of 1942, when builders spent 50 per cent of their time trying to obtain permission to build?

If the old run-around is still the order of the day, and we have to wait another thirty days to get started on our project, we will quietly fold our tent and remove ourselves from the War Housing Front. In my opinion IT IS A VERY RUM MESS.

Hopelessly yours,

BUILDER "X"

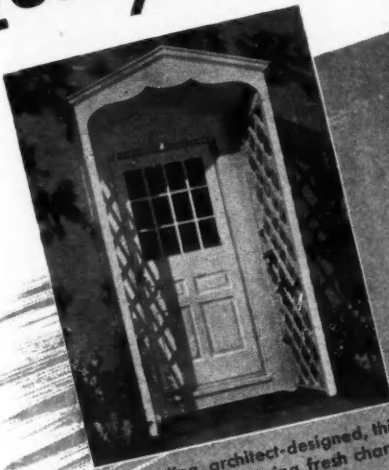
P.S. Would mailing a few vitamin pills to WPB be helpful?

(Continued to page 68)

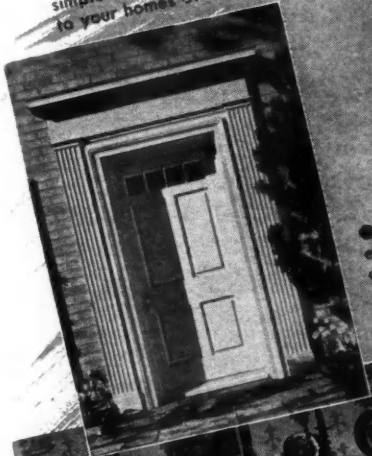
Let beauty sit in on your post-war planning



THEY'LL be hungry for *beauty*—those post-war clients of yours! They'll want their homes to have the grace and charm they have pictured in their dreams. Yet they'll want *low cost*, too. How can Curtis stock *woodwork* help you meet these needs? Why can Curtis *woodwork* help you meet them *better*? These pictures—including some of the *new* low cost designs in the Curtis line—may give you the answer . .



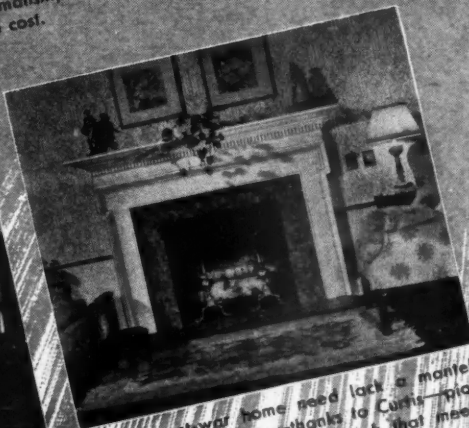
● Authentic in styling, architect-designed, this simple Curtis entrance will bring fresh charm to your homes of tomorrow.



● Yes, this is stock *woodwork*—one of many examples of the way Curtis provides quality craftsmanship for the home at low or moderate cost.



● To impeccable *woodwork* design, Curtis has added modern functional utility—as exemplified in the interchangeable parts of this low cost mantel.



● No post-war home need lack a mantel of enduring beauty—thanks to Curtis—the great manufacturer of *woodwork* that meets every standard of good taste.



● You would expect such fine detailing only in the most expensive *woodwork*. This is one of the newer designs of Curtis China Closets.



● This beautiful stairway was assembled from Curtis stock stair parts. The Curtis line includes distinctive stairwork for all architectural styles.



As an aid in planning the homes of tomorrow, we should like to send you our book "New Woodwork in Tune with the Times." You'll find this full of new woodwork ideas by some of America's outstanding architects. Mail your request to Curtis Companies Service Bureau, Dept. AB4W Curtis Bldg., Clinton, Iowa.

1866
CURTIS
WOODWORK



...After the War"

While it is of course true that building men are mainly occupied with the present, each passing day finds them doing more and more thinking and planning for the post-war building era.

Many of them have been asking, "What will the post-war home be like?" It is with the object of shedding some light on this question that the May issue is primarily concerned.

MAY ISSUE OF AMERICAN BUILDER *features:*

"Looking Ahead to the Post-War Quality Home"

This issue debunks some of the wild-eyed schemes and ideas about the post-war home that have been floating about of late. It approaches the subject of post-war homes with the sound opinion that the best in pre-war homes, plus war-time developments will give the starting point for post-war home building practice.

The May issue of *American Builder* pools the knowledge and experience of hundreds of successful operators to give you their conception of the kind of houses they will build and sell when the war is over. It will give you the remarkably interesting replies we have received as a result of a questionnaire mailed to a representative list of the most outstanding builders, asking what they are planning to do when the war ends and the kinds of houses they expect to build.

There will be many photographs and plans to illustrate the post-war home trend and the innumerable expected improvements in home construction.

Especially interesting, too, will be the interviews with and articles by a number of the building industry's foremost leaders, suggesting how private enterprise can solve the post-war housing problem and build a million homes a year.

*** *Special Feature*

A definite program for post-war building will be presented in the May issue, suggesting a new and strikingly desirable plan under a post-war FHA set-up. This will be so attractive that it will permit builders to compete easily with public housing.

AMERICAN BUILDER, 30 Church Street, New York, New York

Enter my subscription for 1 year (\$2)

2 years (\$3)

Enclosed is \$..... in full payment.

New

Renewal

INCLUDE WITH MY SUBSCRIPTION, AT NO EXTRA COST,
A POSTPAID COPY OF DEFENSE HOMES HANDBOOK

Name

Street City

State Occupation

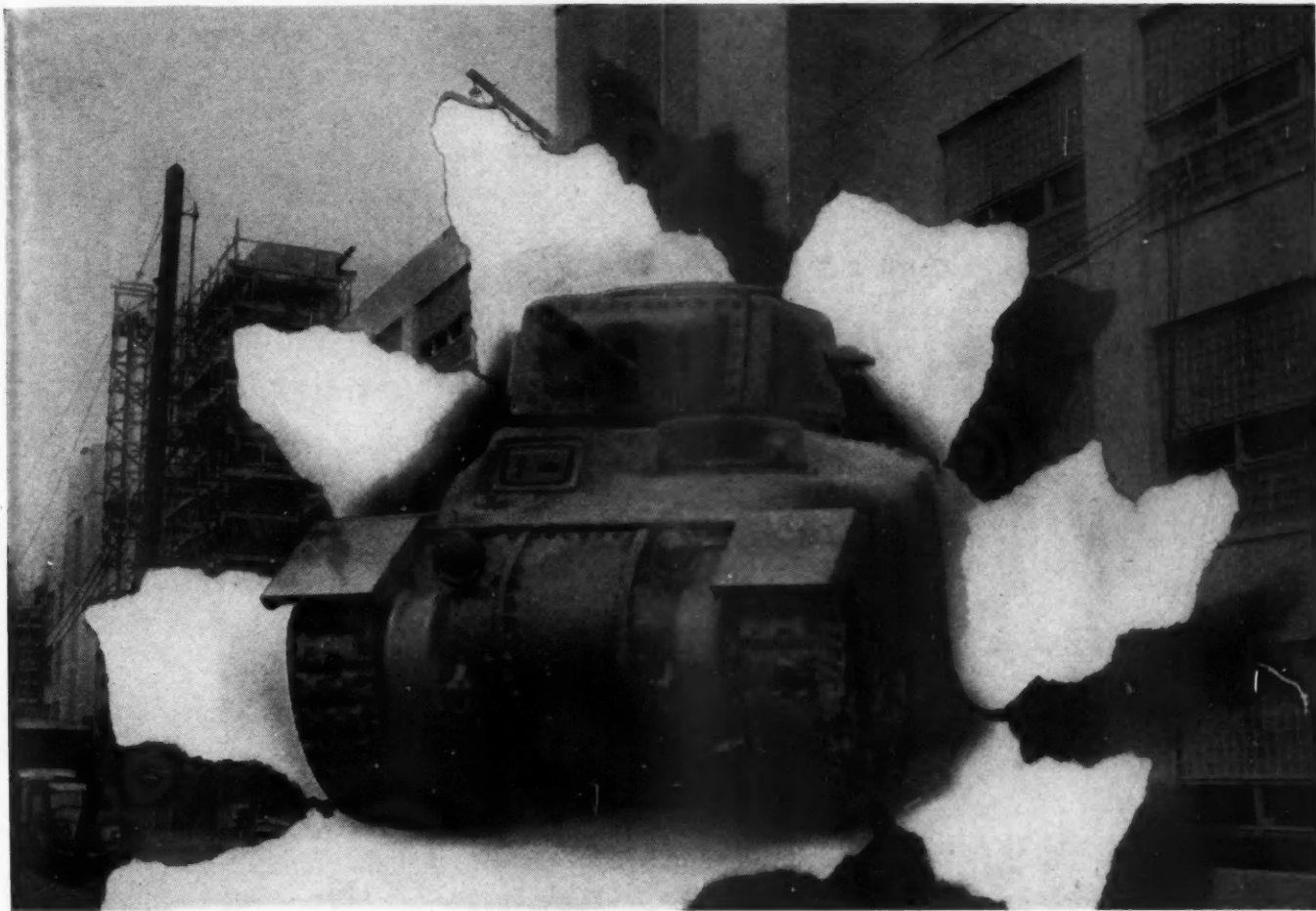
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This offer good only in United States and Canada.

**CLIP AND MAIL
THIS COUPON
TODAY!**

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Armament has a **CONCRETE background**

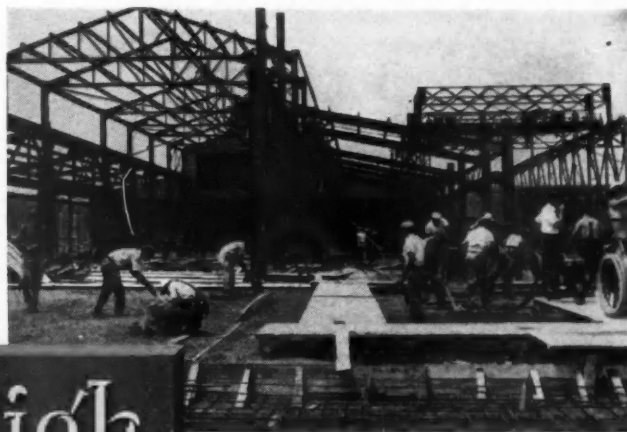
A job well done calls for a wise and careful beginning. That's why much of the foundation work of America's munitions program has literally been laid in concrete.

For many of the new munitions plants created by our war requirements, Lehigh Cement made the concrete. When key sections of the jobs called for service strength concrete in a hurry, it was often Lehigh Early Strength Cement that got the call . . . for this speedy specialist makes a finer, denser concrete in $\frac{1}{3}$ to $\frac{1}{5}$ the normal time. Think of that when you want to speed up the job and save precious construction time, labor and often, costs.

In private work and in war con-

struction alike, this time-saving cement offers many major advantages. Use Lehigh Early Strength Cement for all your concrete construction: ask the Lehigh Service Department for data or counsel at any time.

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



Lehigh
CEMENT

WALLS OF SUNSHINE

for the 194X HOME

with ANDERSEN

COMPLETE **WOOD** WINDOW UNITS

DESIGNED to catch the sun . . . to bring life to wall areas . . . to add warmth and livability—that will be part of the function of Andersen Complete Wood Window Units in the 194X home.

But equally important will be Andersen Complete Window Units designed as a functional part of the entire structure. For as window areas increase, so it becomes increasingly important to fill those areas with window units of sound design and wide adaptability. To the lumber dealer who is today looking forward to the time when normal building is resumed, Andersen makes this assurance: though designs may change and innovations develop, Andersen Complete Wood Window Units will, as always, be designed to meet the exacting requirements of the building profession.

Further Andersen Complete Wood Window Units will be promoted and sold, as always, through the regularly established retail channels of the millwork industry—the lumber dealer.

Andersen Corporation

BAYPORT, MINNESOTA

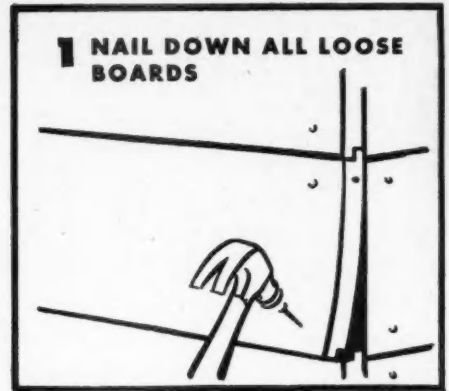




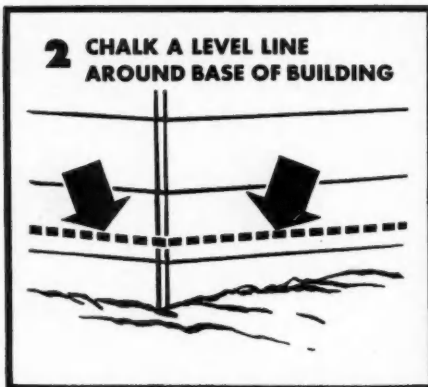
ONLY THE RICH CAN
AFFORD POOR WINDOWS

How to Build New Sidewalls for Old Buildings

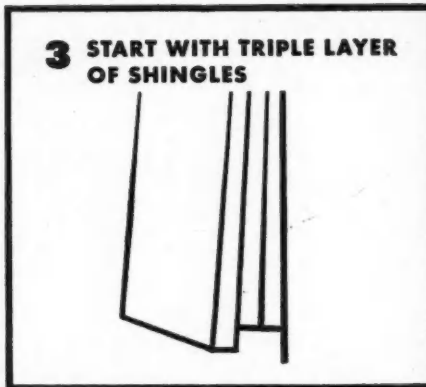
MANY BUILDERS today find that overwalling with Certigrade Shingles is a speedy and profitable way to take care of repairs for essential war housing. Overwalling with Certigrade Shingles provides tight construction, good appearance and improved insulation—over brick, stucco or old wood siding.



WHY? To provide an even, secure nailing base for the new shingles. All battens on the old sidewalls should be removed as well as other projections which interfere with shingling.



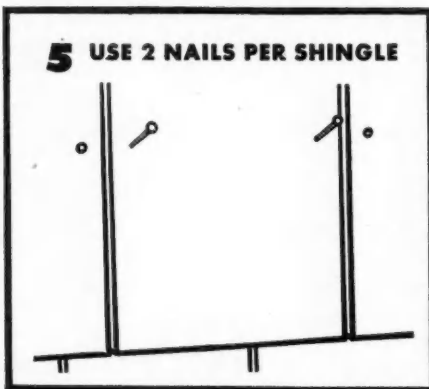
WHY? To provide true horizontal shingle courses. To mark an accurate line, use a carpenter's spirit level...starting at the highest point of ground around building.



WHY? To provide drip-cap for rain-water. The top layer of shingles should project slightly below the other two. Shingle butts should not touch the ground.



WHY? To insure even spacing of shingles and to make application easier. Nail board lightly against wall. Place butts of shingles firmly against this board.



WHY? Two nails are sufficient to hold shingles firmly. Nail about 3/4" from each edge of shingle, and 1 1/2" above butt line of shingles to be applied in the next layer.

THESE ADDITIONAL STEPS ARE IMPORTANT

CHOOSE THE RIGHT EXPOSURE. If 16" shingles are used, exposure should not be greater than 7 1/2". For 18" shingles, exposures up to 8 1/2" are satisfactory.

INSTALL NEW FLASHING. New metal flashing should be applied over all window and door heads. Width of metal should slightly exceed the shingle exposure. (Example: About 8" width above windows for 7 1/2" shingle exposure.)

SPACE SHINGLES 1/4" APART. This spacing permits ready run-off of rainwater. Use 5 penny rust-resistant nails, 1 3/4" in length, which adequately penetrate underlying wall.

RED CEDAR SHINGLE BUREAU, White Building, Seattle, Washington. AB 443

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

Name.....

Address.....

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



Red Cedar SHINGLES

AMERICAN BUILDER

Editorial

Congress and the FHA

THE high esteem with which the Federal Housing Administration has been held by private business, Congress and the general public, is one of the remarkable records of Washington. In fact, FHA has been described as "the brightest jewel in F. D. R.'s crown."

There may be some argument about who should get the credit for the FHA idea, but there can be no argument about the fact that until the advent of war it did a most constructive work for the nation and for home ownership.

FHA promoted home ownership

The principle of a national mutual mortgage insurance system under Government supervision has been well demonstrated by FHA; it has paid its own way and to this day is in the black and continuing to render a valuable service without cost to the Government.

Congress has all along shown a most friendly and receptive attitude towards FHA. At the same time it has repeatedly castigated, criticized and cut down the public housers and the public housing agencies as far as it could. This is understandable, for the private building industry, which has appreciated what FHA has done, is a large and far-flung affair and thousands of building men have made their thoughts known to their local congressmen.

Since the reshuffling of all housing agencies according to the Rosenman plan and the subordination of FHA to the National Housing Agency, there has been a change. F. D. R.'s

jewel has lost some of its lustre. FHA has been blamed for priority regulations that have been harassing building men. Because FHA is no longer an independent unit it is difficult for congressmen or builders to tell whether its defects are due to a deterioration of the organization itself or to limitations imposed upon it from the top by NHA.

The charge has been repeatedly made—and NHA Administrator Blandford has done little to refute it—that FHA is being swallowed up, its staff allowed to dwindle and its effectiveness reduced unnecessarily.

Administrator Blandford has said in effect that all building today is a part of the war effort and that the role of FHA is therefore limited. But he is not very convincing. The full text of his statement on NHA's policies is given on page 33.

MUST keep post-war nucleus

The one fact of importance which justifies our dwelling on this subject at length is that FHA *must form the nucleus of a post-war home building program by private enterprise.* It is highly important that its staff of trained men and experts in various lines be kept intact.

Two committees of Congress are now planning to look into housing and the National Housing Agency. It is to be hoped they will bear in mind the future importance of FHA and private enterprise building in post-war reconstruction. There is an important job to be done.

Next Month—Builders Speak on Post-War Homes

The May issue of American Builder will be devoted to "the post-war quality home" and will present a program for private enterprise.

More than 700 prominent builders were asked about their post-war plans—the kinds of houses they will build, construction methods, materials, architectural designs that they think will

sell. A portfolio of post-war homes and plans selected by these successful builders—who in every case have built at least 100 houses in the past five years—will be shown.

Facts about the post-war market, financing, building techniques, will be given—a program that is expected to produce 2,000,000 homes a year.



THE little red house brought up to date for post-war living. That might well be the title for a description of this design which appears on this month's front cover. Designed by Architect Oscar A. de Bogdan and built in Yonkers, N.Y., it combines traditional charm that should continue to be popular and an excellent plan. There are a number of surprise features both inside and out. The neat fenced-in door yard with post lamp as welcoming sentinel gives no hint of the possibilities for outdoor living to be found within the angle formed by rear of house and garage. The living room shown below overlooks both of these yards, and in itself has an open, spacious atmosphere.

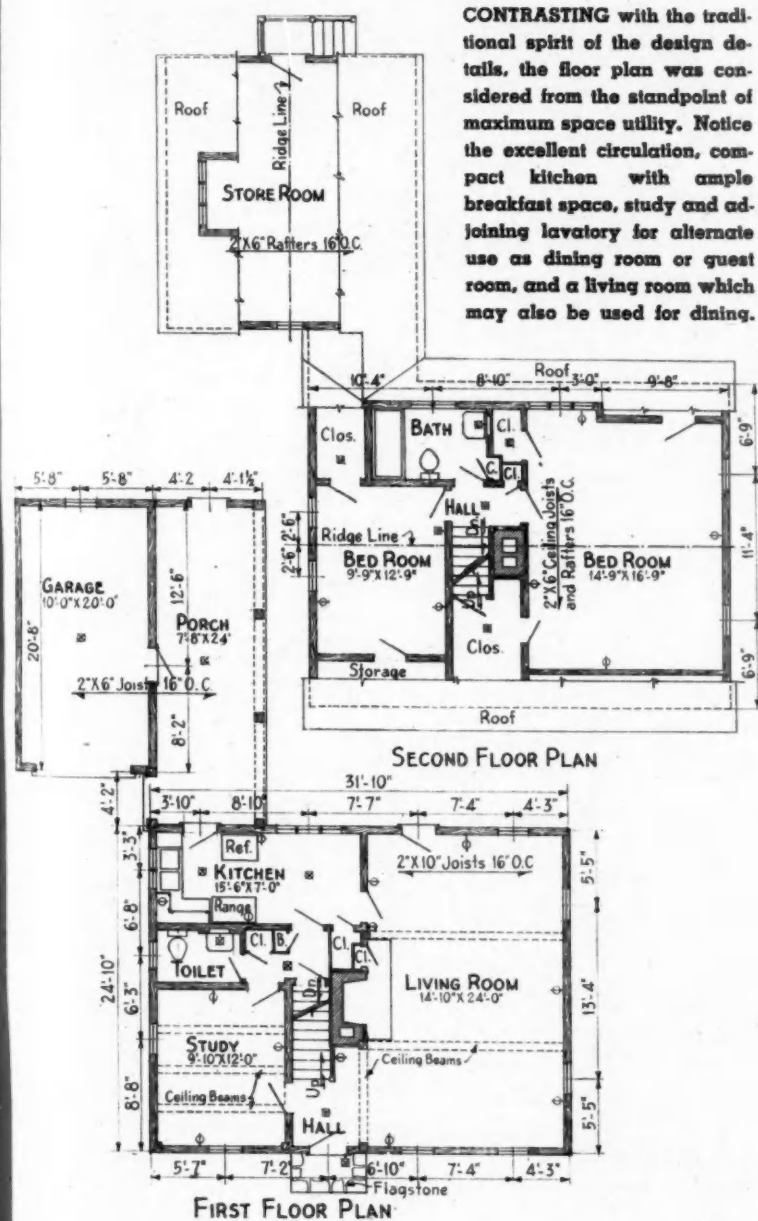
OYSTER white picket fence and trim set off the red siding, cedar shingles and substantial chimney of this New England-inspired home.

BEAMED living room has timbers and some of the paneling taken from an old house near Gloucester, Mass., which accounts for much of the charm. The hall opens directly into this room and, as can be seen here, a panelled door leads to the kitchen and a Dutch door gives access to rear terrace.



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CONTRASTING with the traditional spirit of the design details, the floor plan was considered from the standpoint of maximum space utility. Notice the excellent circulation, compact kitchen with ample breakfast space, study and adjoining lavatory for alternate use as dining room or guest room, and a living room which may also be used for dining.

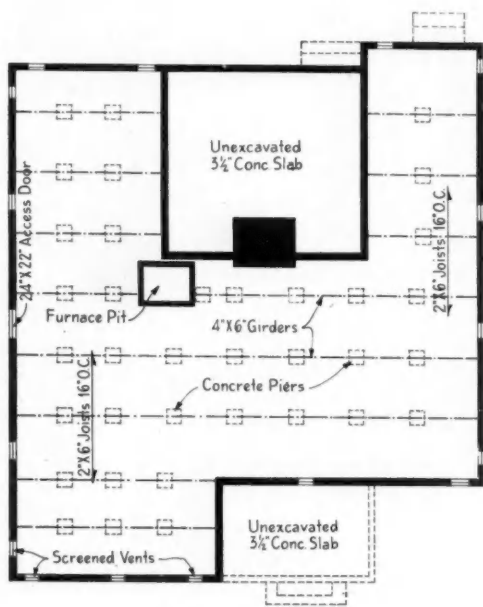
AS SHOWN in this rear view, combined with the garage are rear entrance, living porch, loft with outside stairway to be used as extra store-room, maid's quarters or recreation. In the house itself there is also ample storage. Blanket insulation, gas-fired winter conditioning, modern fixtures further add to the built-in comfort.



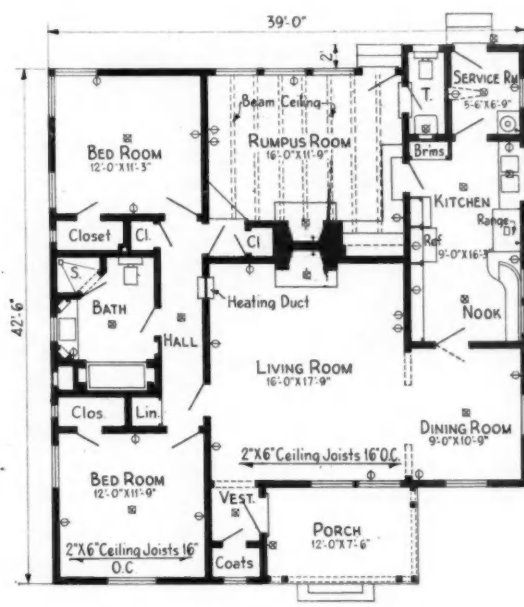


Popular Post-War Candidate—California Modern

HERE are two variations of a very good plan as built by Wm. T. Richardson, Van Nuys, Calif., builder, who believes this style of home has a good lead in the post-war building race. The entrance treatments and handling of details, illustrated here, indicate how complete a change is possible while retaining an efficient basic arrangement. This type of planning should hold over into the market ahead, when project planning and mass building will allow more for the money.



FOUNDATION PLAN



FIRST FLOOR PLAN

A MOST interesting feature of the floor plan is the rumpus room which, with its own outside entrance, lavatory, fireplace, bookshelves, cupboards and closet, could be rented out as an extra room. Normally it provides good circulation and a space which can be used for a variety of purposes. Service room, good sized nook, ample bath and closets are other features of this 6-room plan.

BE READY FOR THE HOME BUILDING WAVE OF THE FUTURE



HOUSING today is "completely an instrument to assure adequate war production and save manpower," says NHA administrator.

NHA's War Housing Policy

By John B. Blandford, Jr.

Administrator, National Housing Agency

IN RECENT EDITORIALS American Builder has been severely critical of the National Housing Agency. We present this month the complete text of a special statement by the Administrator on NHA's policies.—THE EDITORS

SINCE Pearl Harbor, the American housing industry—like all other American industries—has been in the process of adjustment and conversion to a total war basis. That process has by now been substantially completed. This is, then, an appropriate time to review and clarify the forces and objectives that have controlled the transformation of housing into a war industry.

There has been almost universal recognition that to win this global war we must concentrate all our resources. Industries turning out automobiles, refrigerators, washing machines, and other products consuming the materials needed for armaments have stopped completely the manufacture of these peacetime goods. In this way, materials, plants and manpower have been mobilized for guns, tanks, planes and ships.

This same imperative formula has governed the wartime transformation of the housing industry. It is true that the physical product of the industry still is housing and that the industry has not undergone the same sweeping changes that were involved, for example, in converting automobile plants to the production of tanks and planes. But the physical housing now being produced is completely an instrument to assure adequate war production and save war manpower. On no other basis could the War Production Board justifiably divert any proportion of our limited supplies of copper, steel and similar war materials from production of armaments into the production of housing. Not until victory has been won can the housing industry, or any other war industry, resume its normal function of satisfying the needs and desires of the American people for better living.

As an instrument of production and manpower, war

housing can have only one role—to provide adequate shelter for essential war workers not already housed within reasonable commuting distance of the plants requiring their services. Based on the simple premise that war workers cannot live in factories or sleep on assembly lines, this function is as essential to the maintenance of production schedules as the provision of plants and equipment. But it also highlights the necessity for complete integration of our war housing program with the basic programs of war production and war manpower as directed by the War Production Board and the War Manpower Commission.

As an instrument of the manpower program, war housing is therefore entirely correlated with the policies and findings of the War Manpower Commission. If the Commission certifies that in-migration of war labor is essential in any given community, it is the responsibility of the National Housing Agency to provide housing for those in-migrant workers.

Based on Labor Supply

Furthermore, the findings of the Commission as to the family and financial status of the new workers needed in any community determine the type of housing which we must provide. For single workers, we must make available rooms in existing houses or new dormitory accommodations. For couples, minimum housekeeping facilities are sought. For families of three or more, we must utilize vacant houses, convert existing structures, or build new accommodations. We have had to establish procedures reserving the occupancy of new quarters to eligible war workers, and to make the quarters available to those workers at rental terms in line with their earning power.

Finally, where the Commission determines that the local labor supply is sufficient for the war manpower needs of any community we do not schedule any new housing, and the War Production Board does not permit the use of critical materials for housing. In this way, we assist in preventing unnecessary migration as well as unnecessary use of war materials.

(Continued to page 93)



DAVID D. BOHANNON demonstrates that private enterprise can produce war homes quicker, better, cheaper than public agencies.

Westwood Community at Napa, Calif., where 559 attractive homes were built in

Better Homes --More Ships

THIS is the story of a private home building organization that is doing as much to help win the war as any maker of tanks, airplanes or machine guns.

The David Bohannon organization of San Francisco turned out 559 houses between September 1942 and January 1943. Not just houses, but HOMES for shipyard workers.

Without government subsidies, David D. Bohannon and his associates created an attractive, residential community, without any of the stereotyped drabness of war "housing." In doing so they vastly improved the morale of the workers in the Basalt Shipbuilding Co. at Napa, Calif., and reduced turnover in the plant almost to zero.

The Basalt Company had been having extreme difficulty in retaining workers due to lack of housing. Furthermore the workers wanted more than housing, they wanted *homes*—decent, livable, attractive homes for their families, many of which were large.

The houses are extremely livable two and three room cottages built under Title VI of FHA, privately financed, and either rented, leased or sold.

So successful was this project that Bohannon has now started a new 700-home project at Richmond, Calif., for workers in the nearby Kaiser shipyards. In this new project all of the houses are of three-bedroom style because surveys showed that a large number of the key workers are men with large families who require a three bedroom house. Bohannon has developed an interesting three bedroom design with an "extra war worker room," which has a separate outside entrance. This extra bedroom can be and is frequently rented by the home owner to other war workers—frequently a pair of girls.

This extra war worker room plan (see page 36) has

FIVE QUICK FACTS ABOUT BOHANNON'S PRIVATE ENTERPRISE METHODS

- 1. Turnover of key shipyard workers cut to fraction by attractive houses privately built and financed.**
- 2. Remarkable efficiency shown as 559 houses are built in 4½ months. No government subsidies required.**
- 3. Three-bedroom design with "extra war worker room to rent," so popular that 700 more are now being started for Kaiser ship workers at Richmond, Calif.**
- 4. Attractive community, 50 x 150 foot lots, livable houses, raise worker morale. Houses rented or sold on FHA Title VI lease-option plan.**
- 5. All lumber presawed in cutting yard, moves on roller tables to power saws, delivered by special trailers with roller floors. Cut 400 rafters in one hour.**



homes built in 4½ months by private enterprise without government help.

Labor turnover drops in Napa, Calif., shipyard when workers get Bohannon's attractive FHA Title VI homes.

Houses feature "extra war worker room" for rent.

Private enterprise, skill and smart production turn out 559 houses in 4½ months.



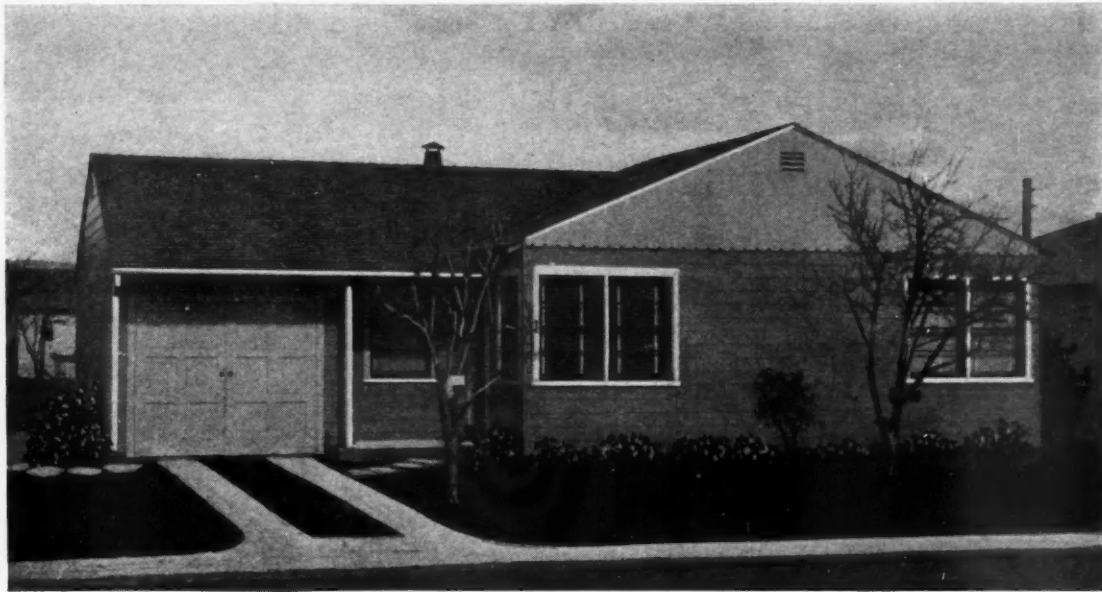
ROLLER TABLES connect saws in Bohannon's cutting yard. Eave end cut and plumb cut at seat are made on saw No. 1. Plumb cut at ridge or jack cut are made on saw No. 2. Rafter seat cut is made on handsaw in foreground, No. 3.



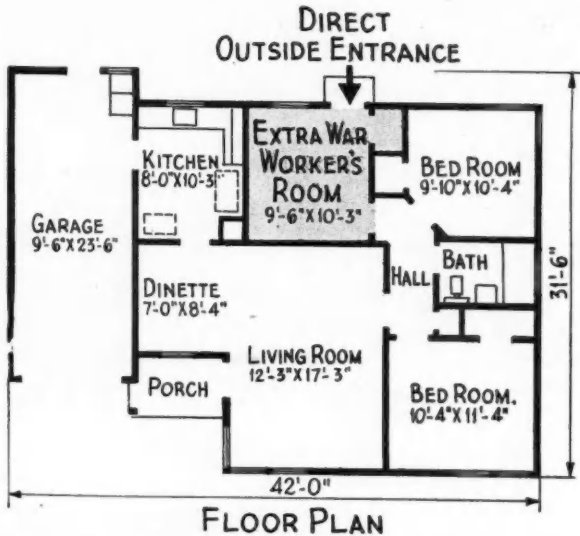
REMOVABLE FORM good for 100 foundations, built of 2 x 10's and 2 x 4's. Iron bars dropped across ½" dowels hold form rigidly in place. The form is quickly removed by kicking off the iron bars.



SEAT CUT is made with hand saw (top) guided by template. Plumb cut at ridge is made on saw No. 2. This power saw set-up made a production record, turned out four hundred rafters per hour.



