

AMERICAN BUILDER

AND
BUILDING
AGE

THE WORLD'S GREATEST BUILDING PAPER



HOME BUILDING
IN WARTIME

UNCLE SAM IS TELLING AMERICA:



... LET CELOTEX BUILDING PRODUCTS HELP YOU HELP AMERICA!

THIS FHA POSTER doesn't mince words. It says defense calls for home repairs. It mentions the urgent need for rooms, apartments, houses. It is intended to spur the public to action.

That kind of action requires *your* services! Many houses need repairs to make suitable shelter for war workers—and thousands of owners are thinking of remodeling to gain added rooms. Roofs need replacement. Farm buildings need insu-

lation, to bring about the greater egg production and milk yield the government is asking for.

Your Celotex dealer can tell you how many Celotex Building Products are immediately available. Ask him about Celotex Vapor-seal Sheathing for insulation—Celotex Interior Finishes for quick completion of added rooms—Celotex Shingles and Rock Wool and gypsum products. Let him help you help America!

CELOTEX

REG. U. S. PAT. OFF.

BUILDING PRODUCTS

INSULATING SHEATHING, LATH, INTERIOR FINISHES
ASPHALT SHINGLES, SIDING, ROLL ROOFING
HARD BOARDS, ROCK WOOL BATTS, BLANKETS
GYPSUM PLASTERS and LATH and WALL BOARDS

Sales Distributors Throughout the World

THE CELOTEX CORPORATION • CHICAGO

Published monthly by Simmons-Boardman Publishing Corporation, 105 W. Adams St., Chicago, Ill. Subscription price, United States, Possessions, and Canada 1 year \$2.00; 2 years, \$3.00; foreign countries: 1 year, \$4.00; 2 years, \$7.00. Single copies, 25 cents. Entered as second-class matter Oct. 11, 1930, at the Post Office at Chicago, Illinois, under the act of March 3, 1879, with additional entry as second-class matter at Mount Morris, Ill. Address communications to 105 W. Adams St., Chicago, Ill.

*Ideal for Your Low-Cost
Defense Houses!*

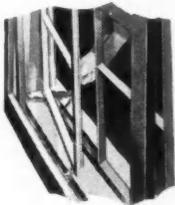
LOW-COST *Fenestra* STEEL CASEMENT WINDOWS USE ORDINARY LOW-COST STORM SASH



ABOVE—Simply hang ordinary storm sash at top, on outside of Fenestra Package Window. Storm sash not supplied by Fenestra.
RIGHT—Storm sash is linked at bottom to casement ventilator, from inside, with hook-and-eye supplied by Fenestra.

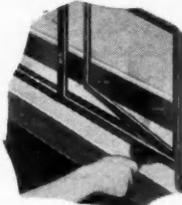
Save money—
and get these three benefits

OPENS AUTOMATICALLY



Linked to the casement ventilator at the sill, the storm sash opens automatically when the casement window is opened from the inside for fresh air.

OPENS EASILY WITH ONE HAND



Both storm sash and casement vent swing instead of slide; casement vent is steel, which never binds or sticks—hence double window opens easily.

PROTECTS LIKE A CANOPY



When this double window is opened for winter ventilation, the storm sash forms a protecting canopy—keeps snow or rain from entering a room.



INSTALLED OUTSIDE
IN 5 MINUTES



TRIMMED INSIDE
IN 8 MINUTES

The Fenestra Package Window includes a Bonderized Steel Casement Window, already glazed, wood cased and outside trimmed, with all hardware included; with prefit inside wood trim if desired. It's installed in a jiffy . . . It helps sell houses—provides better appearance, more daylight, better ventilation, easier opening, safer cleaning, permanent weather-tightness, better screens, higher quality, lower upkeep . . . Get Fenestra facts and prices. Use coupon.

THE NEW LOW-COST *Fenestra* PACKAGE WINDOW

DETROIT STEEL PRODUCTS COMPANY,
2260 East Grand Blvd.,
Dept. AB-3, Detroit, Mich.

I am a () Contractor () Owner
() Dealer () Architect

Please send me the new Fenestra Package Window catalog and Price List.

Name _____

Address _____

City _____ State _____

THESE BLUEPRINTS ARE REAL TIME SAVERS

A VALUABLE SERVICE FOR ACTIVE BUILDERS

Wartime Housing and Remodeling are the big building markets for 1942! Contractors, builders and engineers are specifying *non-critical* Red Cedar Shingles for all sorts of building projects connected with the strengthening of American defense. To help you do this mighty important building job quickly and efficiently—and with a minimum of critical building materials—we have prepared a set of blueprints illustrating many of the recommended applications for Shingle roofs and sidewalls.

IF . . . conditions have made it necessary for you to employ inexperienced builders, these blueprints will help them learn the technique of roof and sidewall construction.

IF . . . you are building cantonments, you'll find the "Standard Roof," "Single-Coursing" and "Double-Coursing" blueprints save time and labor.

IF . . . your business is a part of the vital "Repair for Defense" effort, use the

"Over-Roofing" and "Double-Coursing" guides for better remodeling.

IF . . . you build small homes for Wartime Housing, you will need a complete set of these useful guides, including "Ribbon-Coursing," the "Staggered Roof," and the "Four-Ply Roof."

These application blueprints are available **FREE** to builders and contractors in the interest of better roof and sidewall construction. Send for them today! Fill out and mail the coupon now!

RED CEDAR SHINGLE BUREAU Seattle, Washington
Vancouver, B. C.



Red Cedar SHINGLES



OPEN SHEATHING*
 AN OPEN SHEATHING IS
 SPACE BETWEEN BOARD
 SHOULD CORRESPOND WITH
 OTHER EXPOSURE

CONST
 DOUBLE COURSE

MAIL THIS COUPON
 NOW FOR YOUR
FREE ★
 BLUEPRINTS

★ RED CEDAR SHINGLE BUREAU
 5507 White Building, Seattle, Washington
Gentlemen: Please send, free, a set of Architectural blueprints of
 Shingle Applications.

AB342

NAME.....
 ADDRESS.....
 CITY..... STATE.....

ANDERSEN

LOW PRICE FIELD



ANDERSEN LIFETIME CONSTRUCTION

For Low-Cost Homes!

You don't have to skimp on the quality of windows when you build "under \$6,000" homes . . . you can build wartime homes that will continue to be rentable and salable after the war. With the new Victory Window you can build wisely and well . . . and without getting costs one bit out of line.

Lifetime features are retained!

- Weathertight wide blind stop
- Leakproof locked sill joint
- Steep sill slope and chamfered blind stop that hastens drainage.
- Bed puttied B quality labeled glass
- 1½-inch thick sash
- Toxic treatment of wood parts
- Precision milling

The "Victory" is a quality window—at a price that permits its use in even the most inexpensive home!

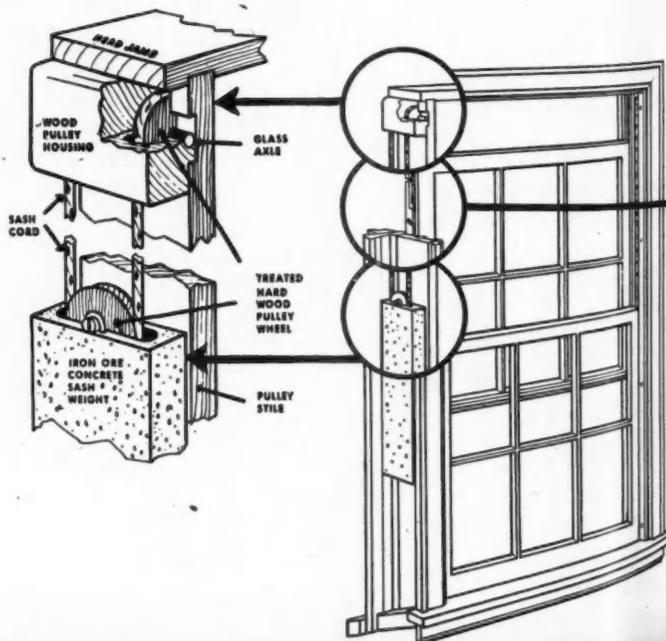
TIME-TESTED COUNTERBALANCING RETAINED!

Easy Sash Operation Always Assured

Andersen's time-tested, fool-proof system of counterbalancing has been retained by the use of alternate materials.

Sash weights are made of concrete, containing iron ore aggregate. Sash cords used in place of sash chain. Pulley wheels made of treated hard wood. Pulley axles are Pyrex glass. Pulley housings are treated wood. Metal reduced to only a few ounces!

Sash always glide easily up and down, and are positively counterbalanced at any open position. No repairs, no trouble!



In jobber and dealer stocks in April. For sizes, layouts, prices and specifications, see your dealer, jobber, or your Andersen representative, or write

Andersen ©

INVADES

with the **NEW...**

HIGH QUALITY—METAL SAVING

VICTORY *Window Unit*

BRAND NEW!

WOOD ON WOOD

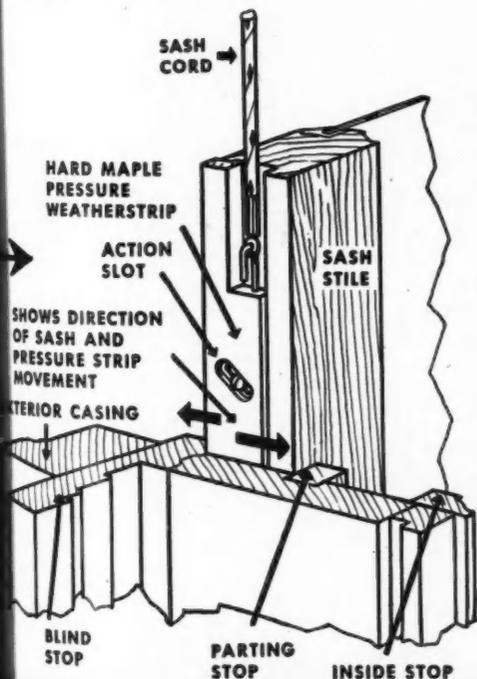
PRESSURE-SEAL WEATHERSTRIP!

The new Andersen pressure-seal weatherstrip is brand new—utterly different. The sash of the Victory Window are automatically pressed against the parting stops so that infiltration is positively and effectively stopped.

WEATHERSTRIP IS CONCEALED

The secret lies in the action of movable hard maple pressure strips concealed in the sash stiles and attached to the sash through diagonal slots. The sash cord is attached to these movable strips instead of directly to the sash. The pull of the sash weights produces a lateral movement of the pressure strips which pushes both upper and lower sash firmly against the parting stop, thereby creating a tight seal against infiltration. Sash movement releases the weatherstrip pressure and easy operation is assured at all-times. Weatherstripped windows save up to 20% on fuel. This conservation of fuel oil and coal is an important contribution to our national wartime effort.

PRACTICALLY NO METALS REQUIRED



97%
of the
CRITICAL MATERIALS

IN
WEATHERSTRIPPING AND COUNTERBALANCING

ELIMINATED!

Less than 13 ounces of critical metals used! One-thirtieth of the metals used in ordinary double-hung windows, which require about 28 lbs. of metal.

SUPPLY ASSURED!

Andersen Corporation

BAYPORT,
MINNESOTA

"Aw — who ever heard in a \$4000 house

*For years builders have installed complete G-E Kitchens
in low cost homes. Here's why!...*

THOUSANDS OF OWNERS have reported that they have found it costs less from the *very first month* to live in a home with high quality equipment.

The buyer of a \$4,000 home can least afford poor kitchen equipment, wasteful heating plant or skimpy wiring system. He, of all clients, needs most the economies of lower operating costs, lower maintenance costs, and longer life

that are possible only with efficient, high-grade equipment.

THE BUILDER PROFITS too! Establishing a reputation for building *better* low-cost homes that cost *less to live in* is a wise move that pays dividends. Safeguarding your clients' interests safeguards your own, because the homes you design and build today are the homes that build your reputation for tomorrow.



This kitchen is but one of many arrangements possible in a new \$4,000 home.

Write for book with complete details on operating equipment for small homes.





...e this



Good will plus!—Busy housewives everlastingly appreciate the time-saving, work-saving, money-saving advantages of a G-E Electric Sink that washes and dries the dishes and disposes of garbage electrically.



Automatic Heat!—Folks who live with a General Electric Furnace — residents of the mill district as well as the boulevard — report savings in fuel bills from 25 to 50%. That's vitally important in times like these!

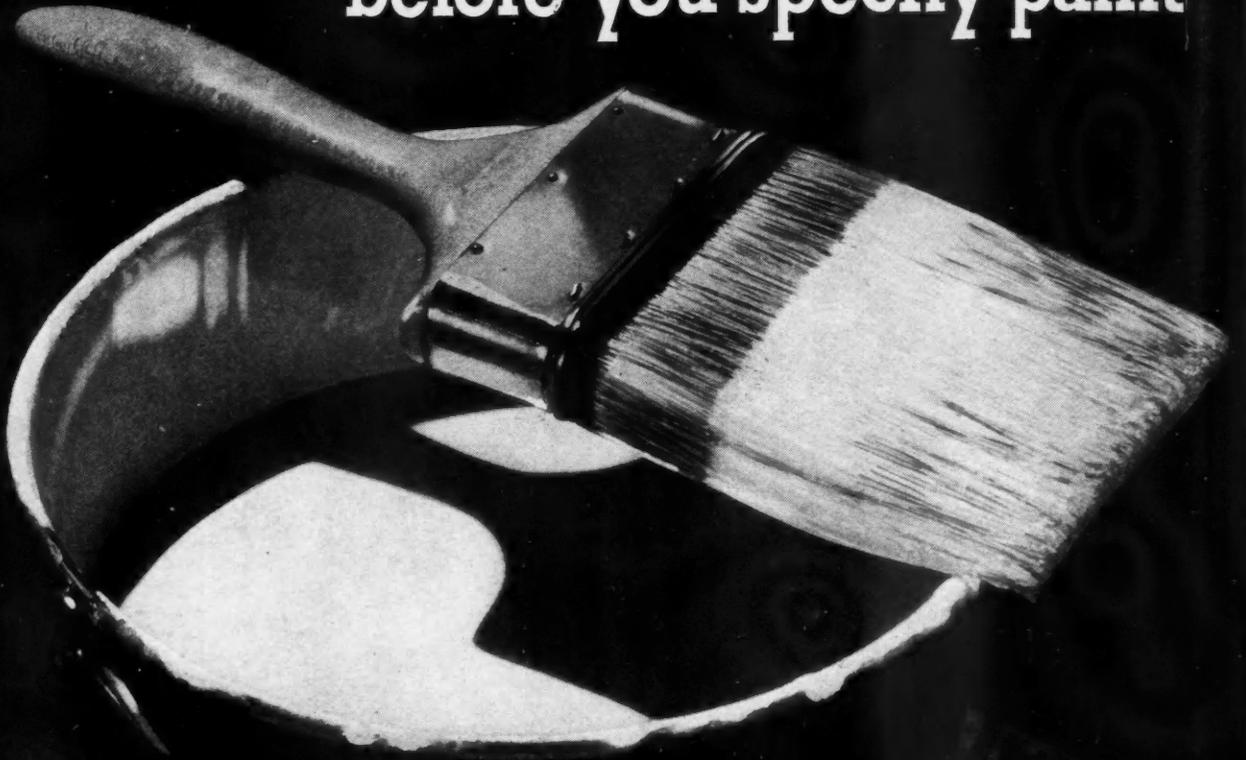
Actually
**IT CAN COST
LESS TO
LIVE BETTER**

A complete electric kitchen in a \$4,000 home can contribute more in operating economies for the owner than any slight increase it may cause in monthly payments when financed under a long term mortgage.

GENERAL  **ELECTRIC**
HOME BUREAU BRIDGEPORT, CONN.



It's time to think twice... before you specify paint



You're money ahead
when you paint with

White Lead



in looking and planning a long, long way ahead.

To protect your work from weather's ravages, it is more important than ever to specify pure white lead paint today—for two common-sense reasons.

First, with pure white lead paint, you know you're getting top-quality protection. The best painters have used and recommended white lead paint for generations.

Second, white lead paint has no superior when it comes to withstanding weather — *and that's vital today because there's no telling how long a paint job may have to last.*



"Historic New Jersey in Pictures"

Remember, white lead is made from lead—a metal that's second to none in durability, in resistance to exposure. White lead endows paint with this same toughness and weatherability.

That's why white lead paint gives you such long-lasting protection against the climate's worst. That's why it keeps its good looks, season after season, wearing down slowly and evenly—without cracking and scaling.

White lead costs no more than regular quality paints. Its beauty and grace, its stand-out protection, make a good

job look even better — make it another case where the best is cheapest.

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue, New York, N. Y.

INFORMATION FOR BUILDERS—Pure white lead is sold by paint stores in two different forms: (1) as a paste, commonly known as "lead in oil," for use in mixing pure white lead paint to order for each job, (2) as pure white lead paint in ready-to-use form, in popular-size containers. Remember you are not confined just to white—a wide range of colors is available.

White lead is also the backbone of other quality paints. In specifying exterior paint it is a safe rule to follow: "*the higher the lead content, the better the paint.*"

FREE GUIDE TO BETTER PAINTING — Send today for valuable booklet "WHAT TO EXPECT FROM WHITE LEAD PAINT" containing complete information about low-cost quality painting on all types of surfaces.



You c
Electr
each
this b
invest
Made
Black
last a
hand
adjust
Phone
Mfg.

SAWIN
operati

Black & Decker Electric Saws

PAY FOR THEMSELVES

By Slashing Costs

You don't have to be a "big" contractor to profitably use Black & Decker Electric Saws. Hundreds of small builders are saving from \$40 to \$60 on each house by using Black & Decker Saws for cutting framing alone! On this basis the savings you pocket on only a few jobs, will soon return your investment in Black & Decker Electric Saws.

Made by the world's largest manufacturer of portable electric tools, Black & Decker Saws not only earn extra profits for builders—they outlast and outperform anything on the market. They're 10 times faster than hand . . . have *safe*, ball-bearing telescoping blade guards . . . quick adjustments for angle and depth of cut. Four powerful, light models. Phone your jobber for a demonstration—or write: The Black & Decker Mfg. Co., 766 Pennsylvania Ave., Towson, Maryland.



CUTTING stair carriages with Black & Decker Electric Saw takes only 35 minutes for a set of 3 carriages—compared to the cost of a half day's work when done by usual hand-sawing methods.



SAWING 50 rafters in 45 minutes with Black & Decker Portable Electric Saw—just one operation whereby these fast saws pay for themselves by their big savings in time.



COSTS saved by multiple cutting of studding with Black & Decker Electric Saw helps to pay for it! All the studs for a house are cut in only a few hours by one carpenter with this fast, accurate power saw.



Send for *Free*
"Saw Handbook"

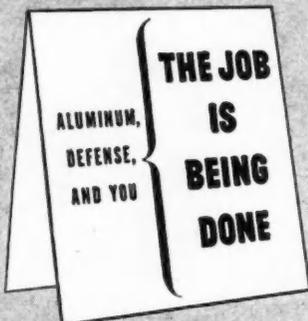
New and revised edition contains 28 pages of pictures and facts showing how Black & Decker Saws save time and help builders make more money on dozens of types of construction operations.

LEADING DISTRIBUTORS EVERYWHERE SELL

Black & Decker

PORTABLE ELECTRIC SAWS

**WHAT 5¢
CAN MEAN TO
YOUR FUTURE**



HOW MUCH ALUMINUM we are making now is a censored secret. We are determined it shall be sufficient to the need.

HOW MUCH WILL BE AVAILABLE, after the war, is idle talk now.

THE PRICE OF ALUMINUM is the thing that's important. It is important to the war, because our reduction of the price of ingot from 20c to 15c is saving the Government many millions of dollars a year.

THAT FIVE CENTS doesn't make aluminum one whit more useful for war purposes—only more patriotic.

BUT IT DOES MAKE aluminum terribly important to the peace. Real peace means jobs for all. Jobs-for-all come into being only when people *want to buy and can buy*: Which means new things, better things, at a price.

IMAGINEERING is the word we have coined to describe the thinking which is used to get those new things ready. Imagineering is letting your imagination soar and then engineering it down to earth. Imagineering needs tools as well as brains.

THAT FIVE CENTS we've lopped off the price of aluminum, so far, has more potentialities of creating new things and better things, at a price, than any single thing we know of.

THAT'S WHERE YOU COME IN. You are the man *who*. You are the man America is counting on to make the jobs Americans are going to need. You are the man who is going to do the *Imagineering*, in your specialty, that is going to win the place for yourself, your employees, your associates.

YOU ARE GOING TO DO IT, and we hope you are going to let Alcoa help. We can, and we want to.

Aluminum Company of America, 2120 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM



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



1

Take some Brixment mortar and some 50-50 lime and cement mortar. Try shoving a full head-joint with each mortar. You'll find that with the Brixment mortar



2

(1), it is much easier to shove the brick accurately into place, with a full head-joint, than it is to do the same thing with the other mortar (2).

BRIXMENT *Makes a More* **PLASTIC Mortar!**

One of the most important characteristics any mortar can possess is *plasticity*. Within certain limits, plasticity is the greatest single factor not only in the *economy* of the brickwork, but also in its strength, its neatness and its resistance to the passage of water.

One of the most outstanding characteristics of Brixment mortar is its unusual plasticity. For nearly twenty-five years, bricklayers all over the United States have agreed that the working qualities of Brixment are comparable to those of straight lime putty. This exceptional plasticity makes it easy for the bricklayer to secure neat, economical brickwork, with the brick properly bedded, and

the joints well filled. And because of this unusual plasticity, a bag of Brixment will carry three full cubic feet of sand and still make an ideally workable mortar.



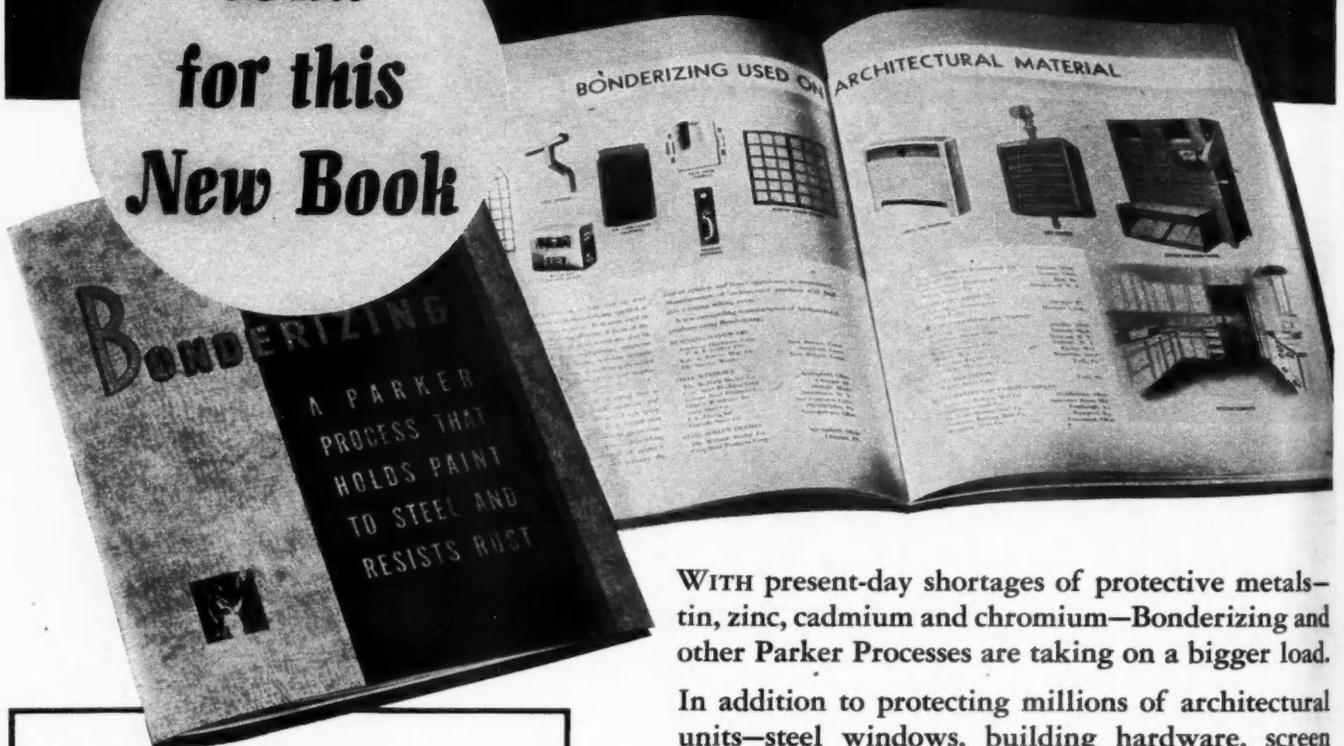
BRIXMENT

For Mortar and Stucco

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

Today Bonderizing is Doing a More Important Job Than Ever Before

Send
for this
New Book



PARKER PROCESSES Release Vital Defense Materials

From the Parker Laboratories has come the solution to some perplexing finishing problems, caused by the shortage of strategic metals. They are showing the way to effective product protection and appearance maintenance with phosphate coatings.

PARKERIZING provides protection from rust on hundreds of mechanical parts of all types of equipment—replacing zinc and cadmium.

BONDERIZING provides a rust-inhibiting base for all types of organic finishes on sheet metal, with absorbent qualities to assure maximum adhesion. It provides possibilities for decorative effects with enamel or lacquer—replacing chromium.

PARCO LUBRITE provides an oil-retaining coating on friction surfaces that resists wear, working into an excellent bearing surface—releasing aluminum and tin used on engine parts.

WITH present-day shortages of protective metals—tin, zinc, cadmium and chromium—Bonderizing and other Parker Processes are taking on a bigger load.

In addition to protecting millions of architectural units—steel windows, building hardware, screen frames, air conditioning equipment and scores of other iron and steel products—Bonderizing is protecting fighting equipment in the air, on land and on the sea.

When the question of protective finishes arises, Parker may be able to solve your problems. The Parker Laboratories have been working for years on the best methods of metal protection. They have found ways to provide adequate protection to iron and steel and release critical metals to our war-time needs. Send for the new Bonderizing book. It tells you how the process is applied and includes proof of the results to be expected. Get your copy today.

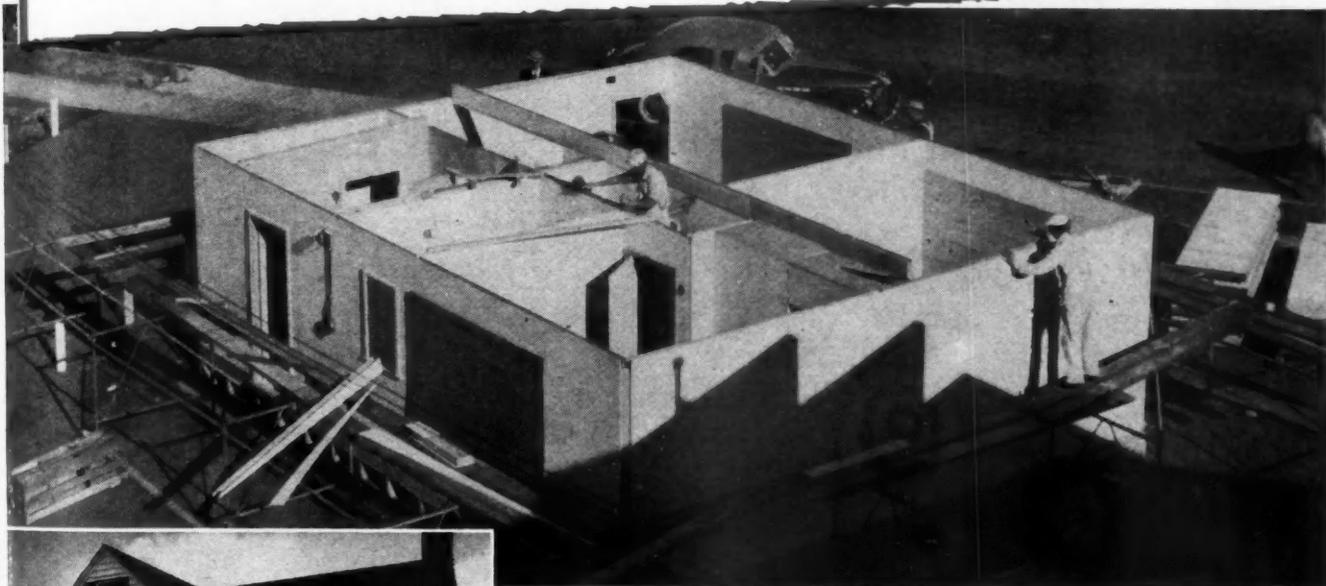
PARKER RUST PROOF COMPANY
2157 E. MILWAUKEE AVE. • DETROIT, MICHIGAN

PARKER
Processes CONQUER RUST
BONDERIZING • PARKERIZING • PARCO LUBRIZING

If you are in a section of the country where housing is urgently needed...

SEND FOR THIS FREE BOOK, "HOW TO BUILD HOUSES FAST"

It describes Prefabrication with Plywood in detail and tells you how to use it!



Douglas Fir Plywood serves as a basic structural material in more than 1000 prefabricated buildings a month!

Prefabrication with Plywood is as well suited for group housing as for single family homes in traditional styles.

The large photograph shows the assembly of a prefabricated home produced by Plywood Structures, Los Angeles, California. This firm has been active in supplying panels for demountable buildings for hundreds of defense housing units in southern California.

The small photograph shows a prefabricated residence built by the Moore & Moore Lumber Co., Youngstown, Ohio. This prefabricator has been in business since 1939 and offers 12 different home designs.

Both firms use thousands of square feet of Douglas Fir Plywood in their structures.

Prefabrication is no longer a theory. It has been proved the fastest way to build the homes, barracks and other structures this country needs to take care of its armed forces and war industry workers. The nation's leading prefabricators are now producing more than 1000 production line structures every month, and they are using Douglas Fir Plywood as their basic structural material, because it meets their requirements so completely. The large panel sizes, their amazing strength, their light weight, their kick-proofness, their receptivity to any finish and

many other advantages combine to make plywood by far the prefabricator's favorite material.

The new book, "How to Build Houses Fast," will interest you whether or not prefabrication can be adapted to your operations. Send for your free copy today. Douglas Fir Plywood Assn., Tacoma, Wash.

DOUGLAS FIR PLYWOOD Real Lumber. MAKE'S LARGER, LIGHTER SPLIT-PROOF STRONGER



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



HERE'S YOUR OPPORTUNITY to lend a hand!



Carey

BUILDING PRODUCTS AND PROMOTION WILL HELP YOU!

The war, in 1942, makes certain demands on everyone in the building business. You can do your part at home—here's how:

Farm Repairs & Improvement

for Protection of Products and Property—The government is exerting every effort to increase farm production, with the probable result that this year's crops will be the largest in history. This means needed repairs and new roofs for many farm buildings—new or enlarged buildings to protect feed crops, livestock and farm machinery. Another big market that will help keep you busy during the war emergency.

Home Repairs & Improvement

for Preservation and Increased Efficiency—Preservation of existing buildings and repair of equipment are clearly defense measures and so recognized by the government—insulation of homes to save fuel—repair of heating plants for greater efficiency—new roofs and exterior walls and other improvements to preserve property. FHA loans for such improvements are available.

Remodeling Old Homes

in Defense Areas—In hundreds of cities, manufacturing plants have been enlarged—employees doubled and trebled. These defense workers need housing—a lot of it right now. The quickest way to meet this need is by converting old residences into small apartments. The government, through FHA, is encouraging such remodeling by granting larger loans and easier terms.



Write today for details

Address Dept. 10

THE PHILIP CAREY MFG. COMPANY

Lockland, Cincinnati, Ohio

Dependable Products Since 1873

IN CANADA: THE PHILIP CAREY COMPANY, LTD. Office and Factory: LENNOXVILLE, P. Q.

MOLINE HOUSING AUTHORITY
SPRING BROOK COURTS
PROJECT NUMBER ILL-20-1
41ST STREET AND 12TH AVENUE
MOLINE, ILLINOIS

SUBJECT:
RE REFER TO FILE NUMBER
January 8, 1942

Square D Company,
806 Fifth Avenue Building,
Moline, Illinois

Gentlemen:

Just a line to tell you of the experience that we have had with Square D Multi-breakers, which were used in lieu of fuses in our U.S.H.A. aided, 184 dwelling unit project known as Spring Brook Courts.

At the time that this system was installed we were, of course, somewhat dubious due to the fact that we had never had any experience with this type of system, but at this point, after several months of operation we are very willing to tell you that we are extremely well pleased with its operation.

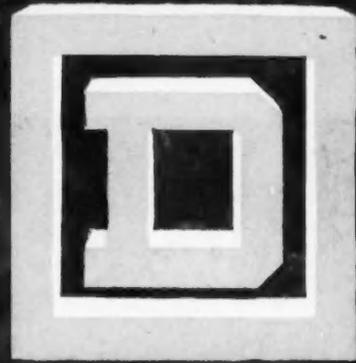
One of the main advantages that we find is the simplicity with which our maintenance crew is able to correct current failures. The time consumed in this operation is considerably less than would be the case with the old-fashioned fuses, and the compactness of the entire panel set-up is a very distinct advantage.

We are sure that anyone having a purpose comparable to ours will find the Square D Multi-breaker a distinct improvement over the old system.

Very truly yours,

Warren C. Skinner
Executive Director,
MOLINE HOUSING AUTHORITY.

WCS:lw



SQUARE D MULTI-BREAKERS ARE A "NATURAL" FOR HOUSING PROJECTS

The same advantages which have prompted scores of builders and realtors to include Multi-breakers in their plans for individual homes, are just as much in evidence in multiple house planning.

Whether it's a small, individual unit for a cottage or a panelboard grouping of many units, the Multi-breaker's function is the same. It eliminates fuses completely. It affords truly modern convenience and protection. Its cost is about the same as for the switch and fuse equipment it replaces—often actually less.

Ask your electrical contractor for the complete story. Or write for Bulletin CA-4000.

MULTI-BREAKERS ARE NON-TAMPERABLE

SQUARE D COMPANY

DETROIT - MILWAUKEE - LOS ANGELES
KOLLSMAN INSTRUMENT DIVISION, ELMHURST, NEW YORK
IN CANADA: SQUARE D COMPANY CANADA LIMITED, TORONTO, ONTARIO

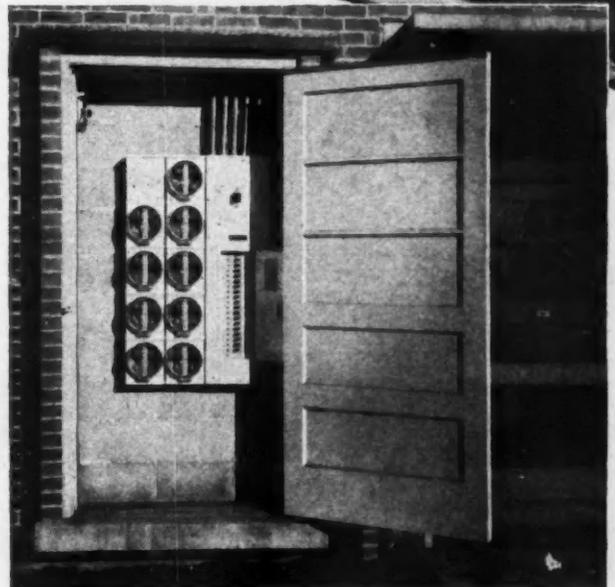
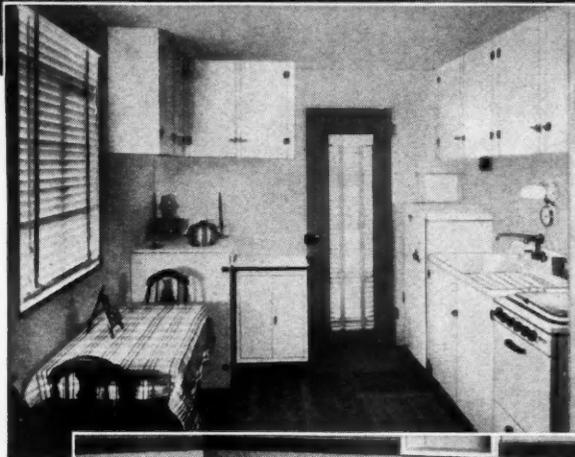


Illustration shows typical distribution panel, with Multi-breaker circuit protection, mounted adjacent to meter socket troughs having circuit closing devices for check metering. Similar installations call for individual Multi-breaker load centers used with meter trough.

See our Catalog in SWEET'S 23/12

Low Cost—but High Quality with *Crane Plumbing*



DEFENSE housing projects call for cost paring—yes. But builders are still faced with the problem of giving occupants maximum comfort and convenience. Many builders are finding that Crane plumbing not only provides this comfort, but also assures high value and that its cost is well within the budget, even for these low-cost homes. If you are building defense housing, consult with your Crane Plumbing Contractor or with your nearest Crane Branch. You will find both ready to co-operate with you to the fullest extent in selecting equipment exactly suited to your needs.

CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO
VALVES • FITTINGS • PIPE
PLUMBING • HEATING • PUMPS

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

WINDOW *Quiz* FOR LOW COST HOME BUILDERS . . .

Are Your Jobs Getting Windows That—

- 1 **Are Fast and Economical to Install?** Curtis Silentite Windows are "Pre-fit." That means fast installation at low cost. You save time and money—perhaps as much as 50% on Silentite installation.
- 2 **Save Fuel Dollars?** Fuel savings are important to buyers of small homes. Silentite "insulated" windows help save on fuel because they make use of patented built-in weather-stripping developed by Curtis and used exclusively on Silentite. Owners write of "year-after-year" fuel savings up to 25%.
- 3 **Easy to Get?** Curtis Silentite "insulated" windows are stock size windows and are made in all popular styles. They are available from lumber dealers everywhere.
- 4 **Defy Future Trouble?** Silentite Windows are trouble-free! No weights, pulleys or cords to get out of order. No sticking, jamming, or rattling. No "Window Pains."

Get the complete story about the famous Curtis Silentite window family. Get the free "Economy Calculator" to prove the Silentite savings in installation cost and fuel savings. Return the coupon today, or stop in and see your Curtis dealer for full information.

CURTIS WOODWORK IS SOLD BY RELIABLE DEALERS EVERYWHERE



THERE IS ONLY ONE SILENTITE AND ONLY CURTIS MAKES IT
Its patented features aren't available in any other window

CURTIS COMPANIES SERVICE BUREAU
Dept. AB-3, Curtis Bldg., Clinton, Iowa

Give me full information on the Curtis Silentite Window Family, and send a free "Economy Calculator."

Name

Address

City State

Here's a product whose sales and profit possibilities are actually increasing in these critical times



IT'S CALLED DELUXE ASBESTOS FLEXBOARD—*an asbestos-cement sheet that comes in 8 smart pastel colors and in three different designs. It can be applied by any carpenter.*

Those are the essential facts about this new Johns-Manville building material. Here are the reasons why we believe you and your customers will like it.

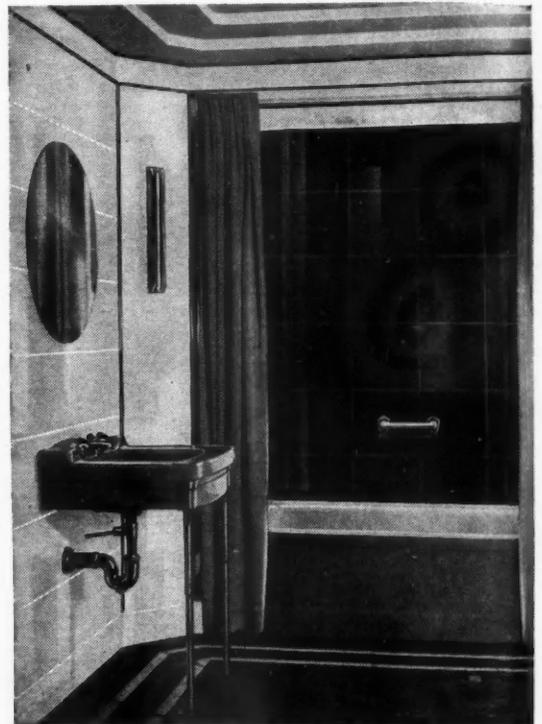
IN THE FIRST PLACE, being an asbestos-cement product, it has nothing in it to rot or decay. That means it can be used in many places where moisture—even steam—is present, such as bathrooms, shower stalls, kitchens, restaurants, bars, etc. Then, too, it is fireproof, a good quality in *any* material used for walls and ceilings.

As to its decorative qualities, we believe you'll find DeLuxe Flexboard decidedly unusual. It comes in red, ivory, yellow, peach, blue, green, white and black. Surfaces have a highly polished, mirror-like finish that results in a gleaming, cheerful room. They are easy to wipe clean and are unusually resistant to stains. The colors are "baked" on to the waterproofed asbestos-cement base by a process that makes them extremely durable and lasting.

To insure satisfaction in this respect, the J-M Laboratories developed a most severe test. Samples of DeLuxe Flexboard are placed in a shower bath, and given a long and continuous drenching. First with icy cold water, then with steaming hot water. So you can be confident that it will "stand up" under almost any conditions on your jobs.

Flexboard comes in three designs, which were used in the bathroom at the right. Horizontal Streamline pattern is shown on the left wall. The tub recess shows the block pattern of 12" squares. The corner panel has been cut from a sheet of plain design that gives the effect of a solid color panel.

You'll be glad to know that no special tools or skill are needed to apply DeLuxe Flexboard. Even though it is made of asbestos and cement, it can be sawed like wood. It can be curved, if desired. Nailing is accomplished easily, without drilling.



This attractive bathroom was built with J-M DeLuxe Asbestos Flexboard . . . Block pattern in tub recess, Streamline pattern on wall at left, Plain design in corner. Colors selected were black and peach.



When you think of the large number of old-fashioned stores, taverns, homes and other buildings, in your neighborhood, you'll quickly see the possibilities of doing an excellent remodeling business with DeLuxe Flexboard. And we believe that you'll find just what others have found—that one job sells another. We will be glad to send you literature in full color, and see that you receive samples and prices, without delay. Just write Johns-Manville, 22 East 40th Street, New York, N. Y.



Johns-Manville

Deluxe Asbestos Flexboard

FOUR *New* Counter-top Sinks! A Complete Line for Military, Naval and Defense Housing

• *New* flat-rim ledge sinks, for building into counter tops of linoleum, tile or composition over metal or wood cabinets. These four, with the popular Delafield and Mayfield sinks, make up a line in lengths from 24 to 60 inches, all 21 inches wide. *Models to meet every need of today's market!*

• All Kohler sinks are of one-piece enameled cast iron, the most widely used material. Public preference has

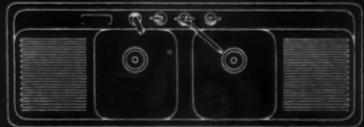
continued for many years and is growing despite the promotion of substitute materials. Their careful design means continued efficiency. Always insist on Kohler fixtures — for first quality, fair price, fine service. Kohler Co. *Founded 1873.* Kohler, Wis.

The new Chatfield Sink, 42 x 21 inches, just right for low-cost homes. (See panel, right, for new sinks in Kohler line.)



FEATURE! . . . Wide full-length ledge with integral soap dish makes sanitary base for fittings, provides space for soaps and cleansers. . . . **Feature!** Handy mixer-type fitting with long swing spout. . . . **Feature!** 8-inch-deep basin with Duostrainer which opens or closes outlet. . . . **Feature!** Large depressed drainboards. . . . **Feature!** Acid resisting enamel — for cleanliness, service.

New CLEARFIELD



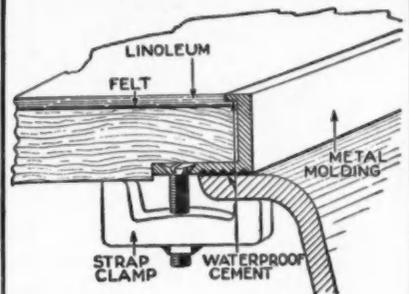
New WINFIELD



New CHATFIELD (Left Drainboard)



New CHATFIELD (Right Drainboard)



Detail showing method of building-in

KOHLER OF KOHLER

PLANNED PLUMBING AND HEATING

ALSO—Kohler offers a full line of Cabinet Sinks, all in acid resisting enamel on rigid non-flexing cast iron, with various combinations of basins and drainboards—to suit any kitchen and every budget. . . . Kohler quality costs no more.

"TO PROVIDE FOR THE COMMON DEFENSE, TO PROMOTE THE GENERAL WELFARE"



Reykjavik off the port bow!

TONIGHT, somewhere at sea, a man stands on the bridge of a freighter with the life line of a nation in his hands.

He is straining his eyes for sight of one of those islands which are our country's first line of defense. To these islands must be transported huge quantities of munitions and food. And the only answer is ships, ships, and more ships.

How is America meeting this tremendous responsibility? You'll get a fair idea at such great factories as the Westinghouse plant where the machinery to drive many of those supply ships is being built, or at the huge Westinghouse-operated Maritime Commission plant which is now being erected alongside it.

The "know how" that works 24 hours a day

There, in these factories is a dramatic example of how Westinghouse "know how" is doing a job for National Defense.

What is this "know how"? It is the ability to get things done in the best possible way—learned in building products for the general welfare and now used in building materials for the common defense.

The same skill and ingenuity that are building those turbines for the merchant fleet, not long ago built more efficient electric refrigerators and washing machines. Again, the same plant that provided water coolers and air-condi-

tioning equipment is now turning out fuses for aerial bombs.

At 17 Westinghouse Divisions, and in the plants of more than 300 sub-contractors, our energies today are almost exclusively concentrated on the creation of \$400,000,000 worth of defense materials. It's our way of speeding the day when our "know how" will be serving you again—supplying your electrical equipment for homes, apartment houses, and office buildings.

Westinghouse

For the Common Defense

Armor-piercing shot
Tank equipment
Torpedo tubes

Naval ordnance
Portable X-ray equipment
Military radio equipment

Airplane generators
Binoculars
Gasoline tanks

For the General Welfare

Electric ranges
Wiring devices

Meters
Elevators

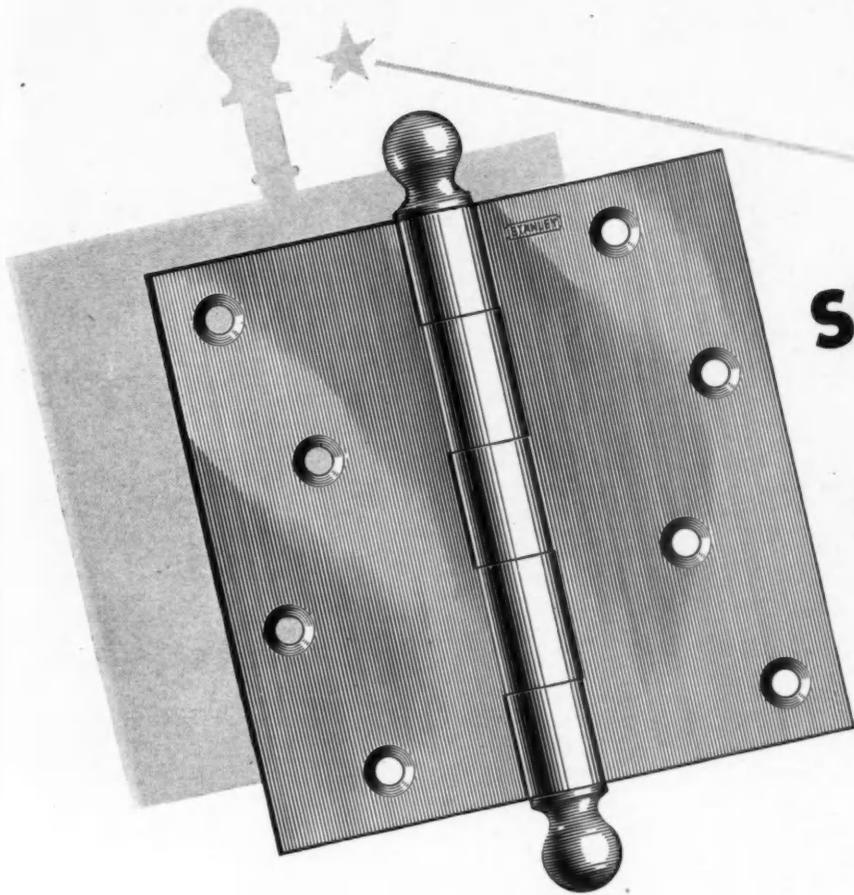
Load centers
Precipitrons

These lists mention only some of the many thousands of Westinghouse products.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO., PITTSBURGH, PENNSYLVANIA

Copyright 1942, Westinghouse Electric & Manufacturing Co.

THE GREATEST ADVANCE IN BUTT CONSTRUCTION IN 40 YEARS



SNAPS IN
STAYS IN

Why wouldn't it "click" with home owners?

Stanley has found the answer to that No. 1 nuisance to home owners (and to yourself) – the "early rising" pins in door butts. It's a positive, non-rising pin that can be seated easily, without twisting or turning. No ears to line up with pliers and force down with a hammer. It seats with a touch of your finger.

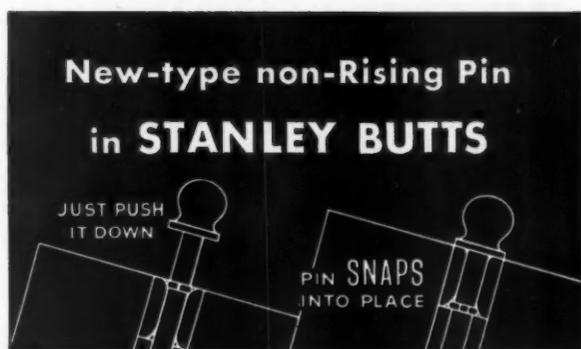
When you get butts from your dealer, be sure they are Stanley, with this new type, non-rising pin. The Stanley Works, New Britain, Conn.

April 16th-25th National Hardware Week.
Visit your hardware store for special values.



TRADE MARK

H A R D W A R E F O R C A R E F R E E D O O R S



HOW IT WORKS

The pin is grooved to hold a small, split expansion ring. When the pin is pushed down, this ring snaps automatically into a recess in the top knuckle of the butt. The expansion pressure is sufficient to prevent the pin from "riding up" from action of the door, but does not prevent easy removal when desired.



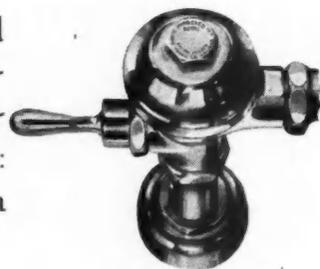
START PLANNING NOW FOR SLOAN-EQUIPPED HOMES

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Everyone knows flush valves to be the ideal method of flushing toilets. Sloan Flush Valves are installed in luxury homes, apartments, clubs, hotels, and all types of large buildings everywhere because they give enduring satisfaction with astonishingly low maintenance cost—they protect health by preventing back-syphonage—they save water—they are quiet—they are the accepted standard of excellence yet cost no more than others.

Heretofore the use of flush valves has largely been restricted to commercial-type buildings—few being found in small homes. But here is our promise to you: there will be Sloan Flush Valves for residences after the present war is over.

So start planning now for Sloan-equipped homes. With Sloan Flush Valves you provide home owners with the ultimate in convenience, health and economy. Remember: there are more Sloan Flush Valves sold than all other makes combined.



SLOAN VALVE COMPANY

4300 WEST LAKE STREET • CHICAGO

½ a loaf is better than none..

But THE INSULITE APPROVED WALL OF PROTECTION

gives you the Whole Loaf in building protection!



THE INSULITE Approved Wall of Protection gives you the whole loaf of building protection and provides:

- Double Insulation
- A double strong weathertight wall
- Double protection against destructive condensation within the wall.

Today, sound construction demands that the walls be built with a vapor barrier on the inside of the stud space to retard vapor travel and that outside walls be so constructed as to allow vapor that may escape the barrier to pass on to the outside air.

Leading scientific authorities recognize this problem and recommend the correct method of construction.

The Insulite Approved Wall of Protection meets these recommendations.

Build with Insulite Approved Wall of Protection, and get the whole loaf in scientific wall construction.



← **OUTSIDE**
Bildrite Insulating Sheathing permits what little vapor escapes the vapor barrier to pass on to the outside air. Bildrite Sheathing is asphalt treated throughout... every fibre protected.