THREE-BEDROOM Westwood design that proved so popular with shipyard workers because it is livable, attractive, and has an extra bedroom with direct entrance, that can be rented to war workers. (See plan.)



FLOOR PLAN
POPULAR Westwood floor plan featuring extra room with direct outside entrance, can be rented to war workers.



FLOOR PLAN

caught on rapidly and is proving an unqualified success. The plan detailed herewith shows also that it fits the recently revised war housing standards.

How Bohannon Does It

Readers of *American Builder* need no further introduction to David D. Bohannon, who has long been known on the West Coast as one of its leading builders. He has developed and built numerous residential communities, many of which included houses of the finest and most expensive types. After the war Bohannon expects to get back to building houses in the \$10,000 to \$20,000 class as well as low priced units.

Associated with Bohannon is Ross H. Chamberlin. Harry Arnold is superintendent, Irving Randall, Jr., assistant superintendent, and Sam Chartock, head of the drafting department which has done an important job in scheduling lumber cutting operations so important in mass production.

The Napa Community of 559 single family houses is called Westwood and is a permanent residential community, well laid out, with 50 x 100 ft. plots and well designed homes. The workers, under the FHA Title VI war housing plan, may either rent, lease or buy—and many are doing the latter; thus some at least of the



Latest revised floor plan for Kaiser ship workers features extra war worker room.

This three bedroom floor plan has been adopted exclusively in new 700 home Rollingwood Community just started by Bohannon for Henry Kaiser's shipyard workers at Richmond, Calif. It conserves vital materials, yet provides livable, attractive home. Extra war worker room with direct outside entrance enables occupant to rent room to single workers, either men or women.

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SHANTY TOWNS NOT WANTED

PRIVATE BUILDERS like Bohannon have clearly shown that attractive houses can be built quicker, cheaper, better than Government projects—and because they are real homes, war workers like them.

Government-built shanty towns are not necessary. Bohannon's experience at Napa showed that key shipyard workers with large families want three-bedroom houses. In his new 700-home job at Richmond, three-bedroom houses will be built exclusively.

Bohannon has demonstrated that private enterprise can not only turn out war housing in mass volume but can also make the houses so livable and desirable as definitely to reduce labor turnover in war plants.

earnings they are making now will become a permanent savings. Their monthly rent payments are actually turned into a home investment.

The outstanding fact about the Bohannon houses is that they have improved shipyard worker morale, thus contributing greatly to war production. But Bohannon has demonstrated also that private enterprise and ingenuity can get a remarkable volume of decent homes built in a short space of time. This is done by mass production methods involving improved techniques.

An important production item is a special removable foundation form built of 2 x 10 lumber with 2 x 4 braces.

A half-inch iron dowel projects from the top of the 2 x 4 brace so that an iron bar can be dropped across the forms to hold them rigidly in place. Wire is run through the bottom of the form, stakes and bracing. The forms are connected by a hinge and brought into place by turnbuckles. They are quickly removed by kicking off the iron bars and are good for 100 foundations, if cleaned and oiled.

Every lumber item of a Bohannon house is pre-sawed in a cutting yard. The lumber moves on rolls similar to those used on a production line, or shipping department. This necessitates accurate templates so set that there can be no variation or backing-up of sawdust. A specially designed trailer is used which is towed behind one-half-ton pick-up trucks to carry the pre-cut lumber to the building site.

In the saw yard lumber is started

(Continued to page 92)

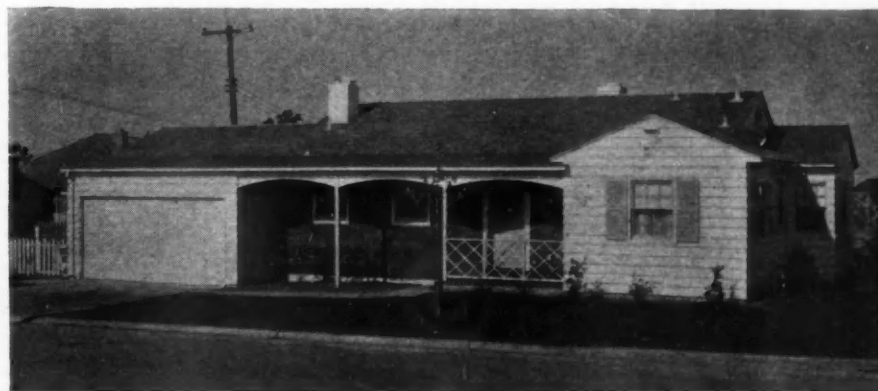


Looking Ahead to Post-War

DAVID D. BOHANNON predicts there will be a market for \$8,000 to \$20,000 houses after the war, as well as lower priced types. Above and below are shown several of his most successful pre-war designs which he says will set the pattern for his post-war building.



MODERN CALIFORNIA ranch house built in Hillsdale.

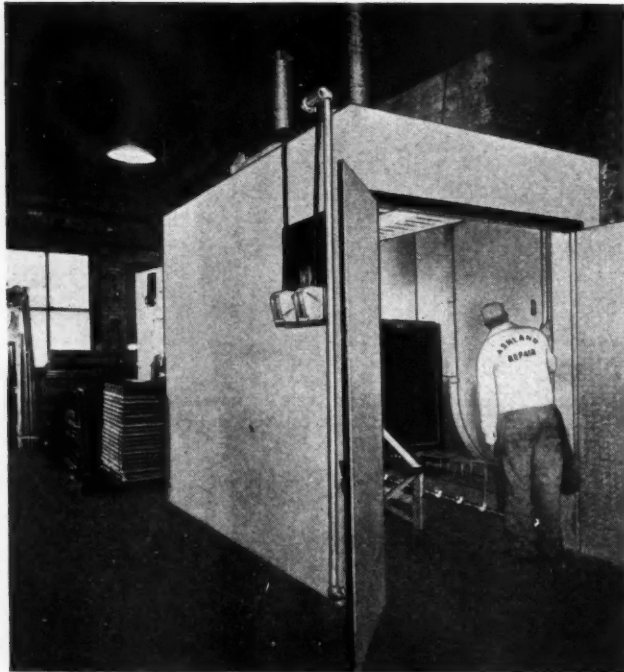


FORWARD-LOOKING MODERN in these two popular homes built by Bohannon in his Hillsdale and El Cerrito Manor projects at San Mateo.





ED AND MATT SIMON, brothers, who own and operate the Ashland Repair & Construction Co. of Chicago, are seen here in a corner of stock room checking over inventory of supplies.



THIS DRYER, one of the largest for its purpose, eliminated a maintenance bottleneck, allows repainting of 1200 screens a day.

Ed and Matt THRIVE on

KEEPING property in good condition for its owners can be big business these days even if most of the items of maintenance are, in themselves, small. The secret is volume; and Ed and Matt Simon of Chicago have organized a company to handle such work profitably.

There is no job too big or too little for these enterprising "fixers." An average job may amount to only a few dollars—installing a new sash, for instance. But they frequently come bigger—such as putting one hundred and fourteen buildings of an old C.C.C. camp in shape for Army use.

"But how could anyone even handle such a range of work, to say nothing of making a profit?" is a logical question of most builders. To get the answer it is necessary to look into the background of the Simon brothers and their Ashland Repair and Construction Co.

Matt Simon was originally in the real estate business and during the depression had an opportunity to specialize in the rehabilitation of properties in receivership. He did not undertake to do any of the work himself but acted as agent and had outside contractors handle the job.

Ed Simon had been a contractor for a number of years and had a wide range of experience on all types of jobs from houses to larger structures.

With these backgrounds the two brothers made an ideal combination and in 1939 started rehabilitating fire losses for the insured rather than the insuring company. In handling this reconstruction the Simons built up a reputation for doing satisfactory work, thoroughness and general integrity; both parties, the owner and the insurance company, were pleased.

From here the business grew into a maintenance service for commercial and industrial managers and owners. Today Ed and Matt Simon, in their Ashland Repair and



IN another corner of the shop, the crew turns out a large volume of work on power tools; notice stock handily

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Wartime Repairs and Commercial Maintenance

Construction Co. will handle practically any type or size of maintenance repair job, with the carpentry, masonry, cement work, plastering, cabinets, weatherstripping, caulking, waterproofing, storm sash and screens handled by their own crews; plumbing, painting, electrical work is let out to other contractors who have been handling these subs for some time. Matt spends most of his time out making calls on customers and surveying the work end of the business.

Right now with the spring season coming on their shop is jammed with window screens and work is being rushed to put these back in service-

able condition; 40,000 screens a year can be serviced—a good sized piece of business in itself. At this time of year there are generally about three to four thousand screens in the shop at one time and with the special technique and equipment, the men can repaint about 1200 screens a day.

In commenting on the type of business that they do
(Continued to page 90)

SOME OF THE JOBS TO BE DONE TODAY

How the Simon Brothers, a Chicago Builder and a Realtor, Teamed Up to Do a Big Volume of Service Work for Commercial and Industrial Property Owners

ASHLAND
REPAIR & CONSTRUCTION CO.
 6810 N. CLARK ST. • ROGERS PARK 4349
 CHICAGO, ILLINOIS

February 8, 1943

American Builder & P.M. 116
 c/o Simpson Spauldon Publishing Corp.
 105 W. Adams St.
 Chicago 9, Illinois

Dear Sirs:

As subscribers to your publication, we think it is not entirely out of line to make a request. This organization is very much interested in the

ASHLAND
Repair & Construction Co.

Job For Metropolitan Realty Management Co.
 Address 100 Main St., City.

Date April 1, 1943

Job at 999 Pleasant View Ave.
 Tenant John Smith Apt. 1202 Phone ANd 123

Install new sash

Order No. 889	Total Material	\$ 3 16
Amount	Time	8 00
	Total Cost	6 16
	Overhead	1 25
	Profit	75
	TOTAL	\$ 8 16

No. 9997

ASHLAND
Repair & Construction Co. AGREEMENT

Job For Metropolitan Realty Management Co.
 Address 100 Main St., City.

Date April 1, 1943

Job at 999 Pleasant View Ave.
 Tenant John Smith Apt. 1202 Phone A

WORK Includes All A

Install new sash

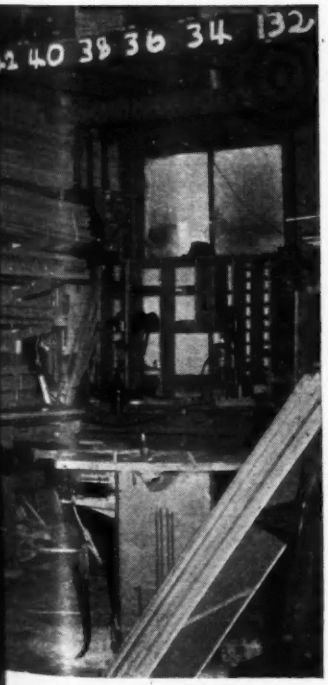
Material Used

5/8" WF
 1" x 3" DSA
 32 x 26
 Putty

Time 3 hrs
 Job 1 hr
 Job 1 hr

No. 9997

No. of Sashes	TYPE	NOY	NETTING	NETTING	CUTTING	NOY	NETTING	NETTING	NOY	NETTING	NETTING	NETTING	NETTING	NETTING	NETTING	NETTING
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				32x25												
				1 1/2"												
									No Ivory	Black						



located; screen cloth is stored above according to widths.

A CLEVER system of order forms helps cut time spent going to and from a job. Original order is filled out on first call. Duplicate and attached listing slip (at left) then go to shop where necessary work is done; workman delivers and installs without having visited job previously.



RE-ROOFING is king of today's necessary repair jobs. One out of every twenty roofs needs attention. Materials are plentiful, and financing still available.

ADD A ROOM for a war worker, or go after commercial repair jobs using types of wall and insulating boards now available.



101 WAYS TO KE

Use this handy list to survey job opportunities in your community. Here's work for the duration.

Exterior Maintenance and Repairs

1. Patch or replace leaky roof
2. Caulk window and door frames
3. Rebuild broken porch steps, floors
4. Repoint and repair masonry walls
5. Examine foundations for termites
6. Repair or replace cracked stucco
7. Replace weakened porch supports and railings
8. Make all fastenings weather tight
9. Patch screens and replace others
10. Paint outside of house and trim
11. Replace leaky gutters and downspouts

Interior Maintenance and Repairs

12. Waterproof damp basements
13. Patch or replace broken plaster
14. Fill cracks in plank floors
15. Remove oil stains from concrete floors
16. Strengthen weakened floor joists
17. Refinish or recover worn floors
18. Rehang jammed windows and doors
19. Fill cracks in foundation walls
20. Tighten loose stair treads

Add Space for War Workers

21. Build attic living quarters
22. Install non-critical shower stalls
23. Install space-saving sliding doors
24. Rebuild closets; add new ones
25. Add dormer to enlarge upstairs room
26. Build dining bay off kitchen
27. Install additional needed windows
28. Build double bunks for bedrooms
29. Enclose a sleeping porch
30. Enlarge entrance way; add closet
31. Remodel inefficient kitchen
32. Convert house into 2-family unit
33. Install a clothes chute
34. Add a dressing room
35. Build storage space under stairs
36. Convert unused space into quarters
37. Build a breakfast nook
38. Cut large bedroom into two smaller ones
39. Convert old house into apartments
40. Install kitchenettes
41. Build drop-leaf tables, cupboards
42. Add shelves and linen closet
43. Recover bathroom walls

Home Gardening, Poultry Raising, Canning

44. Build shed for garden tools
45. Protect Victory Gardens with fences
46. Build fruit cellar in basement
47. Convert garage into tool shed or poultry house
48. Erect shelves for home canning
49. Install fruit and vegetable bins
50. Build chicken house

KEEP BUSY

Insulation, roofing, commercial repairs, war worker rooms important among bread-and-butter jobs.

Fuel Conservation Measures

- 51. Insulate attic, walls, ceilings
- 52. Install storm sash and storm doors
- 53. Construct protective entrance
- 54. Install plastic weatherstrip
- 55. Repoint chimney
- 56. Cement all flue connections
- 57. Repair fireplace
- 58. Patch broken putty on windows
- 59. Recover outside walls
- 60. Build dust-tight coal bin
- 61. Construct over-size ash pit
- 62. Build entrance for ash removal

In the Yard

- 63. Repair or replace broken walks
- 64. Repair or build fences
- 65. Convert attached garage to extra room
- 66. Build or improve cistern or well
- 67. Patch or build needed driveways
- 68. Check cesspool or septic tank

COMMERCIAL AND INDUSTRIAL CONSTRUCTION

- 69. Build masonry fence around war plant
- 70. Extend loading platform
- 71. Build storage shelves, counters
- 72. Install machinery foundations
- 73. Build platforms around machines
- 74. Install safety doors
- 75. Patch worn or broken floors
- 76. Convert unused display rooms
- 77. Build small office building
- 78. Make flashings, skylights weather-tight
- 79. Build and install blackout screens
- 80. Add wing to increase production
- 81. Repair worn driveway, loading platforms
- 82. Refinish store front
- 83. Rearrange office partitions
- 84. Build cottages for war workers
- 85. Re-locate counters, display stands
- 86. Install additional windows

FARM CONSTRUCTION

- 87. Repair farmstead and barns
- 88. Put hogs on concrete
- 89. Patch or replace roofs
- 90. Repair or build additional fences
- 91. Build portable or community hog houses
- 92. Increase grain storage space
- 93. Construct poultry houses and runs
- 94. Repair sheds and out-buildings
- 95. Build farrowing houses, hog feeders
- 96. Patch or replace foundations
- 97. Tighten or replace barn roof braces
- 98. Re-hang, repair, broken doors
- 99. Insulate and ventilate live-stock buildings
- 100. Repaint weathered buildings
- 101. Insulate farm house



INSULATION will sell as never before due to this year's painful fuel shortage experience.



SILENT SALESMAN (above) can't be drafted, is a steady seller in front of a repair job. War paint (below) keeps buildings in good shape for duration.





PUT THESE IDEAS TO WORK! SAYS: "Home-Front Homer"

Use Non-Critical Wallboards for Wide Range of Essential Work

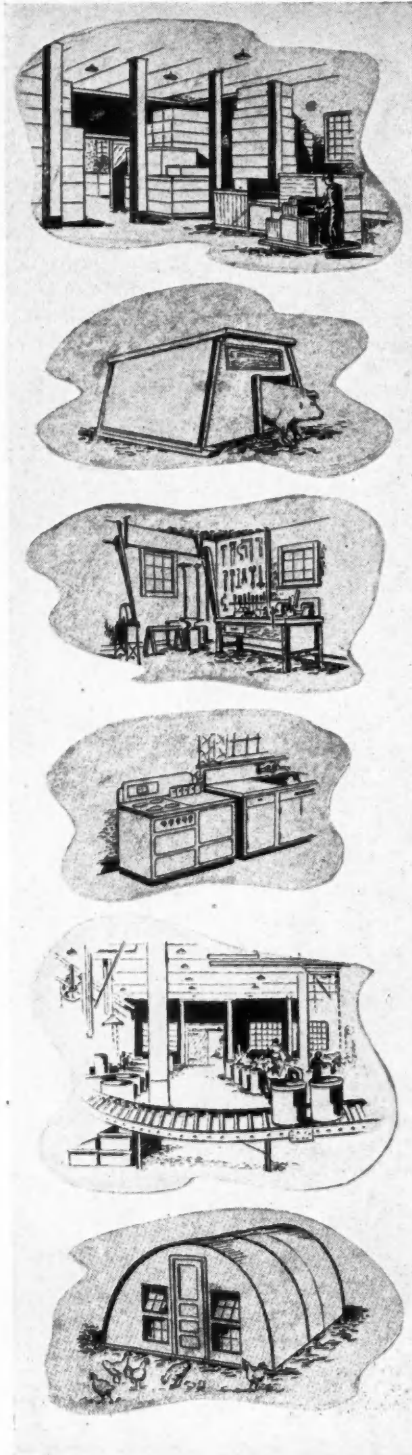
Conversions and repairs on homes, farms, commercial and industrial buildings offer a number of jobs to be done today.

NOTWITHSTANDING current restrictions on construction, material shortages and necessary curtailment of labor for more direct war effort, there is still a good amount of building maintenance and small construction needed to keep the home front at peak efficiency.

One of the important classes of such work has to do with application of structural wall finish. A good many such items are included in the list of "101 Ways to Keep Busy Today" found in this issue; how to

do this work is covered in typical items on these pages. Suggestions include jobs to be done on the farm, in the home, and in commercial and industrial buildings; of course, not all of them would be useful to builders in any one area, but a list of such items as would apply can be made up for sales solicitation.

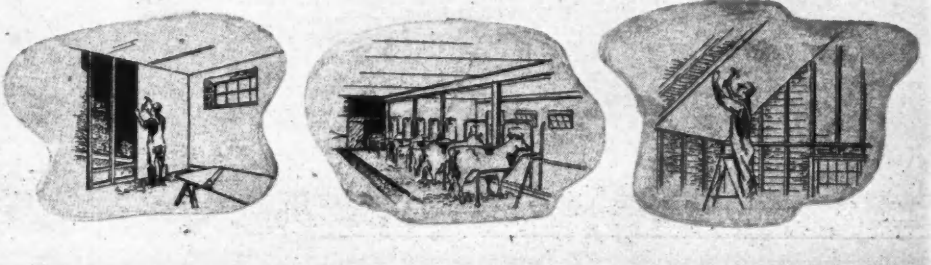
The wall finish materials generally are non-critical and available; many of them will do double or triple duty as structural products, wall finish, fireproofing or insulation.



RECENTLY added to the list of materials which substitute for more critical items is Stonewall board, an especially fabricated asbestos cement product, useful for a number of purposes. At the left, it is being applied to framing as interior wallboard; below, used as exterior covering material on a brooder house, its flexibility is demonstrated.



A FEW of the many jobs that can be done with asbestos cement, fibre and gypsum boards are suggested at the left and below: wall and ceiling finish in war plants, new farm utility buildings, maintenance work, repairs and extra-room additions to homes.

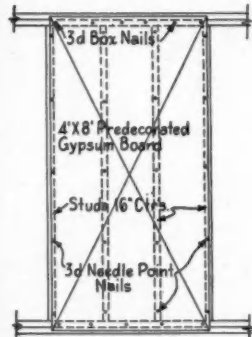
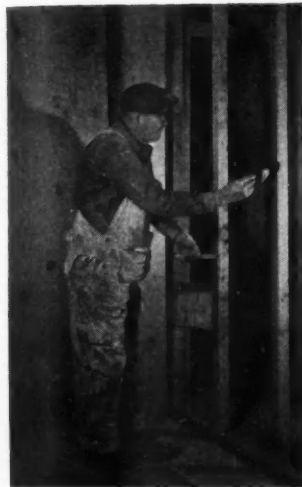
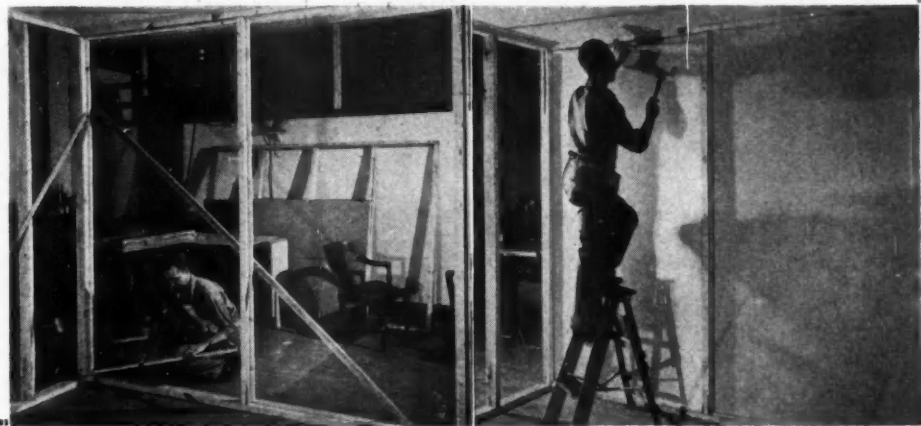


How to Build Temporary Partitions in Offices and Plants

WAR PLANT expansions frequently call for new partitions to close off additional factory space or office quarters that are of a temporary nature. For this purpose, demountable walls can be quickly put up with simple stud framing placed on centers to take four-foot wide laminated gypsum panels which can be from 6 to 12 feet in height. Quarter-round on both sides holds the material in place.

One such product for this purpose is White Rock Extra Thick Gypsum wallboard panels made 1, 1½ and 2 inches thick. This laminated gypsum board is covered with tough cream-colored manila paper.

BELOW: Two steps in erecting demountable partitions with new laminated gypsum panels—first, framing to take width of panels; second, inserting panels held in place with quarter-round.



WORKMAN applying pre-decorated board. Above, method of attaching.

How to Cover Walls with Pre-decorated Gypsum Board

DEVELOPED by a contractor on a West Coast war housing project, a method of applying pre-decorated knotty pine pattern Sheetrock to studding as interior wall finish offers quick, economical closure for extra war worker rooms, commercial and industrial jobs. The application, as shown at the left, requires only the spreading of construction glue on studding spaced 16 inches on centers, and then using only enough nails to hold in place while glue sets. For this purpose 3d box nails are used at plates, and 3d needlepoint nails approximately 2 feet apart in studs. The latter do not deface the pattern on the wallboard, and are practically unnoticeable.

Besides saving time and construction costs, the small amount of nails required as compared to regular building saves a considerable quantity of critical steel when a volume of such work is done.

How to Add Extra Room in Basement

MOST of the emphasis on creating extra space to rent to war workers or providing more room for the family has been on the use of unfinished attics. However, many basements, particularly where there is no problem due to dampness, can also accommodate such rooms. Also, other old structures such as lofts, stores, etc., can be given the same treatment described here.

In this instance, the brick walls of a basement were repaired where necessary and horizontal furring strips applied flush with vertical furring. The insulating plank was blind-nailed in place, and at the

outside corners the board was fitted flush with the outside edge of the furring, edges sanded to provide a clean corner into which was fitted a half-inch quarter-round. After putting on insulation board ceiling, picture and base mould finished job.



WASTED basement space at right is quickly transformed into useful room by applying Weatherwood plank as shown. Note in the lower right illustration how half-inch quarter-round is fitted in to give neat outside corner.

Hunt Out Waste Space and Make It House War Worker

Most Neighborhoods Have Houses That Will Yield Room for Sleeping Quarters or Compact Apartments

WHEREVER there is a war housing shortage, a most intensive hunt for convertible space is going on. For the most part, property owners are co-operating to add to the pool of living space both as a patriotic service and as a means of helping the pocketbook meet the rising cost of living. For these reasons, it is not difficult to sell the idea of converting such space. Usually, it is the most economical way of providing living quarters in regard to the amounts of material and labor needed.

Here are some ideas that can be used for this type of work, whether the space is quite small or more generous, as some-

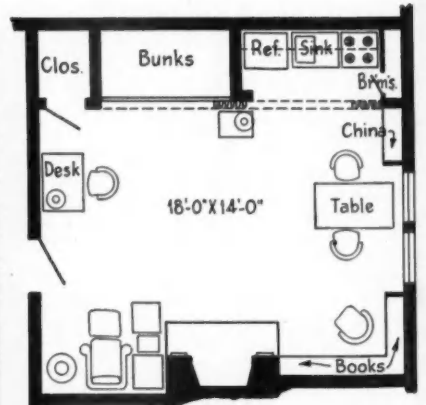


A SNUG little room under the eaves sleeps two.

times found in larger homes and older buildings. Above is shown what can be done with a very small attic; directly below, two attractive rooms in larger under-roof space. At the bottom of the page is a compact one-room apartment, quite elaborate for the average conversion, but still offering usable ideas. A wide range of materials can be used to finish such rooms.



FOR MORE spacious attics, either of the two treatments above, one modern and one traditional, could be used. Built-ins give plenty of storage space and serve as items of furniture.



LEFT: A de. luxe version of living quarters worked into a small space. This little apartment, as indicated on the suggested plan above, has bunks and kitchenette screened by folding doors (probably require a substitute today), dining space in front of window, fireplace on third wall. This layout should be worth saving for post-war use. (Photo courtesy Hazel Dell Brown, Armstrong Cork Co.)

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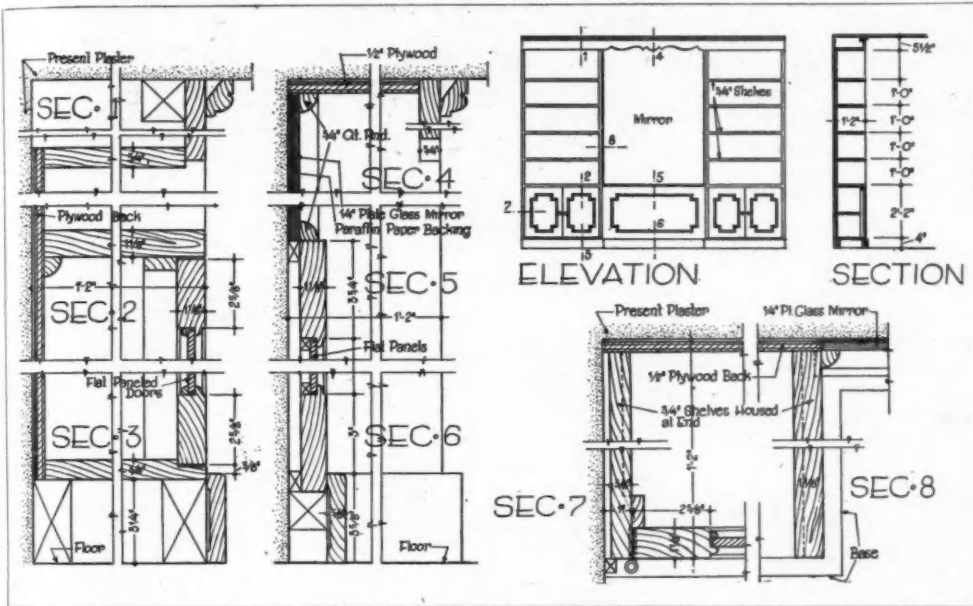
How to Build-in Dining Space for Small Apartment

FREQUENTLY in adding livable space to a structure already built, there are not enough windows and more are difficult to install. To brighten up such rooms and make them more attractive, a mirror used as detailed here and built into surrounding cupboard space will solve the problem.

In this case a dining table is set in front of the mirror so that reflected light gives an illusion of looking through the blank wall. At the same time, the room seems more spacious.

In some instances a desk might replace the table to give such a side of a room the character of a library. In either case the flanking cases and cupboards can be planned for china, linen, books, clothing, etc.

If the necessary millwork is going to be made in an outside shop, very accurate measurements should be furnished for all dimensions that are governed by the room size. Notice that small side moulding, base and ceiling mould allow for some fitting.



IN building a dining space, as sketched above and detailed at left, the first step is to install paneled board in center under mirror (Secs. 5 and 6). Then build up the planking side cupboards (Secs. 1, 2, 3, 7, and 8) with valances above, using finishing nails on all exposed surfaces. The cupboard doors are installed, as shown (Secs. 2, 3, and 7). Next step is to install the quarter-inch plate glass mirror, first putting on a backing of paraffin paper, using glue or shellac. Finally the whole unit is painted or stained to match other woodwork in the room. (This detail designed for Libbey-Owens-Ford.)

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

How to Arrange a War Housing Bathroom to Save a Maximum of Critical Materials

WHILE some accommodations can be provided so that plumbing fixtures already installed can do double duty, it is frequently necessary to add one or more bathrooms in converted war housing. For this purpose manufacturers are producing fixtures of non-critical materials that are approved by the War Department and meet with Federal Specification EWWP-541-A for war housing. A typical and economical grouping for this type of bath is shown at the right and consists of shower cabinet, lavatory and toilet. These are arranged along one wall to require a minimum of pipe. The wall treatment is colorful and should help the morale of the worker's family. (Photo courtesy Crane Co.)



HERE is a typical bathroom planned for a war worker family in a converted building; non-critical materials are used in shower, lavatory and toilet.

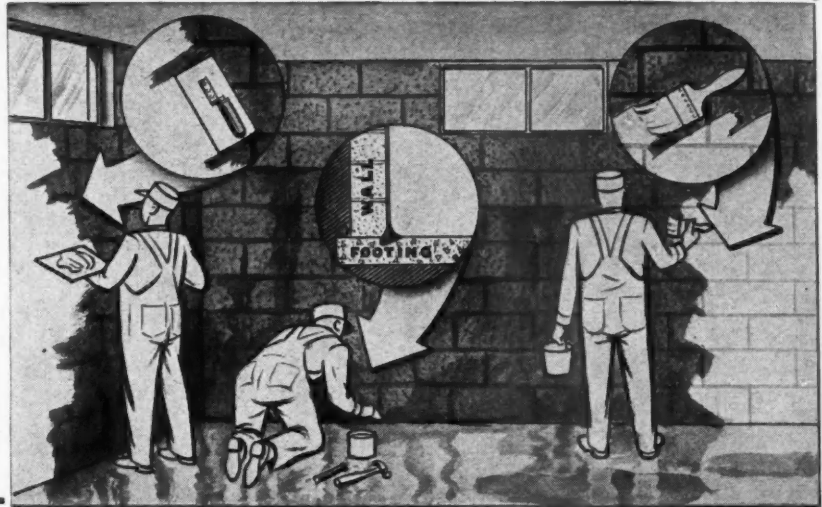
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How to Finish Basement Walls to Make Them Dampproof and Waterproof

IN making use of basement space for war purposes, it is frequently necessary to waterproof or dampproof the walls. There are a number of ways of doing this, but of existing structures anything but material applied to the inside surface is apt to be too expensive. At the right are shown three workmen applying sealing against water and dampproofing. The one at the left is applying a commercially prepared cement, Fluresal, mixed to a mortar consistency and troweled smooth. This will provide both waterproofing and wall finish. In the center, workman is chipping out an opening $\frac{1}{4}$ -inch wide and deep at juncture of floor and wall. This is filled with the same mortar mix to seal the joint at this spot, one of the most common sources of seepage. The other man is brushing on a thin coat of same material where water trouble is less acute.

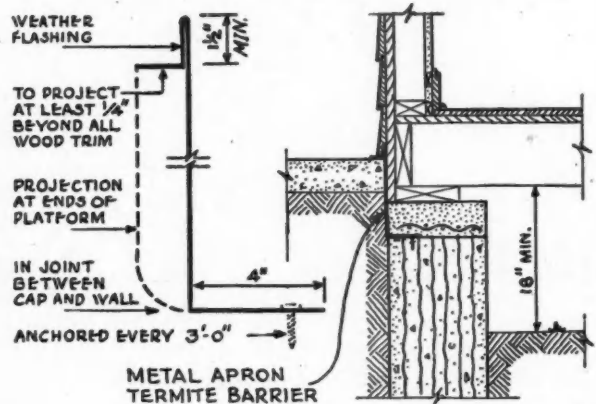
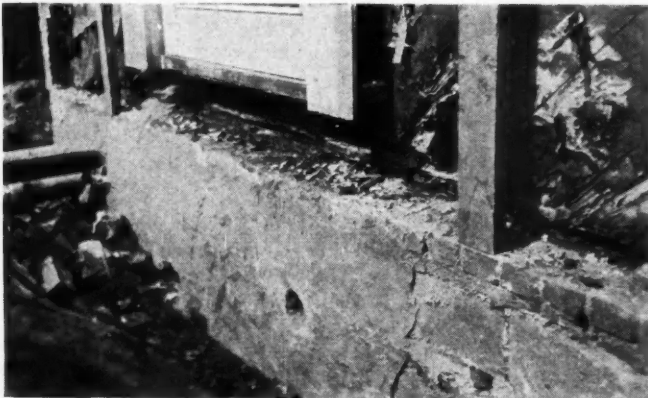


How to Build Out Termites at Entrance

TERMITE damage is one type of destruction which must constantly be guarded against in these war days when property is so valuable. Common preventive practices are very well known, but here is illustrated a point of attack not usually recognized. In the view below, termites have come up through a fill at an entrance and gotten into the sill and sheathing. In repairing such damage, poison can be put into the soil of such unexcavated areas; for this purpose, coal tar creosote mixed

1 to 3 with kerosene or full-strength orthodichlorobenzene can be used. All debris should be removed before rebuilding, and if practical, a metal shield can be applied as shown in the sketch. Specifications for termite work can be obtained from the U. S. Department of Agriculture (Publication E-327).

BELOW: Termite damage where terrace is built to floor level, and (in drawing) method of preventing such attack.



How to Figure and Install Coated Fabric Wall Covering

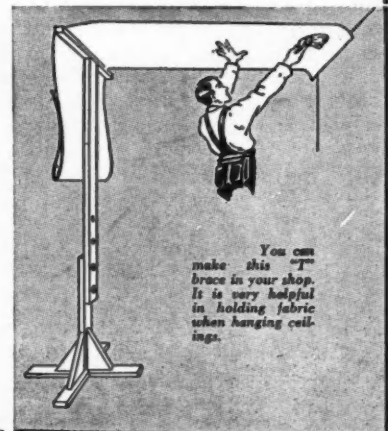
IN covering badly cracked but still reasonably sound plaster walls, canvas type material already surfaced and available in colored patterns is frequently a useful product. In figuring the amount of material needed, the table given here will help determine the number of rolls needed for various sized rooms, quantities based on 16 square yards to a roll of Wall-Tex fabric 48 inches wide.

Canvasing can be done over either painted or unpainted plaster surfaces after they have been properly patched, if walls are old. Normal practice is to proceed with hanging as for any wall covering, but on the ceiling a supporting "T" brace, built as shown in the sketch here, will be found helpful. Blisters

may show up on areas not thoroughly covered by paste, and wherever found, the canvas should be stripped back from the bottom and paste applied to such spots. Properly butted canvas should

not require filling at seams. If necessary, however, mix 3 lbs. of white lead, $2\frac{1}{4}$ lbs. whiting, $\frac{3}{8}$ gal. of boiled linseed oil, and $\frac{1}{32}$ pt. japan drier. Apply with broad knife.

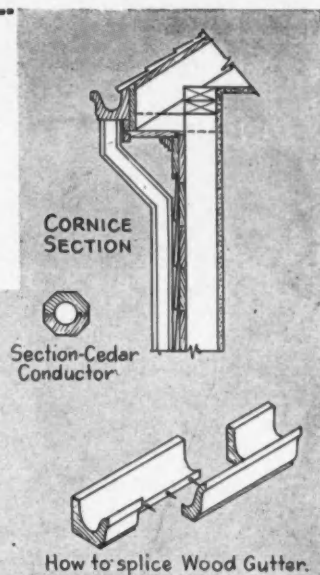
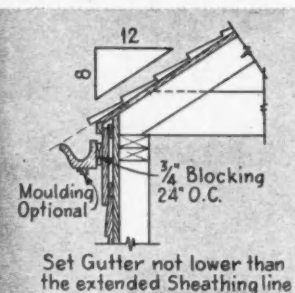
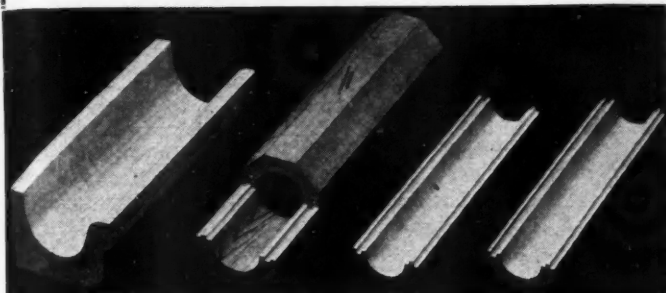
Size of Room	Rolls Required for Side Walls with Ceiling Height of					Ceilings	Yards Border Needed
	7 ft.	8 ft.	9 ft.	10 ft.	11 ft.		
8 x 12	2 $\frac{1}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{4}$	3 $\frac{1}{2}$	3 $\frac{1}{4}$	14
8 x 14	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4	4	15
10 x 10	2 $\frac{1}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{4}$	3 $\frac{1}{2}$	1	14
10 x 12	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4	1	15
10 x 14	2 $\frac{3}{4}$	3	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	1 $\frac{1}{4}$	16
10 x 16	3	3 $\frac{1}{4}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$	18
12 x 12	2 $\frac{3}{4}$	3	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	1 $\frac{1}{4}$	16
12 x 14	3	3 $\frac{1}{4}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$	18
12 x 16	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	1 $\frac{3}{4}$	19
12 x 18	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	4 $\frac{3}{4}$	5 $\frac{1}{4}$	1 $\frac{3}{4}$	20
14 x 14	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	1 $\frac{3}{4}$	19
14 x 16	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	4 $\frac{3}{4}$	5 $\frac{1}{4}$	2	20
14 x 18	3 $\frac{3}{4}$	4	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	2	22
16 x 16	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	2 $\frac{1}{4}$	22



How to Install Non-Critical Wood Gutters and Downspouts

WAR NEEDS have produced a development in conductor pipe and gutters made of cedar which is apt to retain its popularity after the present metal shortage. The durable Western red cedar items illustrated below and produced by E. C. Miller Cedar Lumber Company, Aberdeen, Washington, come in two sizes of conductors, 1 5/8 inch,

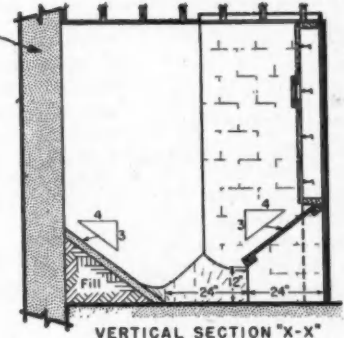
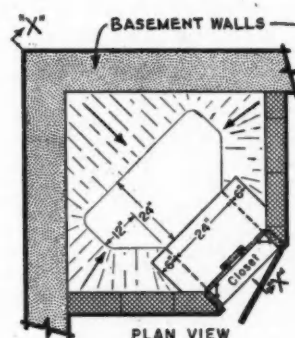
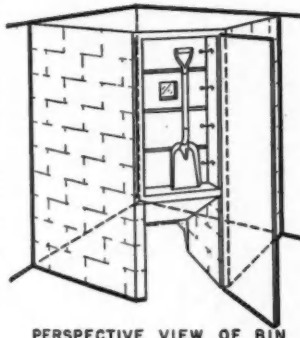
2-1/16 inch inside diameters and in two pieces that fit together with tongue-grooved joints and can be used with gutters in 4 1/2 inch and 5 1/2 inch sizes. Details at the right show proper application; for a tight job, a coat of white lead is spread onto the ends and a permanently flexible caulking compound is applied to the grooves at joints.



How to Build a Sloping-Bottom Coal Bin for Hand-firing

AS long as a conversion to solid fuel continues there will be the need for coal bins. Of course coal can be stored in a corner of the basement or in a rough enclosure thrown up, but many home owners appreciate the convenience and cleanliness of a well-built bin, particularly where the basement is used for recreation purposes. The drawings below show how to build a dust-tight bin with masonry walls and

an earth-fill under the sloping bottom that feeds the coal to the access door. On the average, inside floor dimensions of 4' x 4' will give a bin that will hold slightly more than two tons or about eight square feet of floor area per ton. The outside door completely closes the access to the bin and conceals removable boards, firing tools and inspection window.



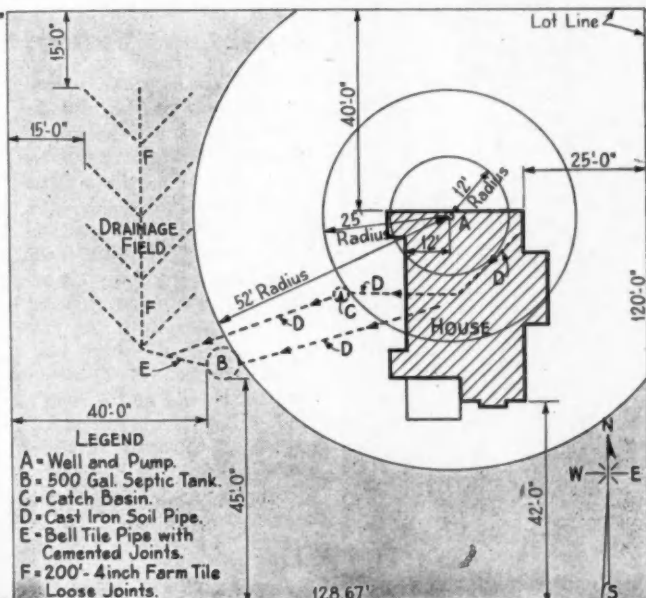
WHILE the walls of this bin are shown built in masonry block units, brick, stone or lumber might be substituted. A dust-tight ceiling is provided by nailing wallboard to the underside of the joists. Recessed bin outlet formed by extending first three courses into bin, adding a sloping top.

How to Place a Well and Septic Tank Properly to Avoid Contamination

WHILE most new housing being built today is in areas where sewers are already in and water supply is provided, there are many farm and non-urban rural homes which depend upon wells and septic tanks. In cases where one or the other or both of them need replacement the diagram at the right shows how to arrange both of these so that the disposal will be adequate and the water will not become contaminated.

This system was adopted as part of the county zoning ordinance for area around one of the large cities and indicates that at least a 52 foot radius should be maintained from the well to the nearest point of the disposal system. Of course the adjacent property, if a septic tank is used there, must also be planned similarly.

DIAGRAM shows proper relation of septic tank and well, needed to assure health.



These Jobs Help Conserve Health and Fuel, Prevent Deterioration of Property

Preserving Wearing Surfaces and Adding Insulation Important Today

RE-ROOFING, putting on new sidewall covering, patching leaks, repairing floors, and cutting down infiltration are among the items necessary to maintain the home front in livable and usable condition. Materials for doing this work are mostly non-critical, but on the larger jobs a limiting factor is L-41 price restriction. Doing a thorough job and one that does not in the long run require additional labor and expense is the chief stumbling block and must be given careful consideration. Take a leaking roof, for instance. If old, the point of leakage is hard to find, and in looking for it, new leaks are apt to result. This means going back and sometimes re-roofing the whole job,

In cases of salvaging old houses in such bad shape that the health of anyone living in them would be threatened, new sidewall material put right over the old will usually provide much of necessary insulation value and tighten up leakage. The improved appearance, as shown in the before and after views at the left, is an added dividend that will attract tenants.

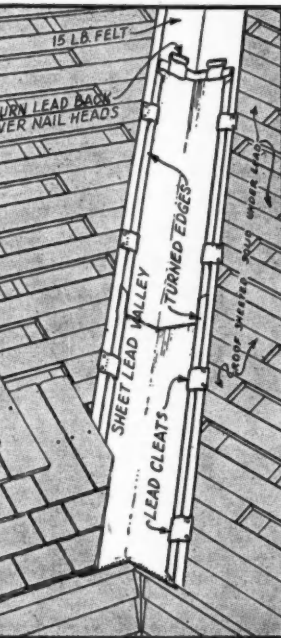
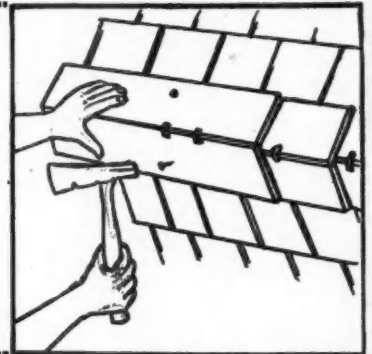


How to Save Labor on Ridges and Hips

TO save labor on roofing jobs, a new hip and ridge material comes packed 40 units to the bundle, rights and lefts alternating; covering capacity, 20 lineal feet when laid 6-inch exposure. These units are manufactured from 16-inch 5/2 vertical grain western red cedar. Each unit, two pieces accurately beveled to pitch required, is metal bound and jointed for economy and speed in application. By the old method, from

one-half to one square of random width shingles were used or wasted in application, as the average roof has about 100 lineal feet of ridge and hips; bungalow types considerably more. The average applicator will apply 120 lineal feet or more of these Cedarcream patented units per hour.

PREFABRICATED Cedarcream ridge and hip unit, precut, fitted and packed at the mill for 1/4, 1/2 and 1/2 pitch.

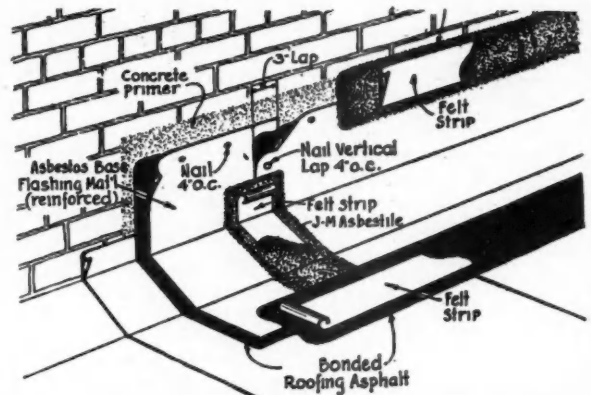


How to Install Sheet Lead Valleys

A DURABLE metal valley flashing can be easily made of sheet lead which can be obtained without priority. First, sheet roof solid beyond edges of flashings. Use 2 1/2 lb. per sq. ft. hard lead or 4 lb. per sq. ft. soft lead. Install over roofers felt as shown in lengths not greater than 4 ft. for hard lead or 6 ft. for soft lead. Lap upper lengths over lower lengths. Do not nail through lead. Fasten upper end of each piece to roof with wide cleats as shown. Bend end of cleats back over nail heads; secure edges with cleats.

How to Flash Built-up Roofs

A METHOD of flashing at parapets without the use of critical materials is indicated in the sketch below. It will be useful both for re-roofing old plants now in war production, and on new jobs. This Asbestile system has been proven in years of actual service; the material hardens and becomes an integral part of the wall itself.





How to Lay and Finish a New or Old Floor Quickly

IN bringing old property back into use, or maintaining present structures, floors are a major problem due to constant wear. To restore wood floors which are beyond repair, the most economical method is to lay new flooring over the top of the old. This can be either standard thickness or thin strip stock, pre-finished or unfinished. Individual problems will determine which is best. In applying new material over the old, flooring should be laid at right angles to the present flooring, and may be put on directly with paper between or over furring if very irregular, worn.

If old floor is salvageable, the most practical method of removing finishes is with a sanding machine. To remove light coat, operate the machine lengthwise of the grain; if it is a heavy coat, the sander should be operated at a 60-90 degree angle across the grain to cut more rapidly. For the first cut, No. 3 or 3½ open paper is used with cut only on short back strokes. Finish with the grain to remove cross scratches.

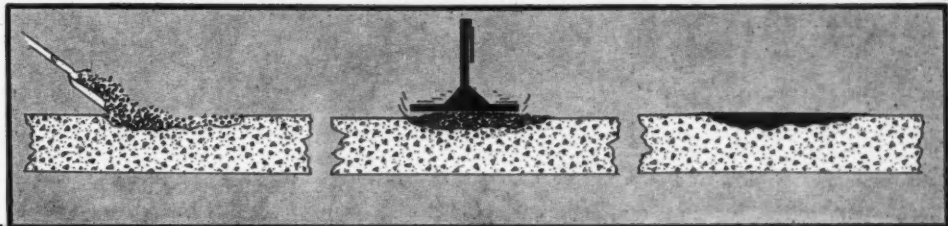
To refinish such a floor or for new work, one of the floor sealers will allow the floor to be used quite soon after application.

How to Repair Concrete Floors in a Hurry

AT right: Three steps in repairing holes in concrete floors with Instant-Use resurfacer. First the hole is cleaned out and patching material inserted; this is tamped in place to slightly above level fill; traffic will compact the material.

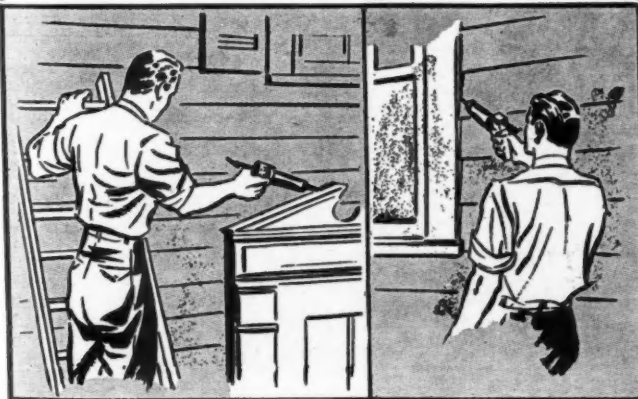
A METHOD of patching concrete floors which will not hold up production is important on many jobs these days. Below are indicated three steps in applying a

prepared patching material for patching or overlay on all kinds of industrial floors—concrete, brick, stone and asphalt. Traffic improves the patches by compacting.



How to Tighten a Building by Caulking

PRACTICALLY every building needs caulking, either when built or after expansion and contraction have loosened up joints. Resulting cracks let in cold air, moisture, soot and dust. Infiltration around doors and windows is the most common reason for caulking, but there are many others—top of the door jamb, cracks in brick and stucco walls, joints between materials such as frame and chimney, horizontal ledges, etc. In applying caulking, it is generally good practice to prime all porous or unpainted surfaces. For this purpose, linseed oil, colorless varnish, shellac or colorless waterproofing may be used. If cracks are deeper than ¼-inch, they should first be filled with oakum and tamped



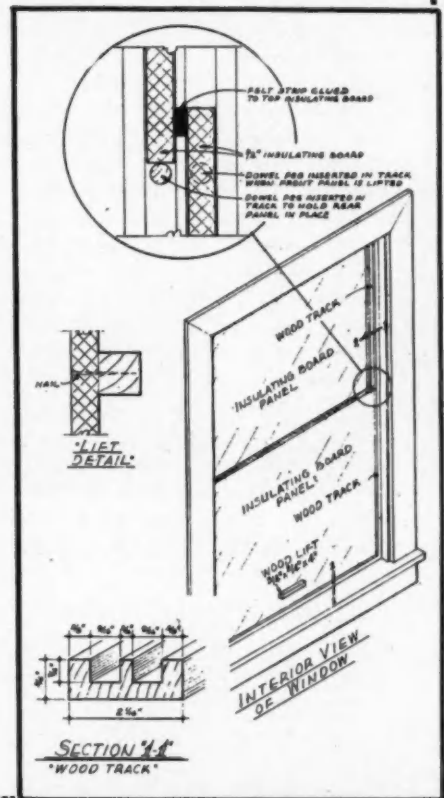
in firmly to within a half-inch of the surface. On porous stones, caulking cotton will not stain.

During cold weather, caulking compounds should be kept in a warm room prior to application. The compound itself comes in two grades—gun grade and knife grade. With the former, select the proper tip and put the nozzle in the opening, holding the gun at an angle so as to force the caulking deeply into the crevice. For knife grade, press the compound into crack, leaving substantial bead on surface.

How to Blackout and Insulate Windows

TO DO a double job that meets today's emergency, insulating board panels can be built into window frames to blackout light and prevent heat loss. The method is detailed below, with two sliding board panels mounted in a track so that they can be raised or lowered to admit light when needed. Of the heat loss through windows, 70 per cent can be saved in this manner, and comfort increased by lessening the cold feeling of the windows.

Half-inch insulating board is usually preferred for this type of installation. Here the panels are double-hung, cut to proper size, and attached to the inside of the frame with wood track. Wood pegs hold the lower panels in place when raised during the daytime, and a handle is attached for this purpose. If light surfaced board is used, no decoration is needed unless preferred.





A CHARMING effect may be gained in a small dining room by the addition of shelves built across a picture window. These afford a place to display china, and since curtains and draperies are not necessary, undiluted daylight and an unobstructed view result.

AMONG the 101 ways for builders to keep busy today are included ideas such as are shown here. There is nothing to prevent you from selling home owners on the idea of making the interiors of their homes more attractive, livable and convenient by the addition of inexpensive built-ins similar to some of those shown here.

Many people, however, are putting off any such work until after the war, at which time they plan to cash some of those War Bonds they have "ear-marked" to be spent on their homes. They are even now trying to decide whether they should plan to panel that "extra" room in knotty pine, or put a new face on the out-of-date looking fireplace in the living room, or build window shelves or a corner cupboard in the dining room, or new cabinets and window shelves in the kitchen, for instance.

This is where you, the builder, come in. With a fine portfolio full of illustrations which you can lay before your customers, you will enable them to crystallize their ideas, you will make it easy for them to decide what they want, and easy for yourself to sell them on using your services.



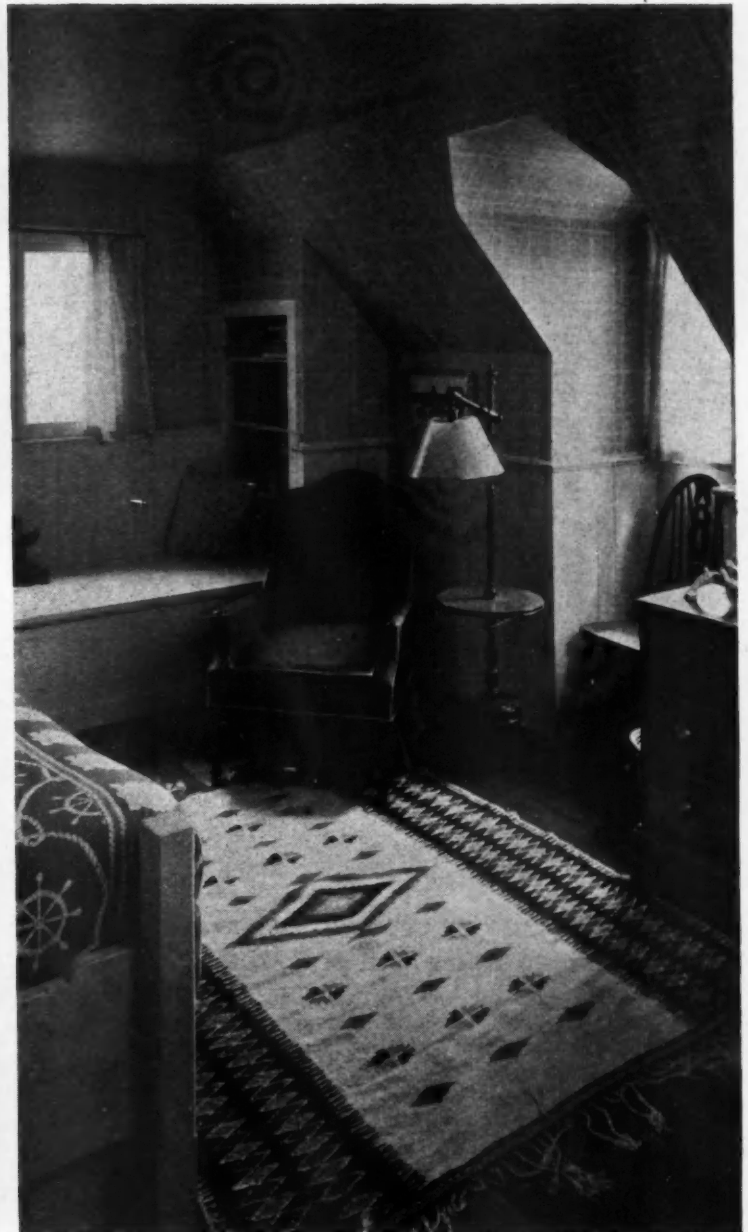
SHELVES built in a child's room, with storage cupboards underneath help solve the problem of keeping toys off the floor.

JOBS YOU CAN SELL TODAY

And Ideas for Your Post-war Portfolio



IDEA for converting room, and giving fireplace new usefulness by adding Dutch oven. Built-in shelves, pine paneling, are features.



AN attractive suggestion for the conversion of attic space into an extra bedroom. Built-in window seat, bookshelves add homey touch.



AN unusual treatment of built-in shelves in a dining room, with drawers and cupboards below; these can take place of buffet.

Add These Outdoor Items To Help the Home Front

MANY houses, which in their present state are rundown but still capable of providing shelter, can be transformed into charming homes through the addition of a few simple design features. Twelve such suggestions made by R. J. Alexander of Rochester, Minn., are shown at the left; they are adaptable to many small, unattractive cottages, and may serve as inspiration for other improvements and repairs.

A. Side elevation of a lattice enclosure; posts about 3" square, rails of 1 1/8" x 3" material, and stock lattice spaced about 6" o.c.

B. Transformed rear or grade entry. Hood should not project more than 12"; soffit or ceiling should be a single piece of 1" x 8", the fascia a 1" x 4" with 3" crown mold.

C. Flower boxes of moisture-resisting wood with drains at bottom.

D. Blinds of simple design, made of 3 pieces of 1" x 6" material.

E. Add distinction to cornice by removing bed moulding and placing cut-out frieze over old one.

F. Lamp posts, especially practical, are placed near rear entry, garage door and driveway.

G. New doors for garage, to be made in two 4-foot units, and later fastened together with angle irons when hardware is available.

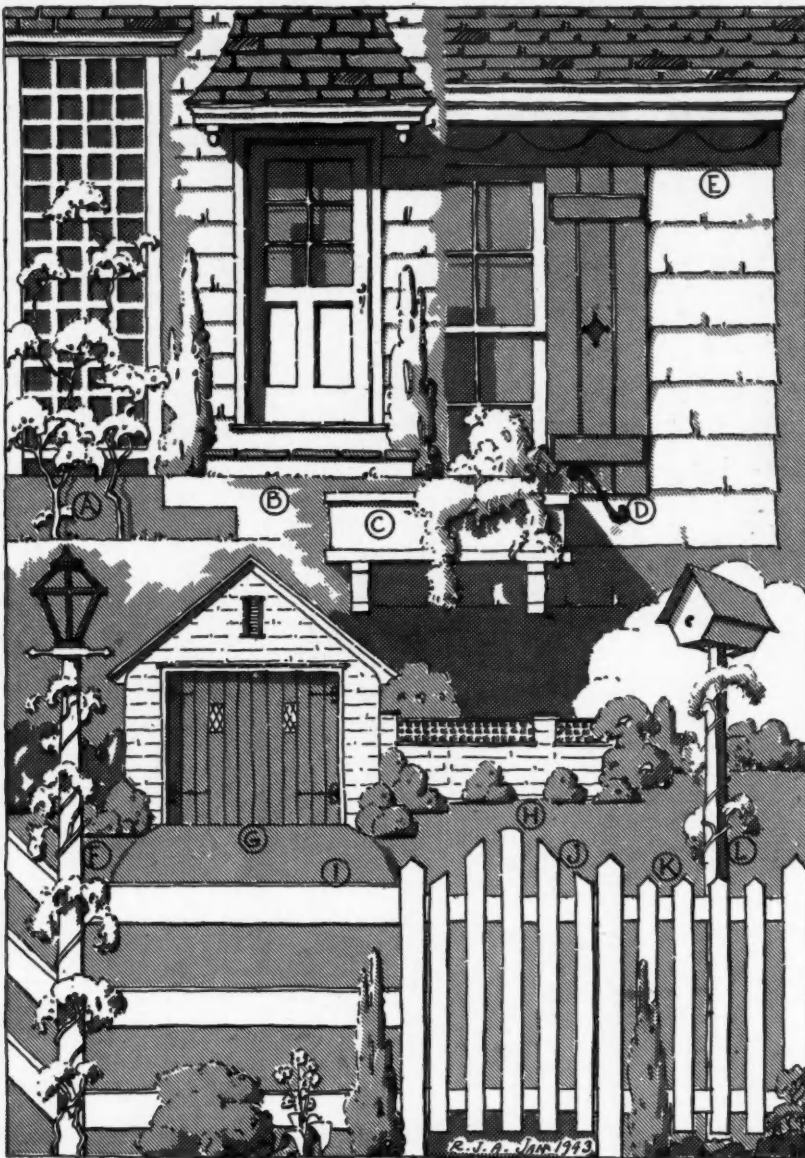
H. Fence or garden wall, built of 2" x 4" studs on concrete footing, with siding nailed to studs.

I. Plain rail fence, with posts either solid or built up of 3/4" boards.

J. Gates harmonizing with fence. Posts should be creosoted and set in concrete, but sections should be demountable.

K. Picket fence, of stock 1" x 3" material; space between pickets about 2 1/2", with pickets 42" in length.

L. Bird house, with pole jointed at bottom so that house can be lowered for cleaning and painting.



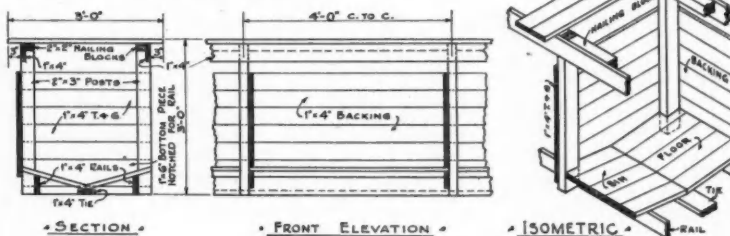
HOW TO DO IT • HOW TO DO IT • HOW TO DO IT • HOW TO DO IT • HOW TO DO IT

Bins to Store Garden Materials

THE advantages of a garden work center may be greatly increased if materials are readily available. The materials storage bins illustrated can provide space for sand, loam, peat moss, fertilizer, etc. The top of the bins furnishes ample work space for potting, handling of seed flats, and other routine garden duties. The equipment may be made in four-foot sections, although if used for a smaller garden, partitions may be provided at two-foot intervals rather than the four-foot size illustrated.

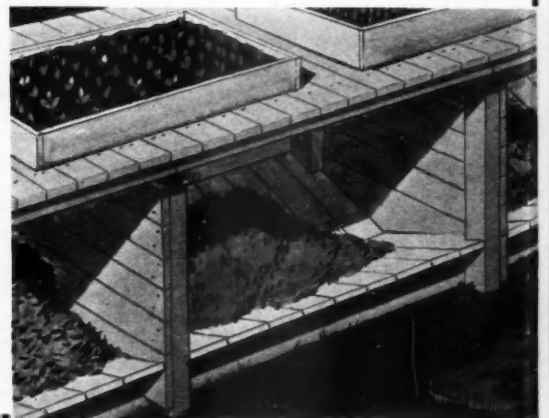
The list of materials needed applies to each four-foot section.

DETAILS of construction for each four-foot section of garden materials storage bin.



MATERIALS NEEDED

60	lin. ft.	1 x 4	S4S
12	lin. ft.	2 x 3	S4S
8	lin. ft.	2 x 2	S4S
30	lin. ft.	1 x 6	T&G
48	lin. ft.	1 x 4	T&G



How to Store Vegetables at Home

NOW that food rationing is here, Victory Gardens will this year be the usual thing wherever a plot of ground can be found—and not the novelty they were in the summer of 1942. However, in order to make the most of these, many families will require storage rooms built to best preserve their crop for winter use, and the table below will give you helpful information on the proper temperatures at which various vegetables are best preserved over a period of time.

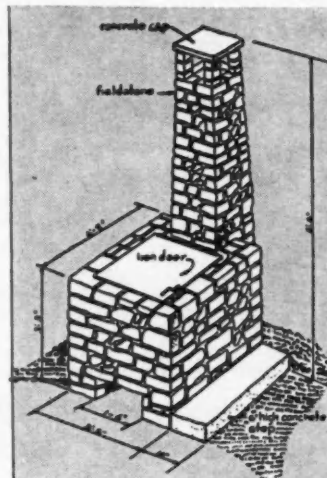
Temperature	Vegetables	Moisture Relative Humidity	Preparation
Medium 60°-50°	Tomatoes Eggplants Peppers	Moist 95%	Only sound fruits, free from frost injury. Place in shallow containers or single layers. Sometimes plants are hung in a cool place until fruits ripen. Discard injured, diseased fruits.
	Sweet Potatoes	Medium-dry 80%	Dig before killing frost. Cure at 80 to 90° F. for 10 days. Leave in original container (crate or basket) until ready to use.
Cool 50°-40°	Pumpkins Squash	Dry 60%	Only mature ones, free from injury. One to 4 deep on shelves.
Cold 40°-32°	Cabbage	Moist 95%	Solid heads of Danish. Outer leaves and, usually, stems and roots removed.
	Brussels Sprouts Kale	Moist 95%	Leave in garden until severe weather. Freezing improves the texture and flavor. Set roots in soil.
	Celery Chinese Cabbage Endive Escarolle	Moist 95%	Leave in garden until cold weather but protect from severe frosts by covering with heavy paper, dry burlap, or boards. Keep roots moist but never wet the leaves in storage.
	Beets Carrots Winter Radishes Rutabaga Turnips	Medium-Moist 90%	Select medium-sized, tender roots free from cracks, disease, or injury. Remove the tops. May be covered with soil, sand, or leaves to hold moisture.
	Parsnips Salsify	Medium-Moist 90%	Smooth, firm roots of good size may be placed in soil or sand and allowed to freeze before use.
	Onions	Medium-Dry 85%	Discard soft-necked, injured bulbs. Place in slatted crates, baskets, or trays 4 to 6 inches deep for free circulation of air.
	Winter Melons	85%	May be placed under hay or straw.

How to Build an Incinerator

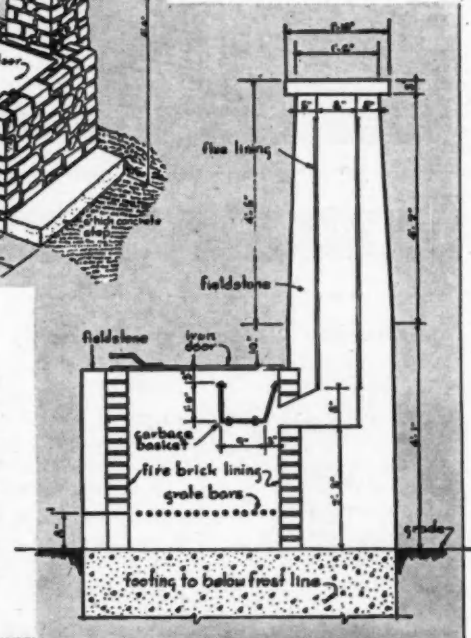
IN MANY areas, ashes, garbage and rubbish are hard to dispose of, and the incinerator sketched below may help to solve that problem, at least in part. In warmer climates, a shallow footing is sufficient, but where frost is a factor, the footing should have a foundation below frost level.

It will be noticed that the door on top, the garbage basket and grate bars are of simple construction and if accessories are not available from stocks, they could be made from a small amount of odds and ends of metal.

This incinerator may double as a cooking fireplace through removal of the iron door and replacing it with a grate.



INCINERATOR made of fieldstone will look well in any back yard, and may also be used as a cooking fireplace.