INSULITE

THE ORIGINAL WOOD FIBRE STRUCTURAL INSULATING BOARD

Division of
Minnesota and
Ontario Paper
Company

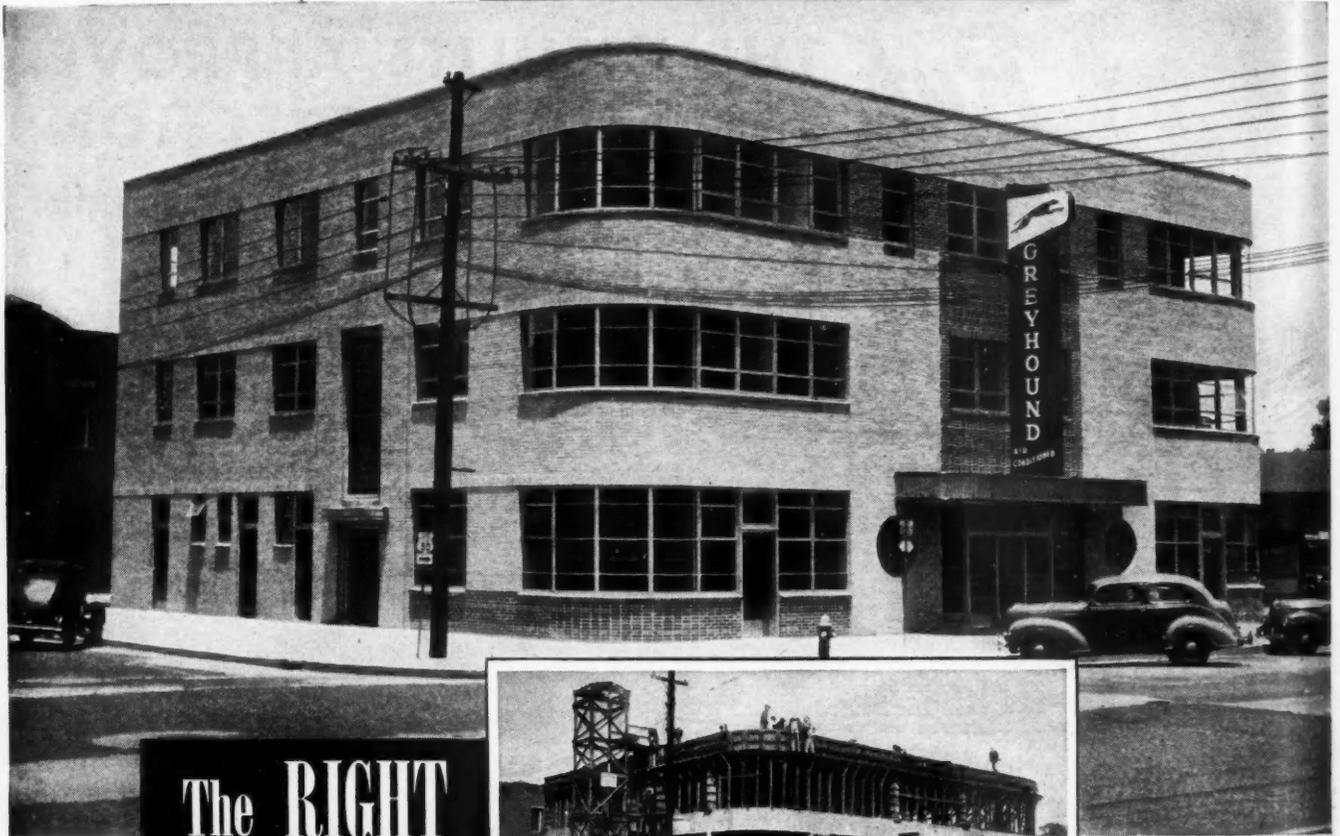


Insulite
Dept. AB32,
Minneapolis,
Minnesota

INSIDE ➔

Sealed Grayite Lok-Joint Lath effectively retards vapor travel. The patented 'Lok' binds lath units together and reduces plaster cracks.

- HATTON BUS STATION, Gulfport, Miss.
- OWNER: Phoenix Mercantile Co., Gulfport, Miss.
- CONTRACTOR: Ziek Bailey, Gulfport, Miss.



The **RIGHT**
PRODUCTS

... in the **RIGHT PLACES**



Contractor Bailey's use of three Lehigh cements in this Greyhound bus station is a good example of the way Lehigh's products can be adapted to the contractor's needs.

... For the brick work he wanted the highest grade of masonry cement; hence his choice of Lehigh Mortar Cement.

... In the portions of the work where quick-service concrete could offer no special benefits, Lehigh Normal Cement provided concrete of first quality.

... BUT, in the concrete columns—where quick curing and quick strength could speed up the progress of the

entire job, where quick removal and re-use of forms could prevent interruptions in other parts of the job—Lehigh Early Strength Cement was the answer.

Like Mr. Bailey, you may find that the use of all three Lehigh cements is distinctly advantageous in your construction jobs. Like Mr. Bailey, too, you may find that, where speed is important, it is good business to employ the cement that makes service-strength concrete 3 to 5 times faster than normal cement. Not only does Lehigh Early Strength Cement often cut construction costs and time; in cold weather its speed reduces the danger of frost damage and the cost of heat protection.

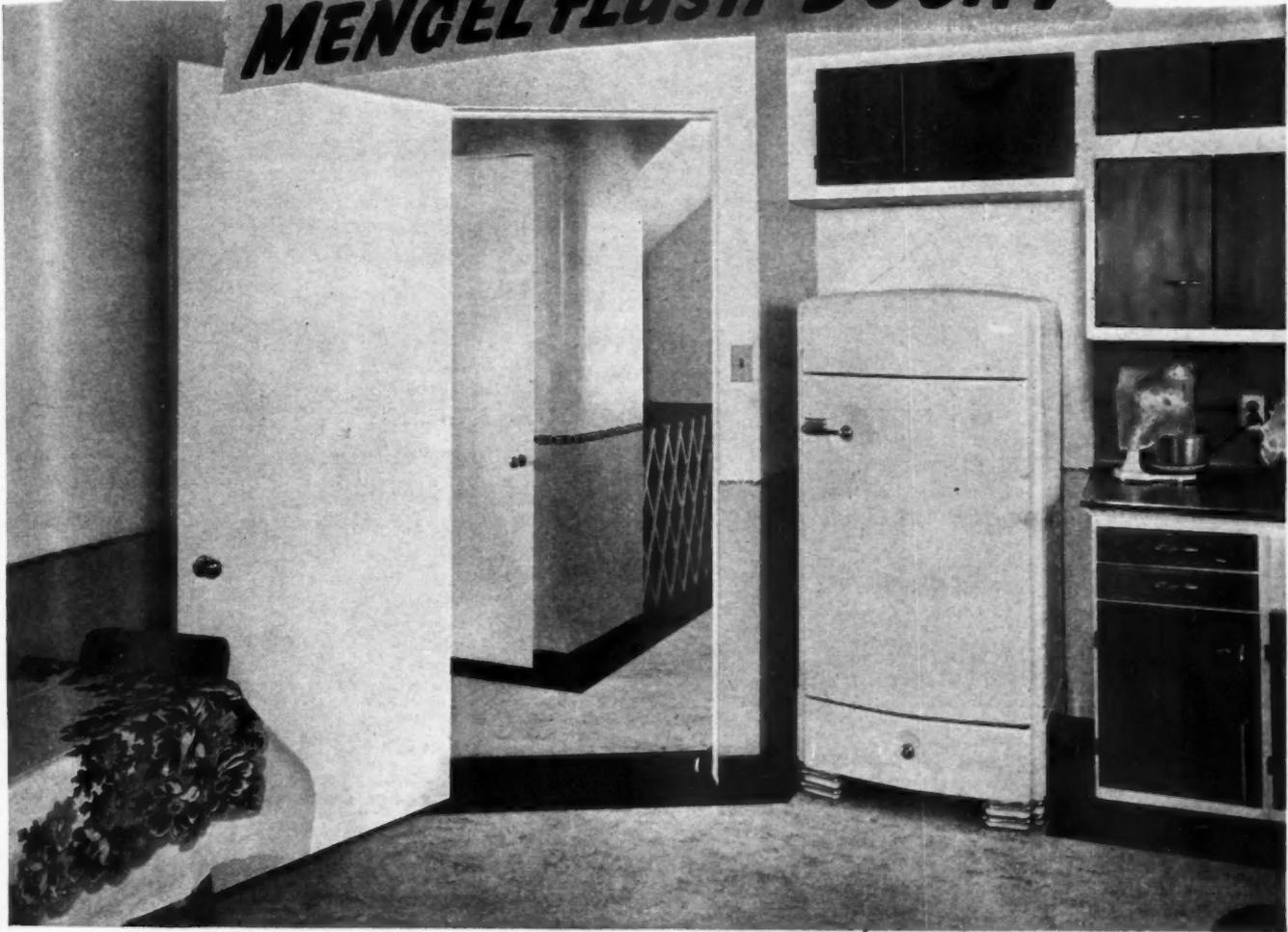
The Lehigh Service Department will gladly answer any questions about Lehigh's cements that you may have in mind.

Lehigh

NORMAL CEMENT • EARLY STRENGTH CEMENT • MORTAR CEMENT

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

ANNOUNCING the **SERIES 500** **MENDEL FLUSH DOOR!**



—never before such a fine door at such a low price!

Again The Mengel Co.—*America's largest producer of hardwood products*—has scooped the industry! Today we announce the Series 500 Mengel Flush Door, a splendid, resin-bonded, hollow-core door *that sells at little if any more than panel doors!*

Whatever the class or type of building you are planning, you can now have all the advantages of genuine flush doors—and actually *make money*, if you include the savings in finishing costs! And remember—Mengel Doors are

backed by an old, dependable company whose sales last year exceeded \$20,000,000. If your regular door source can't quote you on Mengel Doors, use the coupon below!

The Mengel Company, Incorporated
1124 Dumesnil Street
Louisville, Ky.

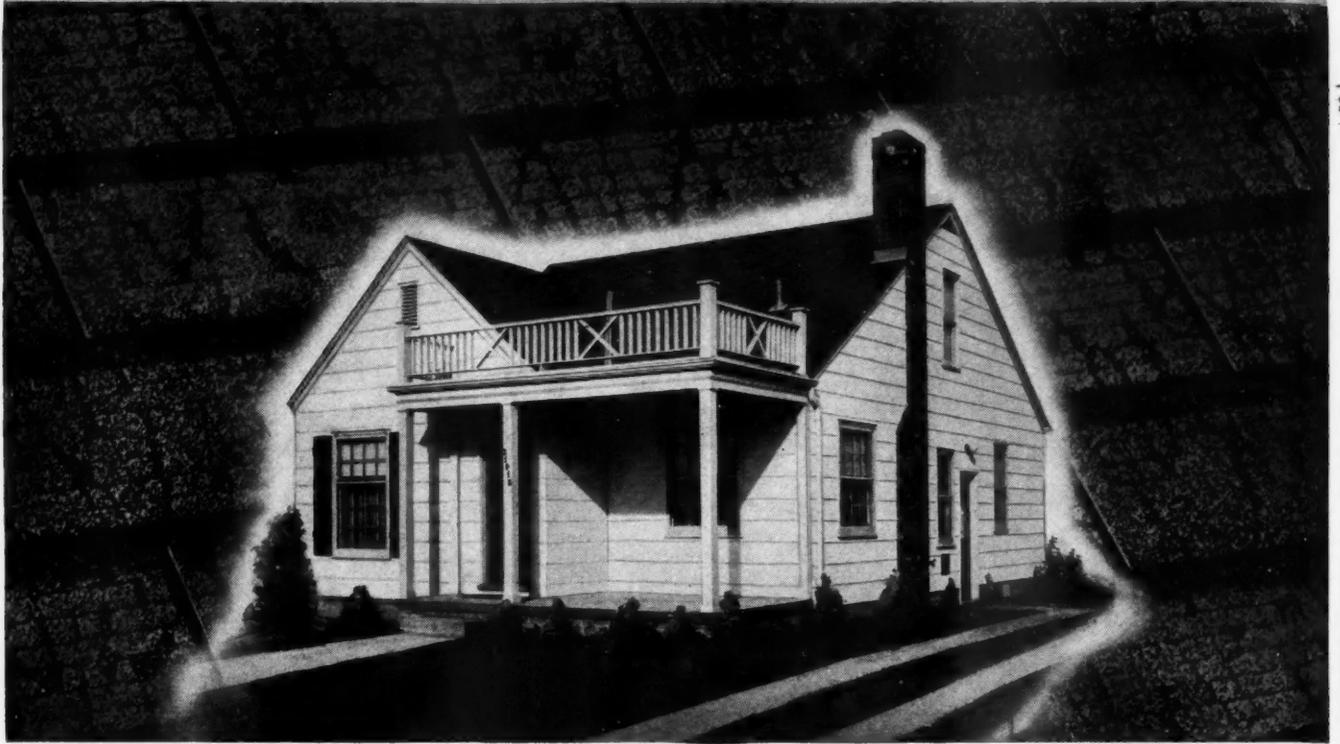
Gentlemen: Please send me full information about Mengel Flush Doors . . . Also about Mengel Bord .

Name _____

Address _____

City _____ State _____

TIMBERGRAIN!



... the **RUGGED BEAUTY** and **LONG LIFE**
your customers have always wanted in an asphalt shingle!

Rugged in its beauty—rugged in strength and protection! That is Timbergrain, the extraordinary asphalt shingle property owners have accepted so enthusiastically!

Every day—backed by national advertising—Timbergrain *continues* to make new friends for itself, and for the members of the building profession who recommend, use or sell it.

Timbergrain is revolutionary! It has *everything* the building profession asked for in an asphalt shingle. A textured surface, in two-toned coloring, that is rough, rugged, *built-up*, providing transverse shadow effects. Thick butts, accentuated by deep, black, *built-in* shadow lines. Character. Massiveness. Strength. Extra weather protection. Fire-safety*.

For today's new low-cost homes in defense areas—or for repair and maintenance of old homes everywhere, Timbergrain is again the year's sensation! Be sure to see this style leader—available in Greentone, Redwood, Bluetone and Slatetone blends. Write for colorful folder and complete information. Address Dept. AB-3, The Ruberoid Co., 500 Fifth Avenue, New York, N. Y.

*Approved by Board of Fire Underwriters, Class "C" Label.



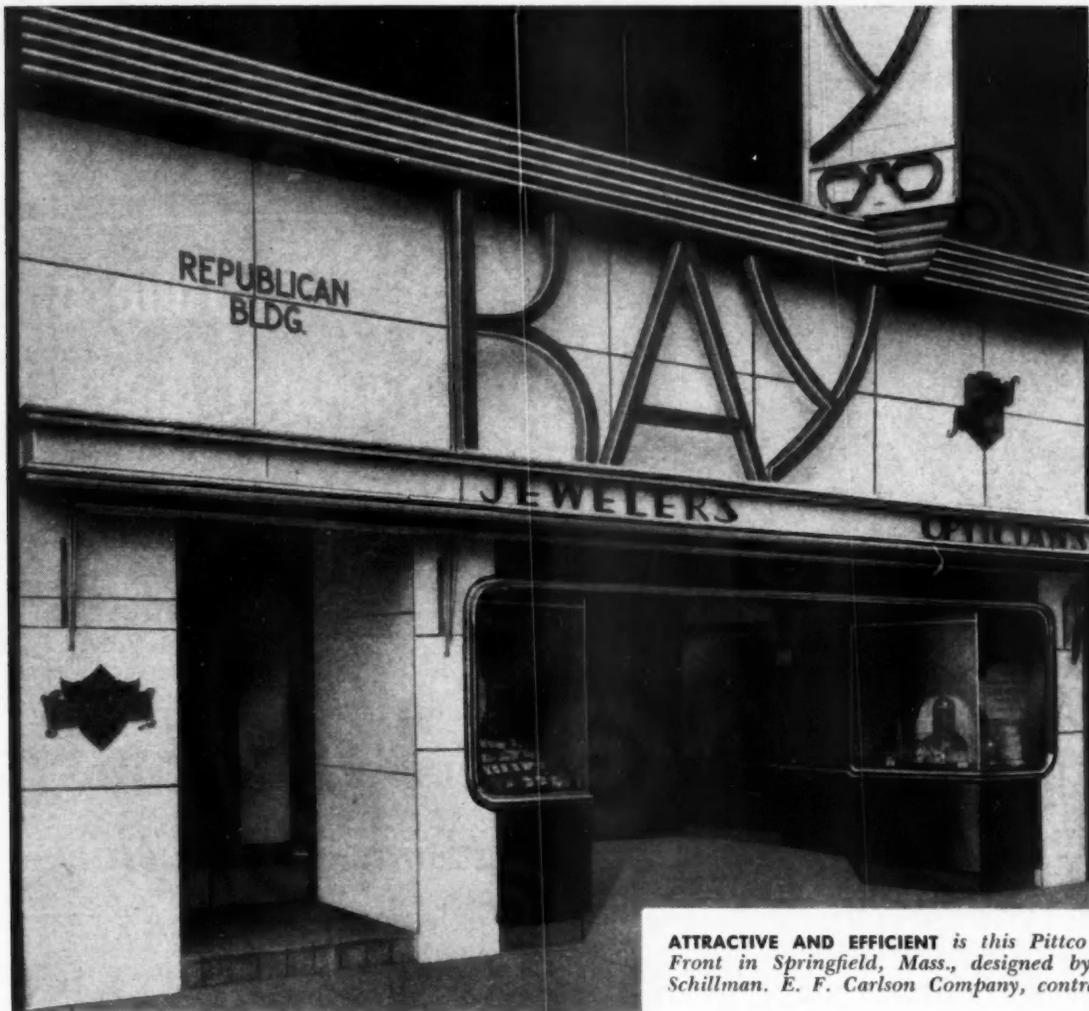
And **VITRAMIC . . . for**
sidewalls of lasting beauty!

Just as sensational as Timbergrain is VITRAMIC—the amazing, ceramic-like siding that provides lasting beauty, resists dirt, repels rain, is fireproof, rotproof, termite-proof! Investigate.



RU-BER-OID
 ROOFING AND BUILDING PRODUCTS





ATTRACTIVE AND EFFICIENT is this Pittco Store Front in Springfield, Mass., designed by Don Schillman. E. F. Carlson Company, contractors.

It's a sign you know your job . . .

when you
recommend Pittco Store Fronts

If you've worked with Pittco Products—you know how they help you become known as a builder of customer-winning store fronts. If you haven't — you have a treat in store. For the variety of glass products in the Pittco line fills every store front need . . . makes it possible for each store front to be completely individual and different from any that

has been built before, anywhere. Yet every Pittco Front has a harmony of line, a unity of structure, that are the inevitable result of combining products made by a single manufacturer and intended to be used together.

First of all, there's luxurious Carrara Structural Glass—in ten attractive colors—equally at home on the smallest shop or the largest store in

town. There's Pittco Store Front Metal in a variety of shapes—still available for immediate delivery. There are PC Glass Blocks to provide interesting contrast . . . and Herculite Doors. And those other famous Pittco glass products: Pittsburgh Polished Plate Glass, PC Architectural Glass, Tapestry Glass and Pittsburgh Mirrors.

Get acquainted with Pittco Store Front Products now. Write for our free, illustrated booklet in which you will find these products described in detail and shown in actual use.

PITTCO STORE FRONTS
PITTSBURGH PLATE GLASS COMPANY
"PITTSBURGH" stands for Quality Glass and Paint

Pittsburgh Plate Glass Company
2228-2 Grant Building, Pittsburgh, Pa.

Please send me, without obligation, your new, illustrated booklet, "Pittco Store Fronts — and Their Influence on Retail Sales."

Name.....

Street.....

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

DEFENSE HOMES

Hand Book

New HI

Portfolio of
Low Cost Homes and
Rental Housing Units

★ SUPERB HOMES
FOR SPEEDY AND
ECONOMICAL BUILDING
PHOTOGRAPHS, PLANS,
ELEVATIONS GALORE
REMODELING IDEAS
JOB POINTERS . . .
ESSENTIAL PRIORITY
DATA . . . INFORMATION
ON CRITICAL MATERIALS

AT YOUR FINGER TIPS

For ready reference—Administration's Plan to Help Builders of Defense Homes Secure Critical Materials . . . Clarification of Government's Attitude Towards Building . . . How To Get a Home Building Project Preference Rating . . . List of District Priority Offices and FHA Offices Which Report to Them . . . List of Critical Materials—Original list with official interpretations written in . . . and many other key subjects and points of essential information.

*How You Can Answer Today's War-Time Needs
For Low-Cost Homes—Remodeling—Repairs*

IN THE CITIES—ON THE FARMS

Today the point has been reached in the building industry, where the paramount question is no longer one of what's to be done—but *how to do it* most effectively, economically and quickly.

Building men want to get going fast. They want the right designs, plans and ideas for the home or remodeling market they are after. Not only that, they want to be sure that their activities conform to the letter with the War Production Board in Washington. On every job undertaken the use of critical materials must be kept to a minimum. Every home or building job must be worth every single penny the buyer pays for it. But, costs must be held way, *way* down.

Those are the things building men want. Those are just the things that *American Builder* offers in its new DEFENSE HOMES HANDBOOK, just off the press.

Stop for a minute—imagine, what *American Builder's* DEFENSE HOMES HANDBOOK can mean to you now. Low-cost home designs by the score, innumerable remodeling ideas, job pointers, information on priorities, materials—all of it so essential, practical, ready to be put to immediate use.

STEP OUT AND BUILD! — USE THESE BRILLIANT IDEAS

Here is a bird's-eye-outline of a few of the titles in this volume of 97 chapters. "Defense Homes Can Have Glamour and Appeal" . . . "These Defense Homes Will Still Be Good After the Emergency" . . . "Planning a BIG Small House" . . . "Good Small Home by a Prize-Winning Builder" . . . "Chicago Builder Features Economy and Versatility."

"Seven Rooms in Jacksonville." Photo and architect's plans of popular Florida design . . . "Northwest 5-Room Design in Brick, Cedar" . . . "Bungalow Prize Winner" . . . "New England Colonial 29' x 27' With Flush Board Siding" . . . "One Story Pennsylvania Dutch Home" . . . "Western Style Brought Up to Date." An illustration in low-cost perfection by a West Hartford builder.

American BUILDER

Lumber

Speeds

VITAL CONSTRUCTION

through

IMPROVED METHODS

THE Teco Connector system of wood construction has brought about an epochal advance in the structural use of lumber . . . releasing steel in vast quantities for the war effort . . . presenting an unlimited new field for service and activity to architects, engineers and contractors. Lumber takes over!

As a result of the Teco Connector system of wood construction, lumber can be used more effectively and economically than ever before in designing, engineering and construction. A simple

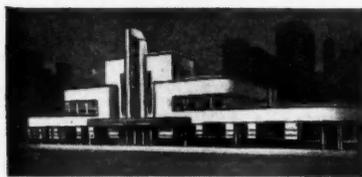
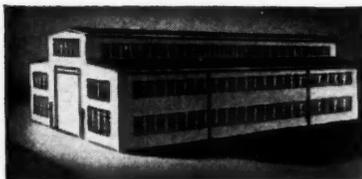
invention, simple to use, the Teco Connector distributes the bearing area of stresses at joints over almost the entire width of the member, giving more rigid and stronger joints *with less material*. It has made possible the swift and economical construction of thousands of defense structures, including large and small factories — army chapels — pre-fabricated houses — hangars — dry docks — wood trusses with clear spans of 180 feet and more — graceful wood towers more than 300 feet high. It opens the way for meet-

ing many of the current requirements for commercial and industrial construction.

Every individual or organization interested in the expanded possibilities of the Teco Connector system of wood construction can make immediate use of practical working material available. Any qualified structural engineer can design for the use of Teco Connectors and competent carpenters can use them in building with commonly available lengths and dimensions of lumber. Write today for full details.

WEYERHAEUSER / SALES / COMPANY

First National Bank Building • Saint Paul, Minnesota



The use of 200 Teco Connectors releases more than a ton of steel, enough for approximately 400 army rifles, or 50 heavy machine guns.

TECO Timber Connectors Save!

SAVE STEEL . . . One pound of Teco Connectors replaces 11½-12 pounds of steel.

SAVE LUMBER . . . 80% to 100% of the working strength of lumber

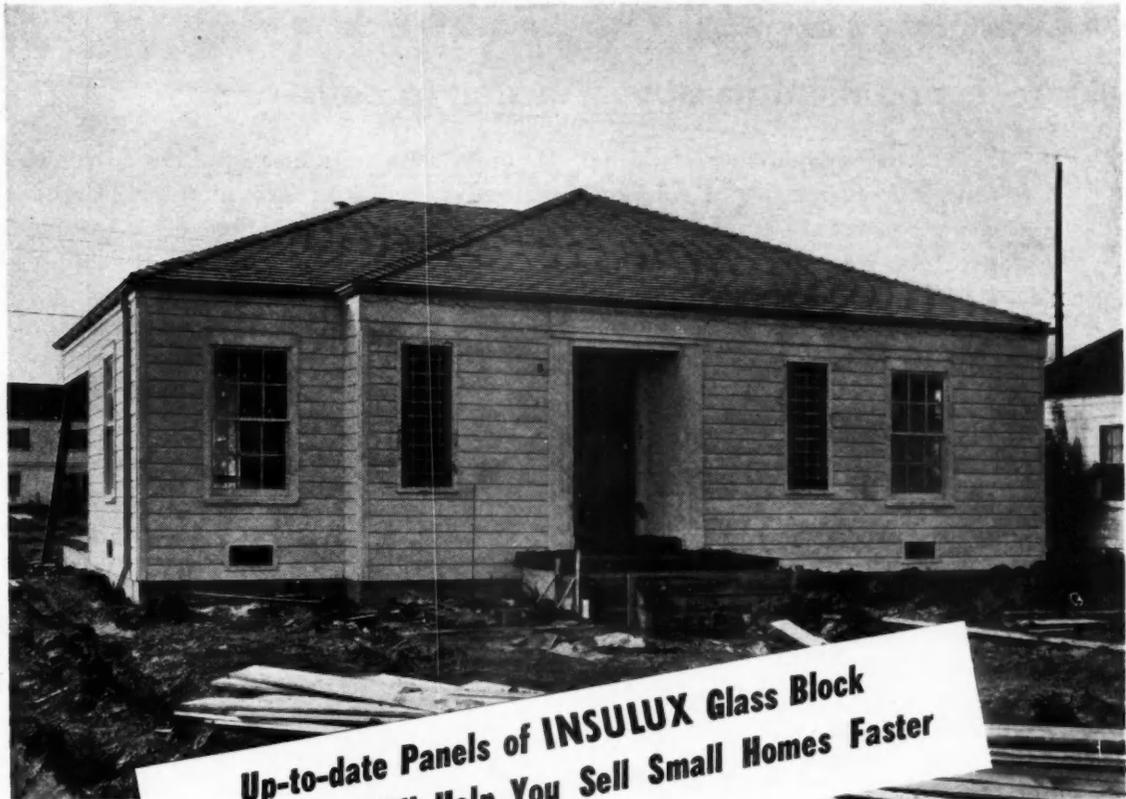
is utilized instead to from 40% to 60%.

SAVE MONEY . . . There is a saving up to 33½% in cost as compared to steel, and up to 45% as compared to

traditional wood truss construction.

SAVE TIME . . . Trusses can be speedily fabricated on the job out of standard lengths and dimensions of lumber.

Today's Buyers of \$6,000 Homes Have Eyes for *Tomorrow*, too!...



**Up-to-date Panels of INSULUX Glass Block
Cost Little, Will Help You Sell Small Homes Faster**

This year, buyers will be *sold* by the way you bring luxuriousness to \$6000-and-under homes. INSULUX Glass Block give small homes charming beauty, lasting owner-satisfaction—yet are entirely within the building budgets of low-cost homes.

Pride of ownership is as strong today as it ever has been. You can give your houses the criterion of up-to-date architecture by using most modern building material...INSULUX Glass Block. INSULUX near drain-board work areas will sell *women* on your modern kitchens. Or a panel in the bathroom to provide privacy and draft-proof constructions. There are scores of other selling features possible by using INSULUX

Glass Block in living rooms, halls, entrances, closets, and as partitions between rooms.

YOU CAN USE INSULUX IN THE HOUSES YOU ARE BUILDING TODAY!

INSULUX panels are easy to install, require no screening or paint decoration. All materials needed for using INSULUX are readily available.

See your dealer, or mail the coupon, for further information *and specifications* of typical low-cost INSULUX installations that will help you speed up sales, increase your profits. Owens-Illinois Glass Company, INSULUX Products Division, Toledo, Ohio.

YOU GET PROMPT DELIVERY ON INSULUX GLASS BLOCK!

OWENS-ILLINOIS
INSULUX
Glass Block

THERE ARE PLACES IN EVERY HOME THAT NEED INSULUX

OWENS-ILLINOIS GLASS COMPANY, INSULUX Products Div.,
Department 18, Ohio Building, Toledo, Ohio.

Please send free literature showing practical INSULUX ideas that
will help sell homes.

Name.....

Address.....

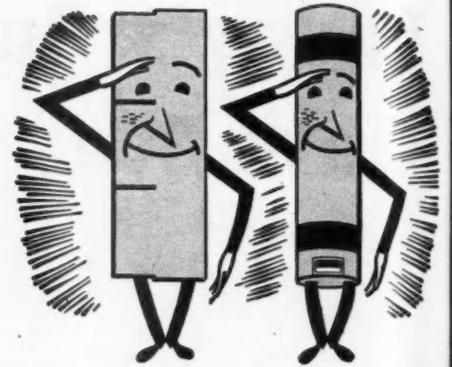
City.....State.....

ASPHALT ROOFINGS the 2 to 1 FAVORITE!

More economical to buy...easier to sell...

This 2 to 1 popularity of asphalt roofings (over all other types of roofing combined) can very easily be traced to the tremendous product improvements made. Today—

asphalt roofings give you the greatest value in their history. Check over the list at the left. Run through the highlights of improvement below. See why it will pay you to concentrate on the type of roofing most people want—today!



Here's why!

RAW MATERIALS Asphalt • Felt • Granules	IMPROVED
MANUFACTURE	IMPROVED
WEATHER RESISTANCE	GREATER
FIRE RESISTANCE	UNDERWRITERS' APPROVAL
COLORS-BLENDS	GREAT IMPROVEMENT
POPULARITY	TREMENDOUS
LIFE	MUCH LONGER
LOW COST	MORE FOR YOUR MONEY

ASPHALT ROOFINGS CONSTANTLY IMPROVED! TODAY...QUALITY UP... COST DOWN!

Asphalt, refined from pure petroleum crudes, selected for roofings—*better than ever.*

Dry felt base now includes new specially processed fibres, with increased holding power for asphalt saturant.

Greater saturation—practically twice the weight of dry felt.

Texaco mineral-filled asphalts, under test, show twice the life of those formerly used.

Granules greatly improved in color and permanence.

Granule surfacing bonded to the asphalt coating for greater protection.

Weather resistance and life of asphalt roofing constantly increased.

Fire resistance frequently checked — and approved by Underwriters' Laboratory.

Yesterday — a few soft colors. Today — rich brilliant colors and beautiful blends.

Ceramic granules, greatly improved in permanence and intensity of color.

And—today, after 32 years of continuous and steadily improved manufacture, Texaco Asphalt Roofing Products are the finest ever in quality—most reasonable in cost.

TEXACO *Asphalt* ROOFINGS

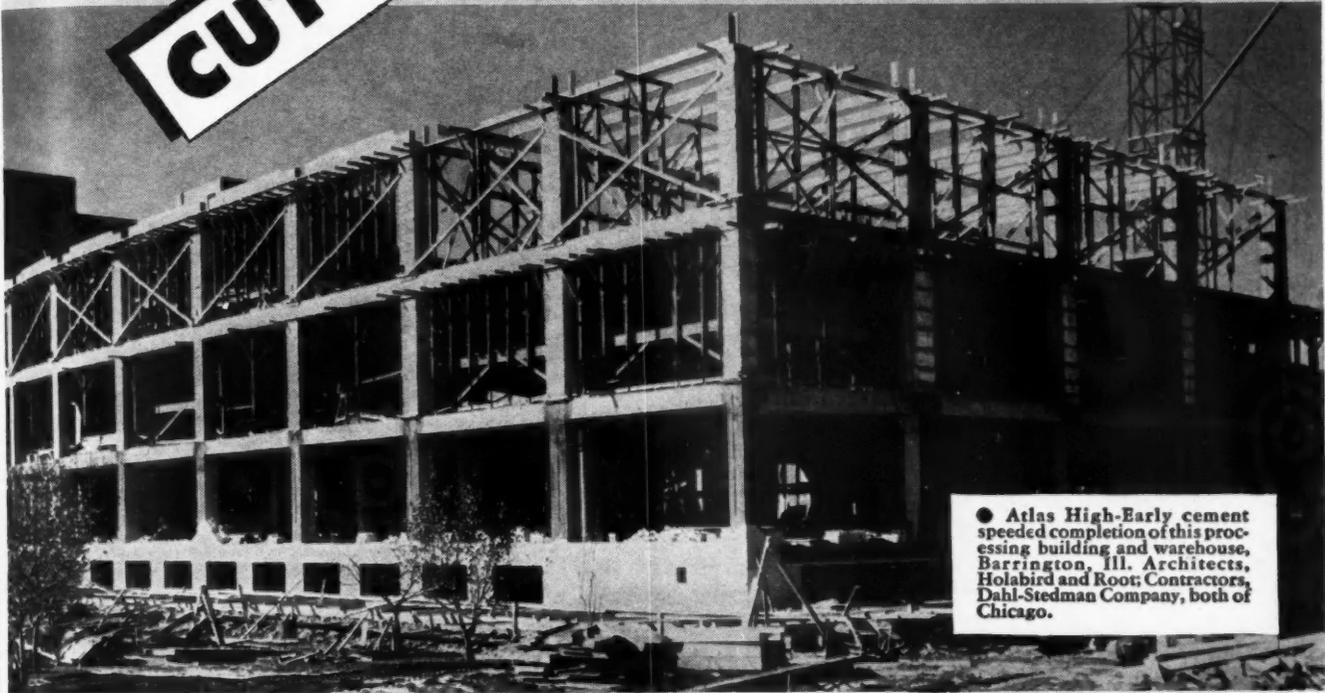
Made with Texaco's own Asphalts 99½% pure

THE TEXAS COMPANY— 135 East 42nd Street, New York, N. Y.



**TIME FOR COMPLETION
NUMBER OF FORMS USED
COST OF FORM LUMBER**

CUT IN HALF!



● Atlas High-Early cement speeded completion of this processing building and warehouse, Barrington, Ill. Architects, Holabird and Root; Contractors, Dahl-Stedman Company, both of Chicago.

Atlas High-Early cement used on three-story warehouse helped save time, labor and cost!

PLANS called for three-story concrete frame warehouse with concrete floor slabs. Dahl-Stedman Company, the contractors, specified Atlas High-Early cement and *saved in these ways:*

THEY SAVED TIME. The superintendent states that Atlas High-Early cement cut the time for completion of this project approximately 50%.

THEY SAVED FORMS. By using Atlas High-Early cement, they were able to strip forms in from three to four days. With regular portland cement it would have been necessary to wait about seven or eight days before forms could be stripped. This made possible a 50% saving in forms and form lumber.

Atlas High-Early cement can save time and dollars for you . . . Atlas High-Early cement gains working strength rapidly—often cuts time for protection and curing as much as 60% to 70%. In many cases it permits early stripping of forms for re-use and results in a substantial saving in form costs. Atlas High-Early cement also more than pays for its slight extra cost on many jobs. It will pay you to consider it for *your* next job. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

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

AB-11-43

ATLAS HIGH-EARLY CEMENT

A UNIVERSAL ATLAS PRODUCT





**JUST WHAT
WE WANT!
YOU GET
THE JOB**

That's what satisfied owners and prospects say to the building man who knows how to alter a floor plan. Success often depends on your ability to suggest alternate materials, or on knowing how to handle some detail that has an owner confused. *The man who knows how* is the man who gets most of the jobs.

You too can be *The man who knows how*. It's easy, because you can read and learn at home or in your spare

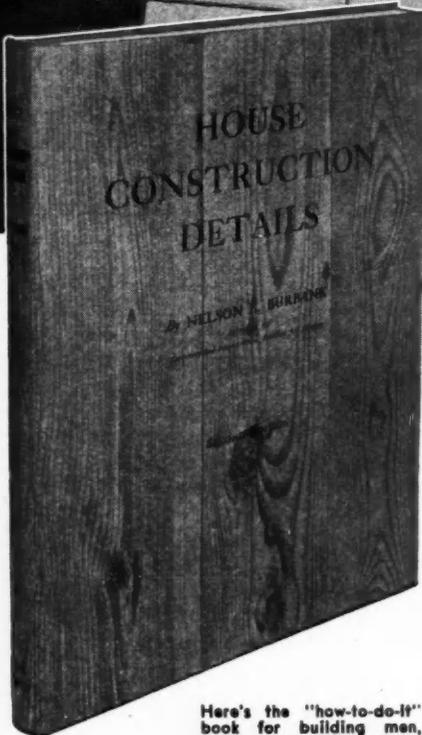
time. *House Construction Details*, by Nelson L. Burbank can help you become *The man who knows how*. Here is the "how-to-do-it" book for building men, crammed with ideas, 1,500 illustrations, details and scale drawings, with short, clear explanations.

It's easy to find what you want in *House Construction Details*, because all drawings and details are grouped in construction sequence, beginning at the foundation and carrying through step-by-step to painting and finishing. Look over the table of contents below and see how well the book has been arranged.

There is a gold mine of ideas and practical information in *House Construction Details*—for the beginner who wants to learn or for the veteran who needs workable methods or saleable ideas *right now*.

Send the coupon today for your copy of "*House Construction Details*." With it you'll receive FREE the 1942 Book Guide—your guide to profitable reading.

Here's the "how-to-do-it" book for building men, another in a series of American Builder self-help books.



FILL OUT THIS GUARANTEED ORDER FORM

American Builder and Building Age,
30 Church Street, New York, N.Y.

Enclosed find \$3.00 for which send me a copy of the New Second Edition of *House Construction Details*, and a copy of the American Builder Book Guide FREE. If I do not find the book entirely satisfactory I will return it within 5 days of receipt and you will refund my \$3.00.

Name

Address

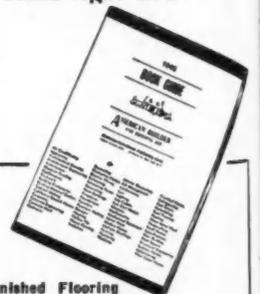
City and State

A.B. 3-42

Contents of The New Edition

Floor Plans
Set of House Plans
Excavations
Foundation Forms
Foundations
Outside Walls
Inside Walls
Wall Sheathing
Ceiling Joists
Roof Construction
Bay Construction
Roofing
Cornices and Porches
Exterior Wall Construction
Interior Wall Coverings
Interior Trim
Stair Construction
Windows
Doors
Hardware
Closets
Shelves
Built-in Equipment

Finished Flooring
Chimneys and Fireplaces
Scaffolds
Garages
Heating
Air Conditioning
Elements of Electric Wiring
Insulation
Sound Proofing
Gates
Garden Furniture
Sheperd's Corner
Camps
Cabins
Cottages
Farm Buildings
Wood Connectors
Pre-fabrication
Modern Building Materials
Painting and Finishing
Modern Homes
Index



HOW TO INSTALL READY-BUILT CARRARA GLASS PANELS IN A BATHTUB RECESS



1. AFTER TUB has been levelled, place roll of mastic around rim for waterproofing. Butter studs with mastic before setting glass.



2. SET PLATE at back of tub first. Merely nail through plasterboard flanges and use special clips supplied.



3. APPLY END PANELS similarly, permitting plasterboard to extend beyond tub to next stud. If wainscot is 48 inches high, follow same sequence in setting second course.



4. CLEAN GLASS and fill joints carefully with pointing compound supplied. This assures thorough waterproofing.

NOW . . . you can give even the lowest-cost new home the beauty, utility and permanence of Carrara Structural Glass. Ready-built Carrara Glass Panels for bathtub recesses are quick and easy to install . . . because they come to the job all ready to be fastened in place. The glass is mounted on plasterboard and all necessary holes for plumbing pipes drilled at the factory. You merely fasten the flange of plasterboard which extends around the glass direct to the studding.

Where there is a shower, a 48-inch Ready-Built Carrara wainscot is recommended. Otherwise, a

24-inch wainscot is adequate, and usually costs less than \$30 complete with soap and grab, all holes drilled, and ready for installation! Ready-Built Carrara Glass is also available in 36" x 48" units for use behind kitchen stoves. Send the coupon for free descriptive literature on Ready-Built Carrara Glass Panels containing installation details and information on colors available.

"PITTSBURGH"
stands for Quality Glass and Paint

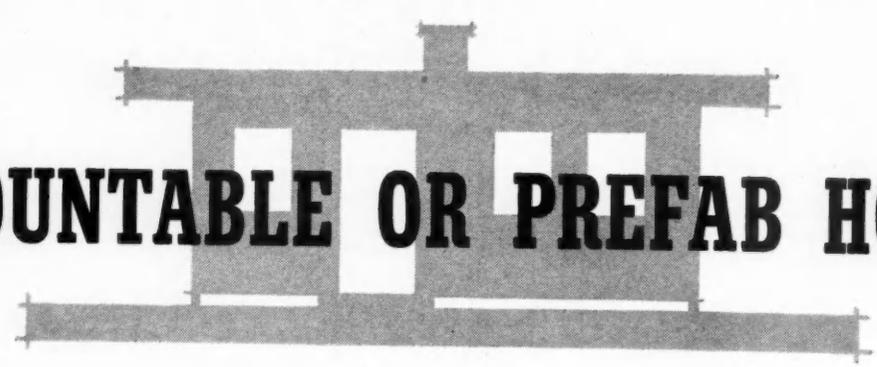
CARRARA
The modern Structural Glass
PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2051-2 Grant Building, Pittsburgh, Pa.
Please send me, without obligation, your
free literature and installation details on
Ready-Built Carrara Glass Panels.

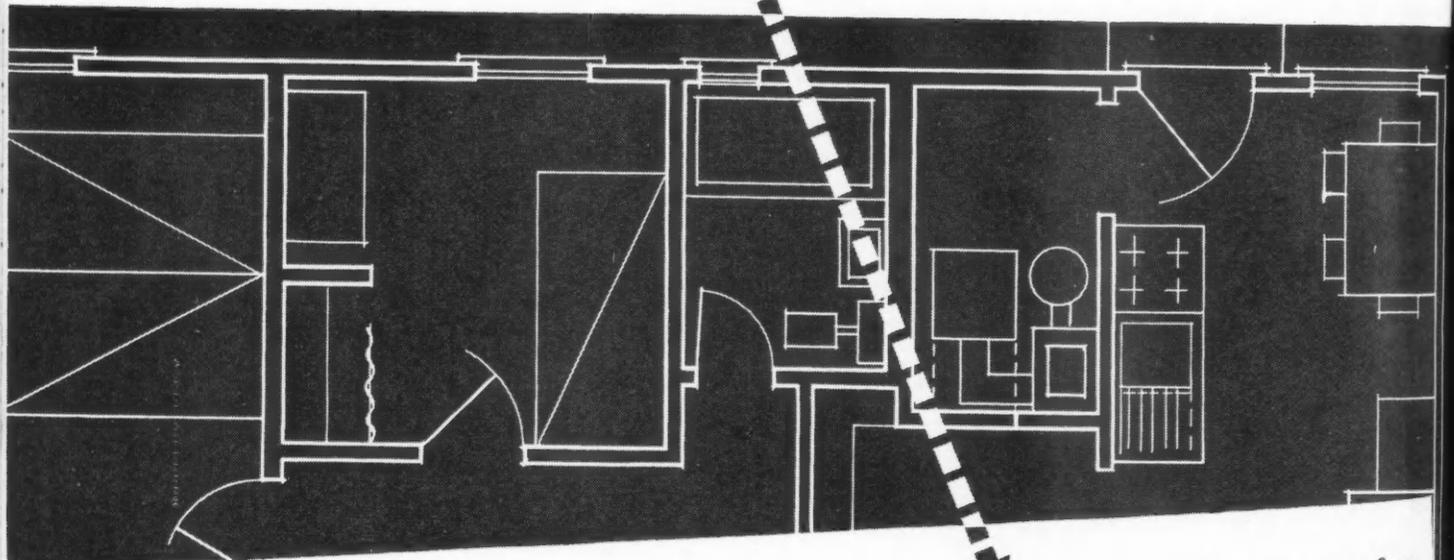
Name.....
Address.....
City..... State.....

If you're figuring on  any of the government's

DEMOUNTABLE OR PREFAB HOUSES



Get in touch  with **UPSON** today!



VALUABLE TECHNICAL ASSISTANCE FOR YOU—From actual installation experience and close contact with the construction of more than 10,000 defense homes in the past 14 months, Upson architect-engineers have worked out new ingenious systems for handling and erection of interior walls.

SAVES TIME — CUTS COST—In lots of 100 units or more, our new Upson Strong-Bilt Panels are delivered *pre-cut* to usual wall height and room length—all ready to lift into place. No joints except corners. Pre-cutting can be provided to fit *your* demountable joint method. Delivered pre-sized—one coat

of paint has met all requirements. Can be papered. Applied according to simple specifications, new Upson Strong-Bilt Panels *will not warp or buckle*. High structural strength and insulating value.

PRACTICALLY 100% SALVAGE IN DEMOUNTING—With Upson patented Floating Fastener, Strong-Bilt Panels provide *the only truly demountable interior wall available today*. Removal and re-application is accomplished without damage to panel. Our new time and cost saving methods are yours for the asking. The Upson Company, Department 1-A, Lockport, New York.

For immediate assistance from men who are doing it . . .

CALL UPSON LOCKPORT 2300
NEW YORK



UPSON STRONG-BILT PANELS

6
A
B
J
m

San
Lee
H.
Roy
son,
Tre

Sub
pos
year
2 y
Add
Mar

Men
(A.
Circ

(A Simmons-Boardman Publication)

AMERICAN BUILDER

and Building Age

CONTENTS FOR MARCH, 1942

Front Cover Home—Photos by John W. Barry

Publisher's Page—Building: Past, Present and Prospective—
by Samuel O. Dunn..... 41

Editorial—Washington Report as of February 17..... 43

On & Off the Record..... 44

Ingenuity Will Help House War Workers..... 45

Twin Lakes Motor Lodge—an Ideal Layout for Tourists or Temporary
Employees

Opportunities Under Title VI..... 48

How Paul T. Stone Made FHA Title VI Work..... 50

Arna Valley Job in Arlington, Va., Cited by FHA as "Most Successful"

Title VI Rental Rows Recommended by FHA..... 52

Selection of Efficiency Designs and Economy Layouts Offered by Re-
gional Insuring Offices to Speed Up Needed War Housing

Front Cover Home—Good Planning, Attractiveness and
Extensibility under Title VI..... 58

They Put Glamour, Too, in War Homes..... 60

Builders of Blue Ridge Manor, at Kenilworth, N.J., Operate Under FHA
Titles I, II and VI

Liebert's Milwaukee Apartment Shows How to Stay in Build-
ing Business..... 62

Wall Sections for War Homes Built in Local Lumber Yard..... 65

Builders Turn to Remodeling, Repairs and "Add-a-Room-
Drive" for New Volume..... 66

What's Worth Salvaging Today?..... 68

Service to Readers..... 70

News of the Month..... 72

Demountable Housing for Defense Workers..... 76

Long Island Builders Organize Institute Chapter..... 78

Practical Job Pointers and Building Data..... 87

Letters from Readers..... 94

Trends in Home Equipment, Building Materials..... 97

Producers Tell Us—..... 107

Advertisers' Index..... 114



64th Year Vol. 64, No. 3

AMERICAN BUILDER and BUILDING AGE, with which are incorporated National Builder, Permanent Builder and the Builder's Journal, is published on the first day of each month by the

SIMMONS-BOARDMAN PUBLISHING CORPORATION, 105 West Adams Street, Chicago, Illinois. New York Office: 30 Church Street

WASHINGTON, D. C.
National Press Building

CLEVELAND, OHIO
Terminal Tower

SEATTLE, WASH.
1038 Henry Building

SAN FRANCISCO, CAL.
550 Montgomery Street

LOS ANGELES, CAL.
530 West Sixth Street

Samuel O. Dunn, *Chairman of Board*; Henry Lee, *President*; Bernard L. Johnson, Robert H. Morris, J. S. Crane, *Vice-Presidents*; Roy V. Wright, *Secretary*; Elmer T. Howson, *Assistant Secretary*; John T. DeMott, *Treasurer*.

Subscription price in the United States and possessions and Canada, 1 year, \$2.00, 2 years, \$3.00; foreign countries, 1 year, \$4.00, 2 years, \$7.00. Single copies 25 cents each. Address H. E. McCandless, Circulation Manager, 30 Church Street, New York, N. Y.

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

BERNARD L. JOHNSON

JOSEPH B. MASON
Eastern Editor

Editor

JOE SANDERS
Marketing Editor

R. E. SANGSTER
Managing Editor

ROBERT H. MORRIS
Business Manager

LYMAN M. FORBES
Research Editor

DOLA PARR
Associate Editor

J. S. CRANE
Eastern Manager

L. E. ARENT
Art Editor

Advertising: F. A. CLARK, W. F. COLEMAN, L. B. CONAWAY, J. C. JONES, C. E. PAULSON, E. J. REICH, C. J. WAGEMAN.

Field Staff: C. L. CONLEY, J. H. FREE, CHARLES R. HARTUNG, JACK HUMAN, WOODROW JAMES, WILLIAM L. TAYLOR, DICK WHITTINGTON

New Jersey Builder insures against Plaster Cracks*



* James Hanson, of Quinn Brothers Construction Company, Palisades Park, N. J., points to the secret of the Gold Bond Floating Wall System—the patented nail. "The best insurance I've found against cracking plaster is the Floating Wall System," says Mr. Hanson. "Cracking trouble stopped when we started using it, and the cost is so low it's even practical for houses selling under \$6,000." Above is part of a Quinn Bros. low-cost housing development near Hackensack, N. J.

MORE and more architects and builders are solving the cracking plaster problem in the sure way James Hanson does. When walls and ceilings are made with Gold Bond gypsum lath and plaster by the new Floating Wall System, your jobs are protected against normal expansion, contraction, and settling . . . the causes for ninety per cent of all plaster cracks.

No special equipment is necessary to install this better wall and ceiling system. Any lather can drive the patented nails *between* panels of gypsum lath, providing a resilient fastening from wall to studding. Plastering is done in the usual manner.

Besides guarding against cracks,

Gold Bond's Floating Wall System provides a one-hour fire rating for walls, and efficiently reduces room-to-room noise. Yet it costs so little it can be used even for defense housing and other low-cost jobs.

First with the best

For 16 years National Gypsum research has pioneered with new and better methods. They have developed more than 153 different products for every wall and ceiling use—including wallboard, insulation, lath, lime, plaster, sheathing, wall paint, and sound control materials. Today, more than 10,000 Gold Bond dealers and 300 trained representatives are ready to serve you with the products of

21 strategically-located plants. And when you use Gold Bond exclusively, there's no buck-passing. *All* materials are backed by the resources and reputation of *one* reliable manufacturer.

Write today for detailed specifications on the Floating Wall System, and other new and better Gold Bond methods of wall and ceiling construction. National Gypsum Company, Buffalo, New York.



Producing units at:

NEW YORK, N. Y. . . . CLARENCE CENTER, N. Y. . . . AKRON, N. Y. . . . PORTSMOUTH, N. H.
NATIONAL CITY, MICH. . . . FORT DODGE, IA. . . . MEDICINE LODGE, KAN. . . . ROTAN, TEX. . . .
SAVANNAH, GA. . . . LUCKEY, O. . . . BELLEFONTE, PA. . . . YORK, PA. . . . ORANDA, VA. . . .
SALTVILLE, VA. . . . NILES, O. . . . MOBILE, ALA. . . . NEWBURGH, N. Y. . . . ALEXANDRIA, IND.
DUBUQUE, IA. . . . DOVER, N. J.

PUBLISHER'S PAGE

Building: Past, Present and Prospective

ONE of the ablest, most level-headed industrialists serving the government in Washington remarked the other day that both private business and conduct of the war are being hindered by so many persons in high and low positions getting the jitters. Alarming rumors having little cause are started, magnified and disseminated until many almost quit work to talk and worry about them.

Of no industry is this more true than the building industry. Reports that building of different kinds is going to be restricted are started and exaggerated until many still busy building become alarmed lest all building, excepting by government for military purposes, will be stopped. Information and estimates from authoritative government and other sources negative these reports.

Building in 1937, 1941 and 1942

	1937 (millions)	1941 (millions)	1942 (Forecast) (millions)
Private			
Residential (non-farm).....	\$1,530	\$2,800	\$1,200
Non-residential.....	930	1,190	450
Farm Buildings.....	360	540	500
Totals.....	\$2,820	\$4,530	\$2,150
Public			
Residential.....	\$ 93	\$ 500	\$ 600
Non-residential.....	484	1,670	2,550
Totals.....	\$ 577	\$2,170	\$3,150
Total Private and Public.....	\$3,397	\$6,700	\$5,300

THE *American Builder* published in its February, 1942, issue (page 59) a table prepared by the Bureau of Foreign and Domestic Commerce presenting data regarding private and public construction of all kinds in 1940 and 1941 and forecasts for 1942. Readers of this paper are concerned only with the data given regard-

ing past and prospective building. There was more building in 1937 than in any previous year since 1930. The building industry did not consider 1937, on the whole, a bad year. Let us, then, look at the figures in the accompanying table showing what actually was spent on building in 1937 and 1941, and what the Bureau of Foreign and Domestic Commerce forecasts will be spent in 1942.