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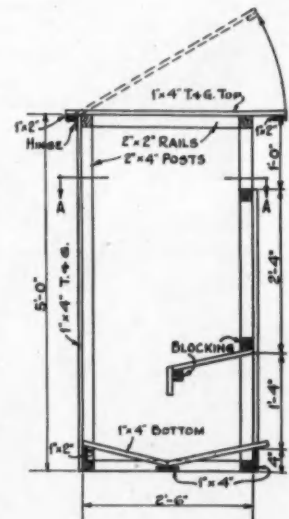
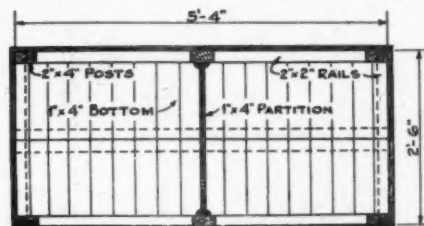
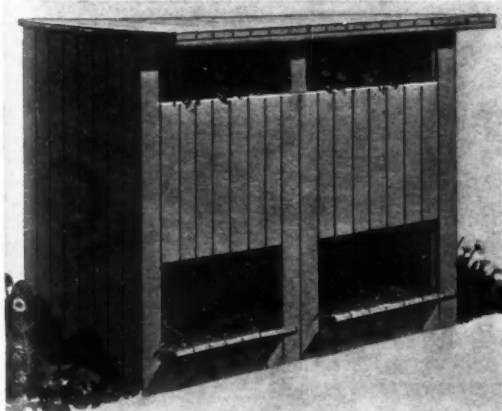
How to Make a Compost Bin

THIS compost bin has two sections, each with an opening top and bottom to provide for easy and thorough mixing of old and new material, and the various ammonia decay accelerators used. Due to the high percentage of concentrated decay-producing fungi in a compost bin, a very durable material must be used in its construction.

MATERIALS NEEDED

- 16 lin. ft. 1x2 S4S
- 12 lin. ft. 1x4 S4S
- 52 lin. ft. 2x2 S4S
- 30 lin. ft. 2x4 S4S
- 424 lin. ft. 1x4 T&G
- 20 lin. ft. 1/4 Round Mldg.

DETAIL DRAWINGS showing construction of the compost bin pictured at the left.



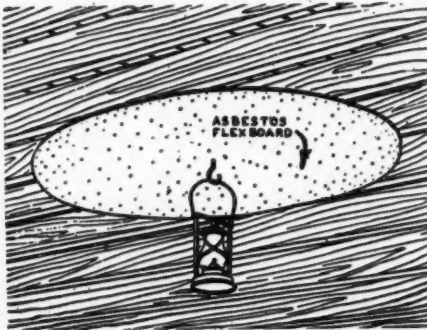
• PLAN AT 'A-A' •

• SECTION •

Small Jobs to Be Done on Farms

Since Farm Help Is Scarce There Is Plenty of Farm Construction Work for Outsiders

Fireproof Shields for Barn Lamps



Simple, effective and much needed protection against fire in barns, is a circular asbestos flexboard panel, fastened to the ceiling, so that a lighted lantern hung from a hook beneath this asbestos pad will not cause the old boards to catch fire.

Many farmers place their lamps in the barn on rickety boxes, stools, or on barn floors, where if they are tipped over they may break and flood the floor with burning oil. Where it is probable that a farmer will need

a light at night in the barn, it is a well thought-out precaution to provide asbestos flexboard shields on the ceiling and then place a hook in the center of this shield from which the lamp can be hung.

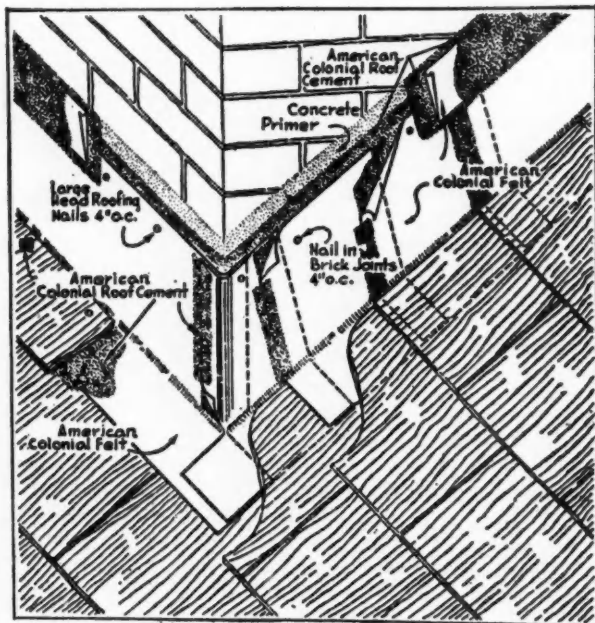
Here is a job that carpenters in rural areas can well do. Today it is difficult to replace burned down barns or other farm structures and even if they are replaced such wastage creates a further drain upon our dwindling stock of lumber.

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Asbestos Chimney Flashing

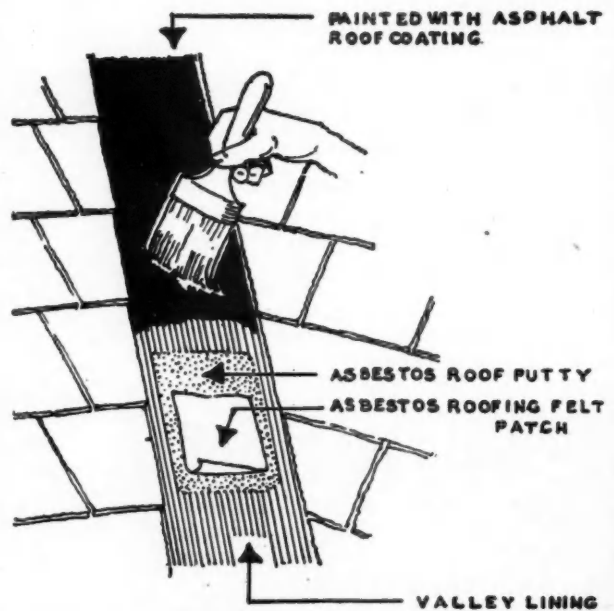
Used industrially for years, asbestos felt flashing is practically the only material available for chimney flashings, today. The preferred metal has always been copper because it is easier to handle than galvanized sheet metal and because galvanized metal corrodes in time. Lead and zinc should not be used as chimney flashing because in the event of fire under the roof they melt and leave an opening to create a draft.

Asbestos felt flashing, however, is available for farm and home use and can be obtained at most lumber yards. It is fireproof, easy to apply and has a long life. At the point where the chimney passes through the roof the construction must provide space for expansion, due to settlement, movement of the chimney in high wind and temperature changes. Detailed drawing below shows recommendations of Johns-Manville on applying flashing.



Asbestos Roofing Patch

Spring rains will show up weak spots in farm roofs. Re-roofing or patching is the obvious answer. If the flashing or valley looks as though it were a possible source of leaks it is a simple matter to make repairs. In the case of smooth surface roll roofings a heavy application of asbestos roof coating applied on the valleys will frequently correct minor leaks. In more severe cases it may be necessary to trowel a layer of asbestos roof putty over the entire valley. If there are actual holes, cut a



strip of roofing the exact size to fit the valley and press it down into the roof putty and follow with a second application of putty troweled to a feather edge on the adjacent roofing.

In the case of shingle roofs having metal valleys (see illustration) repairs can be made with asbestos roof putty and asbestos flashing in the same manner as described.

It's Better to START with the RIGHT DOOR!

In times like these, when there is some confusion as to what products may or may not be obtained, there is danger of putting up with temporary makeshifts and substitutes. Some buyers with proper priority ratings apparently do not understand that they can obtain...



Ro-Way Exclusive Features Include:

- "Crow's Foot" Outer Bearing Support
- "Zip-Lock" for quick adjustment of Twin Torsion Springs
- "Tailor Made" Power-metered Springs
- "Ro-Way Design" Track Rollers with double-thick tread
- "New Friction-Reducing" Track
- Parkerized and Painted Hardware

Ro-Way Overhead Type Doors

Here are Two Recent Examples Presented as a Reminder to Architects, Builders and Contractors

Case No. 1. A job in an eastern city called for a less desirable type of door. The General Contractor, because of his own knowledge of Ro-Way Overhead Type Doors, asked us to submit an alternate bid.

Case No. 2. On another job where there are about 200 openings involved, there had been installed more than 60 doors of another type. At that point, the engineers stopped further installations of the less desirable door and Ro-Way Overhead Type Doors have been ordered.

Write for complete new Catalog and Prices on Ro-Way Overhead Type Doors for Residential, Industrial and Commercial uses.

ROWE MANUFACTURING CO.
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TODAY RO-WAY DOORS are Serving America in—

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| Naval Depots | Coast Guard Bases | Navy Yards |
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Showing a portion of Armories equipped with 54 Ro-Way Doors.

"QUICK in Action"
"QUIET in Operation"
"TOUGH in Service"
"TRIM in Appearance"



"There's a Ro-Way for every Door way!"

SELLING "FIX IT UP" TO TEN MILLION FAMILIES



"FIX IT UP, SON!"
Uncle Wants the

SON!
wants the
and Dry"

THIS MONTH *CERTAIN-TEED* LAUNCHES A NATIONAL ADVERTISING CAMPAIGN OF "WARTIME WAYS TO PRESERVE AND PROTECT YOUR PROPERTY" . . . REACHING OVER

*5,000,000 Home-Owner
Families in
THE AMERICAN HOME
and
BETTER HOMES & GARDENS*

*5,000,000 Prosperous
Farm Families in
COUNTRY GENTLEMAN
SUCCESSFUL FARMING
and
PROGRESSIVE FARMER*

CERTAIN-TEED PRODUCTS CORPORATION, 120 S. LA SALLE ST., CHICAGO, ILL.

**"WHEN THE GREAT DAY COMES
I WANT PERMA-GLOSS"**



"Joe and I have a 'for-the-duration' home now, but we're buying War Bonds up to the limit . . . and after Victory we'll use that money to build a home of our own.

"I know one thing right now — when we do build, I am going to have PERMA-GLOSS sanitary ware. Its glossy surface is so easy to keep clean . . . it won't chip or crack, and it costs no more than an iron enameled sink. I know what I want, and I want PERMA-GLOSS."



Today, PERMA-GLOSS sinks, through their installation in government housing units, dormitories and camps, are making new friends by the thousands. Though these "for-the-duration" homes may be temporary, daily contact with PERMA-GLOSS sanitary ware is making Mr. and Mrs. War Worker—your eventual customer—conscious of its all-around high qualities.

PERMA-GLOSS has been developed to meet the government restrictions on iron and steel sanitary ware. PERMA-GLOSS is strong and durable, will neither dent nor craze, and the body is acid *proof* throughout, not merely acid resistant.

We'd like to send you a new bulletin showing the many different designs and combinations of PERMA-GLOSS Fixtures. It will be sent promptly on request.

General Ceramics Co.



**SANITARY WARE DIVISION
METUCHEN • • NEW JERSEY**

SHORT CUT Estimating Methods For Fast and Profitable Selling

By Herbert F. Loft, Estimating Expert

No. 3.

How to Figure Siding Jobs Quickly

SIDING JOBS may be quickly estimated, and the selling of such work greatly helped, by the short cut methods that follow. In previous articles we have described use of a roof pitch card, and told how to figure roofing jobs.

The following applies to asbestos, asphalt and wood shingles applied as siding.

Sketching: Sketch outline of each elevation by measuring from corner to corner along each side of house, adding all projections, such as bay windows, etc.

Measure height of wall to be sided, from point where siding starts at the bottom, to the top of the wall, by suspending a steel measuring tape from the highest window, use an extension rule or rod to find gable height, and place these dimensions in the space provided for each elevation.

Walls: Figure each elevation separately. Multiply the width by the height and deduct from this total the combined square foot area of the doors and windows to arrive at the net sq. ft. area. (Many estimators allow 20 sq. ft. for each door and 15 sq. ft. for each window, instead of measuring it.)

Gables: Gable areas are found by multiplying the width by the height from plate line to ridge and dividing by 2. Gable

(Continued to page 92)

SIDING—Applied With Wood Stripping. Local Price Workout per Square

Shingle or Siding Price									
Nails, @ c lb.									
Bevel Stripping									
Asbestos Caulking Putty									
Asbestos Felt—15 lb.									
TOTAL MATERIAL PRICE									
Labor Cost @ \$ per hour									
Labor Profit %									
Comp. and Ins. %									
TOTAL LABOR PRICE									
Total Material Price									
Total Material and Labor									
Sales Commission, %									
TOTAL SELLING PRICE									

Helpful Siding Estimating Form

THIS handy estimating form is suggested for use in quick figuring of siding jobs. Local labor and material prices are to be inserted. Illustrative examples showing how base price work-outs per square are arrived at shown below.

ILLUSTRATIVE EXAMPLE—base price workout per square of siding*

SIDING (Asbestos Shingles and Clapboards)—Applied with Wood Stripping	105-107 Uniform Gray	4 Point Hex. Shingle		SIDING (Wood Shingles Unstained)	16"
		SIDING (Asphalt Shingles)—Applied with Wood Stripping	Bevel Strip		
Shingle or Siding (pcs.).....	57	Shingle Price per sq.....	\$3.90	Exposure.....	5"
Size.....	12"x24"	Delivery, 100 lb..... @ .30	.44	Shingles.....	1.00 Sq.
Weight.....	185	Bevel Stripping..... @ .005	1.44	Galv. Nails (lbs.).....	3
Material Shingle Price.....	6.80	Felt, 15 lb. per roll..... @ 2.00	.50	Material Price.....	
Freight and Delivery incl.....	.93	Nails (Galvanized), lb..... @ .10	.30	Shingles.....	6.50
Nails, Galvanized, @ 10c lb.....	.13	Copper Brads, lb..... @ .30	.15	Galv. Nails.....	.30
Nails, Special Face.....	Incl.	Asbestos Caulking Putty @ .10	.20	Total Material Price.....	6.80
Bevel Stripping.....	.57	Total Material.....	6.93	Labor.....	
Asbestos Caulking Putty.....	.20	Labor: Crew Minutes.....	89	Shingles (Min.).....	240
Asbestos Felt—15 lb.....	.50	Labor: Shingles..... @ .0416	3.12	Labor Cost \$1.00 Hr.....	4.00
TOTAL MATERIAL PRICE.....	9.13	Labor: Bevel Strip.....	.30	Labor Profit*..... 25 %	1.00
Labor Minutes.....	159	Labor: 15 lb. Felt.....	.30	Comp. Ins.*..... 10 %	.40
Labor Cost @ \$1.00 hour.....	2.65	Total Labor Cost.....	3.72	Total Labor Price.....	5.40
Labor Profit *25 %.....	.66	Com. Insurance*..... 10 %	.37	Total Labor and Material.....	12.20
Comp. and Ins. *10 %.....	.27	Labor Profit*..... 25 %	.93	Sales Commission*..... 10 %	1.34
TOTAL LABOR PRICE.....	3.58	Total Labor Price.....	5.02	Total Selling Price.....	13.54
Total Material Price.....	9.13	Total Material.....	6.93	Adjusted Selling Price.....	13.50
Total Material and Labor Pr.....	12.71	Total Labor and Material.....	11.95		
Sales Commission *10 %.....	1.41	*Sales Commission..... 10 %	1.33		
Total Price.....	14.12	Total Price.....	13.28		
ADJUSTED SELLING PRICE.....	14.25	Adjusted Price.....	13.25		

*BASE prices for materials and labor shown are illustrative only, and are used to indicate the method of estimating. Material prices include freight and delivery. Labor on asphalt siding is figured on a crew consisting of two

mechanics at \$1.00 per hour, and one helper at 50 cents per hour; \$1.00 per hour for carpenter labor on wood shingles is figured. Actual local material and labor costs are to be entered in the estimating form shown above.



STALWART SOLDIERS FROM THE NORTH

These crop trees, a natural resource of the northwoods, and thousands like them, are transformed by modern science and engineering into products that build comfort and protection for the United Nations at war, and for civilians in peace time.



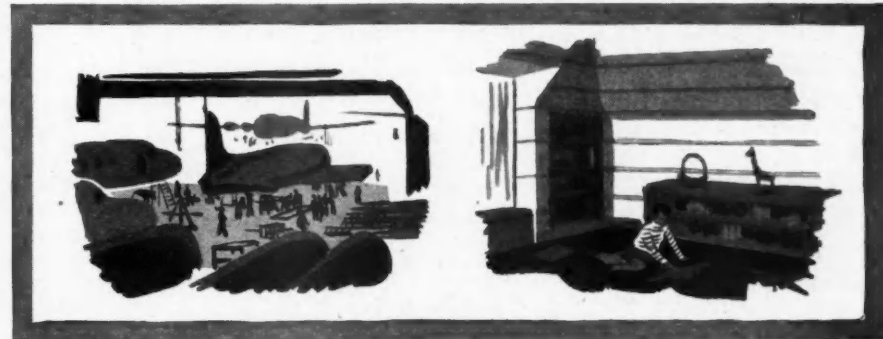
● The average person thinks of trees only in connection with lumber. But from the cellulose fibres of trees (not the trees used for lumber) come a multitude of useful products. Clothing, surgical dressings, even fuel to run automobiles—these are a few of the more unusual products being made from wood today.

● More than a quarter of a century ago, in the mills of the Minnesota and Ontario Paper Company, at International Falls, Minnesota, scientists, working in research laboratories, discovered a method of fabricating wood fibres into boards that were superior, for many building purposes, to wood as nature made it.



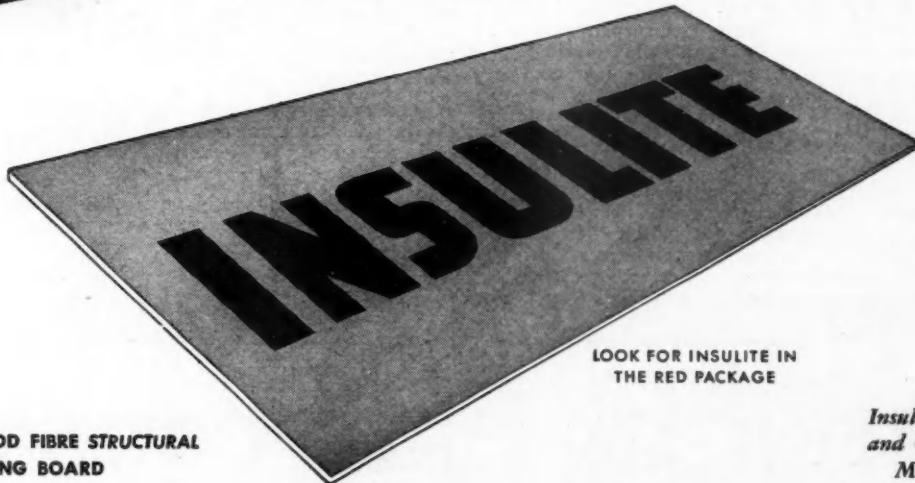
● Logs are placed into giant machines that tear them to pieces leaving only the sturdy fibres. Then the fibres are processed into boards — called INSULITE. These boards have a bracing strength four times that of ordinary wood sheathing, horizontally applied.

● Insulite has many important uses. Today, in many corners of the world, the advantages of Insulite are bringing comfort to our fighting men, thousands of whom are housed in barracks built of Insulite. Insulite is moisture-proofed, wind-proofed, provides sound control, and is treated against termites, rot and fungi.



● Insulite has many structural advantages. Today, speed in building is highly important. The large panels of Insulite are rapidly applied or nailed into place. The saving in building time is apparent when you consider the large area the panel of Insulite covers in one operation. This bomber factory is only one war plant that was erected and completed in record time with Insulite.

● In home construction Insulite finds its widest use. Because Insulite insulates as it builds, walls constructed with Insulite save fuel in winter, make rooms cooler in summer. When used to finish attic interiors, like the one shown, Insulite provides attractive walls and ceilings that require no plastering, papering or painting. Walls of Insulite are also easy to clean.



THE ORIGINAL WOOD FIBRE STRUCTURAL INSULATING BOARD

LOOK FOR INSULITE IN THE RED PACKAGE



Insulite Division of Minnesota and Ontario Paper Company
Minneapolis, Minnesota

"I'm going to shock you!"

"Because I'm going to hit right from the shoulder, starting now.

"Out there, our boys are fighting, and they're falling. Not one or two at a time, picked off by a nice clean bullet. But fifty at a time in the roaring, flaming hell of a shell burst.

"Out there, they aren't walking around in clean white uniforms on neat decks. They're running and slipping around on the bloody heaving flanks of a carrier foundering in a sea of oil with her guts torn out.

"They're not lying in cool, immaculate hospital beds with pretty nurses to hold their hands. They're flat on their backs on cold steel taking a smoke and waiting for a doctor to get through with the *seriously* wounded.

"Out there, they're fighting and they're falling but they're winning! And get this straight—they're not complaining. But I want you to know what they're up against. I want you to know they look to you to give them in *your* way the same full measure of help and devotion they get unasked from their own shipmates.

"And you *can* help them—by giving generously to the Red Cross.

"If you had seen the faces of men pulled naked from the sea as they received kit bags and



cigarettes handed out on the spot by Red Cross Field Directors—you'd know what I mean!"

* * *

On every front the Red Cross presses forward. Each day, the need increases for your support.

Your Chapter is raising its Second War Fund in March and April. Give more this year—give double if you can.

THE RECORD SINCE PEARL HARBOR

For the Armed Forces—More than one million and a half service men have received, through the Field Staff, practical help in personal problems. The Red Cross is with them in training and at the front. For morale and recreation, over one hundred Red Cross Clubs have been established for overseas troops. There are more than five thousand workers in the field.

Civilian Relief—About sixty million dollars in war relief has been administered in every allied country. Food, clothing, medicinal supplies have gone to Great Britain, Russia, China, Africa, for Polish and Greek refugees, and many others. Thousands of packages to prisoners of war have been safely delivered through cooperation with the International Red Cross in Switzerland.

The Home Front—Training our people to meet the needs of war. Millions of First Aid Courses. Hundreds of thousands trained in Home Nursing and Nutrition Courses. Thousands enlisted as Nurses' Aides and in Motor and Canteen and Staff Assistant Corps.

More than one million and a half blood donations through Red Cross collection centers and the distribution of the life saving Plasma wherever needed.

Chapter Production rooms from coast-to-coast providing surgical dressings for the wounded, kit bags for the fighters and tons of clothing for relief.

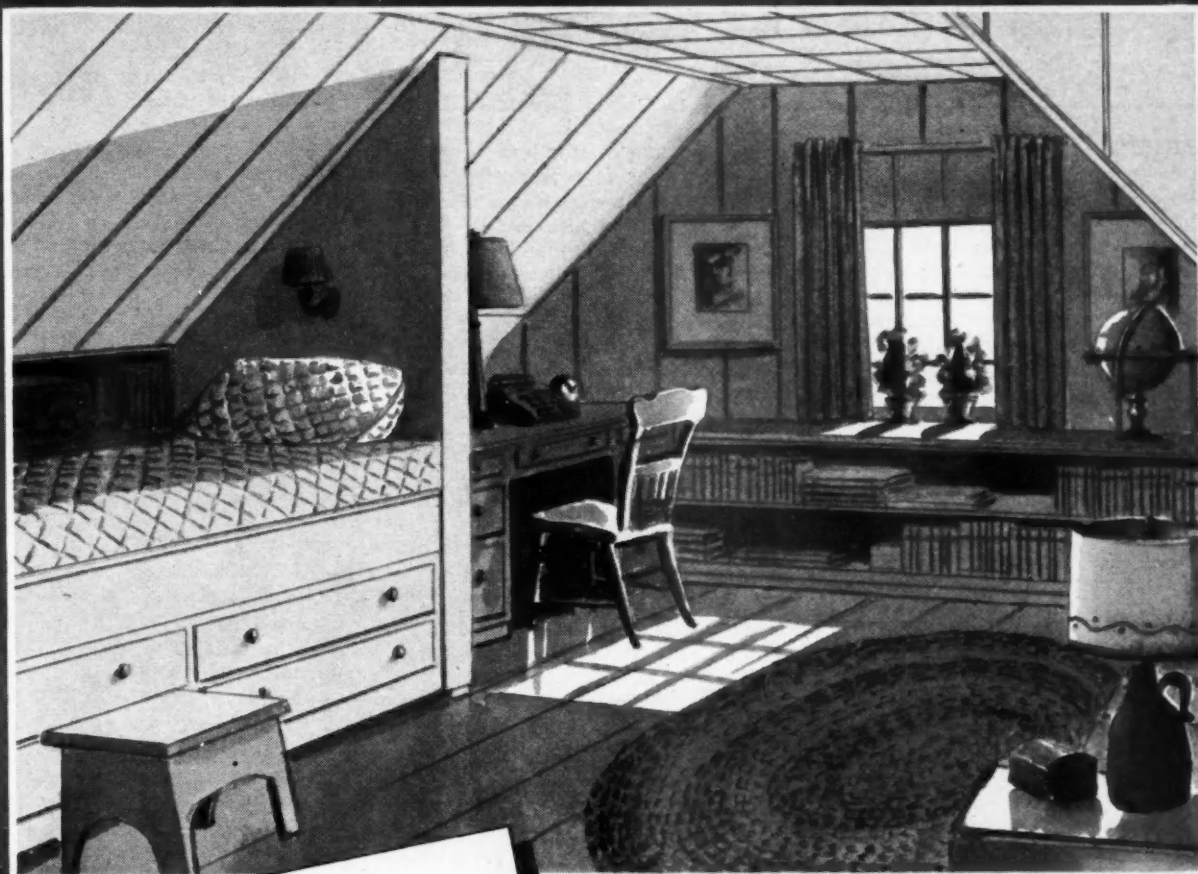
The Red Cross record in this war is one that we Americans may well be proud of—and support.

Your Dollars help

make possible the

AMERICAN + RED CROSS

This space contributed by the Publisher



Here's a
TEMLOK IDEA
you can sell

HOW MANY HOMES with unfinished attics are there in your city? Hundreds! Every one of them is a good prospect for you—a prospect for a profitable remodeling job that you can do with Armstrong's Temlok De Luxe.

Ideas help sell jobs like this—and the sketch above is full of simple but appealing ideas. Show it to every prospect. Explain how Temlok De Luxe is not merely a practical way to decorate attractively, but that it is excellent insulation as well . . . making this extra room

comfortable all year round and helping to save money on heating the whole house. Tell them, also, that you can supply Temlok De Luxe now, and that even if you're short-handed you can do the job quickly and economically because so little preparation (and no finishing) is needed.

LET US SEND YOU, free, a beautifully lithographed reproduction of this attic room picture, mounted on a heavy mat ready to frame or to carry in your sales portfolio. With it, and with samples of Temlok De Luxe, you'll be equipped to talk to any of those home owners. By being able to show them in advance just how attractive a completed room will look, you'll have a better than even chance of landing these practical and profitable jobs.

For your lithographed enlargement of this picture, and samples of Temlok De Luxe, write a note to Armstrong Cork Company, Building Materials Division, 1604 Ross Street, Lancaster, Pennsylvania.

ARMSTRONG'S TEMLOK INSULATION

SHEATHING • LATH • BOARD



DE LUXE INTERIOR FINISH

Home Builders' News Review

Excerpts from Weekly News Letters of the
National Association of Home Builders.

by Frank W. Cortright

NEW STARTS by private builders are lagging behind schedule. It will be recalled that in addition to the 80,000 units now under construction, Administrator Blandford expects private industry to start construction on some 170,000 units during the first nine months of this year. It is hoped that 40,000 new starts will be made in the first quarter, 60,000 in the second quarter and the balance in the third quarter. Figures now available indicate that 18,000 new

starts must be made in March, if the goal for the first quarter is to be reached. In January approximately 10,000 units were begun, and in February about 12,000. Figures for the week ending March 5th indicate that less than 2,000 units were begun that week. At this rate, we will fall short about 10,000 units for the quarter.

APPLICATIONS received for new construction are encouraging. For the

week ending March 5th, 6,500 units were applied for on PD-105's. This is about the same number received during the weeks ending February 6th and February 13th. It is not possible to predict how large a percentage of these will be approved by WPB, but it is reasonable to believe that the volume of new construction will steadily increase from now on. Unusually severe winter has, of course, deepened the seasonal decline which was expected. Even more serious is the retarding effect of the October freeze order, the War Housing Standards, and the limitations of the Basic Policy Agreement.

THE CONVERSION program seems to be finally underway. Administrator Blandford reports that leases signed up to March 1st will provide more than 1,300 additional living units for war workers and that several thousand units are in the leasing stage. We have assured NHA that our members will do everything possible to assist in this desirable activity. Without doubt, many thousands of units may be secured by this means. However, new construction must supply at least 90 per cent of the required accommodations, and we have consistently warned the administration that there can be no easing up on the construction front.

INCREASING TENDENCY to request more satisfactory sale privilege of new housing. There is a growing movement both among builders and within the Congress to question the recent restrictions against sale as imposed by the Policy Agreement of NHA and WPB. The right of home ownership in this country is basic. Until now there has never been a time when American citizens were not permitted to purchase a home if they so desired, in contrast with conditions in many foreign countries. It is quite natural, therefore, that both builders and congressmen find it difficult to accept the recent OPA ruling requiring a one-third down-payment on rented housing, and the current restriction permitting the sale of new war housing only to the tenant after four months occupancy. While it is obvious that in those areas which will be abandoned after the war, the workers should not be required to purchase the houses, it is equally true that a large percentage of this housing will be in demand for many years to come, and that it is a sound investment. The down-payments are small, the total carrying charges are comparable to rent, and the benefits resulting from home ownership are well known.

QUESTIONS AND ANSWERS clarifying recent NHA regulations. NHA has provided us with the answers to 37 pertinent and timely questions which have arisen since the issuance of NHA General Orders 60-2, 60-3, and 60-6. In an introductory statement it is made clear that these General Orders have two basic objectives: first, to codify and simplify the rules relating to occupancy, disposition and use of critical materials in privately financed war housing; second, to give builders reasonable assurance that

(Continued to page 64)

THERE'S NO FLOOR PROBLEM...



When You Use Streamline Flooring for War Housing

Bruce Streamline Factory-Finished Flooring is ready to use the instant it's laid. No sanding or finishing on the job—no delays due to slow drying weather. No expense of temporary wiring for sanding machines.

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Streamline lays fast, too, because the 3¼-inch strips cover 44% more area than the usual 2¼-inch strips. Less pieces to handle, less nails to drive.

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Everything considered, Streamline Flooring is competitive with the

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Selling a good trade name is a convenience, too, that can be measured in dollars and cents. *Texaco* is a name that millions know and trust. And remember—there's a *Texaco* roofing product for every essential roofing need!

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business too—for more than twice as much asphalt roofing is sold each year as all other types combined.

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★ ★ ★

Texaco Asphalt Shingles and Roofing are available through *Texaco Roofing Dealers* supplied by a large network of *Texaco* warehouses—east of the Rockies. Drop in, write or 'phone your nearest *Texaco Roofing Dealer*, or write *The Texas Company*, 135 East 42nd Street, New York, N. Y.



TEXACO



SHINGLES and ROOFING

(Continued from page 62)

such rules will not be made retroactive, or more restrictive, after construction has commenced. It is further stated that the word "begun" is the date on which the application was filed, and not the date on which actual construction was started.

In order to differentiate between the old and the new housing, the first nineteen questions and answers pertain to housing begun prior to February 10, 1943. A few of these are given below:

4. Q. May the housing be rented or sold at the option of the owner?

A. Yes, unless the application provided that such housing must be disposed of only in the manner specified therein.

5. Q. Which application forms provided that the housing could be disposed of only

in the manner specified for each unit?

A. Only the following: (1) applications for priority assistance submitted on Form PD-105, as revised 4-23-42, and (2) applications for authority to begin construction submitted on Form PR-200, but only if such Form PD-200 was accompanied by a mimeographed sheet headed "Applicant's Supplemental Certification" and if it was stated on such sheet that the housing was not to be occupied by the owner.

6. Q. Where the application requires that the housing must be rented, or leased with an option to purchase, and difficulty is encountered in disposing of the housing in that manner, is it possible to sell the housing?

A. Yes, under the same conditions as

housing begun after February 10, 1943.

7. Q. Where the application requires that the housing be sold and difficulty is encountered in selling such housing, may it be rented or leased with an option to purchase?

A. Yes, after the initial rental or lease-option payment have been determined by the National Housing Agency. Requests for such a change should be submitted to the local FHA office on Form NHA 60-3.

8. Q. For what price may the housing be rented or sold?

A. Some applications did not restrict rent or sale price. Some applications contained a provision specifying that the housing must be rented or sold at a price not in excess of that specified for each unit in the application, unless a higher price was authorized by the War Production Board. Authority to permit increases has been delegated by the War Production Board to the National Housing Agency.

9. Q. Which application forms restrict rental or sale price?

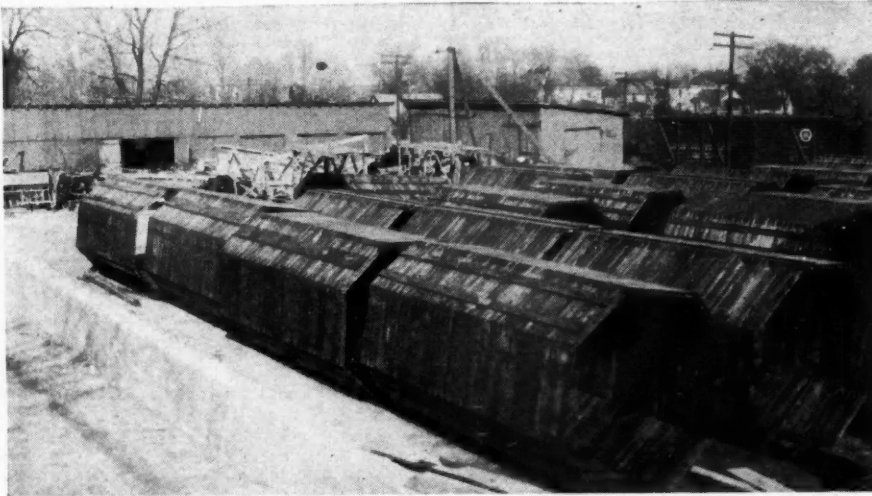
A. Only the following: (1) applications for priority assistance submitted on Form PD-105, as revised 12-15-41 and 4-23-42, and (2) applications for authority to begin construction submitted on Form PD-200, but only if Form PD-200 was accompanied by a mimeographed sheet headed "Applicant's Supplemental Certification" and if it was stated on such sheet that the housing was not to be occupied by the owner.

10. Q. Where housing begun prior to February 10, 1943, is required to be rented or sold at prices not in excess of that stated for each unit in the application, how is authority to increase such prices obtained, before the housing has been occupied?

A. Authority to increase the initial rent (prior to first occupancy) or sale price may be obtained by submitting Form NHA 60-4 to the local FHA office, if such form is accompanied by evidence indicating that the owner has incurred, or will incur, costs in the building or operation of such housing, over which the owner has or had no control, in excess of the costs estimated at the time the application was submitted.

ARMED WITH AUTHORITY to investigate the war housing program, the House Committee on Public Buildings and Grounds intends to amass its own information as to the progress that has been made so far, and also as to the volume of new construction that may be necessary. Early last week, the House passed a resolution offered by Chairman Steagall of the committee granting permission for this study to be made. The discussion of the resolution on the floor of the House brought out the fact that most members feel that primary reliance should be placed on the private home building industry, and that public war housing should only be programmed where necessary facilities would not otherwise be provided. Members of the Appropriations Committee who participated in the discussion made it clear that they want to have the entire subject reviewed before they are

(Continued to page 66)



WOOD and LAUCKS GLUES — a "Pipe" Cinch!

G... or Army camps ... or the famous Alaska Highway must be well drained. If culverts, underpasses or storm sewers fail, then the whole shebang is a "washout." But thanks to Laucks Glues, ingenious Americans have devised wood-and-glug built pipe that is durable and tough, and makes drainage a cinch.

Armco Drainage Products Association makes the "Emergency Pipe." Segments are of laminated pieces, pre-cut. Then these segments are glued and doweled into "rings," which form sections of 10 to 16 feet. Since a glue-bond is the strongest known, this permits a polygonal design, obtaining corrugated metal flexibility. Also, a "load-sharing" effect results, averaging stress and

strain over the entire section. Thus Laucks Glues again answer the challenge: "Build it now and use no critical materials."

You probably face this challenge, too. So whether it's prefabricated housing, or giant beams and arches, or anything of wood—then our 20 years' glue experience can help you. Write or wire today for information about the *right* glue for your job.

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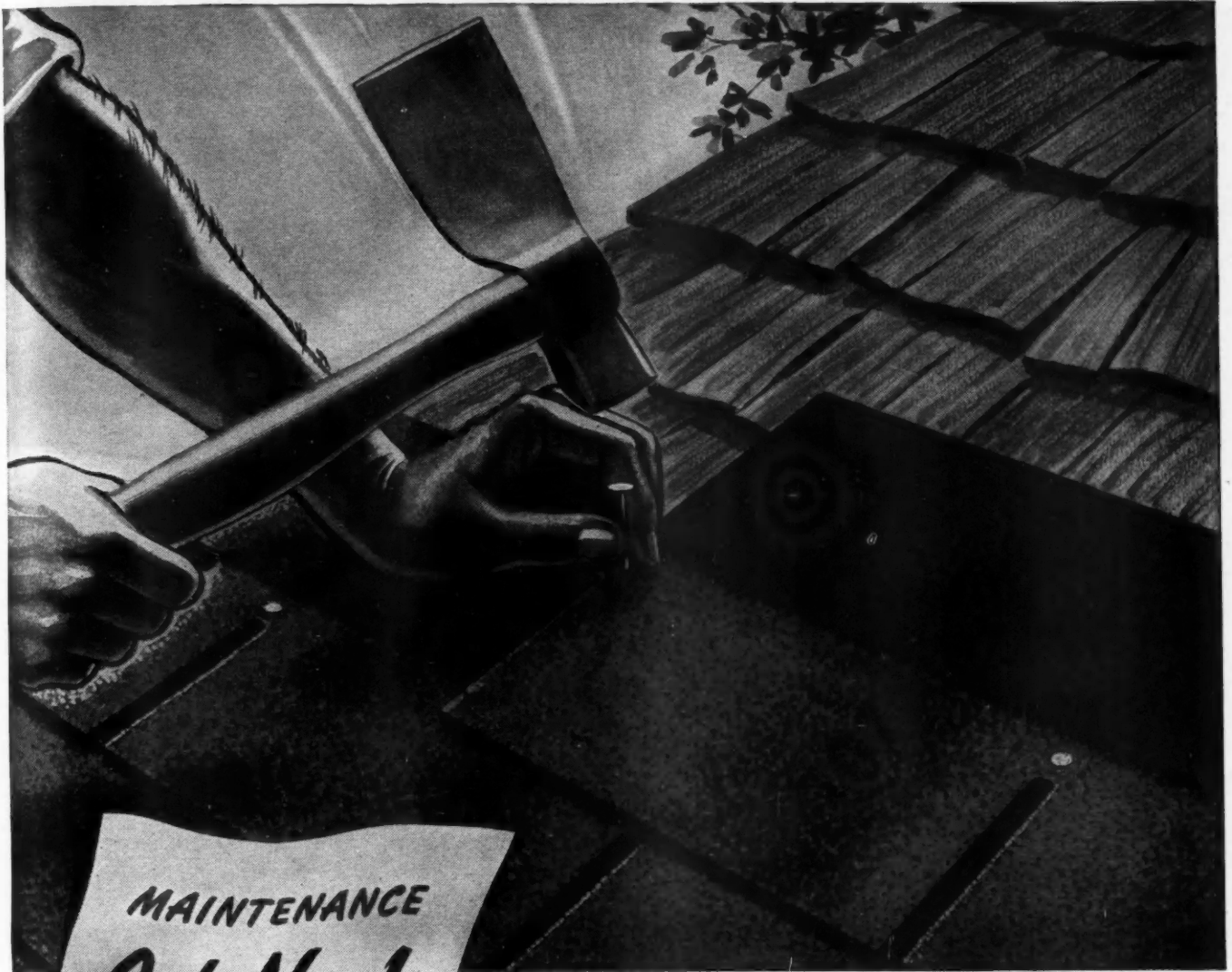
Factories:
Seattle, Los Angeles, Portsmouth, Va., Lockport, N. Y.

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I. F. LAUCKS, Ltd., Granville Island, Vancouver, B. C.
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**IN PEACE
 OR WAR...**

Re-roofing

HERE'S a profitable as well as a patriotic duty. The wartime responsibility for keeping America's roofs in shipshape condition . . . shared by roofers and building material dealers alike.

Even during normal times, maintenance and repair work provides a major market for building materials.

And under existing regulations, materials have been made available for maintenance and repair "necessary to keep a structure in sound working condition."

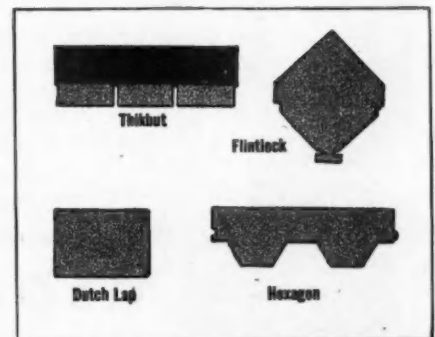
For the important task of re-roofing, Flintkote offers a time-proved line of asphalt shingles, roll roofing and Cold Process built-up roof materials. Flintkote dealers can supply the best type of roofing for residential and commercial buildings as well

as asphalt and asbestos sidings, wallboard and insulation.

Home owners who want long-wearing, fire-resistant shingles of distinguished appearance prefer Flintkote Thikbuts. A double coating of asphalt and mineral surfacing on the weather end makes Thikbuts a most economical investment.

Flintkote distributors also offer the popular Hexagon Strip, Dutch Lap and Flintlock shingles . . . all with the Class C Underwriters' label.

You can depend upon Flintkote's research and 40-year roofing experience. And you can call upon our strategically located warehouse stocks to help you speed this No. 1 job. The Flintkote Company, 30 Rockefeller Plaza, New York, N. Y.



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FLINTKOTE Roofing . . . Siding . . . Insulation

(Continued from page 64)
called upon to approve additional funds for public construction.

THE INVESTIGATION resolution permits the committee to spend the remainder of the Lanham funds made available last session for a similar duty. This means that a balance of around \$6,000 from the previously appropriated funds of \$10,000 will be at the committee's disposal to defray travel and other necessary expenses. The general idea is that by means of this study, the committee will be able to post itself sufficiently to evaluate recommendations that NHA Director Blandford is expected to submit later relative to the need for a new program. There is no particular charge of mismanagement

or wrongdoing involved in all this. It is simply that the committee feels that it should be allowed to do some checking up on its own account.

STEPS have also been taken on the senate side to ascertain what has been going on in respect to housing and to bring about the development of a post war program. What is involved in this case is the reintroduction of the Taft resolution calling for the appointment of a special subcommittee from the membership of the Senate Committee on Education and Labor to investigate the housing situation and to work out recommendations in respect to the long term program that should be pursued after the war. Senator Taft has decided to broaden his resolution so as to

give more coverage to private housing. In view of the fact that the Banking Committee handles FHA legislation, he is now suggesting that the Investigating Committee comprise three members of the Education Committee and three members of the Banking Committee. In this way, greater attention can be given to activities to promote private housing under the FHA program.

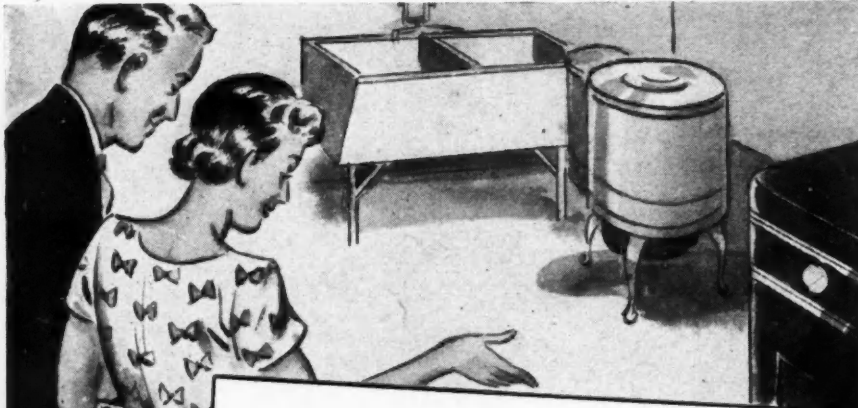
"HOME OWNERSHIP is the very basis and bedrock of the liberties of free peoples." In this opening sentence, Representative Fritz Lanham, of Texas, strikes at the heart of this timely subject in a recent address. Because of the urgency of securing relief from the recent directive requiring that all housing from now on may be built only for rental, Mr. Lanham's remarks are of particular interest and importance. The following quotations express most forcefully the belief of our association in this respect:

"The men in 1776 who went out and fought to establish our liberties were fighting for their homes. Later when these founding fathers assembled in Philadelphia and drafted their immortal document as our organic law, the States would not ratify it until embodied in it were the first ten amendments. In the main, they stress the protection of the American home and the need to keep it free from interference, private or governmental. The strength of this nation is in the home owners and those who have the persistent purpose to become home owners.

"No man can be inspired by, or take great pride in, a home which doesn't belong to him. No man can feel like a real American if he lives in a home that is kept up in whole or in part by the bounty of his fellowman. Of course, in these wartimes we are having to do a great deal of temporary emergency war housing, but our boys who go out to fight on the land, on the sea, and in the air can be inspired to battle by the preservation of our free and fundamental institutions. They could never be much impelled to fight to save a governmental home.

"The Federal Government does not belong permanently in the housing business, except in very rare and exceptional cases. In these wartimes, of course, with congested areas and the migration of people, it is necessary for the government to step into these situations where houses are not available and where private capital cannot build them.

"There are some, fortunately not those in high authority, who seem to be more interested in preserving those Government housing services permanently than in building houses upon sane and sensible levels, and who are importuning the people to build their homes under Government sponsorship. I want to see that the laws enacted with reference to Government housing are for the duration of the emergency and that business can go back after the war to its normal operations."

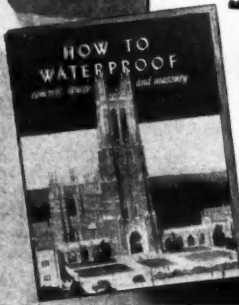


**They can't see it
but they'll know it's there!**



Waterproofing in a concrete basement floor is invisible. Customers can't see it. But if you use Medusa Waterproofed Gray Portland Cement in that concrete, those home owners will know it's there.

That's because concrete basement floors and walls with a waterproofed cement plaster coat, or wall units laid up in a waterproofed mortar—all made with Medusa Waterproofed Gray Portland Cement—will keep water out of that basement indefinitely. This cement contains a waterproofing material that lines the pores of the concrete or mortar and is locked in for the life of the concrete or mortar. In spite of the fact that customers cannot see the waterproofing, it's a great sales argument. It enables you to assure the owner that his basement will always be dry. And the cost is only a few additional dollars, an amount that is only a fraction of the cost of a repair job due to a leaky basement. Write today for copy of the book, "How to Make Good Waterproof Concrete."



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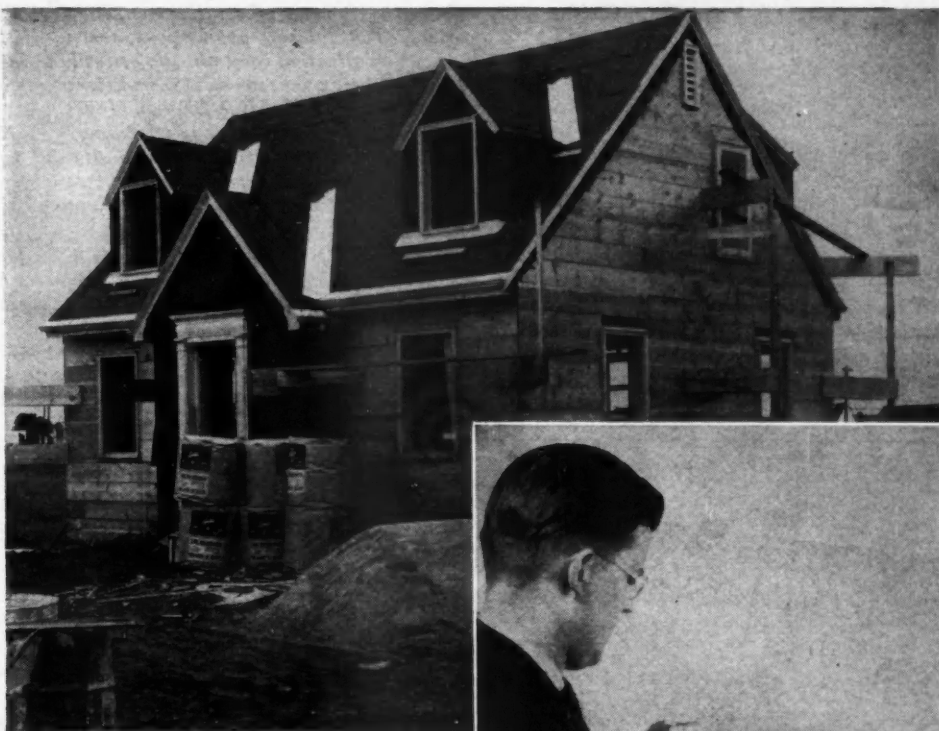
1002 Midland Bldg. • Dept. A • Cleveland, Ohio
Gentlemen: Please send me a copy of your folder "How to waterproof concrete, stucco and masonry."

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City _____ State _____

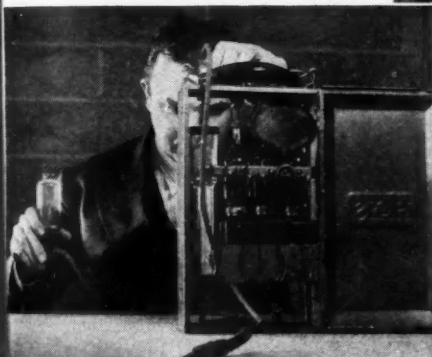
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NEW FINDINGS on Fuel Savings From Field Tests

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Framing up one of the Test Houses—
Balsam-Wool on the Job.



Testing Flue Gases to Check Furnace Efficiency.



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NOW . . . New and Convincing Tests of Insulation Value

Laboratory tests of insulation are common. *Actual performance tests*—under scientifically controlled conditions—are not.

Today, as a means of reinforcing your knowledge of insulation values, Wood Conversion Company offers you the results of new, practical and completely controlled insulation tests . . . tests conducted in four identical houses, built especially for the purpose, and subjected to the most precise control.

While these tests emphasize the value of the Balsam-Wool insulation *design*, they are unbiased and authoritative—providing a new and more positive way of figuring fuel consumption and savings. Send now for your copy of the Wood Conversion Company insulation tests—keep up to date by having all the facts.

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Dept. 119-4, First National Bank Bldg.
St. Paul, Minnesota

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

Name

Address

City State

Letters from Readers—

(Continued from page 22)

ANSWER:

Dear Builder "X":

Your feelings were partly expressed several hundred years ago by a great Persian Poet, when he wrote:

"There was a Door to which I found no key

There was a Veil past which I could not see."

Those lines express our feelings also; for while we can understand and sympathize with your justifiable impatience, we cannot be helpful in the matter of enlightenment.

Just why it must take three months to process 3,000 priority applications, when the housing situation is admittedly critical, is one of the current secrets. A military secret perhaps, of the High Civilian Housing Command. Inside strategy which may not be released until after the war. And then, when all Veils are cast aside, we hope a Salome will be disclosed—and not a Nero.

However, do NOT send any vitamins to WPB, for this agency has cleared all priorities returned to it, and now awaits the pleasure and convenience of FHA. In this connection we might again note from the Rubaiyat, diluting it with a little of our own homespun mixture:

American Builder, April 1943.

"The Moving Finger writes; and having writ,
Writes MORE; nor all thy piety and wit
Shall speed it up nor shorten half a line
of it
Nor e'en the WAR cross out a single word
of it."

But take hope. Perhaps, as you say, it IS a rum mess; and rum, as you know, comes from molasses. Molasses runs slow in December and February. A warm March sun may thin this sticky sweetness.

"So take a Loaf of Bread beneath the Bough,
A Flask of Wine, a Book of Verse—and Thou

Sit calmly waiting in the Wilderness
For Priorities is a Wilderness—and
HOW!"

With reference to WPB: The priorities division of the local agency has, to date, done an outstanding job for the entire building industry. If you MUST send them something—make it bouquets. They deserve it.

Meanwhile come down to the Association's "One Evening Furlough Party" next Thursday, and join the rest of the builders in singing—

"WE GOT PLENTY OF NUTHIN"

With deep affection and perpetual condolence, I subscribe myself,

Your humble and bewildered

Servant.

Close Vents to Save Heat

Winston-Salem, N. C.

To the Editor:

The newspapers and the numerous publications have made many suggestions on how to save fuel. Weatherstripping and insulation are, of course, great savers, but one of the most important and most easily overlooked savings has never been brought to the attention of the public.

In my years of building, owning, and serving homes, apartment houses, and business properties, I have found that vents and openings in basement and foundation walls which are left unclosed are costing the public, annually, many millions of dollars in fuels. Such ventilators left open allow the cold air to rush in and cool the entire first floor: also allow cold air to seep behind the baseboard or any other crevice. This cold air allowed under the house chills the heating pipes and prevents the long heating lines from delivering much heat. If the under part of the house is kept tight, any heat lost from heat pipes will lie under the floor and act as a radiator. It is easy enough to close these vents with a piece of masonry, corrugated board or other similar boards cut to fit snugly.

All ventilators should be opened in summer and closed in winter. In my home city, I have observed that seventy-five percent of these vents are never closed in winter and often the coal chute is left open, window glass broken out and in some cases the entire sash is absent.—S. C. RIPPLE, Ripple Realty Company.

"I WANT TO TALK TO YOU . . .
ONE OF THESE DAYS"



"Who am I? Just one of many millions of Americans working to lick Hitler . . . buying War Bonds . . . dreaming of those post-war homes we're going to build . . . and keeping our eyes open.

"There's plenty to see, too; things that set us thinking of tomorrow. Take our new plant cafeteria . . . clean as a whistle and bright and cheery. I was telling the Mrs., who's on the same shift, that the walls would be mighty nice in a kitchen.

"You think I haven't noticed it," was her come back. 'It's Marlite, the same material used in the new rest rooms and first aid station. One of the girls who just visited her husband at an Army Camp says she saw lots of Marlite in the new buildings there. Another of the girls has a sister living in a West Coast Victory Apartment where shower and washrooms are finished in beautiful, colored Marlite. They say it's inexpensive and easy to clean.'

"You said it; sure takes a woman to get all the facts. But it will be up to us husbands to call the building supply dealer when this war is won and Marlite is available for our new homes. Yes sir! One of these days you'll be hearing from me . . . so be ready with Marlite!"

DEALER DELIVERIES: Marlite manufactured before January, 1943, and already in warehouses, is available for immediate delivery to dealers without priority orders. No orders can be accepted for processing and production without sufficient priorities to replace raw materials.



Marlite
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dutyful
for creating beautiful interiors
Plastic-finished WALL PANELS

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Congressmen Ask Questions About Public Housers

AT the recent congressional hearings on extension of FHA Title VI, members of the Banking and Currency Committee asked a great many leading questions about the set-up of the National Housing Agency.

The following remarks are taken from the record of the committee:

Cong. Smith. I notice in the reorganization which the President effected respecting these various housing agencies that now the National Housing Agency represents the top. It is supreme and is over all the other agencies. Your agency, therefore, comes under the National Housing Agency?

Mr. Ferguson. Yes, sir.

Cong. Smith. I notice that there is listed here an Assistant Administrator by the name of Coleman Woodbury. Is Coleman Woodbury the gentleman who went all over the United States and promoted the setting up of local housing authorities under the National Housing?

Mr. Ferguson. I did not know Mr. Woodbury until he came here. He was executive secretary of, or had some official position in, the National Association of Housing Officials.

Cong. Smith. I understand that he was interested in promoting the United States Housing Authority and took a lot of interest in setting up local housing authorities and so forth.

Mr. Ferguson. I do not know.

Cong. Smith. Then, I notice also here that the general counsel is Mr. Leon H. Keyserling. He was General Counsel, as I recall, for the United States Housing Authority.

Mr. Ferguson. I think he was.

Cong. Smith. Then, I notice a man named Robert R. Taylor. I believe he was connected with the United States Housing Authority. He is now consultant on racial relations under the National Housing Agency.

Mr. Ferguson. I do not know Mr. Taylor at all.

Cong. Smith. What about Jacob Crane, if I may ask you the question? What did he have to do with the United States Housing Authority?

Mr. Keyserling. Jacob Crane was Assistant Administrator of the United States Housing Authority.

Cong. Smith. In other words, the Assistant Administrator and the General Counsel are now influential, top officers in the National Housing Agency, and you naturally come under this Agency?

Mr. Ferguson. Yes.

* * *



HERE IS reproduced a Certificate of Merit awarded to American Builder by Rear Admiral Ben Moreell of the U. S. Navy for co-operating editorially in the drive to enlist Seabee recruits.

HAVE YOU



FELT THIS PULSE?

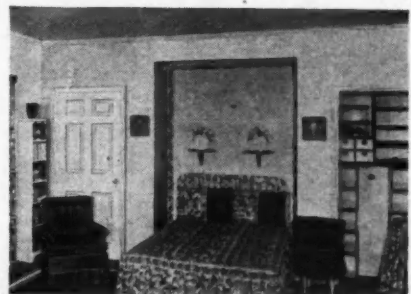
● Naturally, as a planner of postwar housing, you've had your finger on the public pulse. According to recent surveys, that pulse is running high for two major features in postwar dwellings. First, *more and better windows.* Second, *more economical, more efficient use of space.* Both needs are anticipated—both are dealt with fully—in "The New Open House," a 32-page idea book that is yours for the asking. Here are examples . . .



FENESTRATION will be more important than ever in tomorrow's smaller homes. In the room above, note how the picture window of Ponderosa Pine increases the effect of spaciousness—allows the ingress of more light and air—and adds decorative possibilities.



ASSEMBLED WINDOW UNITS bring the advantages of better fenestration even to the lowest cost home. Windows of Ponderosa Pine, pre-assembled, reduce labor of installation—assure efficient operation—decrease fuel consumption because of tighter fit—increase beauty. Windows of Ponderosa Pine are toxic treated to resist decay.



SMALLER HOUSES BUT MORE ROOMS is what people want in their postwar dwellings. The illustration above from The New Open House—shows an attractive, compact, small-sized bedroom—resulting in better utilization of floor area.

Ponderosa Pine WOODWORK

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Chicago, Illinois

SEND FOR YOUR FREE COPY

The New Open House has pages of worth-while suggestions. Send for your free copy! Make this book a part of your postwar planning file! The New Open House—32 pages of ideas and illustrations—is yours for the asking. Mail the coupon!



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Chicago, Illinois

Please send me a copy of "Open House."

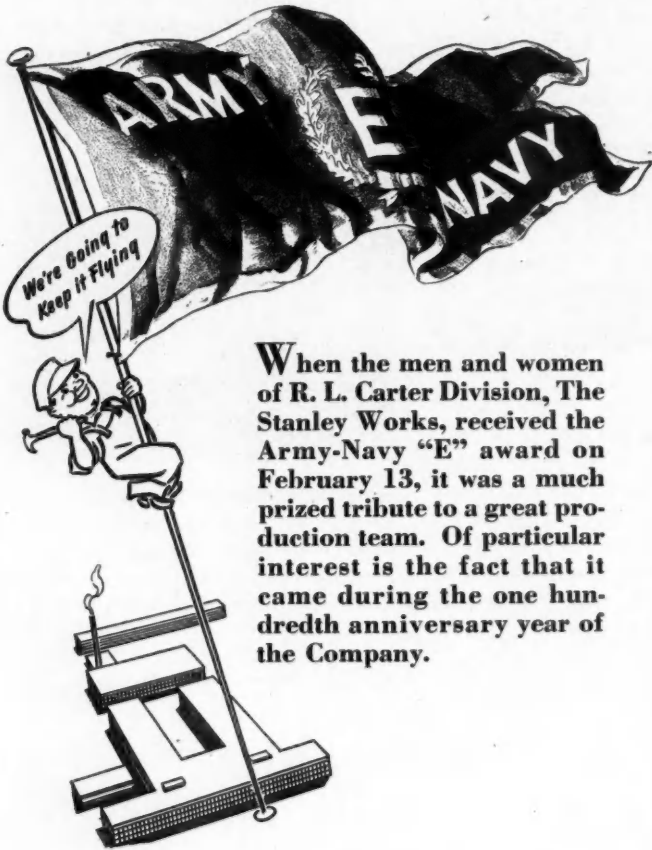
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Firm.....

Address.....

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

A Tribute . . . and A Responsibility



When the men and women of R. L. Carter Division, The Stanley Works, received the Army-Navy "E" award on February 13, it was a much prized tribute to a great production team. Of particular interest is the fact that it came during the one hundredth anniversary year of the Company.

Upon their shoulders has rested a triple burden. They have been called upon to supply (1) tools for the armed forces . . . to construct and maintain camps, bases, and barracks; (2) tools for war industry . . . to build plants, ships, planes, and other implements of war; (3) tools for the home front . . . to maintain farms, schools, institutions, and essential civilian industries.

Hand in hand with this honor for past performance goes a great responsibility for future performance. These men and women fully realize this responsibility. Far from being contented with the "contribution to Victory" already made, they are earnestly striving to make an even greater contribution in the future. R. L. Carter Division, The Stanley Works, New Britain, Connecticut.

CARTER TOOLS

How St. Louis Builders Guild Plan Allows Tomorrow's Home To Be Bought Today

Buyer has definite contract to purchase for delivery when again possible; safeguards and advantages described.

By McCune Gill

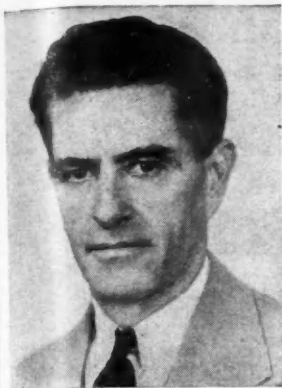
Vice-President, Title Insurance Corporation of St. Louis.

THE St. Louis Builder's Guild Plan of buying a home now, for future delivery when materials and labor can be obtained, provides in our opinion the best definite method of purchasing tomorrow's home today. (See page 70, March issue, for announcement of plan.) It has distinct advantages and safeguards for all parties concerned, namely, the purchasers, the depository and the builder.



REPRODUCED ABOVE: One of the drawings used to promote the Home Purchase Agreement featuring a contract between builder, buyer and financing agency.

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LEFT: Ralph S. Duke, president of Builders Guild of St. Louis, a wide-awake group of builders who are doing something about the post-war market.



RIGHT: Dolores C. Muller, executive secretary of Builders Guild and originator of the Home Purchase Agreement for which the author wrote up the contract.

Under this plan we propose to have a written contract signed now, by the purchaser and his wife, by the depository bank, trust company or savings association, and by the builder or his company. By the terms of this contract the purchasers will agree to make, and will begin making, monthly cash deposits at once, and will continue to make such deposits until a named equity is built up. A minimum amount will be stated which may be exceeded if the purchaser wishes to do so.

If desired, it can be provided in the contract that the funds be used to buy Government bonds which will be of an issue that can be cashed at par before the time comes to commence building. In this way the purchaser's money will be used now to help win the war and later to win peace for himself and his family.

Can Make Plans Now or Later

The purchase of a specific lot may or may not be part of the contract, as the parties may desire, and plans and specifications can be determined at once or left to future development, as may best suit the wishes of the purchaser. The most satisfactory contract will be one that combines a binding agreement with reasonable flexibility.

When materials and labor can be obtained at a reasonable or predetermined price, a definite building contract is to be signed and the exact cost determined. In the meantime it may be possible to approximate the cost or set a certain price range or agree to a cost plus a fee method of determining the price.

The depository Bank Trust Company or Savings Association is to have the right to make a loan of a stated amount when the time comes to build, and will agree to do so, provided (1) that the location, plans and specifications are such that a firm commitment can be obtained from the Federal Housing Administration that it will insure payment, and provided further (2) that the funds will be disbursed by a Title Company so that insurance against mechanics liens and as to title may be obtained.

Offers Advantages to Purchaser

Inasmuch as this contract will relate mainly to the future, and circumstances might arise that would make it impossible for the purchaser to proceed with his payments, we have felt that it is only fair that there should be a cancellation privilege, whereby the purchaser would have the right to withdraw, for certain stated reasons, upon paying a reasonable or named fee for services rendered. He certainly should not be compelled to forfeit all of his deposits if they have reached a substantial amount.

Let us consider first the advantages to the purchaser that this plan provides.

Advantage No. 1. The purchaser will have a definite objective, the acquisition of a home, and an incentive to save the money that

(Continued to page 72)

Timber Construction FOR INDUSTRIAL PLANTS COMES BACK!



Teco Connector-built trusses in a war plant, Somewhere, South

WITH the pre-emption of steel for fighting materiel, engineers and builders have switched to lumber and timber for factory and plant construction.

They're on solid ground in doing so, because heavy timber construction has recorded life spans of 75 years in textile mills, factories, shipyards, warehouses and canneries.

Timber construction is flexible . . . saves time in fabrication. Over-all building costs are in line. With Teco ring connectors and grids, load-bearings have ample safety factors.

Under improved chemical pressure treatment, timbers and laminated trusses are effectively resistant to deterioration and fire. Even untreated timbers are slow-burning, can't buckle.



Arkansas Soft Pine
Piece Stuff

Arkansas Soft Pine is supplying a large volume of material to fabricators for war projects. This species qualifies for requirements under Federal Specifications MM-L-751b and affords dependable lumber and timbers for heavy construction. For technical data, specifications, and complete information, without obligation, address:



ARKANSAS SOFT PINE BUREAU

486 BOYLE BUILDING

LITTLE ROCK, ARKANSAS



Here's Another Task this WOOD Does Well

SEWAGE PLANTS are notoriously tough on the materials that go into their construction. Corrosive fumes and high humidities soon prove the master of most metals and ordinary wood. But Wolmanized Lumber* has proved equal to the demands placed on it here.

WOLMANIZED LUMBER, serving as covers and walkways over outdoor tanks, and as baffles, gates, roof structures and planking, has given an excellent account of itself. Service records covering millions of feet of Wolmanized Lumber, at work in sewage plants and in equally tough spots elsewhere in industry, confirm this.

WOLMANIZED LUMBER is ordinary wood to which an "alloy" has been added, making it highly resistant to decay and termite attack. Vacuum-pressure impregnation with Wolman Salts* preservative does the trick. Strict laboratory control of processes in the various Wolmanizing plants throughout the country assures uniformity of product.

THE USE OF THIS long-lived lumber introduces no unusual problems. Construction goes up easily and fast. All of the advantages of working with wood are retained—low cost, light weight, strength, resilience. Wolmanized Lumber is clean, odorless, and it can be painted. Upkeep costs are low, making money ordinarily needed for maintenance available for other purposes. American Lumber & Treating Company, 1645 McCormick Building, Chicago, Illinois.

*Registered Trade Mark

"Alloyed" FOR ENDURANCE
WOLMANIZED LUMBER



How St. Louis Plan Allows Tomorrow's Home to Be Bought Today

(Continued from page 71)

might otherwise be spent for less important things. Few of us have the will power or persistence to accumulate unless we obligate ourselves to do so.

Advantage No. 2. The purchaser will have ample time to plan and will therefore attain a high degree of satisfaction with his home. All builders know that many troubles are due to changes in plans and extras because of the after thoughts of homebuilders who have not had sufficient time properly to develop their ideas.

Advantage No. 3. The purchaser will create a substantial equity, thus making it easy and economical to borrow. He will probably exceed in his savings, the minimum down payment.

Advantage No. 4. The purchaser will have first call on the facilities of the builder when buildings can be built, while others who have not had his foresight must wait their turn. If the purchaser believes that there will be monetary inflation after the war (and many of us do so believe) the purchaser will own a part of the earth and a home, which will enable him to profit by inflation rather than suffer because of it.

Safeguards Are Provided

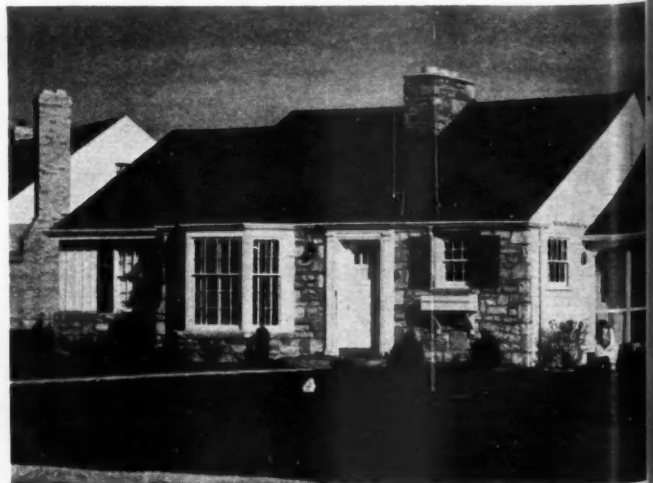
Let us next consider the safeguards available to the purchaser under this plan.

Safeguard No. 1. The purchaser's monthly payments will be placed in a bank, trust company, or savings association whose deposits are insured by the Federal Deposit Insurance Corporation. Thus he will be sure that his money will be available when needed.