Private non-farm residential building increased from \$1,530 million in 1937 to \$2,800 million in 1941, and is forecasted to be \$1,200 million in 1942. This is a great reduction below 1941, but a reduction of only 21 per cent below 1937. But that is not all as regards even residential building that must be considered. Public residential building in 1937 was only \$93 million, in 1941 was \$500 million, and in 1942 is estimated at \$600 million. Therefore, the figures for total residential building are \$1,623 million for 1937, \$3,300 million for 1941 and \$1,800 million for 1942—a great decline in 1942 as compared with 1941, but an increase of almost 11 per cent in 1942 over 1937. Total prospective residential building in 1942 is larger than in any year between 1930 and 1939.

NOR is this all. There is now occurring the most public building in years. Total private and public building, residential and non-residential, was \$3,397 million in 1937, was \$6,700 million in 1941 and is forecasted as \$5,300 million in 1942. This is a decline in 1942 of only 21 per cent as compared with 1941; an increase of 56 per cent over 1937; and, excepting in 1941, will be the largest total amount of building done in many years.

The building industry is very far yet from being killed by the war. In addition to which, it has the best post-war prospects of any industry in the country.

Samuel O. Dunn,

SIMMONS-BOARDMAN PUBLISHING CORPORATION: SAMUEL O. DUNN, CHAIRMAN OF THE BOARD; HENRY LEE, PRESIDENT; BERNARD L. JOHNSON, ROBERT H. MORRIS AND J. S. CRANE, VICE-PRESIDENTS; ROY V. WRIGHT, SECRETARY; E. T. HOWSON, ASSISTANT SECRETARY; JOHN T. DE MOTT, TREASURER; EXECUTIVE AND EDITORIAL OFFICES: 105 WEST ADAMS STREET, CHICAGO; 30 CHURCH STREET, NEW YORK CITY.

"LET'S GO!
we've got a job to do and a reputation to uphold!"



**Let's give
Defense Homes real
Defense against the Years! . . .**

America needs defense homes . . . needs them *fast*. Builders face new, *tough* requirements. Ceiling prices have been set . . . yet quality and liveableness must not be sacrificed.

What an opportunity for ingenuity and skill—not only in the actual construction but in the choice of materials.

For while these homes will be planned for the emergency, most of them must be built to *sell*—and to *last*. And as you know from your own personal experience, the way to make a home stand up against

the weather is to protect it with good paint.

No need to tell you that white lead hugs tight and long . . . never cracks and scales. But don't let its well-known quality blind you to its genuine low cost.

Remember, paint made from Dutch Boy Paste Lead is definitely in the low price bracket. And it's not only low priced to begin with but its extra durability means rock-bottom cost per year of protection. Also, keep in mind that Dutch Boy is a real all-purpose paint. It can be used for either two or three-coat painting and it gives top performance on any surface—wood, brick, stucco, concrete, or plaster.

So, *let's go!* Any way you look at it, Dutch Boy is the paint for this Defense Housing job!

New Dutch Boy Paint Unexcelled for Sealing and Hiding by any Two-Coat Combination

Where ready-to-use paint is desired, remember the new Dutch Boy Pure White Lead Paint provides the proven protection of white lead and, at the same time, offers sealing, hiding and whiteness unsurpassed by any two-coat combination on the market. Its two special forms—Exterior Primer and Outside White—are both pure white lead, all ready to spread. Used together they give a real Dutch Boy job—sparkling and durable — on new or old wood.

NATIONAL LEAD COMPANY
New York, Buffalo, Chicago, Cincinnati, Cleveland, St. Louis, San Francisco, Boston (National Boston-Lead Co.), Pittsburgh (National Lead & Oil Co. of Penna.), Philadelphia (John T. Lewis & Bros. Co.).

SPECIFY DUTCH BOY PURE WHITE LEAD



AMERICAN BUILDER AND BUILDING AGE

Washington Report as of February 17

AMERICAN BUILDER has attempted to obtain the answers to important, frequently asked questions by having its representatives put these questions to the various officials in the government agencies involved. Here they are:

IS IT STILL THE GOVERNMENT'S POLICY TO ENCOURAGE PRIVATE BUILDING OF WAR HOUSING?

Answer: Responsible officials in both WPB and the Housing Co-Ordinator's Office gave an unqualified YES. They say that private builders *must* exert every effort to increase their volume of needed houses in defense areas. They admit, of course, that in places where great amounts of temporary housing are needed in a hurry FWA is going ahead with publicly financed work on a large scale, and the volume of this will be large.

But *American Builder's* estimate of from 350,000 to 375,000 units of privately built houses in 1942 still stands. Publicly financed jobs may run to 150,000 units.

WILL WPB ALLOCATE ADDITIONAL CRITICAL MATERIALS WHEN THE PRESENT ALLOTMENT IS USED UP?

Answer: Yes. As of January 31, WPB had approved priorities on 120,362 privately built houses. These were represented by 9,000 jobs or an average of 13 houses per priority order.

By March 1, the 200,000 units allocated to private industry will probably be exhausted, and we are assured that additional allocations will be made.

ARE BUILDERS TAKING TO TITLE VI?

Answer: Like ducks to water. The liberalized policy in connection with FHA's Title VI defense home building has brought on an avalanche of applications. Abner Ferguson, FHA administrator, announced February 14 that applications filed during the preceding week totaled 6,650 dwelling units, compared with 3,835 a year ago. In the preceding week 6,400 applications were filed. These figures break all-time records for FHA, and the principal part of the volume is coming in under Title VI. The figures definitely predict a large volume of private home building in defense areas.

ARE SMALL BUILDERS PARTICIPATING?

Answer: The priority figures given above showing that the average priority approved job is for 13 houses, demonstrate that small builders are participating. Actually, the trend is towards smaller operations in order to fit them into established communities where utilities are already in. It is almost impossible now to get priority assistance on new utility installations.

Curt Mack, FHA official, pointed out that under Title VI builders may operate on individual lots or on small groups of lots, and said that such operations are to be encouraged.

WHAT ABOUT FURTHER LIBERALIZATION OF TITLE VI?

Answer: An Administration approved bill extending the length of the mortgage and increasing the amount to \$5,400, and further liberalizing Title VI is close to final action. It is said to have been approved by Jesse Jones and will shortly be presented to Congress and is expected to pass quickly.

Actually, Title VI already has many remarkable features that smart builders are rapidly finding out and utilizing. Under certain conditions the builder can get his *complete out-of-pocket costs out of the mortgage.*

WHAT ABOUT GAS LIMITATION ORDER?

Answer: This order prohibiting the installation of new gas heating in 17 states will require serious adjustments unless modified locally. We believe that local exceptions will be made.

WHAT ABOUT REFRIGERATORS?

Answer: The freezing order on refrigerators will, like that on automobiles, tend to make the available supply go further, with the probability that the bulk will go into defense housing. Of course, as one official pointed out, it is perfectly possible that defense workers can live in houses with iceboxes or cold chests for the time being without seriously affecting their health. Certainly lack of mechanical refrigerators will not hold up home building.

WHAT WILL BE EFFECT OF NEW CRITICAL LIST?

Answer: The new critical list of materials on which priorities will be granted for defense housing, to be released February 24, will undoubtedly cause still further readjustment of building procedures and will still further pare down the amount of critical metals and materials that may be used in defense housing. This new critical list replacing PM 1192 issued September 19 applies *both to public and private housing.*

IS FREEZE ORDER IMMINENT?

Answer: There never has been any likelihood of a "freeze order." What is in prospect, as Chairman Donald M. Nelson himself said in a letter to *American Builder* on January 16, is a limitation of use of critical metals in nondefense areas, except for repairs, small jobs and work necessary to public health and welfare. Although this limitation order has been under discussion by officials for several months, no action had been taken as of February 17. Reports have it that Nelson will first appoint some prominent individual to head up the Construction Priorities Division. Building men can only hope that whoever gets this job will be someone well acquainted with the intricate production and distribution system of building products.

ON & OFF the RECORD

News, Views and Comments
Washington Developments

by *Structor*

DEFENSE NOTE—In a formal announcement, the War Production Board has added Wahoo, Neb., to the list of defense housing areas.

COSTS UP 11 PER CENT—Average construction cost of a standard 6-room house increased 11 per cent during 1941, the Federal Home Loan Bank Board has announced. Materials and labor rose about in equal amounts during the year.

INDIVIDUALISTS—Last month we reported a laudable attempt to form a National Home Builders Industries Council, with representation from the Home Builders Institute, the National Home Builders Association and building material manufacturers. Like numerous attempts in the past, this one does not seem to be getting anywhere. Each wants to go its own way.

However, HBI's Emergency Committee, headed by Hugh Potter of Texas, has been on the job in Washington working for needed legislation. The members, who include such prominent builders as William J. Levitt of Long Island, George F. Nixon of Chicago, J. C. Nichols of Kansas City, Ellis Stoneson of San Francisco and Fritz Burns of Los Angeles, take the stand that *as far as possible, housing should be provided through normal private building channels.*

They are also pressing for an increase in the limit on FHA Title VI mortgages to \$5,400 and a 25-year term. They are also urging liberalization of Section 207 (rental housing) to provide for 90 per cent mortgage loans.

BOMBING-WALKING RATIO—One of our prominent West Coast builders was all set to build a new 1,000-home Title VI project close to an airplane plant. Then along came Army advisers who suggested his location was too close for comfort in case of a bombing attack. So he picked another spot quite a little ways away. Along came Pearl Harbor and the cutting off of rubber tires. Housing officials then said he was too far away from the plant. Now he's busy trying to figure out the bombing-walking ratio; close enough for walking—but not too close!

ECONOMIC SOUNDNESS OUT—A significant change being sought in FHA Title VI is the elimination of the phrase "economic soundness" in describing qualifications of these defense home projects. In the present war emergency "economic soundness" is not a major requirement. What the government wants is good houses for war workers, in large numbers, *quickly*. Title VI is protected by a special insurance fund advanced by RFC. *Even if a large number of FHA Title VI insured homes had to be taken back and later resold at a loss, the cost to the government would still be only a fraction of what it would be if the government built all the houses in the first place and paid the total cost.*

WAR AND DEATH—It's easy to complain about war's effect on our private business. The following thought may change your outlook:

Before the war is over some businesses may die—but

business men will live to start again. Thousands of our soldiers and sailors may not get this break.

FREEZE RUMOR MAKES SALES—Several material men I know report that when rumors of a "freeze order" on building products got around their towns, sales took a sudden jump. In one town a dealer's business increased 100 per cent the week following circulation of the rumor.

Thus far the War Production Board has not seen fit to issue any such edict. The officials are still debating a metal limitations order.

VANDERLIP OUT—Last month we mentioned the name of Frank Vanderlip, of the housing coordinator's office, who was doing a job to assist private builders. That was last month. Vanderlip is now a Captain in the United States forces. A reporter's life in Washington is tough. Officials and sources of information change so fast it's almost impossible to see the same man twice.

EASY TO CONCEIVE—W. D. Connor, Jr., of the Lumber Branch of WPB was recently describing the difficulties of applying priorities to building products. "A priority rating is like a baby," he said, "easy to conceive, but hard to deliver."

CRITICAL LIST—The new critical list of materials on which builders can obtain priority assistance will throw a lot of monkey wrenches into many building codes as well as into many well-established building practices. It is getting tougher and tougher to keep up with government regulations. *We have come a long way from "rugged individualism" when a minor official in a small office in Washington is able to tell a builder in a town a thousand miles away that he can install only two electrical outlets in a bathroom.* Even such minute details as the size and shape of a piece of hardware are specified. We suppose that these things are necessary, but we still don't like it.

HAVE YOUR CAKE—Some smart people are pointing out that Title VI building is one of the few types of business today in which a man can, so to speak, eat his cake and have it, too. It is possible under Title VI, they say, for the builder to get all his money out and still own the property. It's probably too good to be true, or to last.

TITLE VI REVISIONS—Although business has been booming under Title VI since it was liberalized January 15, movement is still under way for legislation to make this Title still more effective in creating private defense building. An administration approved bill is being drawn and will probably shortly pass. One of the most important provisions will be to increase the size of the mortgage to \$5400.

GAS LIMITATION—When the War Production Board issued an order prohibiting new installations of gas for heating in some 17 states, it threw another bomb into many well worked out plans. Inexpensive gas heating installations were being used by many builders, and manufacturers had been making great progress in producing efficient units of this type. This sudden ban, unless modified, will force a change to other types of equipment which require more metal.

SCATTERED WAR PROJECTS—A definite trend away from huge housing projects is taking place. Government officials have suddenly discovered that mass housing projects might make excellent bombing targets

(Continued to page 113)



IMPOSING ENTRANCE to Twin Lakes Motor Lodge. William Mayer, Jr., architect.

Ingenuity Will Help House War Workers

Twin Lakes Motor Lodge—an ideal layout for tourists or temporary employees; well-built brick lodges, near Hackensack, N. J., have central heat, good design. Attract many workers in nearby war plants

WELL, why not? Why not house temporary war workers—at least a good many of them—in motor lodges and tourist homes?

If the structures are as well built, well heated and artistically laid out as the one shown with this article, they would prove most satisfactory as temporary homes.

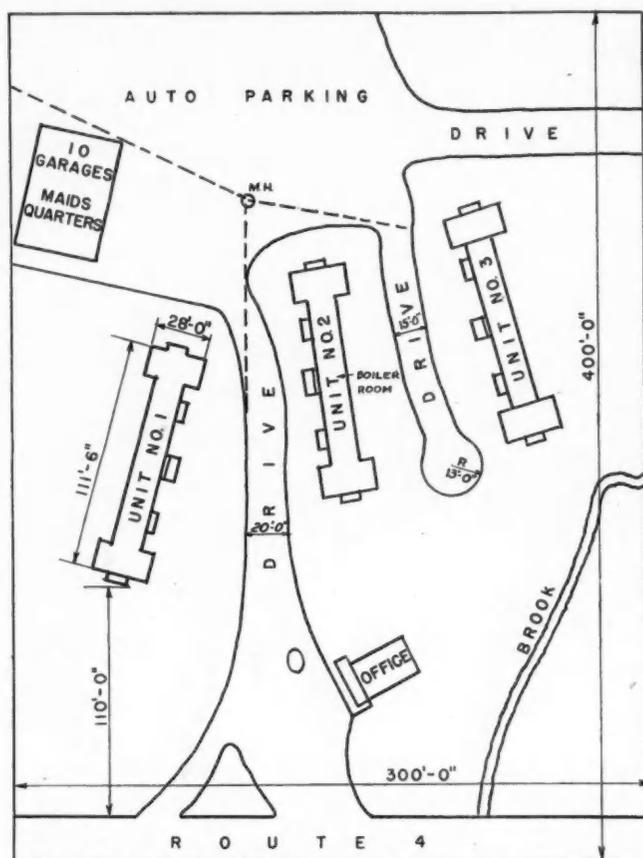
After the war these motor lodges will continue to be of use and value to the American public. We all know that after the war Americans will be buying a great many new cars and will be "rarin' to go," so tourist accommodations will be in great demand.

Twin Lakes Motor Lodge, illustrated with this article, is a fine example of a successful project. Located on New Jersey State Highway 4, in North Hackensack, just six miles from the George Washington Bridge, it was built as a de luxe but low-cost accommodation for tourists. Since the vast expansion in New Jersey industrial and war work, however, a constantly increasing number of these workers have been staying there.

The Twin Lakes project consists of three lodges, each 111'-6" x 28', containing ten sleeping rooms, each with private bath and tile shower, and each with a private entrance. The project was built and is owned by the



TEN ROOMS, each with private bath, are included in each of the 111'-6" x 28' motor lodge structures. Fred Triquart, builder.



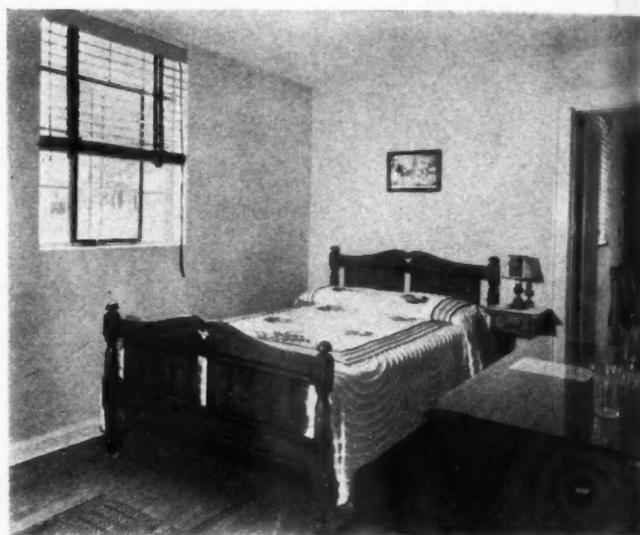
THREE LODGES and office are artistically placed on large plot. Closest unit to road is 110'. There is a parking lot at rear.

enterprising Germain brothers, Irving and Lawrence. It was designed by Architect William Mayer, Jr., of West New York, N.J., and built by Fred Triquart.

Study of the accompanying detailed plans and elevations will show how cleverly Architect Mayer has worked out the arrangement of the rooms so that each has good cross ventilation and an adequate private bath and good size closet. The rooms are 10' x 12'-8" in size, providing ample space for the large double bed and the tasteful Early American maple furniture.

The three lodges are carefully spaced way back from Highway 4 on a plot which has a 300-foot frontage on the highway and extends back 500 feet in depth. The buildings were placed so as not to destroy any of the large trees, and they are surrounded by a winding crushed stone driveway. There is ample parking space at the rear in addition to a number of garages.

An ample heating plant with oil-fired Capitol boilers



STEEL WINDOWS, oak floors, attractive furnishings are featured in this typical Twin Lakes bedroom, as shown in the view above.

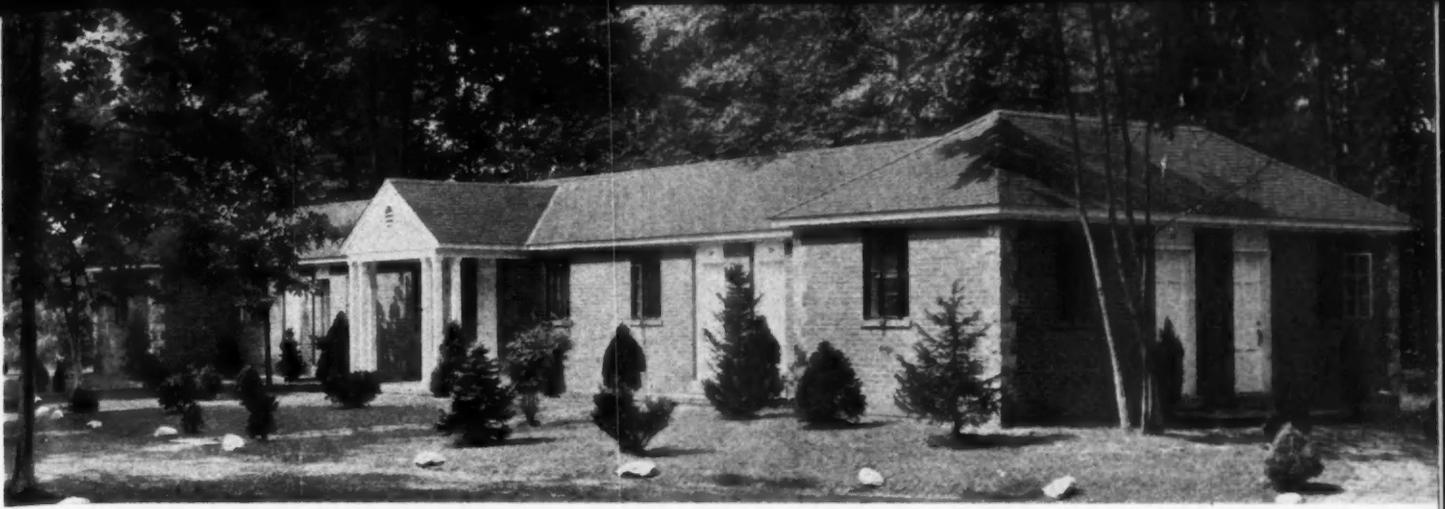
is located in an excavated portion under one of the lodges, and this provides steam heat and hot water to all the units. The water supply is from the Germain's own deep water well. Sewage disposal is simplified by the fact that there is a connection to the municipal sewer system.

In constructing the Motor Lodge buildings, the Germain brothers went to great length to assure low upkeep. The buildings are of high quality concrete blocks with face-brick exterior. Inside walls are furred out and plastered. In the first two units, floors are of concrete placed over a thick cinder fill. Tile-Tex asphalt flooring was then laid over the concrete. In the third unit, however, the floors are of the usual joist construction with a finish surface of oak. Windows are Fenestra steel casements with removable bronze screens.

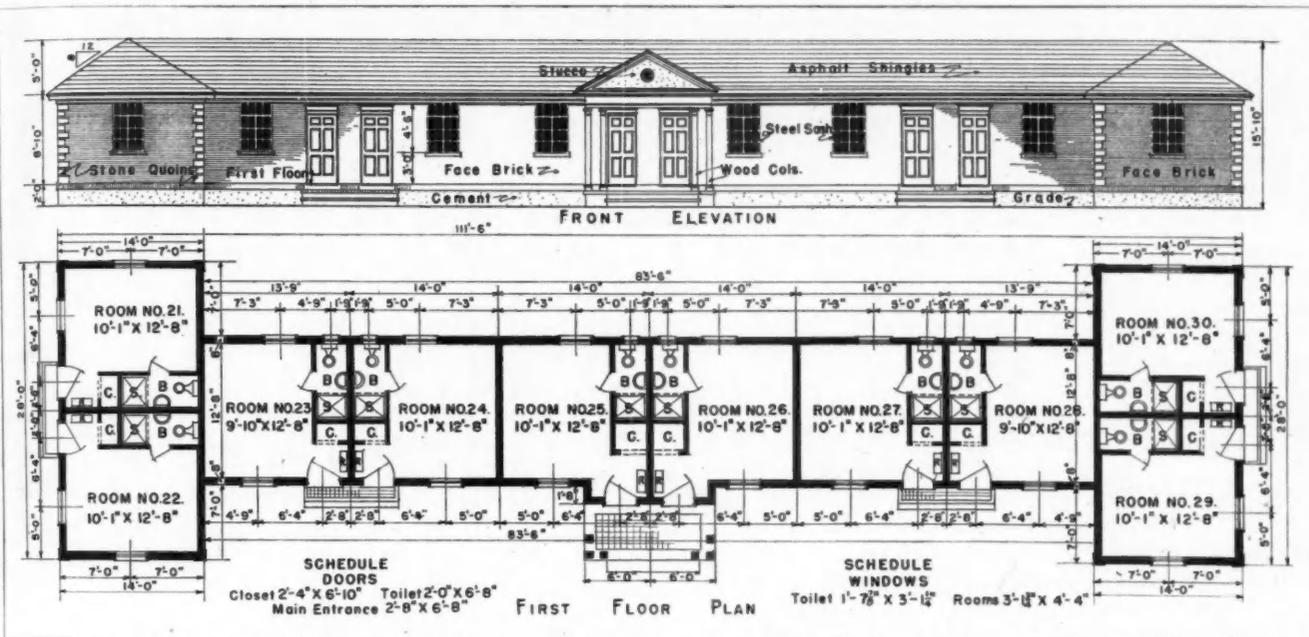
None of the Twin Lakes units is equipped with cooking facilities. They were omitted after careful consideration by the Germain brothers on the basis that there are ample restaurants and other facilities close by and the demand for cooking facilities has been small.

The recently completed Administration Building contains, in addition to the registration office, a manager's apartment, a linen room completely lined in cedar and an additional bedroom with private bath that is available for renting.

As an investment the project has proved very attractive, since the units have been well occupied and command a good rate. The 31 rooms provide an income well able to take care of all expenses and pay a good return on the investment.



TALL TREES surround the Twin Lakes Motor Lodges. Each room has separate entrance, is 10' x 12'-8", has private bath and closet.



DETAILED PLANS and elevations by Architect William Mayer, Jr. show careful study and good design in Twin Lakes Motor Lodge. Each unit has ten rooms, is serviced by central heating plant.

Motor Lodges for War Workers?

WELL-DESIGNED tourist accommodations provide at least one form of temporary housing for war workers—especially single men and women or childless couples.

Such structures may be located on outskirts of industrial areas in attractive surroundings. During the war they will be kept fully rented by workers. Afterwards they will continue to serve as tourist accommodations. This article tells how one such project has paid out well.



MAIN OFFICE of Twin Lakes Motor Lodge is attractively designed. Placed at entrance about 50 feet from New Jersey State Highway 4.



OPPORTUNITIES UNDER TITLE VI

Builders rush thousands of war homes as FHA applications set new records. Big volume in small jobs

AS a result of FHA'S liberalized policy in connection with Title VI defense homes, thousands of builders, large and small, throughout the country made applications for mortgage loans last month, breaking all previous FHA records in volume.

During the week ending February 14, applications for FHA mortgages totaled 7,700—a new high. The previous week 6,650 applications were made. These figures are running 100 per cent ahead of last year and show that private builders after some hesitation have definitely decided to get into war home building in a big way.



TITLE VI home of Jacksonville, Fla., built currently, valued at \$4,225.

Some FHA statistics from the Midwest area, which was rather slow to start on Title VI operations due partly to late designation of important cities in these states as defense areas, will indicate the growing importance of this type of housing. In Illinois, where the first Title VI construction was undertaken, in May of 1941, 659 units valued at \$3,020,300 were built in the last eight months of last year; this is an average of 82 houses a month having a value of \$377,600. During January, 1942 alone, in Illinois, there were 348 units amounting to \$1,392,000. Corresponding figures for the first three weeks in February total 167 at \$706,500, a slight drop from the record January total, but still showing a good increase over the average for '41.

In contrast to this, the other FHA volume for the month of January in Illinois totaled 892 jobs amounting to \$5,045,500 as against 1106 for \$6,311,500 during January '41, indicating a decrease in other new construction and remodeling but, thanks to the addition of Title VI, January total becomes larger than that for the same month last year. In Illinois, about 20 per cent of these units are now being built on a straight rental basis, and a few more on either rental or sale.

This same picture fairly well holds throughout the country, and builders everywhere are awakening to the importance of this classification. In Minnesota, which did not report any Title VI until September, the last figures available (the week of Feb. 20) show that 73 out of 98 jobs were defense housing—a new high of about 75 per cent of the total number.

Of importance is the fact that the Title VI jobs are being done in small as well as large projects throughout the country in defense areas. In commenting on the part small building firms can play under Title VI.



Curt C. Mack head of FHA's Underwriting Division, told *American Builder* that Title VI homes may be built on individual lots in scattered locations or on small groups of lots. He pointed out that it is becoming more and more difficult for builders to get priority assistance to extend utility installations and that for that reason builders as far as possible have to build on sites in which utilities are already installed.

This will tend to scatter new defense homes under Title VI through established communities in a way that will benefit communities more than to create large new residential areas farther out.

Unusual Opportunities Seen

FHA Title VI defense housing offers remarkable opportunities for building volume and for successful operations without undue risk. This fact is rapidly being more generally appreciated by builders as they investigate the possibilities of Title VI.