Safeguard No. 2. The purchaser will know that the plans, specifications and location of his home will be approved by the Federal Housing Administration. He will thus be assured of a standard house, and will know that his building will be of a type that can readily be sold or used as security for a loan.

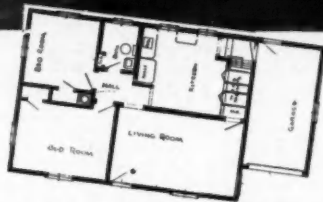
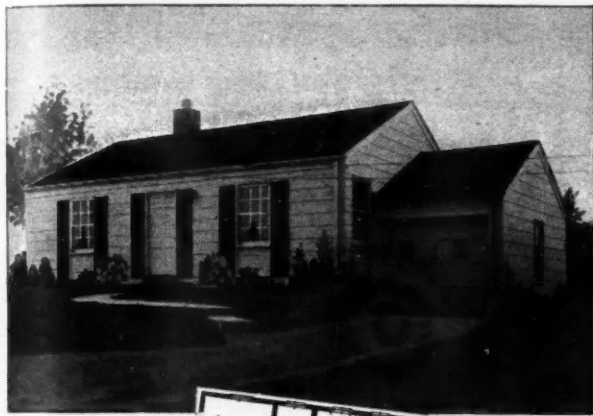
Safeguard No. 3. The payment of funds to the builder as well as to sub-contractors and material companies will be made by a Title Company that will insure against mechanics liens as well as insuring the title. In St. Louis the lending agencies have insisted for some years that title companies insure building loans against all mechanics lien trouble. To this the title companies have worked out a routine that is sufficiently safe to allow them to charge a very reasonable premium for the protection. At the outset the title company's estimator determines from plans, specifications and cost sheets whether there is enough money to build and complete the building. If not (as sometimes happens) more money must be raised or the plans changed. Then all of the proceeds of the loan, and the equity money as well, are deposited in escrow with the title company and it disburses the funds by paying material companies, subcontractors and general contractor thus eliminating all risk of loss due to mechanics or material men's liens.

Safeguard No. 4. If the purchaser finds it necessary to stop paying, he may cancel the contract for any one of the reasons

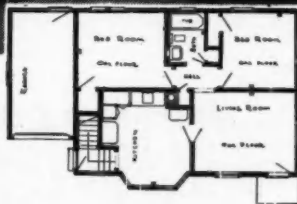


listed in it, upon paying a reasonable service charge, the amount of which should be stated in the contract. Surely the fairness of this feature should go a long way toward convincing home buyers that this Purchase Plan is the one best suited to their needs.

So we in St. Louis think that our Builders Guild Home Purchase Plan and Contract possesses many advantages for all parties concerned, and, more important, that it provides a maximum of protection against loss, both during the preliminary deposit period and during the actual building operations.

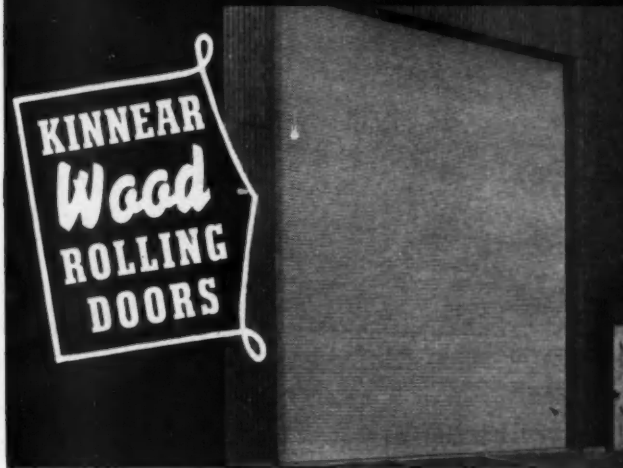


TWO typical war homes in St. Louis built by Guild Member R. J. Schrader show type of work done while the Purchase Plan is creating jobs for the future.



AT LEFT: An attractive home in Webster Gardens where the Webster Building and Supply Co. is planning a modern subdivision of homes for tomorrow.

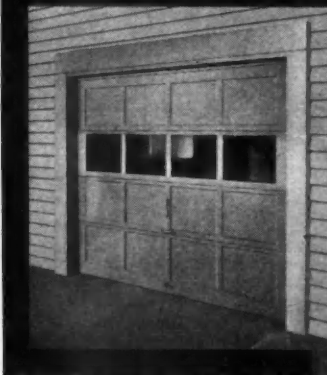
For Wartime Duplication of STEEL Rolling Door Efficiency



**KINNEAR
Wood
ROLLING
DOORS**

Smooth, quick, easy operation . . . a rugged interlapping-slat curtain that coils compactly out of the way and out of reach of damage . . . maximum savings in floor, wall and ceiling space . . . full protection against wind and weather . . . choice of motor or manual control . . . neat, modern appearance! The Kinnear WOOD Rolling Door duplicates these famous advantages of the Kinnear Steel Rolling Door with maximum savings in war-vital steel! Any size, for new construction or replacements. The Kinnear Manufacturing Company, 1560-80 Fields Avenue, Columbus, Ohio.

Two More Kinnear WOOD DOORS

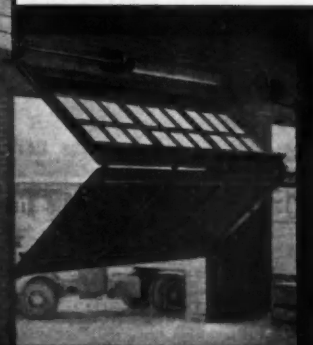


RoL-TOP

An all-purpose door; ideal for residence garages. Consists of several sections fitted with ball bearing rollers that operate in rugged steel tracks. Spring counterbalanced. Has rugged cylinder lock and special "keystone" sealing device. Any number of light sections. Motor or manual control. All sizes.

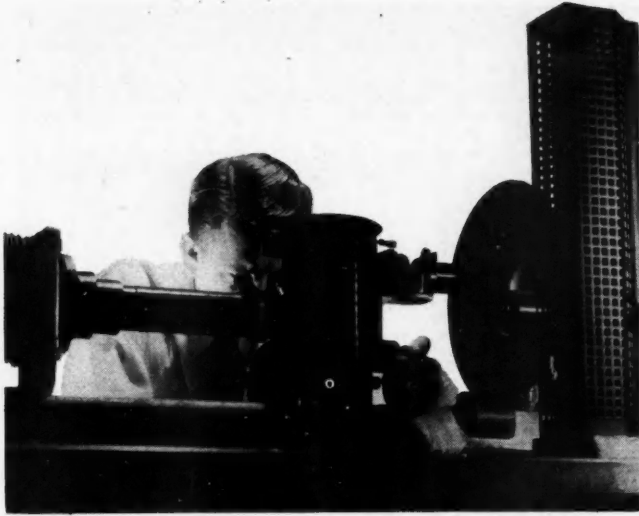
BIFOLD

A rugged, quick-acting door of two horizontally hinged sections, with provision for any number of glass panels. Tension-spring counterbalance assures easy operation. Any size. (Heavier-duty "telescoping" Bifold Doors also available.) Write for details.



SAVING WAYS
IN DOORWAYS

KINNEAR
ROLLING DOORS



Examination of porcelain enamel samples under a metallurgical microscope

War research now means better hot water tanks later!

The war effort has become the greatest of all laboratories. Improvements in sheet metals that would normally take *years* are being telescoped into months under forced draft.

Porcelain enameled hot water tanks, for instance, are likely to have an even better coating; and this will enable you to offer a much more durable and satisfactory product. Improvements in the metal base will play a prominent part in this development.

Here at ARMCO, research not only is creating sheet metals with remarkable new properties, but is constantly improving the older metals. The adaptation of enameling iron to war products has led to discoveries which mean better porcelain enameled products for peacetime uses.

The end of the war should see record-breaking activity in the building industry. And the new sheet metals will enable you to install much improved household equipment — increasing your opportunities for service and profit. The American Rolling Mill Company, 1001 Curtis Street, Middletown, Ohio.

**THE AMERICAN
ROLLING MILL
COMPANY**

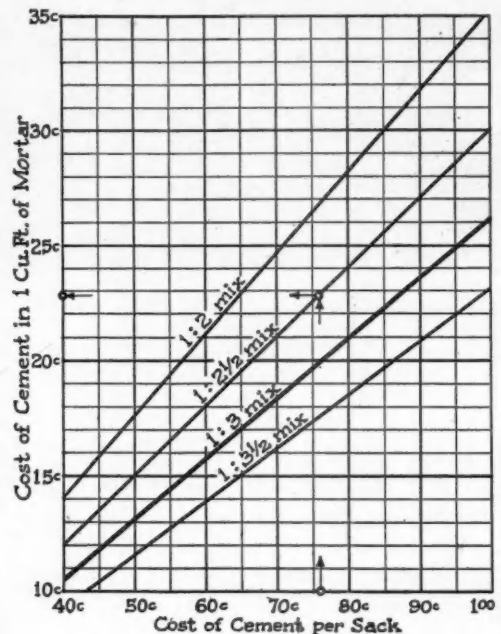


American Builder

HANDY-BOOK

HOW TO ESTIMATE CEMENT IN MORTAR

AMERICAN BUILDER FOR APRIL 1943



HOW TO USE THE CHART. Across the bottom is given a range of prices for cement by the sack. (One barrel equals 4 sacks.) The diagonal lines give commonly used mixes for mortar for masonry. The left side gives you the cost of the cement in one cubic foot of mortar. EXAMPLE: Using cement costing 71c per sack, in a 1:2 1/2 mix, the cost of cement in one cubic foot of mortar would be very nearly 23c.

Short Cuts & Time Savers

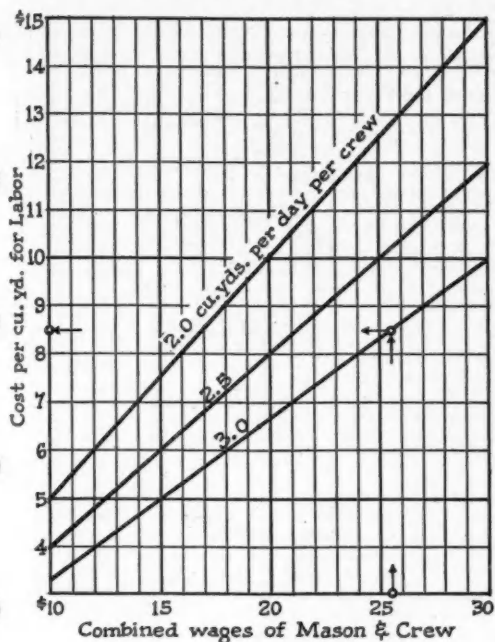
American Builder's Job Helps appear each month as part of an editorial series begun in the January issue. The purpose of this series of articles is to provide builders with practical "how-to-do-it" information to use in office or on job.

Subjects covered in the series thus far are: *How to Find Volume of a Pile, How to Make a Secret Door, How to Estimate Roofing, How to Finish a Damp Cellar, How to Estimate Roll Siding, How to Find Slope of Valleys, How to Estimate Painting, How to Specify Backwards, How to Estimate Painting Labor, How to Plan a Closet, How to Make a Batten Door.*

OF JOB HELPS

HOW TO ESTIMATE RUBBLE LABOR

AMERICAN BUILDER FOR APRIL 1943



Across the bottom of the chart is given a range of figures for the daily wages of the mason and a sufficient crew to keep him supplied with stone and mortar. The diagonal lines are the amount of stonework laid by the crew in a day, a fair average being 2½ cubic yards for uncoursed rubble. The figures on the left side give the cost per cubic yard in place. **EXAMPLE:** If the mason's and helpers' combined wages are \$25.50 per day, and they lay 3 cubic yards, the stonework costs \$8.50 a yard for labor.

A Continuing Editorial Service

"Job Helps" is a continuing editorial service feature appearing in serial page form monthly. The information is arranged in convenient 3 x 5 notebook page size so that it may be filed or used on the job. The sheets are not for sale or available from any other source than the editorial pages of American Builder.

Additional Job Help sheets appear on the following pages.

Among numerous letters commenting on this "Job Helps" department have been requests from builders for notebooks in which to file the sheets. American Builder does not have notebooks for sale.



WHAT
will fireplace units
be like after the war?

What advances will be made in their design and construction?

How will they add further to home comforts?

How will they increase efficiency in home construction?

What new methods will cut their costs of production?

Bennett Engineers have already planned marked improvements... not only in the units themselves, but also in their *services* and *values*. After the war, Bennett Units will be worth more than ever to the builder who wants to *sell* and the customer who wants to *buy*.

BENNETT FIREPLACE CO.
NORWICH, N. Y.



BENNETT
Guaranteed

FIREPLACE UNITS
FLEXSCREENS
CONSTRUCTION SUPPLIES

Have a slice of Western Pines

It will be mighty thin, for this slide micro-tome cuts wafers of Western Pines 1/10 the thickness of this page—or 10,000 slices out of 2 inches of pine. These slices, under the prying eye of the microscope, disclose new values of Idaho White Pine, Ponderosa Pine and Sugar Pine.



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

WESTERN PINE ASSOCIATION

Yeon Building, Portland, Oregon

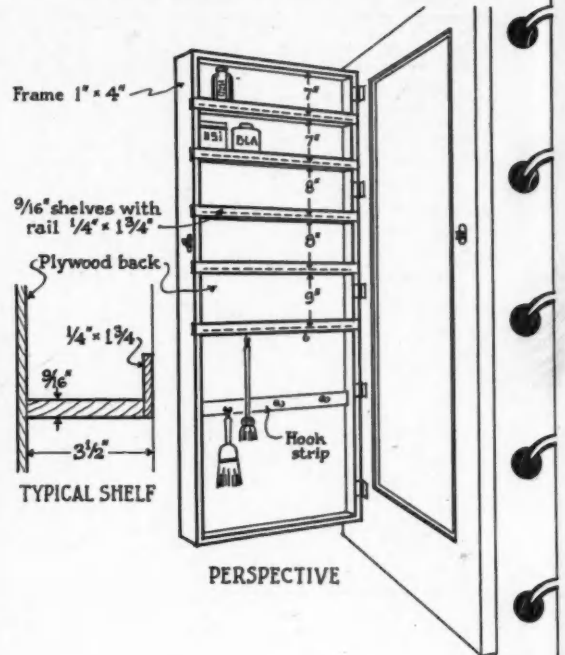
*Idaho White Pine *Ponderosa Pine *Sugar Pine

— *THESE ARE THE WESTERN PINES —

American Builder HANDY-BOOK

HOW TO MAKE DOOR-CLOSET STORAGE

AMERICAN BUILDER FOR APRIL 1943



There are few housewives who would not find one or more of these door-closets a valuable addition to the storage space in the home. On the bathroom door, it supplies space for extra medicines, soap, cleaning materials. On the back of the cellar door it is an excellent storage space for wines and liquors. By varying the shelf arrangement, one of these door-closets could be adapted to storage of fishing tackle, guns and ammunition, tools, canned goods, etc.

A Message to Local Builders

By Hugh M. McClure, R. A.

THERE is a general apprehension among local builders about the effect of prefabricated houses. Many small builders feel that following the war they will be fighting for their lives.

Some foresee their shops locked up, the gates of the local "lumber yard" closed, and locally owned and operated mills idle.

To me the picture isn't as gloomy as that.

It may be anticipated that many concerns which are now engaged in war production will attempt to find an outlet for their plants after the war ends. To them it all looks so easy to manufacture and sell houses that everybody and his half brother will take a fling at prefabricated construction.

After a short time, however, only a few large and strongly

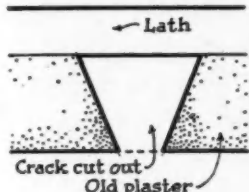
OF JOB HELPS

HOW TO PREPARE PLASTER FOR PAINT

AMERICAN BUILDER FOR APRIL 1943

WASHING PLASTER WALLS. New paint will not adhere well to greasy walls. Washing with a vigorous alkali and rinsing with clean water helps to remove gloss as well as dirt from old paint or enamel. Remaining gloss should be sanded off so that the new paint will have good adhesion.

REPAIRING PLASTER CRACKS. Repair all cracks and damaged plaster before repainting. Undercut the plaster along the cracks with an Undercutter tool to form a dovetail joint which will retain the patching material. The areas of new patching material must be allowed to dry thoroughly and then be primed. When patching must match the texture of old sand or plastic designed surfaces, the patched sections should be putted with a rough tool, piece of old carpet, scrub brush or sponge. Hair cracks can be putted with oil and whiting putty.



VERY BAD WALLS. In old buildings, the plaster sometimes becomes so badly cracked, or piled up with repeated applications of paint or wallpaper, that a satisfactory redecorating job is impossible. In such cases it is more economical and satisfactory to cover the entire wall and/or ceiling with plywood, plaster board, or other wall boards. Sometimes it becomes possible in such cases to increase the insulating value of the wall at the same time, by the choice of a wall board or by stripping and insulating.

PAINT-VARNISH REMOVER. Put a pint of benzol in a clean bottle and warm it by placing the bottle in a pan of warm water. (Caution! benzol is extremely explosive!) Add 2 cubic inches of paraffine which has been shaved or grated, and shake to dissolve. Add ½ pint of acetone and ½ pint of denatured alcohol. Shake the mixture before using. Apply with a brush generously. After 5 to 30 minutes old paint should soften for easy removal with putty knife. Repeat process with stubborn areas. Wash with turps after cleaning, sandpaper if required, and apply paint.

financed organizations will remain in the field. Most of them will fall by the wayside.

What is the local builder to do in the face of all this?

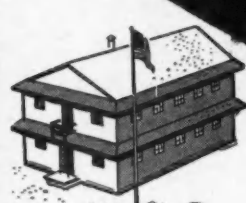
I suggest that he bide his time; that he keep on serving his community in his customary conscientious way through repair, maintenance and modernizing work, together with such new building as will come his way.

The time will come when the public will get its belly plumb full of hand-me-down houses, and will yearn for an honest-to-goodness HOME—with every little nook and corner "just the way I want it."

Then the local builder—the neighbor in his community who backs up his knowledge and his skill with his honor—will stage a come-back.

Don't give up, you thousands of conscientious and skilled builders. Stay in there and pitch! You will win back your place as professional builders just as soon as things—and our people—get settled down again to LIVING rather than CAMPING.

Wherever our boys are...
SKILSAW TOOLS
 ARE BUILDING
 BASES,
 BARRACKS
 and AIRFIELDS
faster!



Speed means everything where America's fighters need bases or hangars or airplane runways . . . and that's why so many SKILSAW TOOLS are on those jobs! SKILSAW cuts form lumber faster for concrete installations and surfaced runways . . . saves precious minutes on every sawing job. SKILSAW DRILLS speed up all drilling, boring and reaming . . . get shops and buildings ready sooner!

SKILSAW TOOLS are lighter, more compact, more powerful. And—most important today—they're tougher to stand up longer under hardest use. Let your distributor demonstrate SKILSAW TOOLS on your present jobs. Phone him today!



SKILSAW, INC., 5031 Elston Ave., Chicago
 New York • Boston • Buffalo • Philadelphia • Cleveland • Detroit
 Indianapolis • St. Louis • Kansas City • Atlanta • New Orleans
 Dallas • Los Angeles • Oakland • Portland • Seattle • Toronto, Canada

SKILSAW
 PORTABLE ELECTRIC **TOOLS**
 * MAKE AMERICA'S HANDS MORE PRODUCTIVE *

Veteran of
Every War
Since 1816.

LAWSON
Serves Again.

For the fifth time in the 127 years of our existence we, of The F. H. Lawson Company, are serving to help America defeat its enemies. And today, over seven acres of floor space in our plant are devoted to the production of the tools of war.

Tomorrow we will again turn to the manufacturing of a complete line of bathroom cabinets—cabinets designed for the house of the future from the materials best suited to their design. Perhaps they will be made of steel, perhaps of plastics or of aluminum or even of plywood. In any case, the finest cabinets will bear the name of Lawson.

THE F. H. LAWSON CO.

Bathroom Cabinet Division
CINCINNATI, OHIO



INVEST IN AMERICA—BUY WAR BONDS

CATALOGS AND HOW-

27—HOW TO USE GLASS AND MIRRORS—A profusely and beautifully illustrated 32-page catalog, with many of the pictures in color, has recently been issued by the National Glass Distributors Association. The book has been divided into several sections: The use of glass table tops in dining room, living room, bedroom and business office; mirrors over the mantel, on walls and doors; glass shelves; and the use of glass for push and kick plates, flower pot tiles, window ventilators, etc. A final section gives instructions on how to make a pattern for a glass table-top, how to measure for a door mirror, and how to build a door vanity.—National Glass Distributors Assn., Tribune Tower, Chicago.

28—A MANUAL OF STANDARD CONSTRUCTION FOR STOCK SASH, DOORS AND FRAMES—This 16-page catalog was published by the National Door Manufacturers Association, Inc., for the purpose of setting forth clearly, both in detail and specification, the essential data and information regarding Ponderosa pine sash, doors and frames, and hardwood veneered doors, as they are manufactured in large quantities for the building trade, according to the bulletin's Foreword. There are three sections, as follows: (1) Stock Window Frames and Sash; (2) Stock Solid Doors and Frames; (3) Stock Veneered Doors. Included also are Grading Rules for Ponderosa pine sash, doors and frames.—National Door Manufacturers Assn., Inc., Chicago.

29—WIRING MANUAL—A new 48-page manual on G-E Q-Floor wiring for under-floor electrical distribution in H. H. Robertson cellular steel Q-Floors is announced by General Electric Company. The new manual includes catalog listings of G-E Q-Floor wiring accessories and fittings, and detailed data on layout and installation procedure. A 13-page technical data section contains illustrations and complete descriptions of G-E Q-Floor wiring materials, including catalog numbers and shipping weights. Layout and installation information is illustrated with diagrams and photographs.—Construction Materials Div., Appliance & Merchandise Dept., General Electric Co., Bridgeport, Conn.

30—PAINT CATALOG—"These Plants Make the Paint That Preserves America" is the title of a pictorial brochure prepared by Devoe & Reynolds. It contains many pictures of the company's plants and manufacturing facilities, and has been issued for the purpose of educating the employees in the workings and ramifications of the company, and of bringing the story of the Devoe organization to dealers and others who are unable to visit its plants. The brochure depicts various chemical processes and tests to which all Devoe paints and varnishes are subjected before they are approved for public use.—Devoe & Reynolds Co., Inc., New York, N. Y.

31—RUST-PROOFING WITH ANTI-RUST COMPOUNDS—"Here's helpful information for the man who worries about rust" is the statement made on the outside of a new brochure which is designed to help war production men who are concerned with rust-proofing. The folder explains the uses and methods of application of Black Bear Anti-Rust "O" for outdoor use and Black Bear Anti-Rust "I" for indoor use. Both types are widely used for the protection of machine parts, castings, stampings, fabrications, etc.—Black Bear Co., Inc., Long Island City, N. Y.

32—ROOF VENTILATORS—Bulletin 217 is a new catalog describing Swartwout's "NCM" line of roof ventilators made of non-critical materials. The various designs are patterned after their original metal ventilators, and are for use in essential applications where metal is not vitally necessary.—The Swartwout Co., Cleveland, Ohio.

TO-DO-IT INFORMATION

33—HOW TO MAKE BETTER CONCRETE FOR DIFFERENT KINDS OF FARM CONSTRUCTION—A new 16-page booklet just published by the Medusa Portland Cement Company is entitled, "Better Concrete for the Farm," and contains complete information on making concrete for exposed concrete floors, interior floors, walls, and for water-retaining concrete. It is profusely illustrated, and also presents many detail drawings for the construction of various types of farm buildings.—Medusa Portland Cement Co., 1000 Midland Bldg., Cleveland, Ohio.

34—STRIP STEEL BY STRAN-STEEL—A 12-page folder containing illustrations and diagrams showing applications of materials in war use structures. Important is a table showing the general properties of Stran-Steel nailable members for such uses as bridging, header brackets, half-stud trimmers, etc. The book contains detailed drawings of typical installations used in the construction of war plants. Strip steel is the product of a strip mill producing continuous coils or sheets of light gauge steel in every required thickness from 1/32" to 3/16". These coils or sheets are in turn cold-formed to shape by rolls and presses.—Stran-Steel Div., Great Lakes Steel Corp., Penobscot Bldg., Detroit, Mich.

35—BUILDERS AND CABINET HARDWARE FOR WAR HOUSING—A new manual known as the Revised "Commander Line" catalog, just issued by National Brass Co., is a handy reference on builders and cabinet hardware of especial interest to contractors doing war housing. Only those items are illustrated which conform to specifications and WPB regulations. At a glance within the four pages of the manual, the proper items conforming to the regulations can be quickly selected.—National Brass Co., Grand Rapids, Mich.

36—COMPOSITION FLOORING—"Lasting Beauty in Floors with Armstrong's Linotile (Oil-Bonded)" is the title of a 4-page folder. It illustrates and describes the effects possible through the use of this flooring, which is supplied in the form of tiles, cemented over wood, concrete, or metal sub-floors. It is available in plain colors, and also in variegated marble tints, and the decorative effects possible through the use of circles, floral designs, lettering, trademarks or other figures which can be created is stressed.—Armstrong Cork Co., Lancaster, Pa.

SERVICE COUPON—CLIP and MAIL to CHICAGO

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

(April, 1943)

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

Numbers

Name

Street

City State

OCCUPATION*

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



MIRACLE WOOD FOR A MIRACLE PLANE!

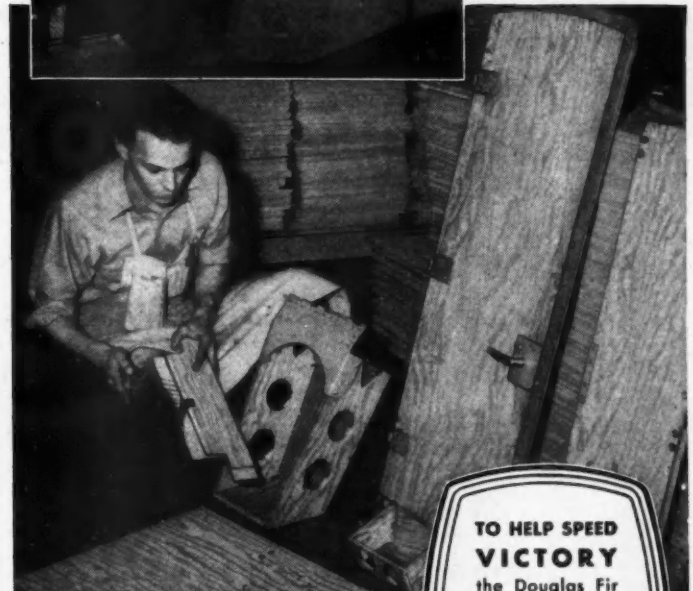
You'll find Douglas Fir Plywood doing important work in every Boeing B-17 Flying Fortress!

● Douglas Fir Plywood's light weight, great strength, large sizes and easy workability make it one of today's busiest war materials. In the field of transportation alone, this Miracle Wood is helping build planes, ships, amphibian tanks, railroad cars and busses. Many of its applications here are revolutionary . . . but because of them Douglas Fir Plywood will be far more useful to you after Victory than ever before.



(Left) "Mock-up" of a proposed Boeing plane. These full-size models constructed largely of Douglas Fir Plywood help engineers perfect designs.

(Below) Douglas Fir Plywood aids every Boeing Flying Fortress in its missions of destruction. Standard equipment includes Plywood compartment doors, flooring and step assemblies, radio equipment tables and oxygen bottle racks.



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.

SEND FOR WAR USE FOLDER!

Dozens of actual photographs show you how Douglas Fir Plywood is aiding the war effort. Write Douglas Fir Plywood Association, Tacoma, Wash., today for your free copy!

Detroit Building Group Works on 5-Point Post-War Program

PLANNING for construction activity after the war so that blueprints will be ready for actual work is occupying the attention of present sessions of the Board of Directors of the Builders' and Traders' Exchange.

At a meeting Tuesday, a five-point program was discussed which probably will lead to the formation of a super industry committee.

The program deals with (1) a procedure for initiation of public construction projects, (2) private projects, (3) acquisition of materials such as steel, etc., (4) training of skilled workmen, (5) better methods and relations between intermeshing parts of the industry.

"You cannot plan every post-war move now," said E. J. Brunner, secretary-manager of the Exchange, in commenting on the proposed program, "but you can get ready to move. You can bring numbers of projects through the blueprint stage in various classes of work so that when termination of hostilities comes, we can be ready to do those which should be done first. Decisions can only be arrived at after some time has been taken up. The time to begin making those decisions is now.

"The construction industry is one of the major employing industries, and it will be a calamity if we are not prepared to utilize all the available skilled manpower of the industry without delay. Good construction men should not rake leaves.

"However when you go beyond that and try to make the construction industry a pool to absorb unlimited numbers of workmen not skilled in construction you are aiming straight for disastrous consequences to the industry and to the nation. Leaf rakers cannot do effective construction work.

"So far as the national economy is concerned, a private construction project results in more taxable wealth while a public construction project is not only a drain on national resources while being built but is not a producer of goods afterwards.

"If the demand for private construction employs all the capacity of management and skilled trades in the industry, public projects

not acutely needed should wait until a lull comes in private construction.

"But we do not know how big the demand for private construction will be. Our contemplated survey will tell us only in part and 'as if.' Therefore plans should be made in advance for considerable public construction.

"In looking at public construction we see three somewhat related angles. First we see actually needed work as for instance a big amount of repair work and many added projects such as schools. Second we look at monumental building operations requiring a great portion of skilled workers such as civic auditoriums, city halls, etc. Third we see projects requiring much earth moving and a smaller percentage of skilled trades. We should examine and have ready as many of the latter as possible.

"In the judgment of many, the most critical problem will be lack of skilled workmen. Apprentice training is a subject of greatest importance."

The Board of Directors of the Exchange is headed by the president, Albert B. Ameel of Talbot & Meier Co., general contractors. On the board are the following others: L. S. Brooker of Brooker Engineering Company Electrical Contractors; Benjamin Capp of Wolverine Marble Co., John Freeman of the Freeman Hardware Co., Mervyn Gaskin of Taylor & Gaskin, Structural Steel Contractors; Paul Marshall of the Aluminum Co. of America; Thomas Marshall of Robert Hutton Co., roofers; and William F. Seeley of Western Waterproofing Company.

Curtis Advertising Directed to Both Current and Post-War Markets

CURTIS Companies Incorporated, Clinton, Iowa, this year is directing their consumer advertising appeal to two fields—the current market and the post-war market. Advertisements in leading home magazines help Curtis dealers sell storm sash—sectional kitchen cabinet units—doors, trim, stairs, mantels, and cabinets for home modernization and repair.

Half pages are being used in leading consumer magazines to sell the home builder of tomorrow. One Curtis advertisement uses the heading: "Start Saving Window Ideas for Your Post-War

FOR THE BETTER BUILDING OF TOMORROW

THE better structures of tomorrow will include products of proved quality and design. You will find Knapp Products among them, for they have become the standard of comparison through years of constantly sound design and quality manufacture.

In the building plans being shaped for the coming construction era, there is a place for the definite advantages of Knapp plastering accessories and metal trim. Plan to use them and profit by it.

Present production facilities at Knapp are devoted to producing many parts and sub-assemblies for war.

KNAPP METAL TRIM
KNAPP BROS. MANUFACTURING CO.
GENERAL OFFICES - JOLIET, ILLINOIS

Home." Another ad reads: "Have Fun Choosing Woodwork for Your Home-To-Be." The copy urges the post-war builder to plan now for the home of tomorrow and to get in touch with the Curtis dealer for ideas and information. As usual, Curtis offers their attractive books to post-war prospects.

Trade paper advertising to contractors, architects, and lumber dealers is continuing as in former years. The opening advertisement in leading trade magazines reproduced a message from Mr. G. L. Curtis, President of Curtis Companies Incorporated. This touched briefly on the post-war policy of the Curtis organization. Part of this message to the trade stated the following—

"The adjustment to a war economy has brought many new problems to our Company, but we are not altogether forgetting the post-war period. Plans and policies are under consideration, but not far enough advanced to make any announcement at this time. American industry will come out of the war with new and improved products and our Company will endeavor not to be an exception to that rule. Whether new methods of construction will largely take the place of the old, we do not know; but in any case, there will be need of woodwork in residential construction and our products will be designed and produced to meet the requirement, whatever form it may take. Naturally, in accordance with established Curtis policy, whatever our program may be, it will be built with maximum regard to the interests of distributors of Curtis products."

A major portion of Curtis production today is directed toward the war market, yet this long-established woodwork manufacturer feels it essential to keep contact with the trade and with potential builders of tomorrow so Curtis dealers, architects, and contractors may retain their position of leadership after the war.

Home Storage Buildings Urged For Food and Fuel

CELLARS with wood walls and floors for the storage next winter of root crops grown in the Victory Garden, or obtained from farms, in the summer and fall, should be planned now, Western Homes Foundation suggests to families who are looking

far ahead on the question, "How will we eat?" They are also reminded that forehandedness in providing for additional fuel storage may guard against home heating below health standards when winter comes again.

"All such building by the average family will amount to far less than the \$200 worth of construction allowable under war regulations," says W. C. Bell, Foundation Chairman. And it is right in line with the conservation programs of the war agencies—it is a patriotic prescription.

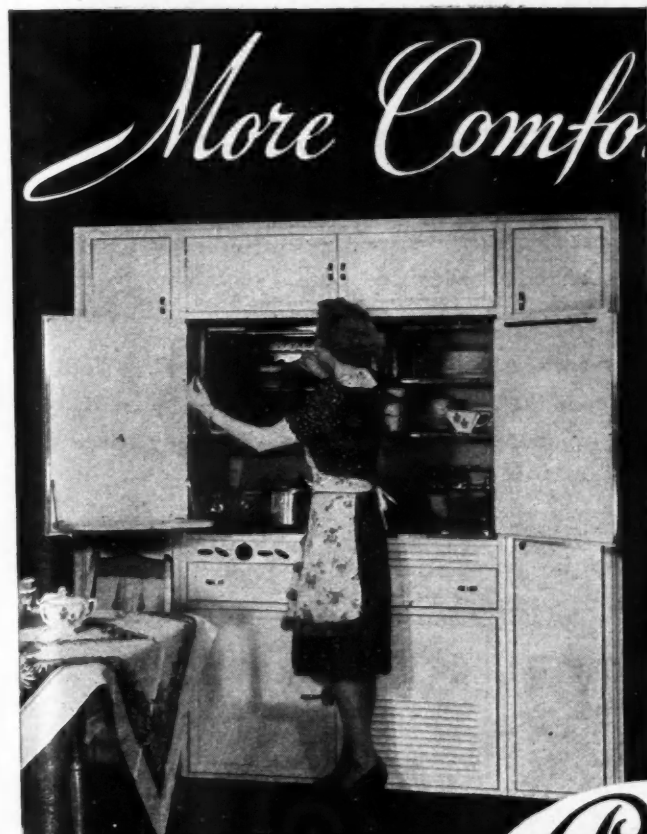
"Proper filling of the prescription is a distinctly individual proposition. One family may have a large basement, with little or no land area free for gardening or for building space. Another may have a home without basement, with a large backyard. The rural contractor or the lumber dealer will have plans for small storage structures of all types, or he can obtain them. He can supply a package of lumber and other materials for any design, and may deliver the lumber members pre-sawed.

"Several families in a neighborhood can easily join in a project for food and fuel storage against winter needs. Root crops and fruits can be obtained directly from farms, particularly if the buyers do their own digging and picking—so numerous families discovered last year. And a neighborhood group can make a better arrangement with dealers for summer storage of solid fuel than can be made individually in these times of shortages. Every effort of this kind helps the war effort."

Armstrong Head New Commerce Advisor

H. W. PRENTIS, Jr., president of the Armstrong Cork Company, has become a member of the Business Advisory Council of the United States Department of Commerce, Washington, D. C. Mr. Prentis joined the organization at the invitation of Jesse Jones, Secretary of Commerce.

Founded in 1933, the Council is composed of approximately 60 business and industrial leaders of the United States. The organization's activity today is particularly centered on the country's war program and the part business and industry are playing to speed production of essential war materials.



P A R S O N S

More Comfort per Dollar...

IN POST-WAR HOMES

When Johnny comes marching home he'll marry Mary and they'll start house-hunting. The home they'll be able to afford will be very little but very well built, compact and convenient. Not a middle-sized house squeezed together. More like a modern apartment expanded.

No space wasted on a separate kitchen! Instead, a beautiful complete, all-steel Pureaire set into the big living room wall. Ready to cook the finest meal you ever ate. And whisking every whiff of cooking odor, heat and vapor away into the outer air.

Thousands of housewives already O.K. Pureaire. Investigate! But remember—none for sale till Victory.

TRAVERSE BAY MFG. CO.

(Affiliated with The Parsons Co.)

15000 Oakland

Detroit, Mich.

Pureaire

KITCHENS

New Products

New 1/4 in. Heavy Duty Drill

SKILSAW, Inc., 50-33-43 Elston Avenue, Chicago, has just announced its Model "47" Skilldrill. Designed especially to speed up tough "skin-drilling" in airplane construction, Model "47" Skilldrill is ideal for countless production drilling jobs up to 1/4 in. in steel and 1/2 in. in wood.

Like the famous Model "45" Skilldrill, Model "47" Skilldrill is small, light and compact, but it has even greater power for toughest jobs; even greater drilling speed under load for greater drilling output.

Features are: diecast body, helical-cut gears and 100% antifriction bearings assuring smoother, quieter running. Extra-powerful, Universal Motor available in 4 speeds (1800, 2500, 3500 and 5000 R.P.M.) to fit every drilling job. It weighs only 3 1/2 lbs.; only 7 1/4 in. long; only 2-9/16 in. wide.



SMALL, light weight compact Skilldrill.

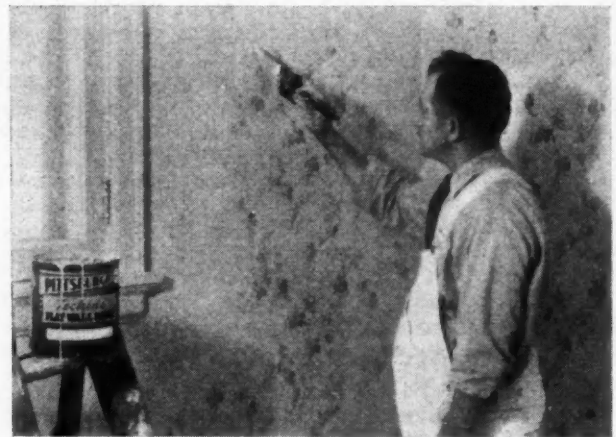
Quick-Drying Water Paint

THE Pittsburgh Plate Glass Company, Pittsburgh, Pa., announces its latest paint product, Techide, a newcomer to the water-paint field. It is made from synthetic resins, oils, and quality

pigments, and is easy to apply with an ordinary calcimine brush on wallpaper, plaster, wallboard, old painted surfaces, cement, brick, and casein-painted surface. Afterwards, the brush can be cleaned quickly and easily with water.

Techide is a quick-drying paint; rooms can be occupied the same day they are painted. It dries in one hour and permits a second coat in three hours. Since it is washable, ordinary dirt, finger prints, and pencil marks are easily removed.

Proper reduction of Techide is one-half gallon of water to one gallon of semi-paste. Coverage ranges from 400 to 1,000 square feet per gallon, depending on the surface to be painted. The paint is made in a variety of colors—ivory, silvery gray, sunny yellow, dusky rose, light buff, mist blue, sun tan, cool green, and white—all in soft textures—providing many possible color combinations.



PAINTER applying Techide quick-drying water paint to papered wall; rooms can be occupied the same day.

TOMORROW-YOU CAN MOVE YOUR PIPE TO THE PARLOR...



In tomorrow's modern home even the most sensitive nostrils won't be offended when dad puts a match to his favorite brier or when mother burns the toast.

Dead air pockets in homes will be as outdated as lightning rods because the word ventilation which once meant "open the window and pray for a breeze", is today a scientific certainty.

Victor pledges that when our war job is finished, we will once again lay honest claim to our reputation as the outstanding producers of electric home ventilators.

VICTOR ELECTRIC PRODUCTS, Inc.
Dept. 1B-332 2950 Robertson Rd., Cincinnati, Ohio

VICTOR
ELECTRIC
VICTOR

TOMORROW'S
HOMES

For An Air Minded Nation... Victor Ventilation!

Lightweight, Portable Shelters

THE James Manufacturing Co., Fort Atkinson, Wis., has been awarded a contract by the Army Air Corps for an undisclosed number of a new type lightweight, portable shelter for use by Air Corps personnel in Arctic climates.

The shelters are specifically designed to save weight, to occupy a minimum amount of space when packed for shipment, and to reduce the amount of fuel which must be shipped to heat them, by incorporating blankets of glass fiber insulation in the walls and flooring. When packed for shipment, they are sufficiently light and compact to permit transportation of the complete unit by air.

Of impregnated cotton fabric and laminated wood frame construction, the shelters, when erected, are 16 feet in width by 8½ feet high in the center; they may be used in any eight-foot multiple of length. They will be heated by gasoline heaters.



LIGHT weight, portable shelter for use in Arctic.

While the Fiberglas insulation weighs only about 200 pounds for a 16 foot by 16 foot shelter, it is estimated that it will reduce from 27,360 pounds to 6,790 pounds the weight of the fuel that must be transported to maintain in each shelter, throughout the heating season, a temperature in which men can live comfortably. The total weight of each shelter is approximately 1200 pounds.

A crew of four men can erect one of these structures, ready for use in a minimum of time. It can be taken down for removal to a new location even more quickly, and when packed, the complete unit occupies a space of less than 160 cubic feet.

No metal, other than incidental hardware, is used. The side-walls and roof of each 16 by 16-foot shelter consist of two quilt-like sections. These are composed of the glass fiber insulation, faced on one side with flame-proofed muslin, and then enclosed with cotton fabric treated with a plastic material which makes the fabric waterproof, rotproof, vermin proof and fire-resistant.

The front and back of each shelter consist of a single, similar, quilt-like section. Space is provided for a large door and a window in the rear, and for an entrance door, window and ventilation grill in the front. Laminated wood ribs form the supporting frame; the floor is of plywood.

Traffic Marking Paint

A NEW TYPE of traffic zoning paint, which gives street and floor markings of permanence and visibility, is now being produced by the Thomson-Porcelite Paint Co., 829-35 N. Third St., Philadelphia. It is called Porcelite traffic zoning paint and is applicable on wood, stone, asphalt, wood-blocks, composition and cement, and does the marking job in one coat. On creosote blocks, a special primer is furnished to prevent bleeding.

Porcelite dries for traffic in 20 to 30 minutes, eliminating any extended work stoppage. It may be applied by lining machine or hand-brush, and leaves a clean, scuff-proof line or letter. It is available in white, yellow and special shades to order, and is shipped in 55-gal. drums, 5-gal. kits.

2400 "Shots" per Minute!

STANLEY Electric HAMMERS

*provide effective "Fire-power"
for the Construction Front*

Whether you are "building them up" or "tearing them down," the job moves faster when you provide your "soldiers of construction" with Stanley Electric Hammers.

Use them to drill, chip, and channel in concrete; to chisel mortises in wood timbers; to vibrate concrete forms; to scale rust; to tamp concrete . . . any of the hundreds of jobs that require hammer action.

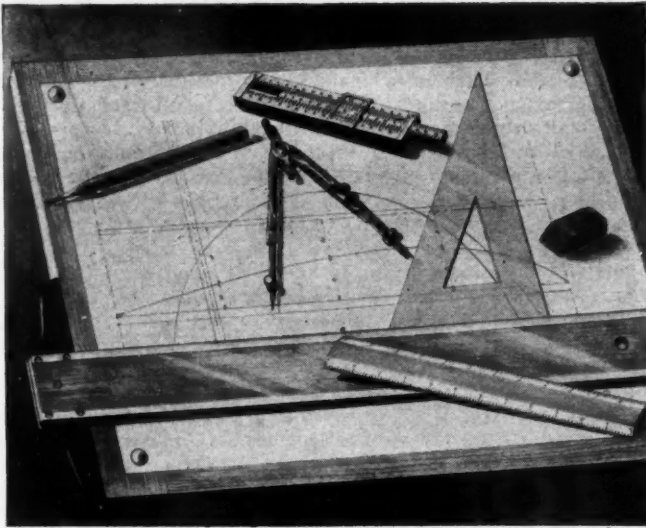
Stanley Electric Hammers combine exceptional power and work capacity with light weight, and are properly balanced for easy handling. They can be operated from the regular power circuit or from a portable generator set.

Write for complete specifications. Stanley Electric Tool Division, The Stanley Works, New Britain, Connecticut.



1843 **STANLEY** 1943

STANLEY Electric TOOLS



Where Inspiration is Born!

Inspiration and inventive genius, when translated into workable plans, spell progress. And, progress is the onward march of ideas which make for higher standards.

The Grand Rapids Invisible Sash Balance, for example, was a definitely progressive step in the development of window sash hardware. It was conceived and designed to operate smoothly and dependably under varying climatic conditions, to be quickly and easily installed, and to save time and money. That it represented marked advancement and filled a definite need has been proved by its use in thousands of homes and extensive defense housing projects.

Sold now only on priority, prompt delivery assured, the Grand Rapids Invisible Sash Balance will not be available for widespread civilian use as long as the Grand Rapids Hardware Company is engaged in war work.

When the restrictions are removed, the product then offered will incorporate further engineering developments—progressive steps toward an even better mechanism.

Send for Illustrated Catalog

Full information concerning the Grand Rapids Invisible Sash Balance is contained in our well illustrated catalog. Send for it.



GRAND RAPIDS HARDWARE COMPANY
GRAND RAPIDS • MICHIGAN

Plastic Progress

WHEN the Japs cut off America's supply of certain important raw materials from the Far East, a critical situation arose in many industries. However, it has been definitely demonstrated that synthetic plastic materials can replace these and other critical items.

Sloan Flush Valve

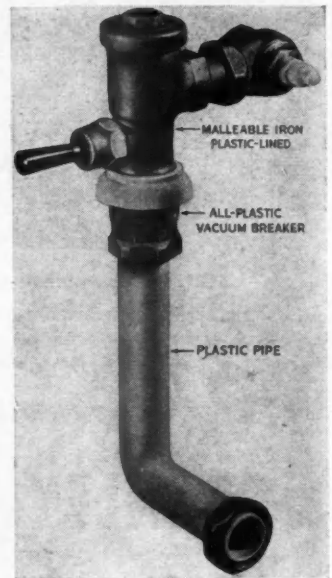
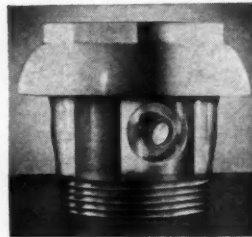
In cooperation with the War Production Board's efforts to conserve critical copper, the Sloan Valve Company, Chicago, has redesigned one of its toilet flush valves so that its net copper content has been reduced from approximately 6 pounds to less than 4 ounces per valve.

This saving was the result of substituting various plastics and malleable iron for the more critical brass used in the component parts of the peacetime product.

The new flush valve, called the "victory" type, has been thoroughly tested under all simulated conditions.

The most vital part of the flush valve itself is the piston, as this is the part that regulates the amount of water

RIGHT: "Victory" type flush valve having malleable iron body with plastic sleeve inserted as a lining. **BELOW:** Vacuum breaker which is all plastic.



passing through the valve. In substituting plastics for this element Sloan engineers combined several of the parts, so that the new plastic piston now has fewer parts.

The most difficult engineering problems encountered in the conversion to less critical materials were found in the Sloan Vacuum Breaker. Although the functional design of the original unit was not changed, it was necessary to adapt this design to the limits of plastic injection-molding in order to evolve the all-plastic vacuum breaker.

The malleable iron body with its plastic lining, the plastic piston and the all-plastic vacuum breaker are but three of the parts in which substitute materials were used. Other parts of plastic include the handle, handle bushing, handle plunger, auxiliary valve, elbow flush connection, bumper ferrules, and regulating screw bushings.

Decking Material

A new light-weight plastic decking material, known as "Dektred", has been announced by the Goodyear Tire & Rubber Co., Akron, Ohio. This new product, which is easily-applied and long-wearing, can be used on metal, wood, concrete, and many other types of surfaces, and is especially adapted to war and cargo ships. It is resistant to the action of oils, greases, gasoline, salt, sulphur and soap.

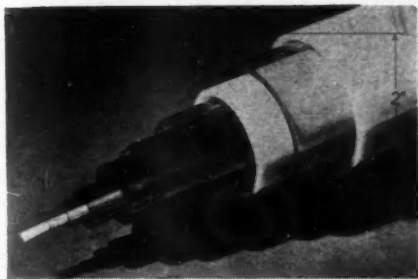
Dektred is in the form of a thick liquid which is applied by spraying or with steel trowel. As it is self-leveling, repairs can be made with no appearance of patchwork. Light in weight, a single spray or trowel of Dektred in medium gauge,

or about 1/32 of an inch, will weigh less than 1 1/2 ounces per square foot when dry. It dries sufficiently in 2 1/2 to 3 hours, in open air and under normal weather conditions, to allow light traffic. For heavy traffic, about 8 hours' drying time is needed; with artificial drying, this time element can be reduced to a few minutes.

At present, this material is available only for marine use, but has great possibilities for civilian commercial uses after the war.

Seamless Tubing

To meet the expanding demands of war industry, Extruded Plastics, Inc., Norwalk, Conn., announce that "Tulox" TT seamless plastic tubing is now available in all diameters up to 2" O.D. Within weeks the range will be increased to 2 1/2" O.D., to meet requirements of war production. Tubing is extruded from Tennessee Eastman cellulose acetate butyrate.



SEAMLESS plastic tubing.

Wire and Cable Insulation

Use of plastics for insulating wires and cables has expanded greatly during the war. The Bakelite Corp. is producing vinyl resin insulating compounds for electric wires and cables which has very impressive advantages. They have good aging properties as compared to rubber; are resistant to oxidation in air or ozone; are not affected by moist, humid conditions; have better dielectric and other electrical properties; and, most important, have decidedly greater ability to retain their superior electrical characteristics. They can be immersed in water for long periods without injury, and they are not damaged by contact with oils and greases. Also, they are highly resistant to many acids and alkalis, and to most solvents.

An interesting and often extremely useful advantage of these electric wire and cable insulations is their availability in transparent, translucent, or opaque colors. When conductors are enclosed in transparent vinyl plastic sheathing, jacketing, or duct, they can be easily seen through the surrounding material, thus greatly aiding quick location of trouble.

Light Weight Hinges

Piano-type hinges of Tenite, manufactured by Plastic Process Co., 828 N. Highland Ave., Hollywood, Calif., are an important new achievement in the plastics industry. The



PLASTIC hinges may be cut to any length.

Tenite hinges extruded in continuous lengths, weigh considerably less than those of metal, offering new design possibilities to the makers of light-weight portable equipment. At

the same time, they are so strong as to be suitable also for articles of relatively heavy construction.

These plastic hinges may be cut to any desired length and easily assembled to other materials by means of adhesives, rivets or screws. They withstand long, hard wear without denting, chipping or cracking, and their smooth lustrous surface is rust-proof and dirt-resistant.

Tested and approved by a major aircraft producer, Tenite hinges are now being used on airplane tool boxes, oil immersion boxes, radio, map and chart cases.

Better Fireplaces...

For Your Post-War Homes and Camps

★ Fortunate indeed are the owners of the Heatilator fireplaces you have built in the past. For these fireplaces are now giving extra circulated heat to keep homes comfortable despite vital fuel shortages.

Heatilator Fireplaces will be even more important in your post-war homes and camps. They will help you meet the demand for greater efficiency and comfort—at the same time making your fireplaces easier to build correctly.



HEATILATOR, INC.

614 E. Brighton Ave.
Syracuse, N. Y.

HEATILATOR *Fireplace*

OVER-THE-TOP
DOOR EQUIPMENT
HAS GONE TO WAR

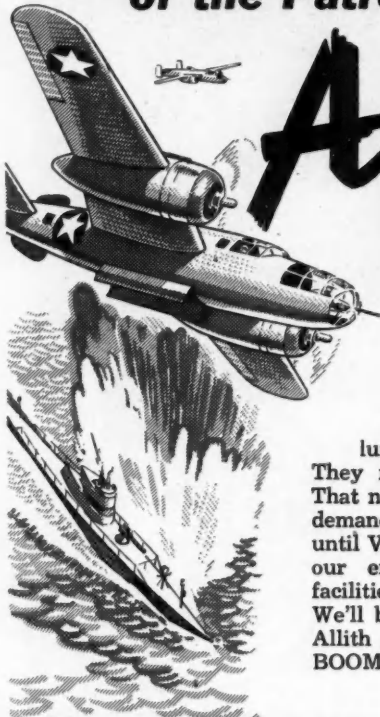


Every Frantz "Over-the-Top" Door is smiling with its owner . . . thinking how lucky they were to get together while they could. There'll come a day when more motorists can smile with these Frantz door owners, and you can help them plan for that day now. Whatever you build—it will be easy to convert to "overhead" doors with Frantz "Over-the-Top" Door Equipment . . . as soon as the essential hardware is again made available. Of course, if you have the proper priority—you can get Frantz "Over-the-Top" Door Equipment today. Write for details.

FRANTZ
MANUFACTURING
COMPANY
Sterling, Illinois

FRANTZ
Guaranteed BUILDWARE

Helping Feather the Nests of the Patrol "Eagles"



Allith

HEAVY DOOR HARDWARE

Planes and blimps constantly soar out of their "nests" to deal death to any Axis submarines lurking along our coast lines. They must be housed efficiently. That need makes one of the heavy demands on Allith production—until Victory. To meet this demand, our engineering and production facilities have been stepped UP. We'll be ready to supply you with Allith garage-door hardware for a BOOMING "After Victory" market!

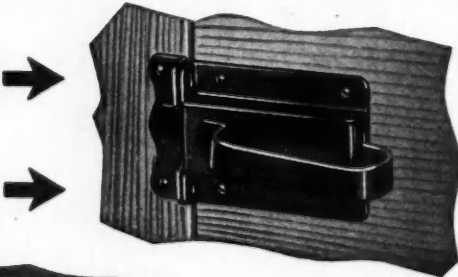
ALLITH-PROUTY, INC.
DANVILLE, ILLINOIS

WAGNER

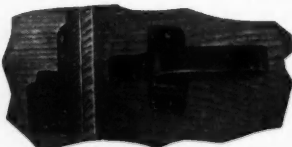
DANDY REVERSIBLE LATCH No. 847!

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.

WAGNER MANUFACTURING COMPANY
Dept. AB-443 Cedar Falls, Iowa

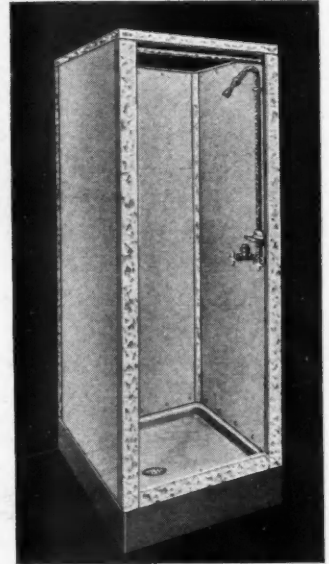
Plumbing Fixtures and Trimmings Which Save Critical Materials

MONTHS AGO when it became apparent that every available pound of such critical metals as copper, zinc, tin, chrome and nickel would have to be conserved for our Victory effort, the research laboratories of Crane Co., Chicago, proceeded to develop substitutes to replace these metals. That they were farsighted in this policy is demonstrated in their new "Enterprise" line of cast iron plumbing trimmings. While they do not gleam with the brilliance of chromium, they are sturdy and serviceable, and each part is precision machined and carefully inspected to insure high quality. To prevent rusting, interior and exterior surfaces are galvanized or have a baked-on enamel finish. The working parts are made of brass and are easily renewable.

The trimmings have been approved by the Government and comply with the requirements of War Department specification PE-623. They are ideally suited to new construction or to replacements in barracks and other military installations, industry and ordnance plants, ships, hospitals, schools, and domestic buildings.

The Model "V" shower compartment illustrated here has walls of water-proof pressed fibreboard, and the receptor is precast concrete. The trimmings are of galvanized iron. The compartment is equipped with a two-valve shower and an Economy shower head, and has a galvanized iron strainer.

The Duraclay flat rim sink, below, is used with a Duraclay flat rim laundry tray as a companion fixture built into one convenient unit which uses no critical material except in the screws and hinges. The supply fixture is of galvanized iron. This combination unit is approved by a Federal Specification for war housing.



SHOWER compartment with walls of fibreboard has trimmings of galvanized iron.



COMBINATION flat rim sink and laundry tray with galvanized cast iron fixture.

New Type of Strong Glass

THE Libbey-Owens-Ford Glass Co., Toledo, Ohio, has recently announced the development of a new type of Blue-Ridge pattern glass three to seven times stronger than ordinary glass, and having resistance to temperature changes.

Known as "Securit," this glass is designed as a decorative and utilitarian product for post-war use, as well as an alternate for vital metals during war time. It is tempered by a special process, and will disintegrate into a powdery substance under a blow heavy enough to fracture the product. It is translucent, and serves to diffuse light as well as provide decorative themes in home, office and industry.

Among the usages possible for it are: Door and office partitions; lighting fixtures; shelving in metal cabinets; refrigerators or show cases; doors and windows in psychopathic hospitals where it serves as a safeguard against deep sharp cuts if broken by inmates; radiator covers, etc.

Two Non-Critical Building Materials

THE Certain-teed Products Corp., Chicago, has developed two new products especially to speed up wartime construction. They are known as Bestwall Gypsum Exterior Board and Certain-teed Gypsum Laminated Roof Decking.

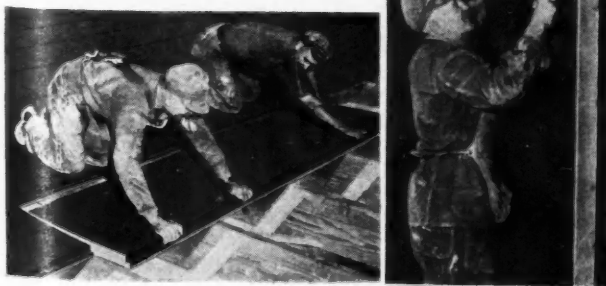
The new gypsum Exterior Board sheathes, sides and insulates. It combines two well known products manufactured by the Certain-teed organization for many years—Bestwall, and the company's exclusive "Millerized" asphalt roofing. The resulting product combines a fireproof core of gypsum rock and a durable, weather-resistant surface of asphalt roofing. The board has practically no contraction or expansion, is termite resistant and will not buckle, warp or open at joints. It is recommended for use in military and naval structures, arms plants, industrial alterations, commercial buildings, farm structures, etc.

A single panel covers up to 20 square feet of wall surface and goes on in two minutes. Any carpenter can apply the panels direct to studding; they can be nailed and sawed like lumber. The pannels are made in half-inch thickness, with square edges for vertical application, and one-inch thickness, with shiplapped edges for either vertical or horizontal application. Two finishes are available, a smooth surface or a mineral surface. Exterior surfaces are black and all standard colors, including eleven camouflage colors, with ivory interior surface colors. Panels are 24" wide, and in lengths of 8', 9' and 10'.

Certain-teed's new gypsum laminated roof decking is made up of panels of Bestwall gypsum board, in two types, 1½" thick with tongue-and-groove edges, and 2" thick with shiplap edges. It is strong and fireproof, is easily and quickly applied. These lightweight panels can be handled, cut, sawed, bored and laid like lumber. They can be spiked to wood joists without use of special metal attachments. They are unaffected by heat or cold and have high insulation value. The ivory interior surface, which serves as ceiling of the structure on which they are used, gives high light reflection, and may be left unpainted, or may be painted if desired.

The 1½" decking weighs six pounds per square foot; the 2" decking weighs eight pounds per square foot. Panels are 24" wide, and 8', 9' or 10' in length.

RIGHT: Workman applying gypsum board which sheathes, sides and insulates. BELOW: Gypsum laminated roof decking panels can be laid like lumber.



...QUARTER-CENTURY *Prefabricating experience*



Working **U.S.**
NOW FOR **U.S.**
BUT LATER FOR *You!*

For more than a quarter-century we have specialized in the industrial housing field; we were in the vanguard, too, in establishing the validity of the prefabrication principle.

Now—we are in full production, serving industry in its war requirements . . . After VICTORY, we'll be on the alert to serve industry again in its post-war civilian needs.

BUY A HOME IN THE PEACE TO FOLLOW—WITH THE BONDS YOU BUY TODAY

HOUSTON *Ready-Cut* HOUSE CO.
25 years Prefabricating Houses
POLK AVENUE HOUSTON, TEXAS

-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



LICENSE NO. **000** TOXIC-PRESERVATION **APPROVED** NATL. DOOR MFRS. ASSN.

FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEETS

WAR HOUSING EXPERIENCE YOU CAN USE—

TYPICAL HOUSING PROJECTS WITH KITCHENS BY KITCHEN MAID



Project	Location	Kitchens	
Red Hook Housing Project	New York, N. Y.	2581	812
Woodhill Homes Project	Cleveland, Ohio	568	423
Vineyard Hill Project	Wheeling, W. Va.	302	267
Prospect Hill Housing Project	Pawtucket, R. I.	310	1282
Ordnance Plant Houses	Charleston, Ind.	36	140
Newfoundland Base	Newfoundland	80	600
Home Building Corp.	Kansas City, Mo.	800	110
Colonial Hills & Dales Housing	Columbus, Ohio	200	20
Army Staff Residences	Crab Orchard, Ill.	15	138
Lone Star Ordnance Plant Houses	Leary, Texas	60	290
Parklabres Housing	Los Angeles, Cal.	2649	346
St. Charles Apartments	Silver Springs, Md.	77	397
Cartridge Loading Plant Houses	Alton, Ill.	50	160
Wills Homes, Inc.	Dayton, Ohio	10	1703
Seminary Heights Project	Arlington, Va.	3550	200
First National Development Co.	Chicago, Ill.	30	727
Parkmerced Housing	San Francisco, Cal.	2394	90
Gulf Port Mortgage Co.	Galena Park, Texas	39	1287
			108
			293



In a few short years, more than 33,000 Kitchen Maid kitchens have been sold for housing projects of practically all types—everywhere. This exceptional experience in advanced cabinetry design and low cost composite construction should be of great value to you on any war housing job. It's yours for the asking. Just write The Kitchen Maid Corp., 531 Snowden Street, Andrews, Indiana.

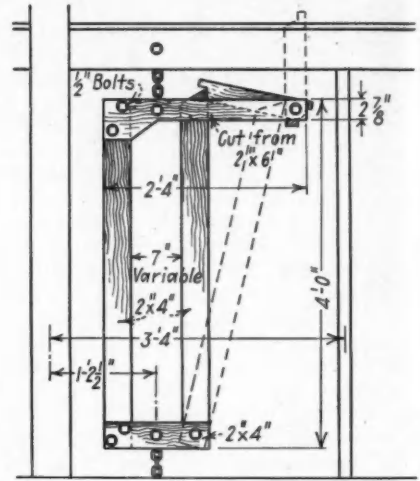


Farm Aids You

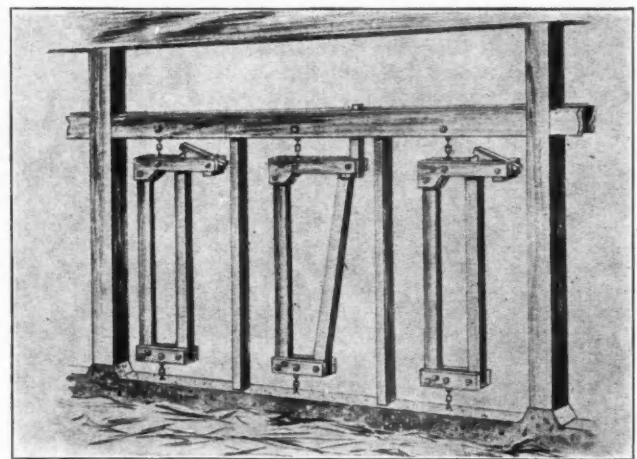
Cattle Stanchions

CATTLE stanchions of wood can be added to a dairy farm without a priority. Farmers faced with the problem of housing more cattle for greater dairy production need good stanchions. These will save both time and money. Locking members, bottom members and vertical members are made of 2 x 4's; the top members are made of 2 x 6's. Only critical materials are 8 machine bolts 1/2 by 5 1/2 inches long plus chain with 1 1/2 x 1/4 in. links as required.

Edges of wood members are rounded so that animals are perfectly comfortable while lying down or standing. The U-bolt at top locks the side piece into place automatically when it is closed.



CATTLE stanchions, detailed at right and shown completed in sketch below, are needed to increase dairy facilities and can be made of lumber, according to recommendations of Weyerhaeuser 4-Square Farm Building Service.



Mixing Concrete

With the box illustrated opposite and a simple set of directions, it is easy for the farmer to measure his concrete mix accurately. Directions for using are as follows: Set the frame on the mixing-board and fill it full with crushed rock or gravel. Lift it up leaving the gravel on the board. Fill the division shown 3 ft. long with sand and again lift up the frame. This will give the correct amount of sand and gravel to use with two bags of cement for a 1 to 3 to 5 mixture. The quantity can be doubled by filling the frame twice for four bags of cement or it can be half-filled for one bag. Other mixtures can be made by changing the position of the dividing board as shown above. For good concrete do not mix too much water. Six gallons per bag of cement is recommended. Items needed are: 1 x 12 in. sides 6 ft. long; ends and par-

TWO GOOD ESTIMATING FORMS

The Old Builder's Estimator

A complete estimating form for one residential job, with a 300 item check list, 7 pages of estimating data and memo sheets for use on the job. With this booklet you can prepare a complete, itemized, accurate estimate. Three columns are provided for checking every line of the detailed estimate. The forms follow the order in which a residential job progresses.

48 pages, 4 x 7 1/2, stiff paper binding, \$.25
5 for \$1.00 or 12 copies for \$2.00

The Small Job Estimating Kit

This Kit contains 10 complete sets of forms for quickly and accurately estimating 10 modernization, repair, maintenance or other small job projects costing under \$500. You fill out the list of items covering labor, materials, sublet, etc., and when the estimate is complete you transfer the figures to the detachable form which is the Letter of Proposal. This is given to the prospect. The record of actual costs of each job is kept on the back of the stub which remains in the Kit.

10 sheets, 11 x 8 1/2 inches, folding to 4 1/4 x 8 1/2, stiff paper cover, \$.35. 4 Kits for \$1.00; 12 Kits for \$2.50.

BOOK SERVICE DEPARTMENT

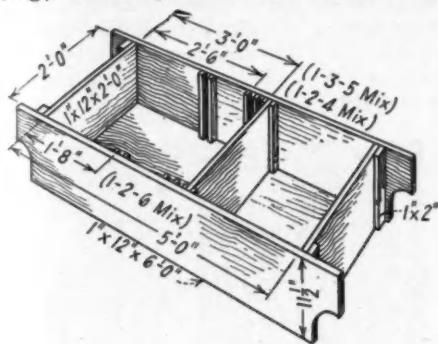
AMERICAN BUILDER AND BUILDING AGE

30 Church Street

New York, N. Y.

Can Build and Sell

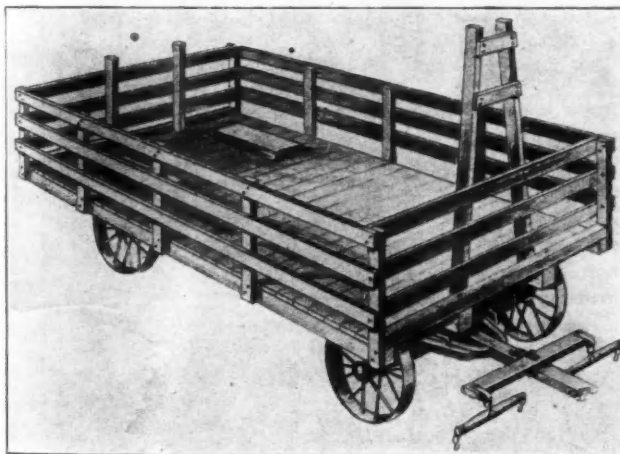
titions, 1 x 12's—2 ft. long; cleats for ends 1 x 2's 11½ in. long; cleats for partitions 1 x 1's—11½ in. long; nails, ½ lb. 6d.



DETAIL drawing (left) showing how a box for mixing concrete may be made quickly and easily.