It is pointed out by FHA officials that under Title VI the builder may be the mortgagor, and the mortgage he obtains may cover 90 per cent of the appraised value of the property. Under typical sound conditions this means that the mortgage may *completely cover the builder's out-of-pocket costs including overhead*. Thus, the only risk the builder is required to take is in connection with the profit he expects to make.

At the present time the maximum mortgage loan for single-family residences under Title VI is \$4,000; for two-family, \$6,000; three-family, \$8,000; and four-family, \$10,500. A Congressional Bill is now being considered which would increase the size of the mortgage, probably raising it to \$5,400 per unit.

Since under Title VI the builder is the mortgagor he has a wide range of choice of action in connection with the defense houses he builds. He may rent them (at a rental not to exceed \$50 per month), sell them, or dispose of them on a rental-purchase plan. In many cases builders have found that a high percentage of renters later became purchasers. In any event, whatever the ultimate disposal of the property may be, the builder is protected

Small Builders Get a Break

TITLE VI defense homes may be built on individual lots or in small groups. While many large Title VI projects are going ahead, the bulk of the volume is in smaller operations, as priority records show.

To conserve materials builders are urged to make use of scattered sites where utilities are already installed.

as far as his out-of-pocket costs are concerned by the 90 per cent mortgage. His financial risks have been reduced to a minimum.

Builders interested in starting new Title VI operations may get much helpful information by obtaining the following booklets either from the local FHA office or by writing FHA headquarters at Washington: (1) FHA Form No. 2009—"Administrative Rules and Regulations under Title VI of the National Housing Act" (including recent amendments); (2) FHA Form No. 2042—"Supplement to Illustrative Case—Defense Housing Insurance under Title VI"; (3) FHA Form No. 40882—"Defense Housing Plans for Title VI." (These are reproduced in full on pages 52 to 57 of this issue.—Editor)

To assist private builders in working out plans for Title VI defense houses, the FHA Planning Division has prepared the plans mentioned above which indicate typical floor plans that have proved successful. Sets of these plans have been sent to all the regional offices, where they are reviewed for their availability to local conditions.

How Paul T. Stone Made FHA Title VI Work

Arna Valley job in Arlington, Va., cited by FHA as "most successful." Four-family units were built back-to-back

THIS Title VI defense housing project at Arlington, Va., was built before the recent liberalizations went into effect, yet it has been extremely successful and has been so described by FHA officials.

Paul T. Stone of Washington developed, constructed and is operating the project. The buildings were designed by Architect Edwin Weihe, of 927—15th Street, Washington, D. C.

The first fact that becomes apparent in studying the accompanying detailed plans is that the individual structures consist of 2 four-family units back-to-back. This arrangement was apparently made possible by a special ruling by FHA, since under the Act, Title VI mortgages are restricted to four-family buildings.

As a result, what has been produced is an eight-family building 66'-8" long and 33' wide, of cinder concrete block construction and concrete floors. Each dwelling unit is individually heated by a gas-fired hot water system with the heating unit located in a closet near the bathroom.

It is reported that a 90 per cent FHA mortgage for \$21,000 was placed on each structure, which would be the maximum amount permissible under Title VI (\$10,500 for a four-family unit). The low cost of the buildings is accounted for by the fact that they were started before recent increases in costs and also because of the economical nature of the design and construction pro-

cedure, as indicated in the plans shown opposite.

The rental on all apartments is \$39.50 a month, which should produce a gross annual rental income of \$3,792 for each eight-family structure. This would appear to be a satisfactory return on the investment.

Builder Stone and his organization developed a number of interesting features to produce an extremely low-cost job and at the same time assure low upkeep. Exterior and party walls are of cinder concrete masonry with simple exterior facing of brick. The floor and roof construction consists of light-weight Stran-Steel joists, over which were laid 26-gauge corrugated metal sheets and a 2-inch slab of concrete. This unusually efficient floor construction was an important factor in producing lower costs. The steel and prefabricated metal stairs were supplied by the Builders Steel Products Corporation of Washington, D. C., of which David Luria is president.

Finish floors consist of prefinished oak laid in mastic. The roof is a flat 3-ply built-up type laid over Vermiculite fill insulation.

One of the clever features of the design is the fashion in which the gas meters have been placed in alcoves off the front door.

Study of the accompanying floor plan shows that there is no waste floor space and that living accommodations have been boiled down to their simplest form.

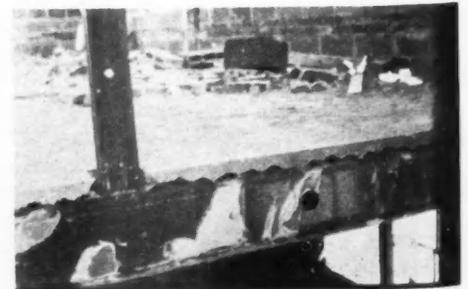


AIRPLANE VIEW of Arna Valley Title VI houses under construction.



PROGRESS PICTURE of typical 66'-8" x 33' unit containing 8 apartments. Rental is \$39.50 per month. Each has individual heating plant.

WITH residential builders everywhere shifting to Title VI construction, **AMERICAN BUILDER** presents in this article the boiled-down experience of an extremely successful Title VI job—one that has been praised by FHA as a solution to the problem of providing quick, satisfactory housing for war workers by private builders. This is a further illustration of **AMERICAN BUILDER'S** policy of keeping its readers closely in touch with the latest development in war housing.



STEEL JOISTS, over which corrugated sheets and 2 inches of concrete were laid.

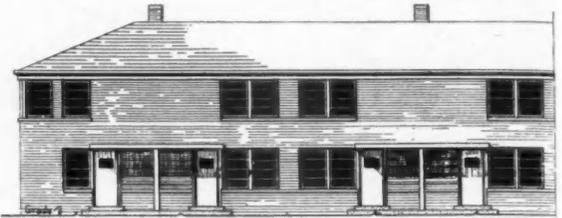
Title VI Rental Rows Recommended by FHA

Selection of Efficiency Designs and Economy Layouts Offered by Regional Insuring Offices to Speed Up Needed War Housing

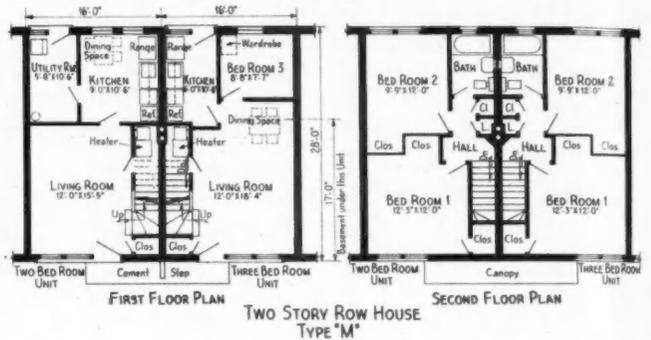
THE CONSTRUCTION by private enterprise of 4-family dwellings, either for rent or for sale, is being urged by government authorities for all defense industry areas. The FHA regional offices, acting in co-operation with the Priorities Division of the War Production Board, are pushing for greatly increased building activity under the newly liberalized amendments for Title VI housing; and the current record of projects being approved for defense house insurance proves that these efforts are bearing fruit. Title VI loan insurance is restricted to war industry areas, with

top limit set at \$4,000 for a single family dwelling and \$10,500 for a 4-family structure.

Now, in order to assist builders wishing to participate in this war industry housing, the FHA regional



FRONT ELEVATION



TWO STORY ROW HOUSE TYPE "M"

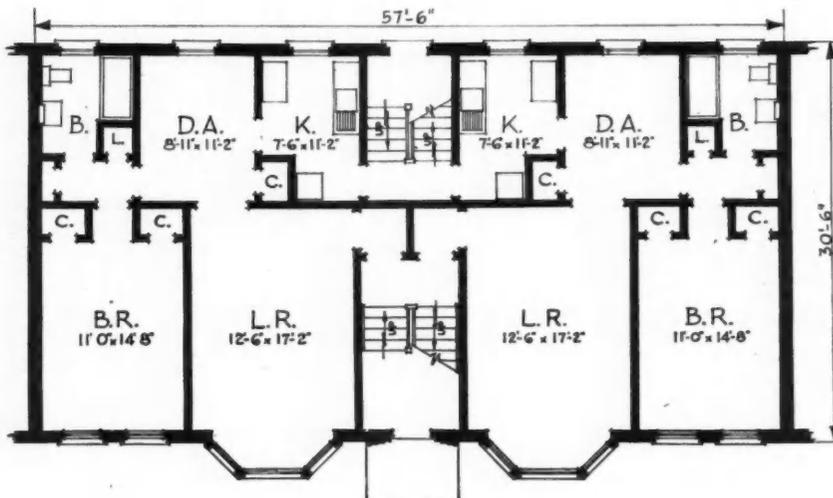
offices have had prepared several pattern plans; and these are available for study and use in the local offices. These are expertly designed; and, in connection with

each, there is definite information as to local costs and details of financing. The purpose of the entire service is, of course, to speed up the program of private-enterprise home building and housing for war industry workers, and to assure good design and efficient layouts for these dwellings, whether intended for sale or for rent.

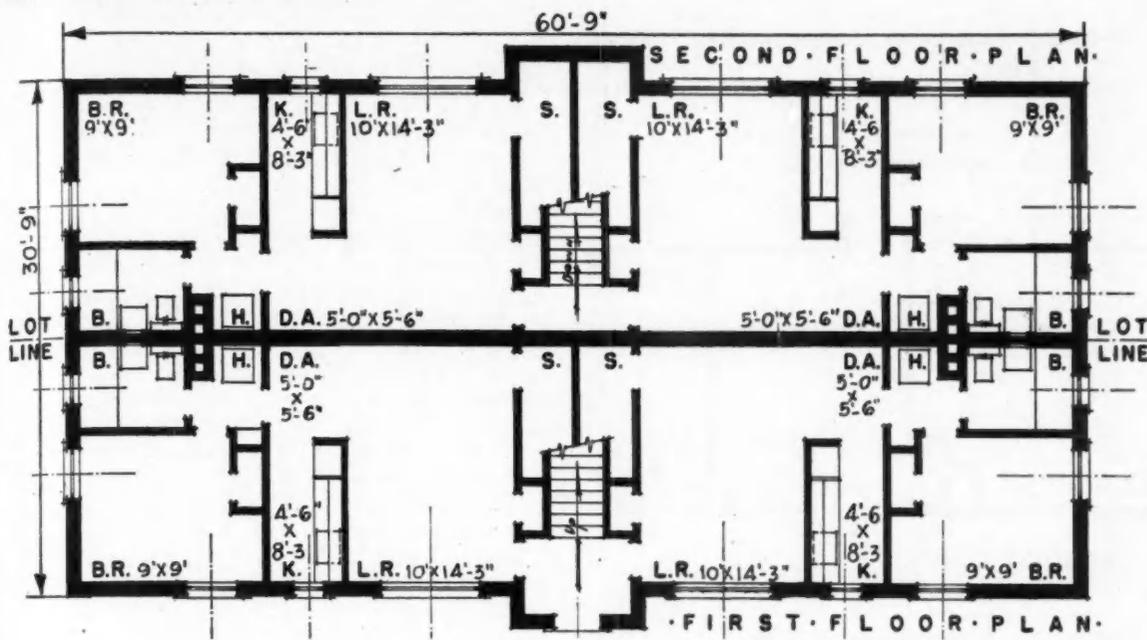
This publication is privileged, through the co-operation of the Chicago Regional FHA office, to present here ten different recommended plans for groups of 4-family dwellings for this program. Each has special merit and, if properly handled, will make an attractive structure and a sound investment. Several different schemes for site planning are also presented, calculated to make successful—permanently—any sizable group of these buildings.

The comments of the FHA experts in connection with each of these suggested designs and plans follow:

Referring to the "Brick



BRICK ROW of 4-flats, each unit as illustrated, housing four families between party walls. Row can be extended to any desirable length.



FHA TITLE VI Design No. 1, an 8-family 2-story building is actually a double 4-family structure.

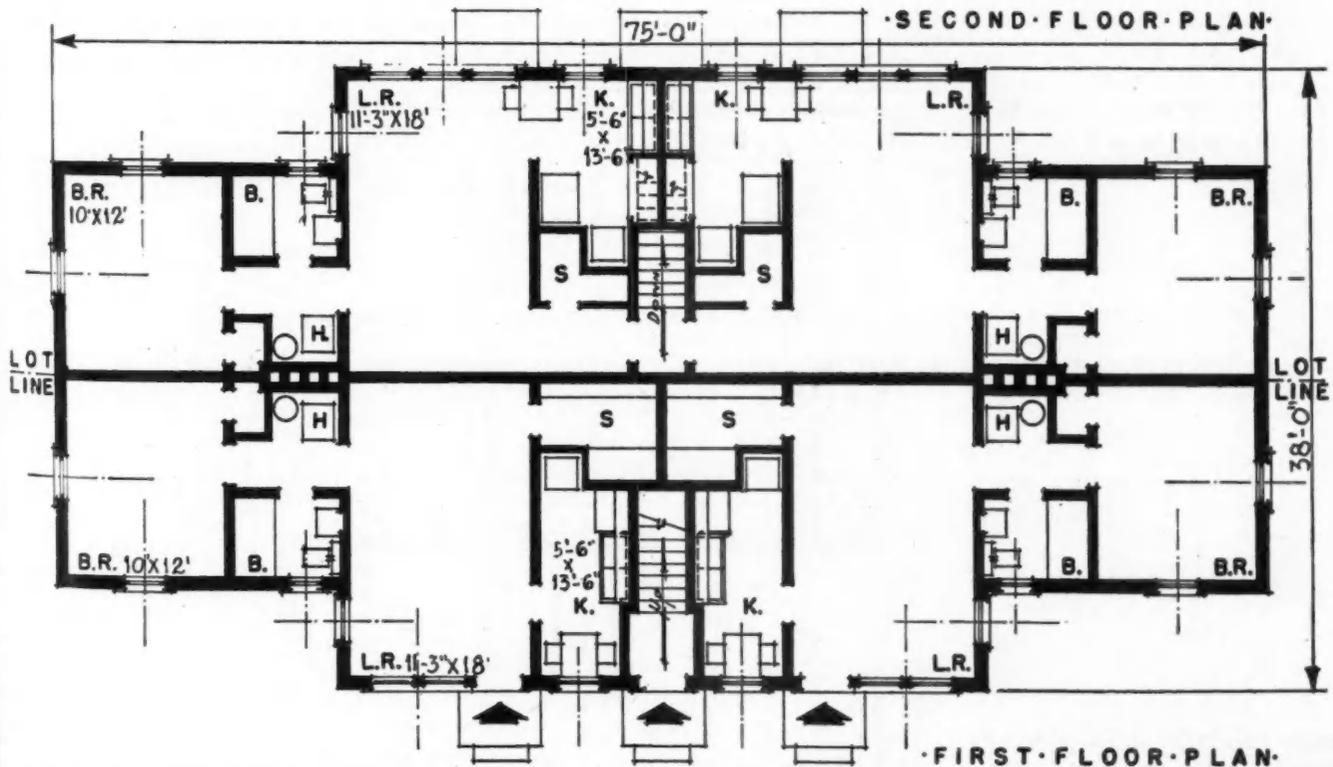
Row," illustrated at the bottom of page 52, this is a typical medium cost 4-family unit of 3½ rooms each; it should be built probably in the defense area to house defense workers. The plan is not a minimum plan but could be considered defense housing because of the fact that each unit would cost less than \$6,000.

The two story row house, type "M," illustrated above on first page, is a typical two and three bedroom unit for Title VI row housing, containing partial basement in the three bedroom unit and no basement in the two bedroom unit. The heating plant in each case is located underneath the stairway to the second floor because of the fact that the heating unit in this location is considerably less expensive than one placed in the basement.

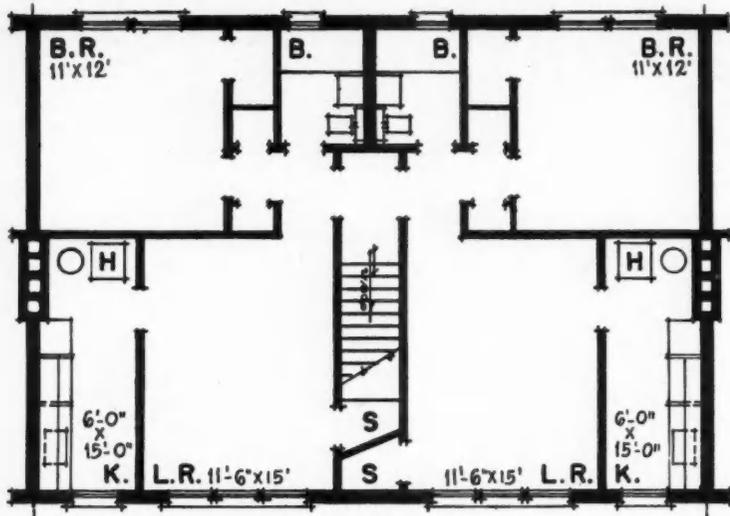
In order, further, to contribute to careful and thor-

ough study of efficiency planning for 4-family dwellings to be promoted under Title VI, the Federal Housing Administration has prepared a series of nine planographed sheets under the name, "Defense Housing Plans for Title VI." Each of these presents a floor plan layout, arranged for livability and rentability. The development of elevations and details remains optional with each builder.

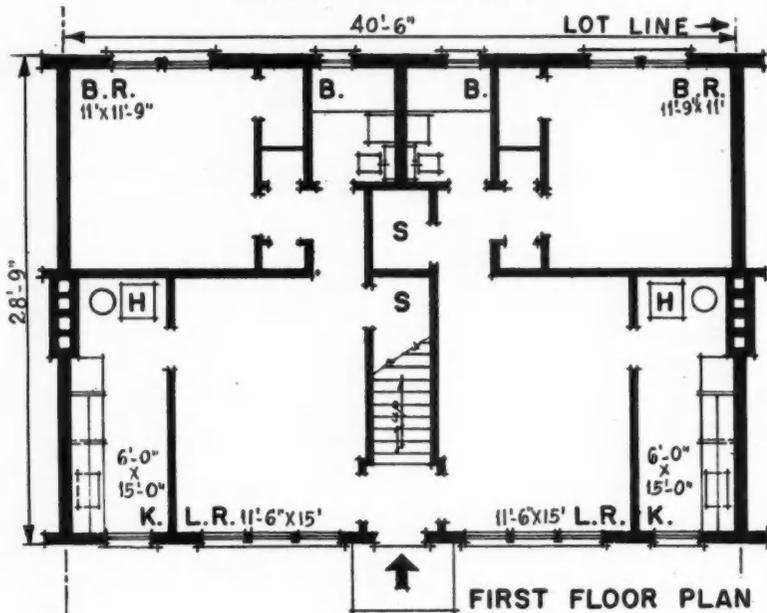
Number 1 of this series (top of this page) shows the floor plans of an existing development of 4-family dwellings financed with mortgages insured under Title VI and located in a north Middle Atlantic state. The development contains 154 properties each having a two-story semidetached 4-family structure, providing a total of 616 dwelling units. Each dwelling unit is individually



FHA TITLE VI Design No. 2, provides for 4 families in each half of a semi-detached 2-story building. Each unit has living room, kitchen, bath and one bedroom.

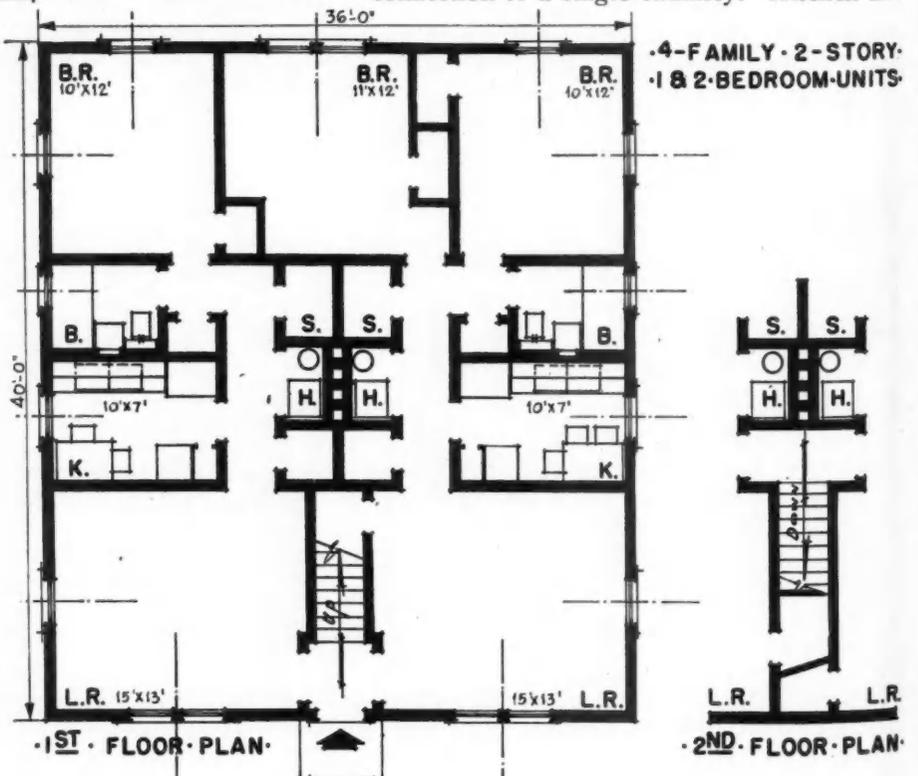


SECOND FLOOR PLAN



FIRST FLOOR PLAN

ABOVE: FHA TITLE VI. Design No. 3, 4-family row-type, 1 bedroom, 2-story



1ST FLOOR PLAN

2ND FLOOR PLAN

RIGHT: FHA TITLE VI Design No. 5, 4-family 2-story building offering two 1-bedroom and two 2-bedroom units, one on each floor.

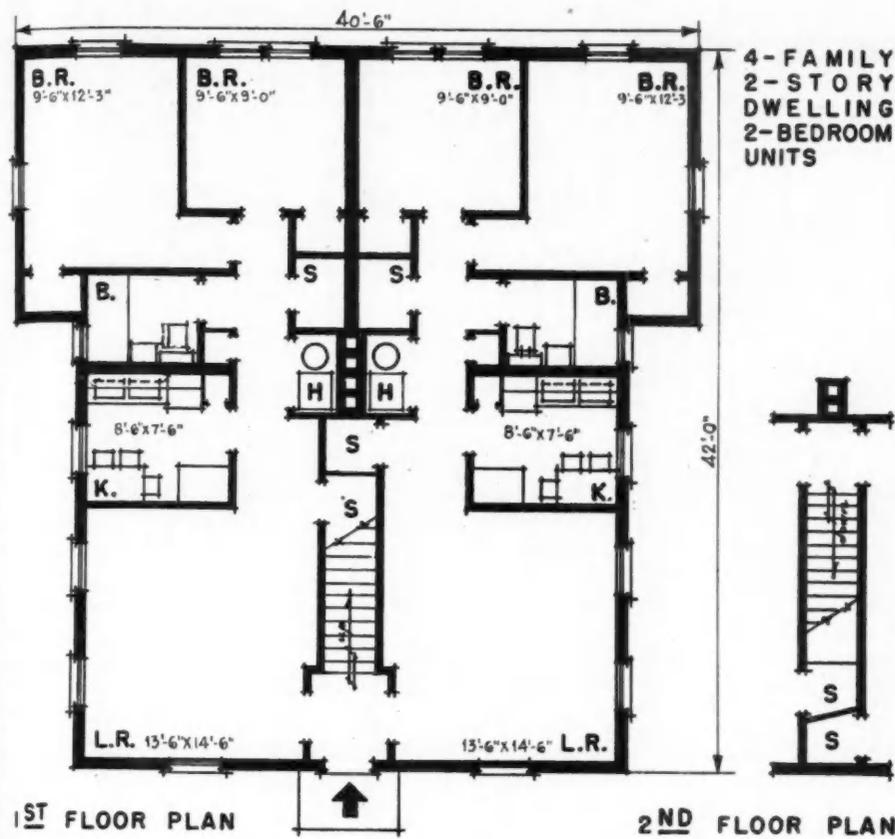
heated. Exterior and party walls are of masonry.

It is further stated that this, like the other suggested plans, is not suitable for all localities, but that local conditions may make modifications necessary.

Number 2 of this Title VI Series (bottom of page 53) shows two 4-family dwellings on separate lots, combined as one structure and separated by a party wall. Bedrooms and living rooms have two exposures to provide cross-ventilation. Each flat is individually heated by a separate heating unit. Separate entrances are provided for first story flats; common entrance and stairway for second story dwelling units. A common laundry for each 4-family dwelling may be installed in the basement with outside access, or kitchen laundry trays may be used.

Design Number 3 (top of this page) calls for a two-story row type dwelling containing four one-bedroom flats, all served by a common entrance and stairway. Location of bathrooms simplifies the plumbing installation. Each flat is individually heated by a gas-fired heating unit. A basement with outside access can be used to provide common laundry facilities on each property when laundry trays in the kitchens are not considered adequate.

At the bottom of this page is reproduced Design Number 5 in this Series. This is a 4-family dwelling containing two one-bedroom and two two-bedroom flats. Portions of the second floor not shown in this plan are the same as the first floor. All dwelling units are served by a common entrance and stairway. Provision for storage space and separate heating systems in each unit makes a basement unnecessary. However, if desired, common laundry facilities can be provided in a basement having access from an outside areaway. Heater units for all flats are located to allow connection to a single chimney. Kitchen and

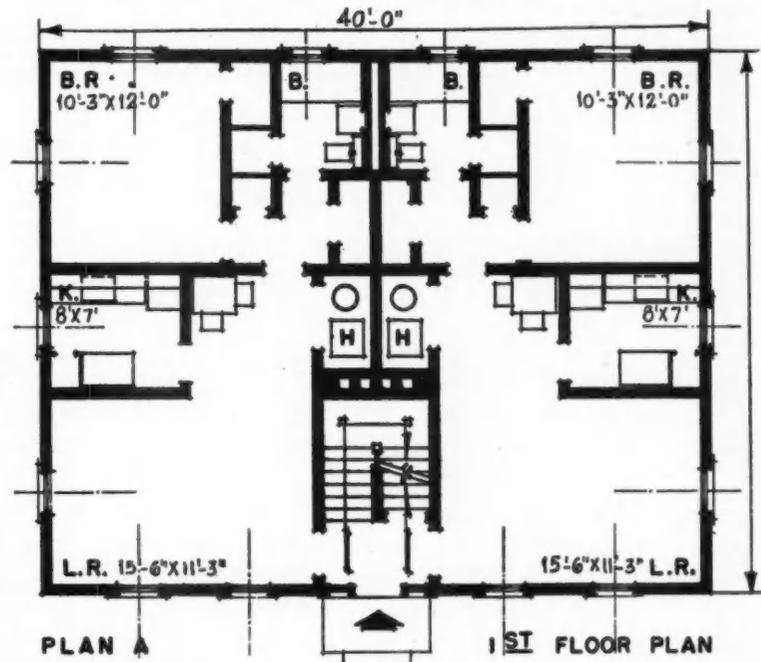


bathroom equipment located on a common partition permits concentration of the plumbing lines and simplifies the installation.