Hay Racks

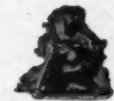
The hay rack shown below was planned to use standard length lumber to save sawing and fitting time. The width is 7 ft., 11 in., and meets highway regulations. Where the rack is to be used only on the farm, a full 8 ft. wide floor can be used, giving an overall width of 8 ft., 5 in. All the joints of the frame are bolted together. By simply removing a few bolts, the sides can be taken off for loading silage in the field. The rack should be kept as low as possible. If the wagon



Courtesy Weyerhaeuser 4-Square Farm Building Service

wheels are high, boxes should be built over the wheels. List of materials needed is as follows:

Item	Pieces	Size	Exact Length
Stringers	2	4" x 4"	14'- 0"
Sills	2	4" x 6"	14'- 0"
Floor Beam	2	4" x 4"	7'- 6¼"
Side Stakes	10	2" x 4"	2'- 6"
End Stakes	2	2" x 4"	3'- 2"
Ladder Uprights	2	2" x 4"	6'- 0"
Floor	22	1" x 8"	7'- 6¼"
Side Rails	6	1" x 4"	14'- 0"
End Rails	6	1" x 4"	7'- 9½"
Ladder Rails	1	1" x 4"	1'- 3½"
Ladder Rails	1	1" x 4"	1'- 7"
Wheel Box Top	2	1" x 12"	3'- 2"
Wheel Box Sides	4	2" x 4"	3'- 2"
Wheel Box Ends	4	2" x 4"	0'- 8¼"
Wheel Box Framing	2	2" x 4"	3'- 2"
Wheel Box Framing	4	2" x 4"	1'-10-7/16"
40-5/16" x 3" Machine Bolts and Washers			
40-5/16" x 5" Machine Bolts and Washers			
24-½" x 6" Machine Bolts and Washers			
10-½" x 8" Machine Bolts and Washers			
4-½" x 10" Machine Bolts and Washers			
4 lbs. 8d common nails			
1 lb. 16d common nails			



REG. U. S. PAT. OFF.

Samson Spot Sash Cord



REG. U. S. PAT. OFF.

By specifying and using Samson Spot Cord for hanging windows, with suitable weights and pulleys, you obtain perfect balance by a time-tested method. You also guard against the use of inferior unidentified cord.

Samson Cordage Works, Boston, Mass.



FREEDOM

Freedom is a government of, for and by the people. As Americans, we inherit it. As a Nation, we have earned it. Let's preserve it.



MULE-HIDE

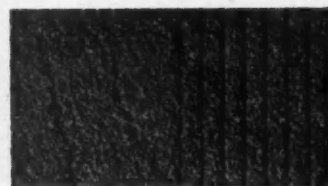
Cor-Du-Roy Roofs

Go On Faster... Stay On Longer

- Exclusive Expansion Joint Prevents Cracks... Makes Roofs Last Longer
- Cor-Du-Roy "Straight-Edge" Speeds Application
- Notched Ends for Quick Spacing... Require Less Nails
- Attractive Blends... Deep Shadow Lines...
- Fire Resistance Help Sell Jobs At A Profit

See For Yourself...

We'll send you one of these half-plain-half Cor-Du-Roy shingles that has proved Cor-Du-Roy's long-lasting qualities for 23 years.



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CHICAGO • ILLINOIS

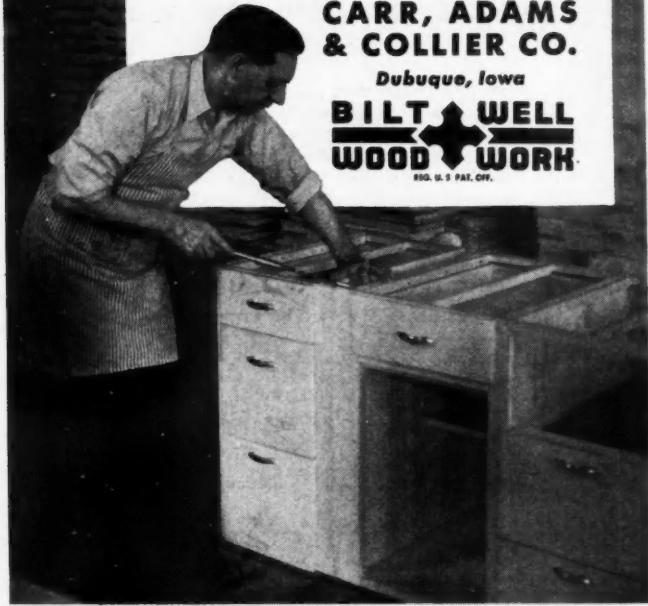
From Start to Finish!

Only the prime products of the forests meet Bilt-Well's rigid specifications. Only the most able artisans meet Bilt-Well's demands. *Bilt-Well wood-work is designed and manufactured for the best of homes—American homes.

CARR, ADAMS & COLLIER CO.

Dubuque, Iowa

**BILT WELL
WOOD WORK**
REG. U. S. PAT. OFF.



**NON-TILTING PLASTER-MORTAR
KWIK-MIX 6-P**

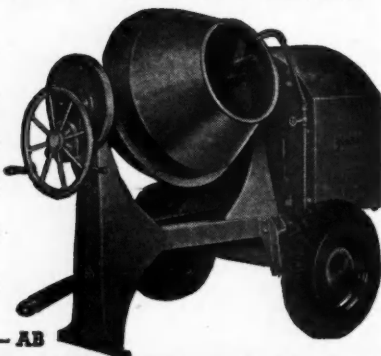


Fast discharge — 7 seconds — no tilting necessary — weighs only 850 pounds — air-cooled engine — V-belt and worm drive.

WRITE FOR BULLETIN NP — AB

3½-S TILTING KWIK-MIX

Side discharge — anti-friction bearings — welded construction — discharge either side — spring mounting.



WRITE FOR BULLETIN SD — AB

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

Ed and Matt Thrive on Repairs

(Continued from page 39)

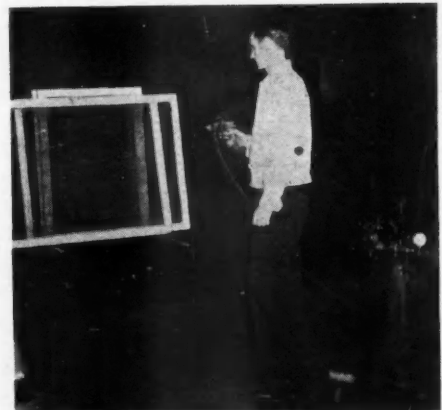
and the customers served, Matt Simon stated: "In the January issue of *American Builder*, there is a story on the maintenance shop of a large Seattle office building. You know, what we really provide is the service that a building owner would get from a shop like that without having it on his own premises and keeping his own crew of workmen."

Most of us would expect to find this work calling for factory production in a great big plant. As a matter of fact

**ASHLAND Re-
pair & Construction Co.** office is located on busy Chicago street; stock room to the rear in this building; shop is directly behind and across alley.



IN turning out large volume of screen repainting, sprayer is used in booth. AS fast as screens are painted, they are loaded on drying racks, moved to drying oven (page 35). Then as soon as dry, they are piled on palettes and pushed to loading point for delivery (left).



the facilities are quite moderately sized considering the volume (see views on pages 34 and 35), and equipment, while adequate, is not over elaborate. The secret is good planning in their shop. This structure is 50 feet by 65 feet and within this floor area there is a spray paint booth, a drying oven, work benches and area where the power tools are set up; space for loading and unloading trucks and storage area for materials and equipment.

In carrying out the volume of screens mentioned above the bottleneck before last year was enough room to store the screens while they were drying after repainting. This was solved by putting in a specially designed and built drying oven, which was the first of its kind in this area. It uses reflected infra-red under low temperature combined with ventilating equipment which changes the air thirty times a

minute. In this oven freshly painted screens are dried in seven minutes, have a beautiful hard finish that gives greater protection to wood and steel.

In going through the shop, screens are first inspected to see if they need to be taken to the repair table or if badly damaged, new screens are made and screen cloth installed. From there they are put with the others to be repainted and go to the spray booth, then to the dryer and finally reloaded onto the truck.

Do Many Other Types of Work

However, in spite of the present seasonal interest in screen work, as described above, it should not be thought that this is the only big job of Ashland Repair. At other times of the year the shop is busy on a variety of work and their force varies in size from 8 to 40 craftsmen out in the field. The shop force is kept the year 'round, and consists of six workmen and two truck drivers who man the half-ton pick-up and 1½-ton stake body trucks.

Power equipment used in the shop includes a Walker-Turner 10-inch circular saw, Boice-Crane shaper, Porter-Cable Speedmatic saw and Stanley electric hand saw, both of which can be set on radial arms, Stanley electric drill with bench adapter, Carter electric weatherstrip groover, power mortiser and pony planer.

* * *

Weyerhaeuser Opens New Research Laboratory

A NEW RESEARCH laboratory building costing more than \$100,000 has been opened at the Longview, Wash., lumber and pulp plant of the Weyerhaeuser Timber Company. Clark C. Heritage, who also directs the research and development activities of the Wood Conversion Company at Cloquet, Minn., is in charge. A staff expected to number about thirty persons, many of them with extensive professional training, will be employed.

The purpose of this new enterprise, it is announced, is the development of new commodities and methods of commercial importance. The utilization of the standing forest, whether as structural products, fibre and fibrous products, chemicals (and products therefrom) or plastic materials, will be the concern of this Weyerhaeuser department.



ONE OF new work laboratory rooms in Weyerhaeuser Development Department.

The Development Building is a two-story T-shaped structure built largely of Weyerhaeuser forest products, including laminated wooden girders, flooring, finish, trim, paneling, plywood doors and sash—all made from West Coast woods. The first floor contains administrative offices and library, besides a large workroom and service rooms. On the second floor are six large laboratories. The building was designed by Fred Lang, and construction was supervised by R. D. Pauley; both are Weyerhaeuser staff executives. V. P. Quoidbach was the contractor. Ground was broken on June 6, 1942 and the first laboratories were occupied last November, bringing to culmination plans for a comprehensive Development Department long under consideration and finally definitely authorized in the latter part of 1941.

This RADIAL SAW is a "Jack of all Trades"

It
CROSSCUTS, RIPS, MITERS, DADOES, SHAPES, ROUTS and TENONS

•
Cuts
WOOD, METALS, PLASTICS, TERRA COTTA, TILE, TRANSITE, etc.

If you're looking for—or working on—war contracts, this versatile Walker-Turner Radial Saw is a "must"! It does so many jobs, produces such volume, saves so much time and manpower—you can easily meet the most urgent schedule. This is made possible by such exclusive design features as the patented, geared, shockproof motor. It gets the shaft closer to the work, permitting smaller blades with greater rim force and speedier cutting. Sliding ram eliminates overhanging arm for clearer visibility. Convenient controls provide accurate setting and finger-touch ease. Ruggedly built throughout. Available promptly for war work, at the low price of \$354.50. Write for detailed literature. Walker-Turner Co., Inc., 1043 Berckman St., Plainfield, N.J.

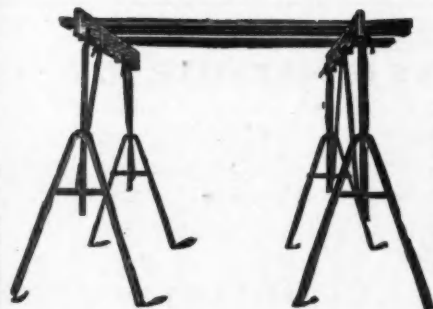
walker-turner WALKER-TURNER RADIAL SAW
CORP. INC. FOR CUTTING METAL·WOOD·PLASTICS
PLAINFIELD, N.J.

MANY STOCK ITEMS ARE STILL AVAILABLE FOR ESSENTIAL JOBS

Write us about your needs. "Trouble-Saver" Steel Scaffolding saves time—Saves labor—Saves money.

Don't be without the many advantages of "Trouble Saver" Steel Scaffolding if the job is essential. Although we, too, are all-out for defense—having converted to war production—we still have a supply of stock items which we can furnish to those eligible.

ADJUSTABLE TRESTLES



The famous "Trouble Saver" Adjustable Steel Trestles are made of rail steel for lasting strength. Easily adjustable to any height. Will fold compactly for cartage.

This is just one of the many money-saving "Trouble-Savers."

THE STEEL SCAFFOLDING CO., INC.
1101 N. Governor St. Evansville, Indiana



All facilities for the production of the nationally popular line of "Chromedge" items are being used entirely for the fabrication and processing of war-essential parts and equipment. But these famous B & T products will be back when Victory is won—at the head of the field, as usual—with new ideas, improved features, and if possible, even better service than before!

Rolled Metal Trims Still Available
A wide variety of rolled metal trims, in shapes suited to most all requirements, are still available for immediate shipment—from stocks on hand before war called a halt to production. For details write today to—

THE B & T METALS COMPANY
425 W. Town St. Columbus, Ohio

METAL TRIMS
TRADEMARKED
CHROMEDGE
TRADE MARK REG. U. S. PAT. OFF.

STOP LEAKS INSTANTLY
with **QUICK-SET**



QUICK-SET WATERPROOFING stops seepage leaks through all under ground masonry walls, regardless of pressure. Works like magic. Simply hold QUICK-SET directly against water pressure for 5 minutes and leak is PERMANENTLY SEALED. FOR WATERPROOFING and DAMPROOFING ENTIRE WALLS, CEMENT BLOCKS, CINDER BLOCKS—STONE FOUNDATIONS USE FLURESEAL. POURED CONCRETE—BRICK—STONE—STUCCO WALLS USE TRICOSEAL. Easily applied with brush or trowel, inside or outside. Available in attractive colors so you can waterproof and decorate in one operation. SEND FOR FREE FOLDER. Solves all waterproofing problems.

Sold by
Paint, Hardware & Building Supply Dealers

THE AMERICAN FLURESEIT CO.
639 ROCKDALE AVE., CINCINNATI, O.

WE MOVE to MAYVILLE, N. Y.

After May 1, 1943, Fred W. Wappat, manufacturers of the serviceable Fred W. Wappat Portable Electric Hand Saws, will be in our modern new factory building at

MAYVILLE, N. Y. on CHAUTAUQUA LAKE
Please note this change of address on your records

Fred W. Wappat

Better Homes—More Ships

(Continued from page 37)

down the line by a handler to the first power saw, which cuts eave end cut and rafter seat plumb cut and then rolled on to a second power saw which makes the jack cut for hip or valley. It is then rolled to an electric hand saw which makes the final cut in seat of rafter. From there the handler stacks the rafters in correct piles according to size. Saws are set so as to cut all one length or type of rafters for a whole project before being changed for another length. In that manner 400 rafters can be cut per hour with 3 handlers and 3 saw men.

Studs are cut in the same manner but with only one power saw making trim cut and length cut. The lumber is fed and taken away by the roller tables.

Lumber is delivered to the job site by especially designed lumber trailers with rollers at both ends. These trailers are pulled by ½-ton pickup trucks. Thus all the lumber for a roof is picked up at the yard from segregated piles according to the type of roof required, and delivered to a foundation. Or one whole house of pre-cut studs is picked up by backing a trailer under studs piled on horses, delivered to a house and rolled off by pulling the trailer from under the pile. In this manner from 12 to 14 roofs can be delivered a day when the job site is as far as 2 miles from the cutting yard.

The entire operation is set up with crews. As far as possible they operate in tandems, that is, houses are framed simultaneously in pairs and the framing crews, roofing crews, and shingle crews must keep up their schedule or they quickly find the operation behind them backed-up.

Commenting on his production methods, Bohannon told *American Builder*: "Due to the shortage of skilled mechanics we are compelled to use the kind of labor and carpenters available, although they are all union men. We would be unable to carry the volume of production were it not for the fact that each man has a specific function.

"As long as he is competent in this one function we are not concerned about his ability as a journeyman carpenter. We are really carrying on a manufacturing operation that might be likened to a production line, the difference only being that our material and operation moves forward on the site instead of products moving forward over the machines.

"As a matter of demonstration,—we have built a completed house, up to the brown coat of plaster, in seven hours. The foundation, however, was in place at the start of the work. We believe we have demonstrated conclusively that we can build a conventional house of equal size, with fewer total man hours, by our method than is possible by prefabrication off the site where the whole wall sections must be carried to the site and assembled. We have eliminated several duplications of material handling and, since labor is the most critical item in our present war economy, we are interested in the method that will show the greatest conservation of labor.

"We have built both dry wall and plaster. Our current production is totally interior plaster and exterior redwood siding."

How to Estimate Siding

(Continued from page 58)

areas for ⅓ and ½ pitches may be found by referring to Roofing—(Barns) see page 62, March *American Builder*.

Dormers: Dormer areas are given in table on page 77 February *American Builder*.

Total Area: Add the net sq. ft. areas of each elevation, gable and dormer together, to find total net area to be sided.

Waste Allowance: To the total net sq. ft. area, add 8% for waste and figure to the nearest larger half or full square, or nearest bundle of shingles.

Wood Stripping: Either 1" x 3" or 1" x 4" No. 2 boards, ripped diagonally into bevel strips, or ordinary 4-ft. wood plaster lath, make a good job. Preferably a 15 lb. Asphalt Felt should be applied over the present siding before the bevel strip or wood lath is applied. To arrive at the lin. ft. or pieces of 4'0" lath required, measure the exposure of present siding, and multiply total sq. ft. area by the correct

number of linear feet or number of lath required per 100 sq. ft. given in the following table.

Exposure, inches.....	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	9	10 1/2
Stripping, lin. ft.....	300	288	240	224	200	188	172	160	152	136	114
Number of 4" Lath..	75	72	60	56	50	47	43	40	38	34	29

Corners: Add heights of elevations to find lin. ft. of corner boards (two boards; one 3" and one 4" are used for each corner). If metal corner bead or flashing is used figure one foot for each lin. ft. of corner.

Molding: Count the number of doors and windows and multiply by unit price.

Flashing: Add widths of window and door frames to find lin. ft. of flashing, allow 3'0" per window and 3'6" per door.

Caulking: Around door and window openings, to prevent leaks, use Asbestos Caulking Putty. Add unit price per door and window.

Stucco Removal: All stucco as well as all nails, wire or other projections should be removed and the sheathing covered with 15 lb. Asphalt Felt. Figure unit cost per square for removal and in addition add asphalt felt price.

Clean-up: For cleaning up the job multiply the price per square by the squares of Siding.

SIDING—ACCESSORIES—For Asbestos and Asphalt Shingles—*Base Price Workout

DESCRIPTION	Material Price	Labor Cost	Profit 25%	Comp. Ins. 10%	*Selling Price Incl. Comm.**
Cant Strip, 1 1/2"x1", per lin. ft.....	\$.01	\$.01	-----	-----	\$.03
Caulking Putty for Doors and Windows.....	.10	.15	.04	.015	.34
Clean up Job, square.....	-----	.20	.05	.02	.30
Corner Beads, Metal, per lin. ft.....	.10	.04	.01	.01	.18
Corner Boards, 1x3 and 1x4, lin. ft.....	.06	.04	.01	.004	.13
Felt, 15 lb., per square.....	.50	.30	.08	.03	1.01
Remove Stucco, per square.....	-----	1.50	.38	.15	2.25
Wood Moulding, Around Doors, each.....	.20	.30	.08	.03	.68
Wood Moulding, Around Window, each.....	.15	.30	.08	.03	.62
Wood Stripping, Bevel Strips, 4 1/2" Exp., square.....	1.44	.30	.08	.03	2.05
Wood Stripping, Wood Lath, 4 1/2" Exp., square.....	.50	.30	.08	.03	1.01

**Selling Price includes 10% sales commission.

NHA's War Housing Policy

(Continued from page 33)

On the materials front, the war housing program has been integrated with the materials allocation system of the War Production Board to assure that the critical materials made available to housing will be used only for the most essential war purposes. The National Housing Agency cannot schedule new construction in any locality except to the extent that its housing needs cannot be met through use of existing structures. The consumption of critical material in new projects has been cut to minimum levels commensurate with practical operations, and procedures have been established to make sure that the new housing built actually serves the war needs for which it was authorized. Only on this basis have we been able to assure adequate deliveries of war material to projects passing all tests as essential war housing.

It is on these terms and conditions that the housing industry has been transformed to a war basis. Within the necessary limitations and restrictions required by the war effort, the job facing the industry has been and continues to be of very large proportions. The program thus far, based on needs through July 1 of this year, has called for roughly 3,000,000 living accommodations for in-migrant war workers, of which approximately 1,300,000 represented new building. About 55 percent of this construction has been completed and about 23 percent now is under way. The balance of these new units is still to be started, and an additional volume of new construction will be required to provide for the continued necessary migration of war labor after July 1.

The construction of these units is, of course, the job of the building industry itself. And the policy of the National Housing Agency is to encourage its production through all available channels and by every assistance compatible with the needs of the war effort.

(Continued to page 94)

This powerful, fast-cutting MALLSAW reduces form construction to a few simple operations. It assures perfectly square board ends, eliminating fins and projections. It permits a carpenter to gang and cut boards for entire section at one time. It does away with awkward hand sawing below grade as boards cut to size can be passed to the man in the trench faster than he can nail them in place. And, in addition, it enables contractor to use small ends and pieces ordinarily discarded. MALLSAWS are balanced for safe, one-hand use, easily and quickly adjusted for depth and bevel cuts to 45 degrees, simple and easy to use. A Big time and labor saver for War Projects. Write AT ONCE for literature and prices.

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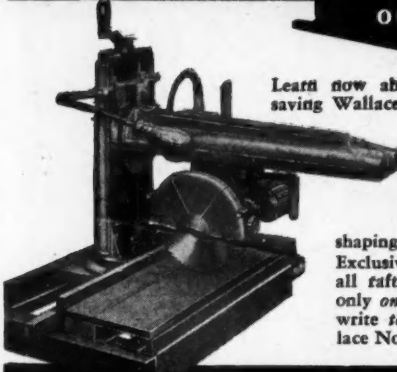
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(Continued from page 93)

Because of the unprecedented proportions of our war program and the very real risks surrounding the ultimate disposition of facilities built specifically for war purposes, the greatest proportion of wartime plant construction has been financed directly by the government rather than by private enterprise. In housing, on the other hand, private financing has been feasible to a large extent, for the reason that much of the housing built for specific war needs can also be economically absorbed in the post-war period. The National Housing Agency has therefore relied upon private lenders for the financing of as large a share of the war housing program as possible.

When a program of new construction has been approved, the NHA calls for private financing wherever there is reasonable expectation of continuing economic need for the housing after the war, and wherever private builders can meet the necessary wartime restrictions on size, location and occupancy. To the extent that private financing cannot meet the need of occupancy conditions or temporary construction, the NHA specifies Government financing and the projects are built by private contractors under government contract. There is clearly no sound means for private financing of temporary projects scheduled for dismantling within a few years.

NHA Co-operation with Private Building

The National Housing Agency has cooperated closely with private industry and private finance in order to encourage their maximum participation in the war housing program. This has included joint efforts to save critical material by revised construction practices and the development of substitutes; constant consultation on mutual problems, and the development of as great a degree of certainty in operating conditions as can be attained in wartime. The NHA has secured equal access to critical materials for qualified private projects through the AA-3 preference ratings now assigned by the WPB to all war housing. It cooperated in the recent revision in war housing construction standards which will simplify the alignment of private building construction with war housing requirements. It has asked, and received from Congress Title VI mortgage insurance to protect private lending institutions against loss of their investments in war housing.

The concrete result of this policy is that approximately 640,000 family dwelling units, representing an aggregate investment of roughly \$3,000,000,000, have been or will be privately financed under our present war housing program, with additional privately financed construction likely to be necessary later on. At this moment, upwards of 150,000 privately financed units are still to be started under our present national war housing quota. All but a few thousand of these units have already been programmed for specific critical housing areas and AA-3 priorities are available for qualified projects.

Program Based on 5 Policies

I have thus far discussed the development of war housing policy in national terms in order to make clear that the policies controlling our program spring entirely from the national war emergency. However, it is the application of these policies to specific local situations which determines, first, whether any war housing can be approved for any given community and, second, the characteristics of the local construction programs that are approved. In general, the application of these broad policies to a specific locality follows this pattern:

1. If the War Manpower Commission determines that in-migration of war labor is not necessary, then no war housing construction is authorized.
2. If the community has sufficient accommodations in existing structures to house the expected essential in-migration of war labor, again no new construction is authorized.
3. If the need is to house single workers, the NHA schedules public financing and temporary construction.
4. If the need is for family accommodations which can be permanently absorbed by the community, and if the private

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builders can meet necessary war-time requirements, then the NHA schedules privately financed construction.

5. To the extent that the need for family accommodations is not met by private financing and particularly where the need is temporary, the NHA schedules publicly financed construction.

There have been, and probably always will be, conflicting views on the need for housing during this war period. Many communities opposed any war housing; many still oppose it, with the very real fear that over-building will end in a collapse of all real estate values after the war. Many groups in many communities felt war workers should be housed in barracks, opposed all family accommodations on the theory that men should be willing to leave their families as if they were going into the armed forces.

Other groups wanted to build as usual, even after the war began. They opposed the limitations on cost and the use of materials. Still other groups, knowing that thousands of people are living under unsatisfactory conditions, wanted at least part of the peace-time housing program to be continued to provide better living standards for those people. Still others, opposed to the expenditure of public funds for any type of housing, advocate private financing regardless of the danger of over-building in many communities.

The NHA has sought, with many other groups, both Governmental and private, to solve these controversies on realistic grounds. Barracks could not be the answer to the war housing problem because men would not and, in many cases, absolutely could not, leave their families and go to live in those barracks. Temporary housing has been the proper answer in some situations; in others, temporary housing would have been a needless waste because the new construction could and should be a permanent contribution to certain communities. In still other cases, permanent housing would only result in ghost towns and neighborhoods. It is after consideration of all these factors—plus the shortage of materials, the necessity of building to meet war worker incomes and the manpower requirements determined by the War Manpower Commission—that the NHA's war housing policies have been forged.

Actions Follow War Program

Through the National Housing Agency, the full housing picture now can be shown to Congress and the Governmental agencies with which housing must deal. With the War Production Board, this has resulted in the NHA being named a claimant agency under the Controlled Materials Plan. With Congress, it has permitted an opportunity to explain our problems fully and have our program adjudged as a whole. It has been and is the objective of the NHA to carry out faithfully the policies which the Congress then lays down.

Too much emphasis cannot be placed on the fact that the decisions controlling war housing—nationally or locally—must be based on the needs of the war program and cannot be predicated on a peacetime program of improving community housing conditions or on supplying a continued volume of business during war-time. Even where the market, the need, and the building capacity are available when judged by peace-time standards, new construction cannot be authorized unless necessitated by imperative war requirements. That hard fact is not unique to the housing industry but is common throughout our war economy. It is not the product of anyone's arbitrary will but is part of the price we have to pay to win the war.

But, within the framework of necessary war policy, the National Housing Agency has sought maximum participation through all available channels in the housing industry. Furthermore, our guiding philosophy has been that the critical problems involved in shaping and developing an effective war housing program can be solved only by the teamwork and cooperation of all groups concerned with housing. The degree to which we have secured that teamwork and cooperation is responsible for the progress we have made in carrying out a difficult war-time job. And the teamwork and cooperation that we have developed under the stress of war-time conditions will stand the housing industry in good stead when we face the great housing job which lies ahead of us in the post-war period.



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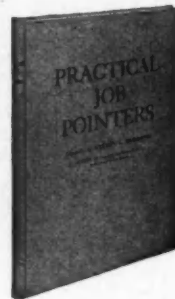


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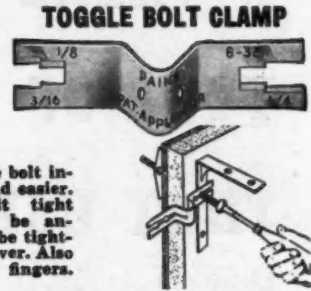
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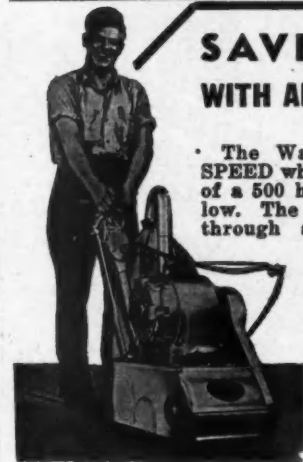
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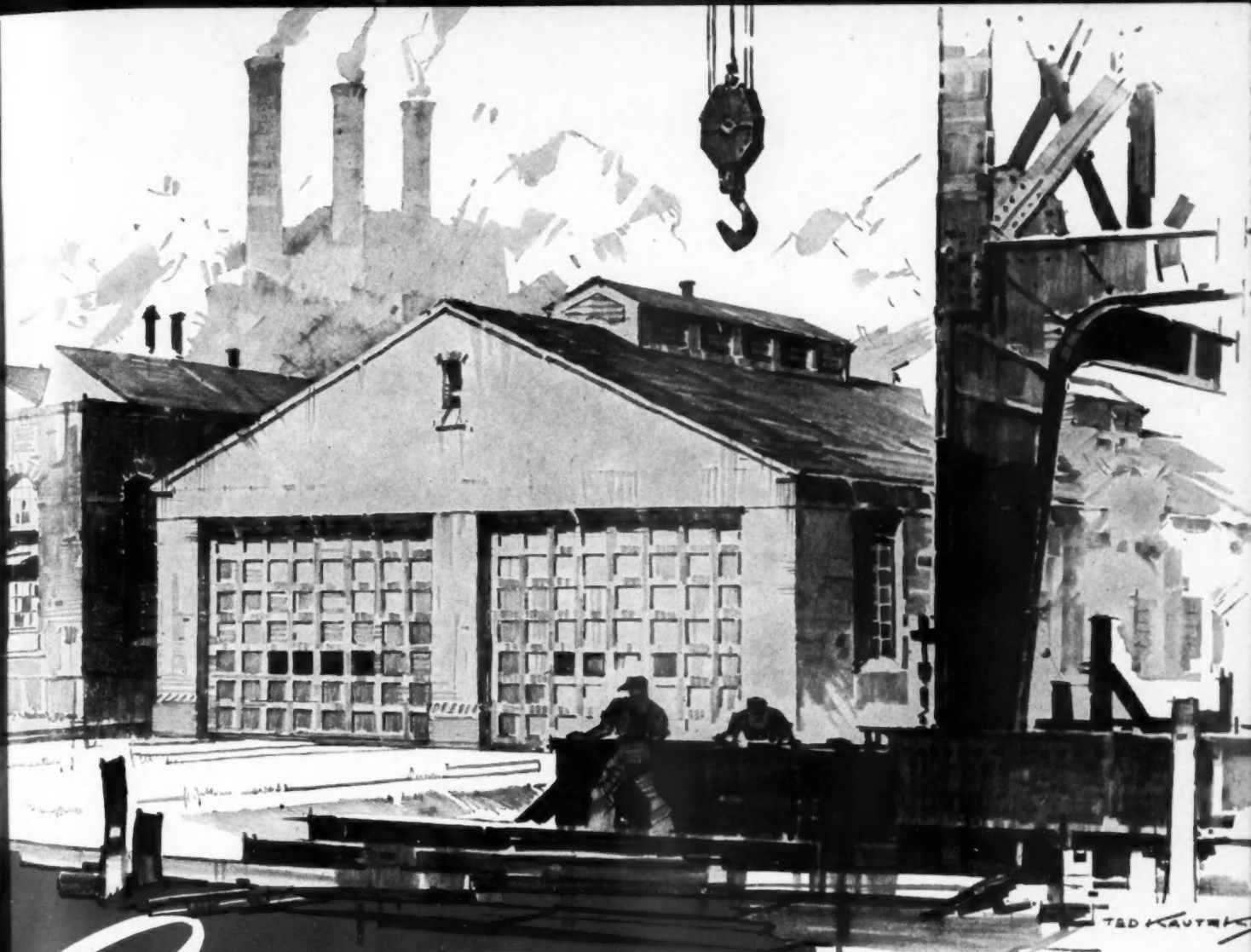
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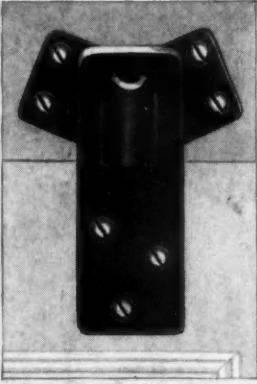
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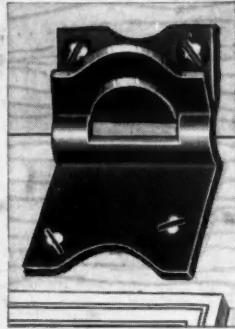
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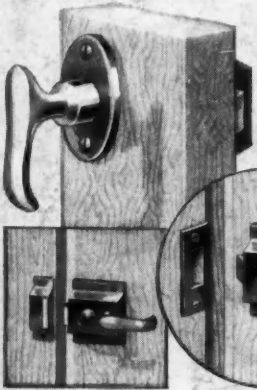
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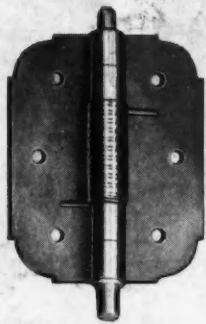


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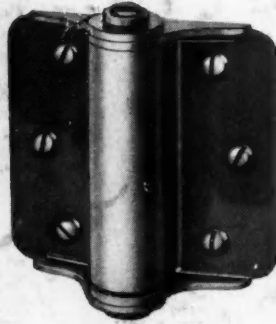


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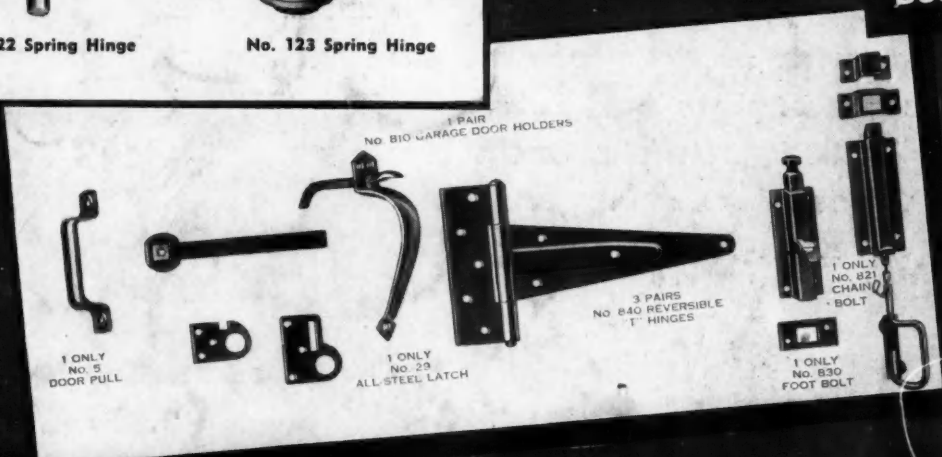


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