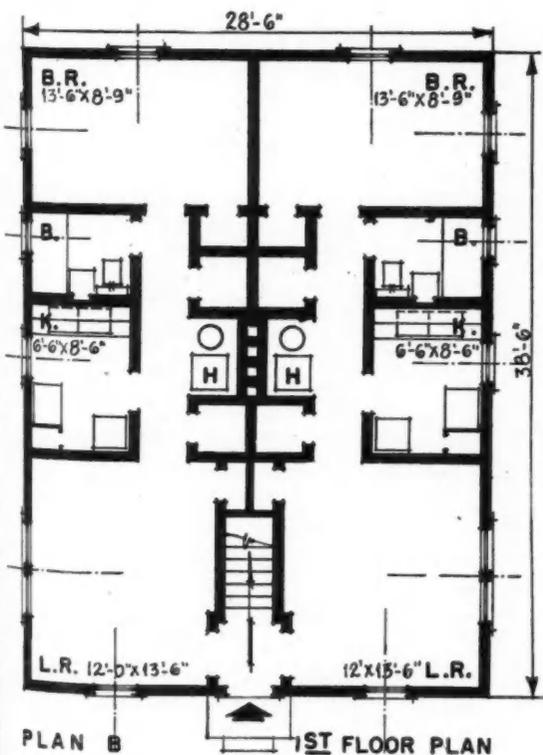
In design Number 6 (shown at top of this page) is presented a two-story dwelling designed to provide four two-bedroom flats. Kitchen and bathroom equipment is located on a common partition for economy in plumbing installation. Each flat is individually heated by a unit located within the apartment. Heaters are grouped for connection to a single chimney. Laundry facilities may be provided by trays in the kitchens or in a basement having access from the outside. Portion of the second floor not shown is similar to the first floor plan.

At the bottom of this page are shown Plan A and Plan B of Design Number 4, plans for a group of 4-family, two-story dwellings, one-bedroom units. Plan A calls for four one-bedroom flats, served by a common entrance and a stairway which permits inside access to a basement. Laundry facilities may be provided in the basement or by laundry trays in the kitchens.

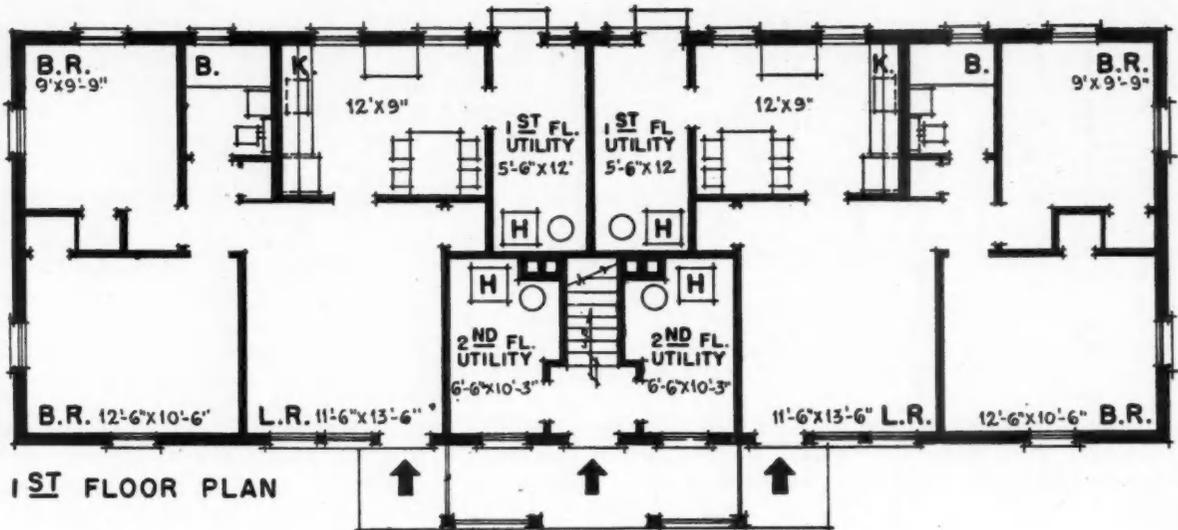
ABOVE: FHA TITLE VI Design No. 6, a 4-family 2-story dwelling with two 2-bedroom units on each floor.



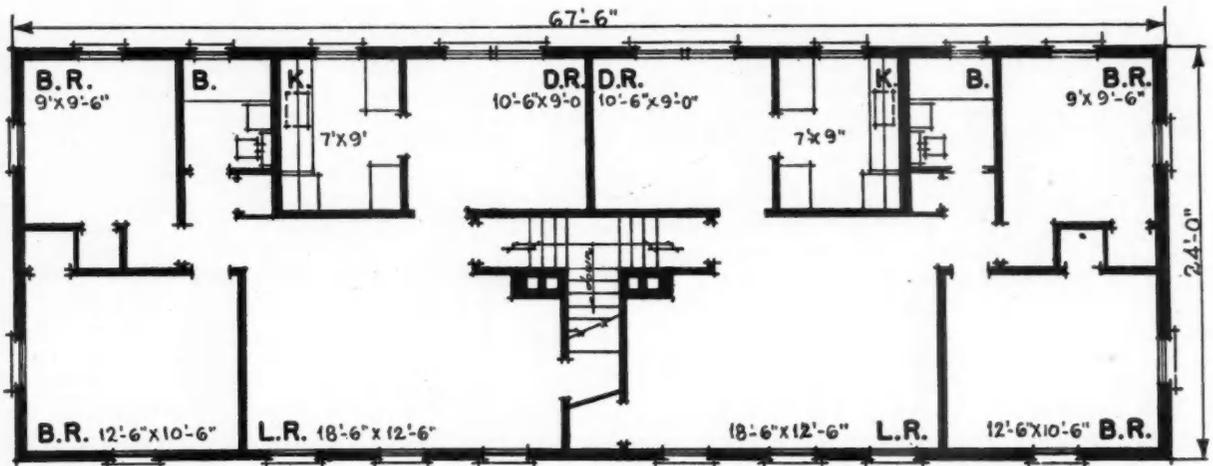
ABOVE: FHA TITLE VI Design No. 4, Plan A, a 4-family, 2-story dwelling of 1-bedroom units.



TO LEFT, Plan B shows similar accommodations, rearranged for a narrow building site.



1ST FLOOR PLAN



2ND FLOOR PLAN

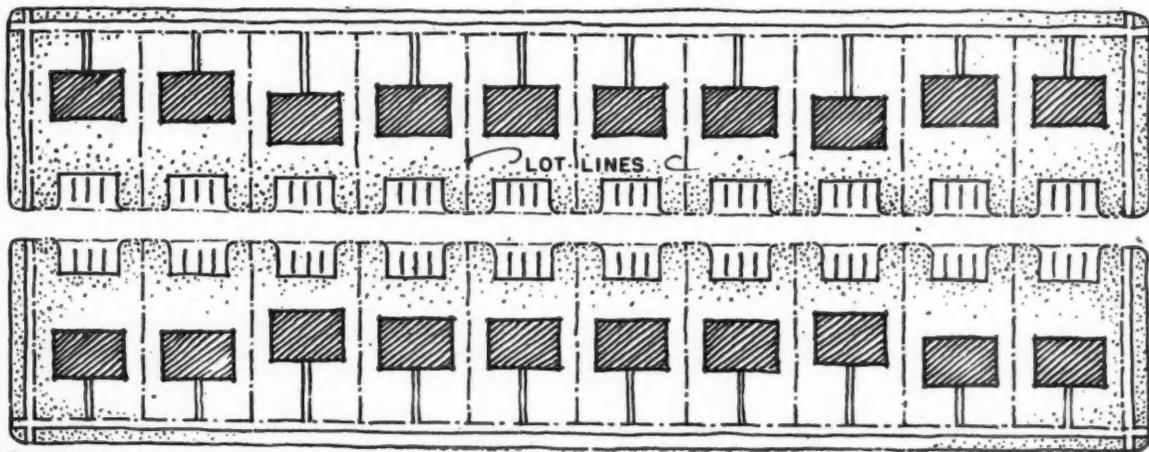
FHA TITLE VI Design No. 7, a broad-front 4-family dwelling, 2-stories high, without basement; 4 utility rooms, for individual heat on first floor.

Grouping of the bathrooms simplifies the plumbing installation. Individual heating units for each flat are grouped for connection to one chimney. Plan of second floor is the same as the first floor.

Plan B of Design Number 4 shows a two-story dwelling containing four one-bedroom flats. Portion of second floor not shown is similar to first floor. Flats heated

by gas-fired, forced warm air unit. Common laundry if desired can be located in basement with outside entrance. This is a type of dwelling suitable for construction on a narrow lot.

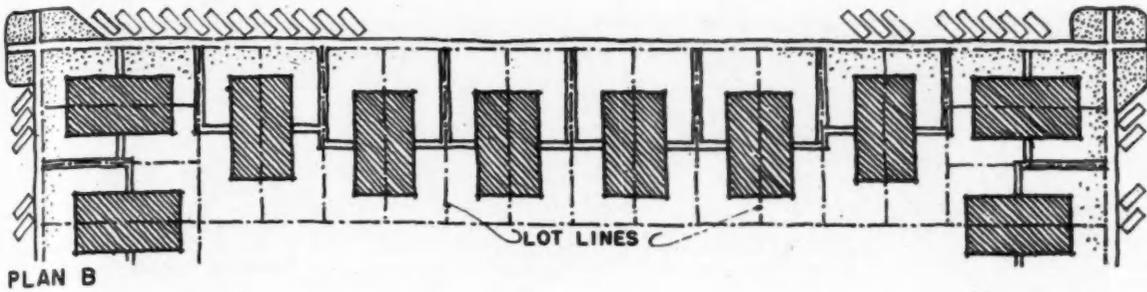
Design Number 7 (shown at top of this page) presents a four two-bedroom flat dwelling which may be placed end-on to the street with entrances on the side. Location



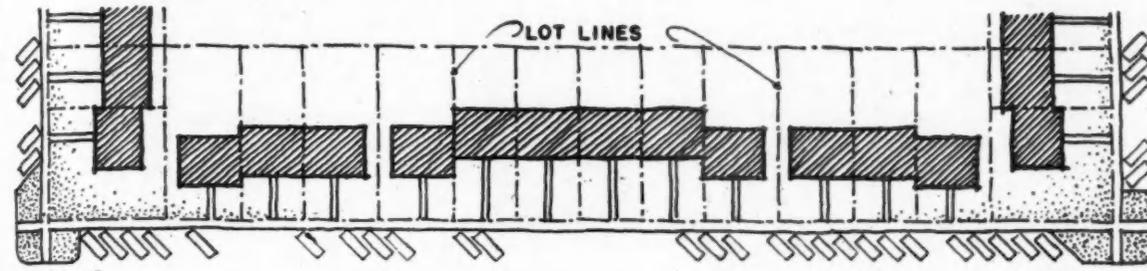
PLAN A

SITE PLANS for 4-family units.

Am
PL
PL
of f
coal-
equip
of li
story
Sh
hous
dwel
ment
ment
by v
open
tures
space
alley.
Plan
diago



PLAN B



PLAN C

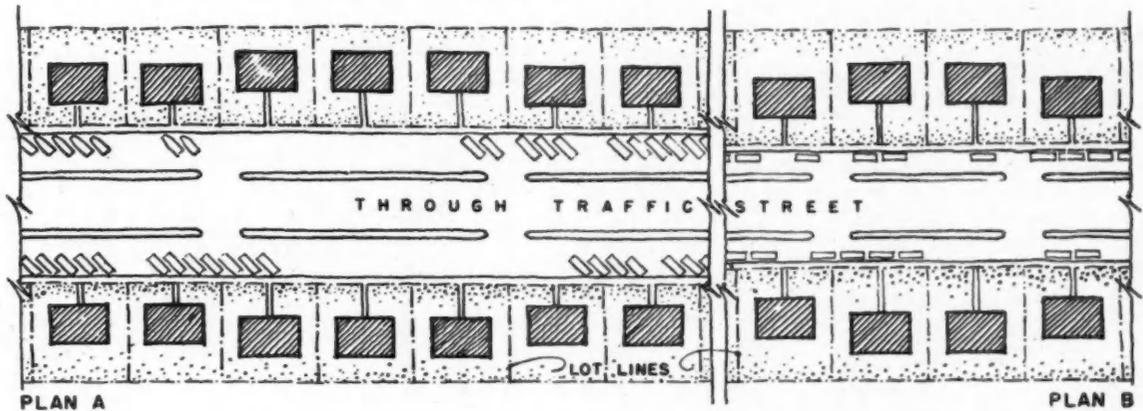
SUGGESTED site plans for rental development.

of four utility rooms on the first floor permits use of coal-fired heating units and provides space for laundry equipment. Separate dining rooms and increased area of living rooms increases the desirability of the second story flats.

Sheets 8 and 9 of this FHA portfolio of Title VI housing plans illustrate desirable site plans for 4-family dwellings. Typical city blocks with existing improvements are shown, planned as 4-family dwelling developments. Monotony in street appearance can be avoided by varying the setback of groups of houses, the use of open spaces, and by good design of the dwelling structures. Plan A (bottom of page 56) suggests parking space at the rear of properties with access to a public alley. This plan indicates detached 4-family houses. Plan B and Plan C (top of this page) show the use of diagonal parking suitable for minor residential streets.

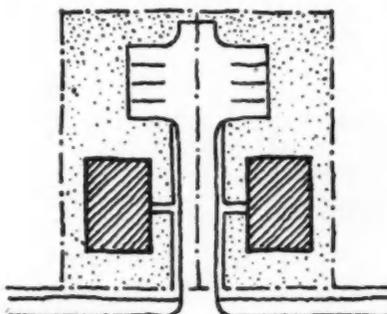
Semidetached 4-family dwellings are indicated on Plan B, and row type 4-family dwellings on Plan C.

Plans A and B (at the bottom of this page) show portions of typical city blocks adjacent to through traffic streets. A parking lane, separated from the main highway by a planting strip, with diagonal parking is illustrated in Plan A; and parking parallel to the curb in Plan B. Variations in setback of dwellings from the street as suggested in Plans A and B improve street appearance and aid in avoiding monotony. Plan C (bottom of this page) shows the development of adjacent properties with parking space at the rear of lots and the use of a joint driveway. Plan D shows several properties developed as a grouped unit with a common service road and with parking at the rear of each lot. Plan C requires easements covering the use of the joint driveway, and Plan D covering walks and service road.

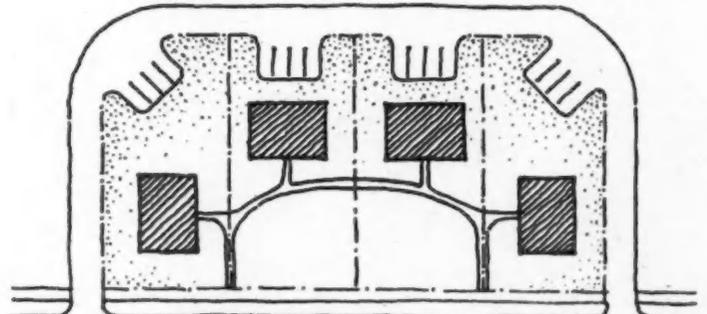


PLAN A

PLAN B



PLAN C

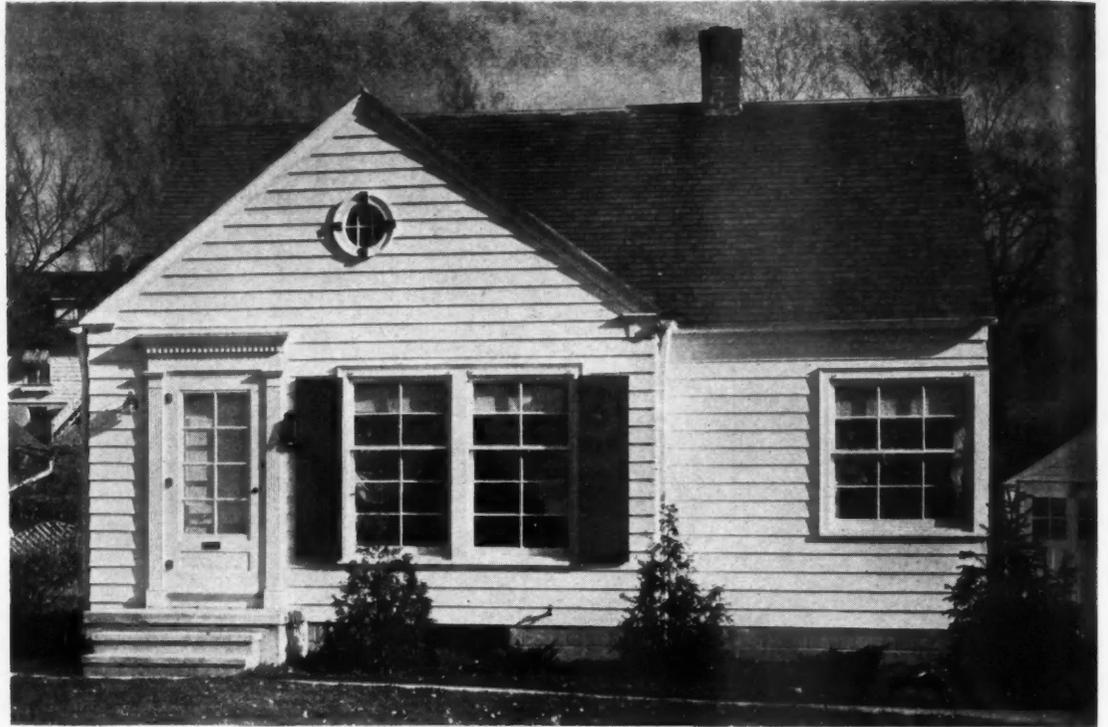


PLAN D

PLOT PLANS to avoid usual traffic hazards.

ry if
en-
truc-
sents
laced
ation

NS for
alts.



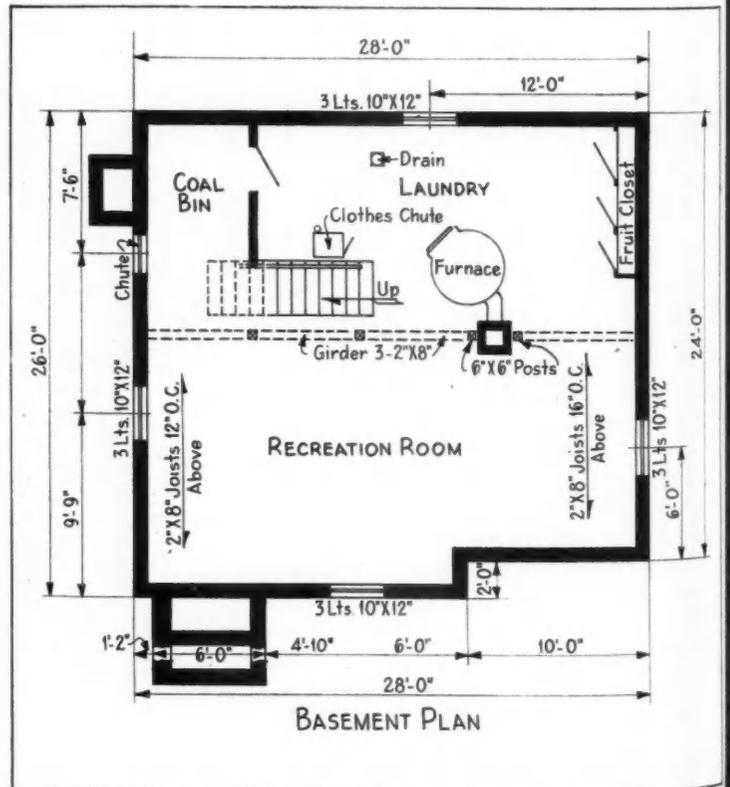
Photos by John W. Barry

THIS GEM of compactness and attractiveness was designed by Donald Barry for the Hawk-eye Lumber & Coal Co., and built in Cedar Rapids, Ia., by Roy Niffenegger.

Front Cover Home—Good Planning, Attractiveness and Extensibility under Title VI

THERE is no hint of shoddiness, poor design or lack of thorough planning in the neat little home shown on these pages; cost including lot in Cedar Rapids, Ia., was well within the Title VI limitations and should be applicable to most sections of the country. It was designed by Donald Barry and built by Roy Niffenegger for Frank L. Buser of the Hedges Company, realtors. This concern has built more than 500 homes.

As indicated in plans opposite, the entrance vestibule, dinette and living room open directly into each



BY USING CORNER WINDOWS, as seen above, the bedrooms have good wall space, appealing outlook. The basement has all the utilities

other through archways, increasing the apparent size of the living space. Kitchen and bath are economically located, with the stairs to unfinished second floor bedroom space leading up out of a minimum hall convenient to the bath. Basement recreation area is accessible without going through the kitchen; the service entrance could be moved somewhat nearer to the front with counter top turning the corner.

Construction Outline

FOUNDATION: Walls, 8" concrete block; cellar floor, 3" cement.

STRUCTURE: Exterior walls, 1/2 x 8 cedar siding, K. V. parchment paper; No. 2 shiplap; 2 x 4" studs; 1/2" plaster base. Interior partitions, 2 x 4" studs; U. S. Gypsum Co. Rocklath and colored plaster. Floor construction, 2 x 8" joists, 1 x 6" T. & G. sub-floor; K. V. paper; E. L. Bruce Co. No. 1 oak finished flooring.

ROOF: Construction, 2 x 4" rafters, 16" o.c., covered with 1 x 6" open and 5/2 wood shingles.

CHIMNEY: Brick with 8 x 12" flue lining.

SHEET METAL WORK: Galvanized iron used throughout.

INSULATION: Outside walls and attic, 1/2" Weatherwood, U. S. Gypsum Co.

WINDOWS: Sash, wood, with Unique Window Balance Co. balancers; glass, Pittsburgh Plate Glass Co.

WOODWORK: White pine doors, cabinets, etc.

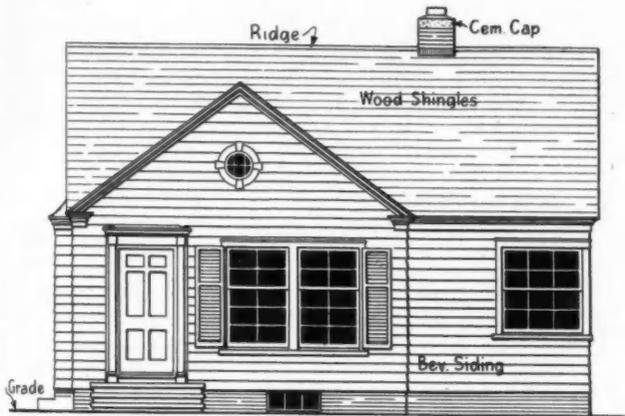
HARDWARE: Interior and exterior, Russell & Erwin.

ELECTRIC INSTALLATION: BX wiring.

KITCHEN EQUIPMENT: Sinks by Briggs Co.

BATHROOM EQUIPMENT: All fixtures by Kohler Co.; cabinets, Columbia Metal Box Co.

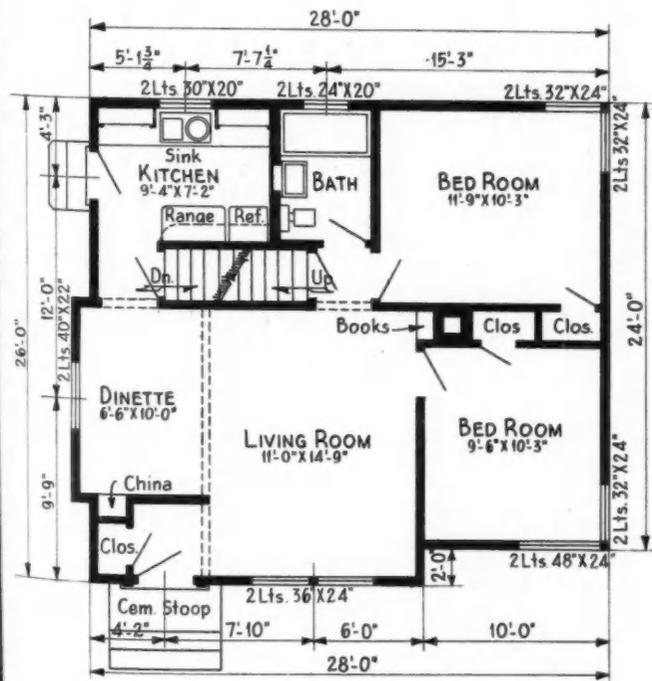
HEATING: Warm air gravity system, American Radiator Co.; gas range boiler, Johnson Gas Appliance Co.; water heater, Ruud Water Heater Mfg. Co.



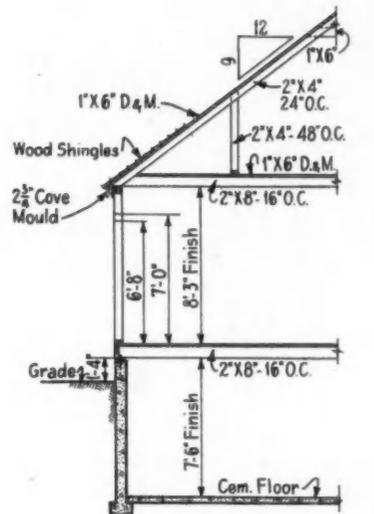
FRONT ELEVATION



LEFT SIDE ELEVATION



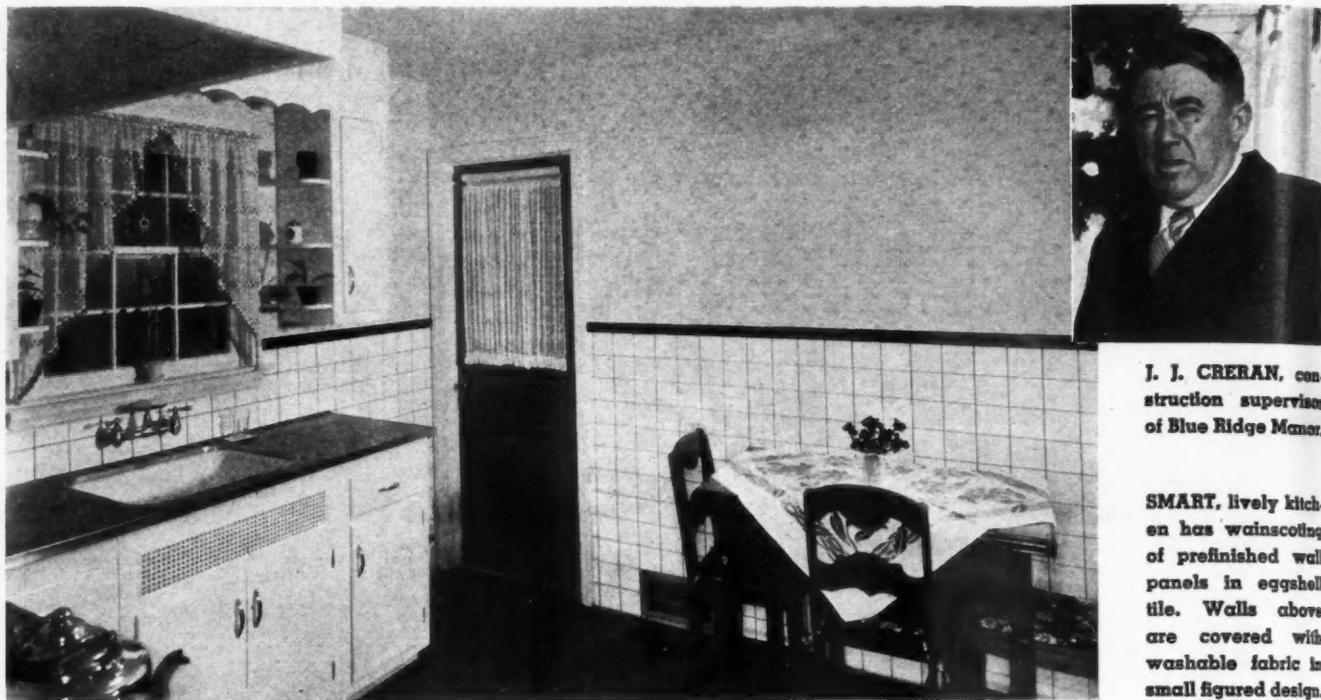
FIRST FLOOR PLAN



SECTION

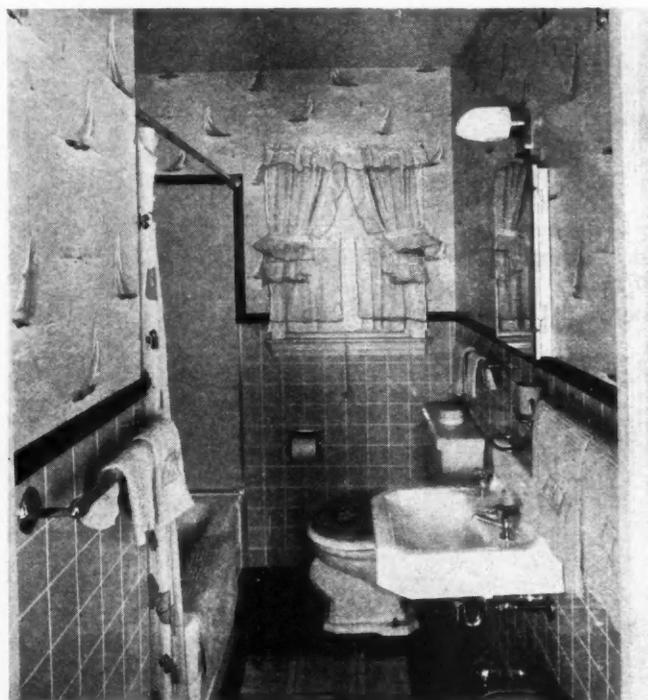


... utilities... shaped to one side, leaving balance clear for recreation area. Five rooms are arranged in an open plan without waste area.



J. J. CRERAN, construction supervisor of Blue Ridge Manor.

SMART, lively kitchen has wainscoting of prefinished wall panels in eggshell tile. Walls above are covered with washable fabric in small figured design.



WAR WORKERS get glamorous bathroom like this one at Blue Ridge Manor, which is lined with blue prefinished wall panels.

AT Kenilworth, N. J., within easy reach of many war industry factories, the builders of Blue Ridge Manor are rushing construction to catch up with sales.

War workers with cash in hand are "begging for houses," according to W. J. Witherspoon, vice president of Blue Ridge Manor, who says that if they had 150 more houses they could sell them in a month.

Under the present program the builders expect to have 216 houses built and sold by March 1.

Recent changes in FHA Title VI—particularly the increases in valuations—make this Title much more attractive, Witherspoon said, and it is probable that an increasing part of Blue Ridge Manor homes will be

They Put Glamour, Too, in War Homes

Builders of Blue Ridge Manor, at Kenilworth, N. J., operate under FHA Titles I, II and VI. "Buyers begging for homes." Will complete 216 by March 1.

built and sold under this section. Blue Ridge Manor originally started out as a Title I, Class 3 job, and a large number of homes were sold. Later, Title II houses were added and some Title VI. So at the present time these operators are operating under all three titles.

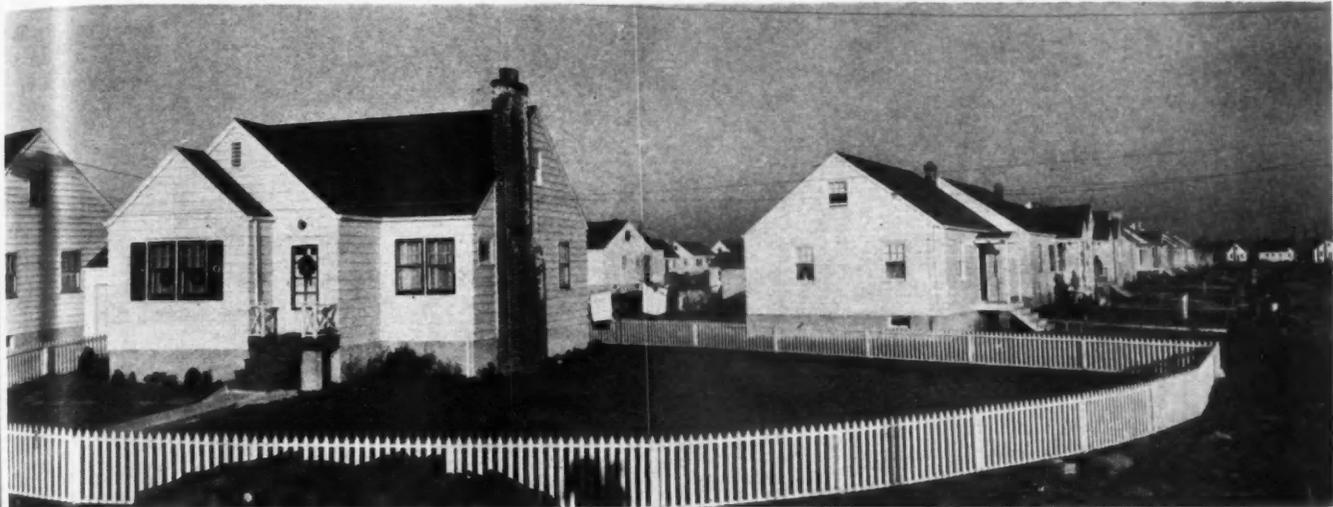
With a present price range of \$3,800 to \$4,500, the attractive little four- and five-room houses are within easy reach of workers in nearby shipyards, the Westinghouse and Weston plants, and numerous other war industry jobs.

"These war workers have plenty of money and are putting cash on the barrelhead," Witherspoon said. Practically no advertising has been necessary because the houses have sold faster than they could be built.

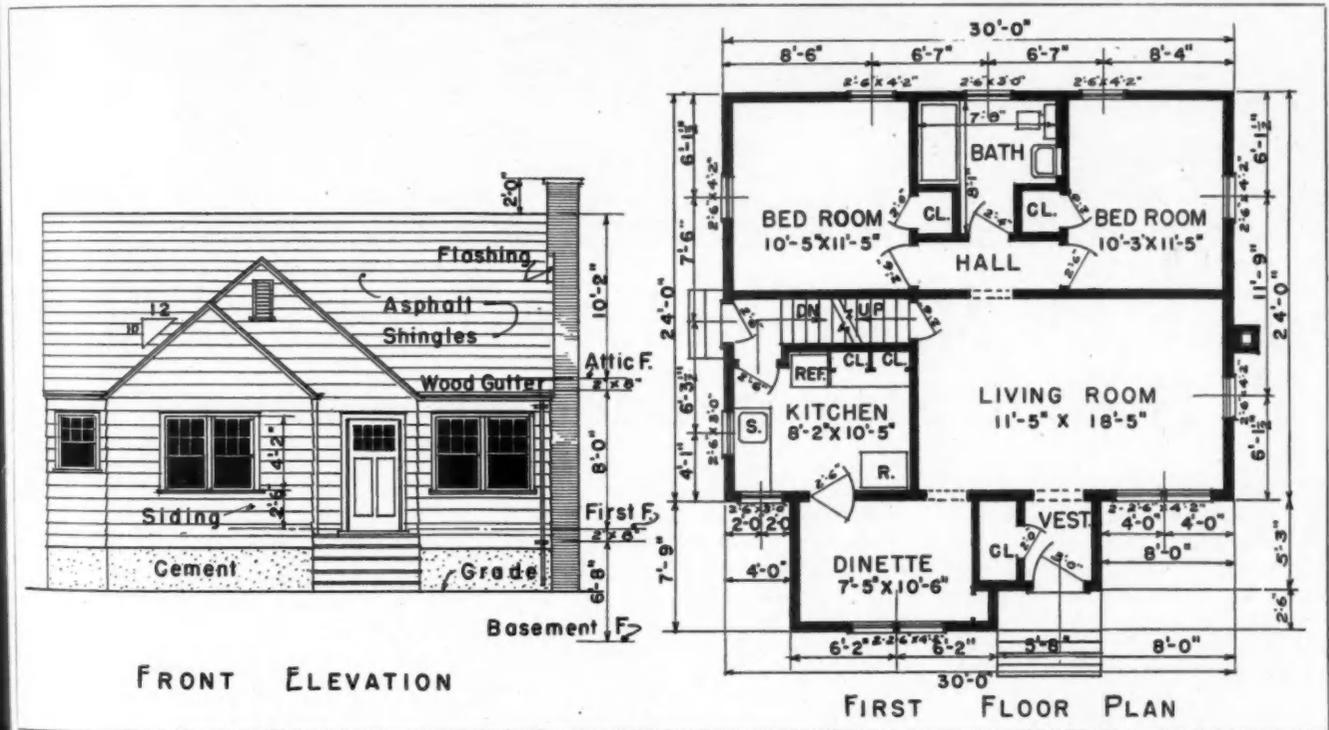
TYPICAL

As a report
Priorities
Build
the dis
perien

T
than "
ful ho
life an
The
are va
ermer
chanic
around
far be



DEMAND EXCEEDS SUPPLY at Blue Ridge Manor, where 216 small homes will be completed by March 1. Plan and elevation of house at left are shown below. The plan of house at right is shown on page 110.



TYPICAL PLAN and elevation of 5-room house, shown above. Main basement area is 24' x 30'. Dinette is good added feature and may be used also as sun room or den.

As to building materials and equipment, Witherspoon reports no trouble whatsoever. "Cash, plus an A-8 Priority, gets us everything we want," he said.

Building operations at Blue Ridge Manor are under the direction of J. J. Creran, a veteran of 30 years' experience. President of the company is F. R. Washburn.

Go in for Glamour

The war workers who buy these houses get more than "just housing." They get an attractive little colorful home of their own into which the builders have put life and glamour.

They get colorful kitchens, baths and interiors that are vastly more appealing to them than any mass government housing project. The buyers are mostly mechanics and factory workers who have been paying around \$40 a month rent. In these houses they get a far better place to live at less than they had paid for

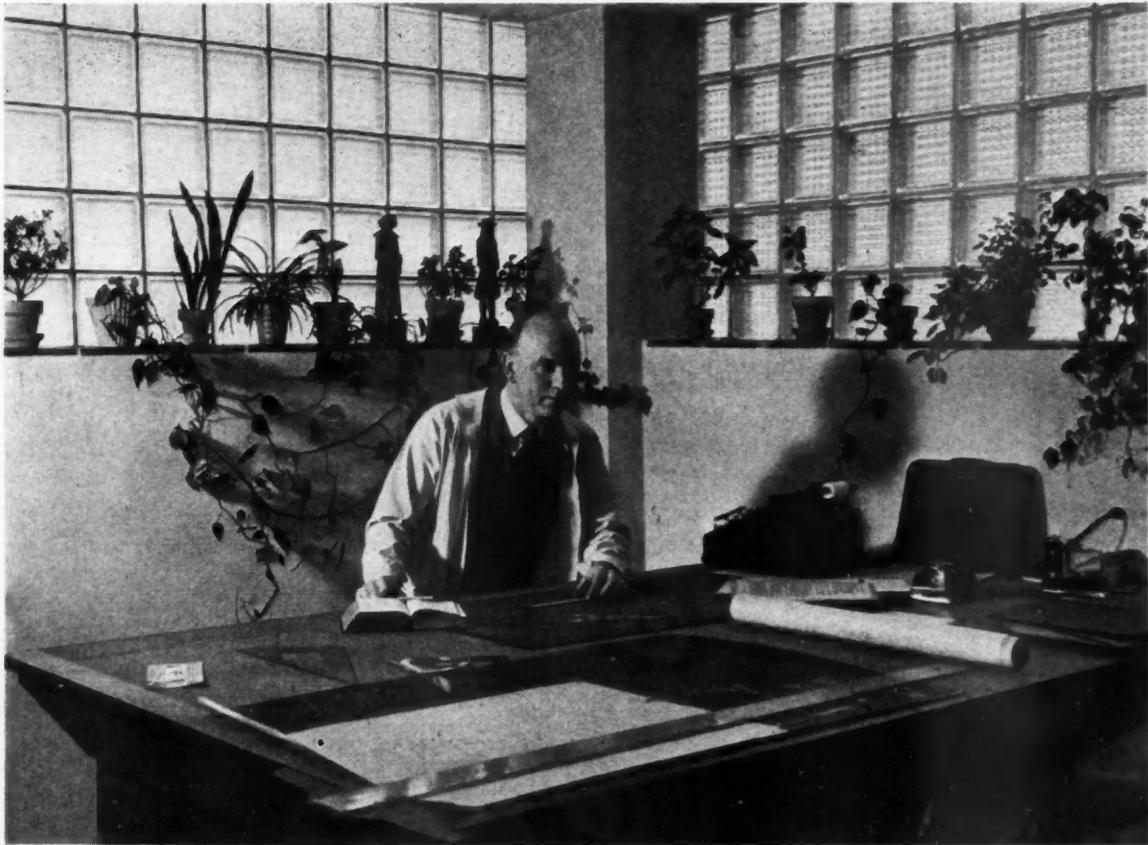
rent in the average housing previously occupied by them.

These builders do not overlook a bet in helping buyers to express their own individualities and tastes in a way that helps make each home the "family's own." In contrast with the monotonous alikeness and minimum essentials of mass housing, each home in Blue Ridge Manor has "extra" livability—even luxury, and smartness that you don't usually find in homes costing less than \$7,000.

If the transaction is made before the house is built and decorated, the buyer is encouraged to select his own color scheme in all rooms. "Women," says Creran, "get a big kick out of selecting their own colors."

The bathrooms and the kitchens come in for special attention. Creran has worked out a treatment for these two key rooms far above the general conception of what low cost housing provides. The beauty of the bathroom with its stylish fixtures and recessed tub is set off with a

(Continued to page 110)



CARL LIEBERT,
architect, in his
office in apart-
ment basement.

Liebert's Milwaukee Apartment Shows How to Stay in Building Business

THIS all-gas apartment at 1105 N. Van Buren St., Milwaukee, designed and built by Carl Liebert, architect, is noteworthy for its solution of a set of problems plaguing the builder at this time. These problems are a living-unit cost in keeping with government war-time policies (under \$4,000) plus the use of less than the accepted weight of critical materials, plus the availability for rent at a good profit under the rental figures permitted.

While the weight of steel used in the construction is beyond the present accepted limits, Mr. Liebert believes the use of metals could be kept well within the limits, by constructing load bearing walls rather than the cantilever steel structure which was built.

Government desires for war time housing seem to center about the three requirements of limitation of cost, limitation in use of critical materials and a preference for construction *for rent* at low figures, rather than *for sale*.

While the Liebert apartments do qualify under these restrictions and thus make possible the continuance of much building, it is particularly interesting to note that the factors which qualify them were due entirely to another set of conditions of interest to real estate operators and builders over the long pull when war will no longer be a factor. That these apartments do qualify for continuous construction now, as well as for long pull investment, is due to a set of conditions best explained by the architect and owner in a recent interview.

The problem which set Mr. Liebert on the trail was the ownership by his family of a piece of property, similar to many city properties which have become unprofitable. The property in question was a very large old house which could not be rented at a profit. Located on a large lot only

a few blocks from the business center of Milwaukee, taxes were a problem. A parking lot would not quite fill the bill as an adequate long term investment. Surveys of rentals on combined stores and residence quarters did not indicate a long-pull return adequate to the investment. Limited parking areas nearby outlawed consideration of a supermarket; and traffic counts were not high enough for a retail center.

The fact that Mr. Liebert sought to solve the problem *in this particular piece of property*, rather than to build or invest elsewhere, may eventually have a far reaching effect on the treatment of similar areas in other cities.

The problem is common to all large cities. Prosperous residents of an earlier generation built large and costly homes near the business centers of cities. The cities grew around and beyond them. Commerce infringed on their privacy and comfort. Newer home comforts and changing styles made the old mansions obsolete. The well-to-do of a new generation bought or built new homes in new areas; and the old homes became boarding houses. Blocks of them became unprofitable, barely paying taxes because of expensive location. They could not exactly be called blighted areas because they were ordinarily not slum areas; but they were blighted from an investment standpoint. They had one advantage as a rule: the lots were spacious.

Mr. Liebert chose residence units as the most likely means of turning the property into a long-time income producing investment. He had the benefit of a location from which those employed in down-town Milwaukee could walk to work. With that he started to plan.

He knew that the better grade tenants would demand

Amer
light
ment.
He
50 pe
trance
the en
In
sough
rect
viz., t
smelly
ensuin
house
The
and b
apart
reache

EXTERIO
boarding

light and air. He knew they would demand modern equipment.

He solved the light and air problem by building on only 50 per cent of the lot area. He enhanced this by side entrances to the apartment, providing 105-foot porticoes on the entrance side the full length of the building.

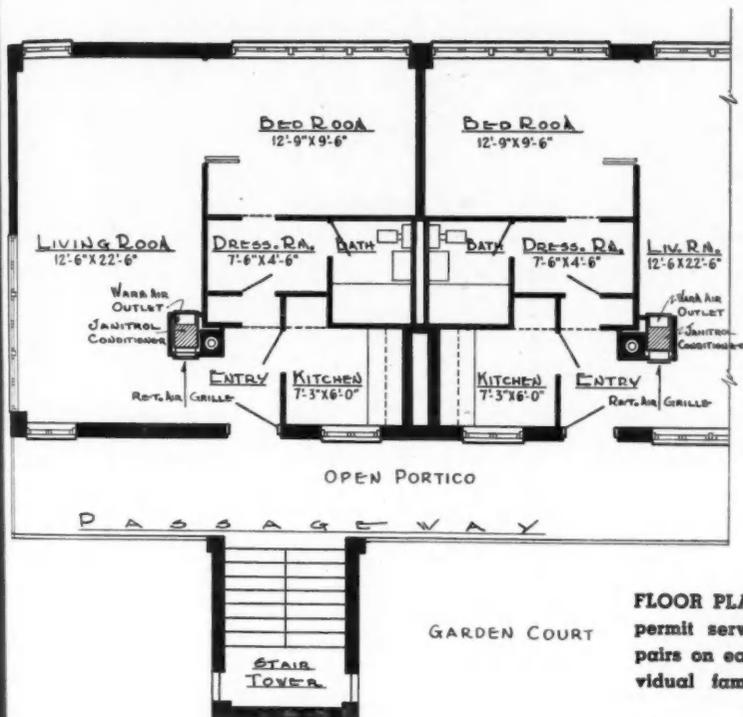
In his study of apartment construction Mr. Liebert sought to correct, and we believe in his design does correct, three fundamental objections to many apartments, viz., the common entrance, the long, inefficient, dark and smelly center-halls, and the uniformity of heat with ensuing conflict between the fresh-air fiends and the hot-house frozen folks.

These three features justify careful study by architects and builders everywhere. Private entrances to individual apartments are located on the 105-foot long portico, reached from stair wells from a long walk down the

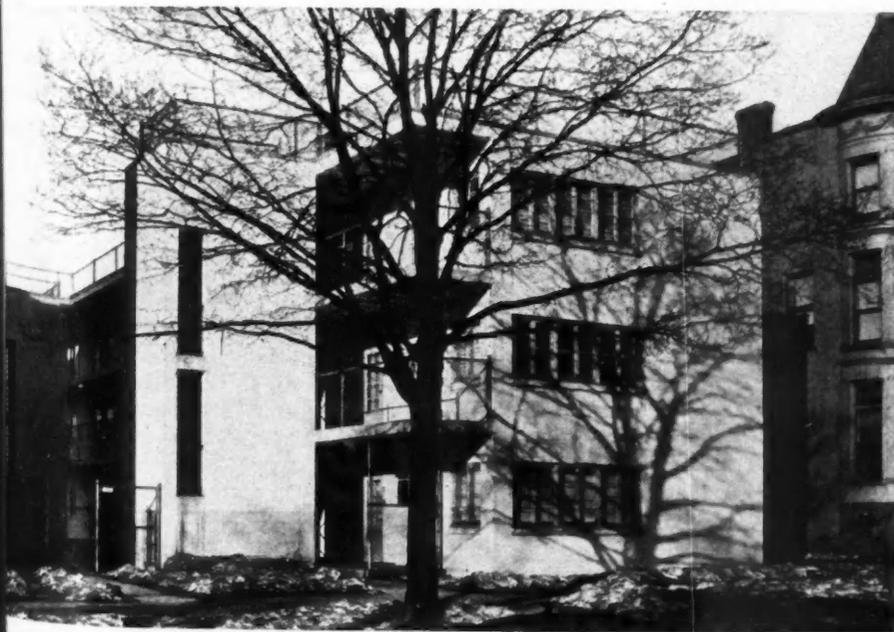
open court in front of the building. There are no hallways, other than the small entrance hall for each apartment located as is customary in individual small homes. When construction was started the intent was to heat from central heating plant steam. Further consideration indicated a rather high investment and maintenance expense, with steam coils and individual apartment controls and considerable waste of condensate charged for as steam. Investigation indicated the desirability of individual "Janitrol" gas-fired forced-air conditioning units for each apartment; and stacks were built and gas line installation arranged for, after construction was begun.

The Janitrol heating unit is in reality "built in" to the walls of the room, in that the exterior of its casing has a plaster finish identical with the walls of the living room. Vent pipe, as well as the unit itself, being completely enclosed, there is nothing in the exterior appearance of the enclosure to indicate its functional use beyond the very inconspicuous flush locks holding the inspection panel in place.

The advantages of this type of heating system, according to Mr. Liebert, lie in certain fundamental economies in the absence of janitor expense and in the further individualization of each apartment with its own private entrance, its own heating plant and its own choice of temperature. These apartments, though possessing all the advantages of apartment life, are in reality groups of individual homes with floor layouts almost identical to the modern individual home. They provide an entrance hall, a living room with doors which throw bedroom and living room together. The layout includes modern bath, clever modern kitchen with built-in incinerator, and adequate closet space. These facilities make the apartments so attractive that, although barely com-



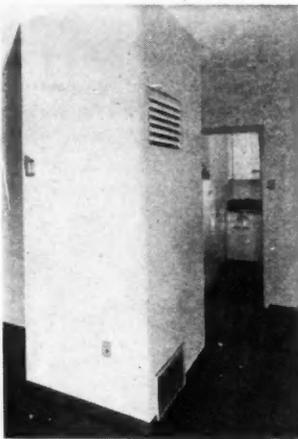
FLOOR PLAN of Liebert apartment showing how pairs of apartments permit service stacks between apartments of which there are two pairs on each of the 3 floors of this 12-apartment building. Note individual family entrance and wide portico extending across front.



EXTERIOR showing stair wells giving access to porches from which individual apartment entrances are made. Photo shows type of boarding-house replaced. RIGHT: Looking through dressing room toward bedroom from entry hall. Dropped ceiling carries heating ducts.



TYPICAL Liebert apartment living room. Note at left, beyond desk the Janitrol Gas Fired Automatic Heating Unit with panel removed. When the plaster finish panel is in place only the inconspicuous flush locks differ from normal wall surface appearance. Heater chamber contains duct work, vent pipe, heater and heat controls.



pleted, they are fully occupied at good rentals, with those tenants interviewed obviously well satisfied. Gas is used for heating, cooking, refrigeration and water heating.

Reference to the plan will show how skillfully the apartments have been arranged, four on each of the three floors, in sets of two. Each pair is built back to back to permit ventilation, plumbing and piping between each pair of apartments. Two of the four have light and air on three sides. The center apartments with light front and back are surprisingly light, pleasant and airy facing upon the attractive long terrace porch.

The value of this project goes deeper still in affecting the interest of metropolitan land owners, real estate operators, city planners and government housing experts, for the following reasons:

1. It offers the owner of unprofitable municipal properties, in outgrown boarding-house or blighted areas, the

opportunity of replacing such unprofitable investments with high-yield long-time investments.

2. It offers the real estate operator an opportunity to continue in business on a large scale with a type of housing for rent particularly needed in defense areas at a price within war construction needs and requirements.

3. It offers the city planner a cure for the blighted area in keeping with advanced ideas for slum clearance.

Best of all, so far as the builder is concerned, is that since the cost per dwelling unit is within the \$4,000 government request and the critical-materials list within the limit, such a project will doubtless qualify as a project in which a builder may employ his capital, his men, and his supervisory abilities at a profit, while providing himself or his client with a sound, long-time investment.

Since Mr. Liebert's problem, which inspired this apartment, was a problem of investment for his own family, the project was built with full consideration of low maintenance-cost and low cost of janitor service, as well as high financial yield on the capital involved. These considerations doubtless have much to do with the resulting full occupancy and with the fact that construction costs appear to fall within federal requirements for defense housing. Such projects, therefore, proceeding now will doubtless maintain their investment values in normal times. Mr. Liebert, therefore, should be credited with a distinct contribution to the building industry and to the real estate business.

Wall Sections for War Homes Built in Local Lumber Yard

IN Chester, Pa., the Lumber, Plumbing and Hardware Company has developed a low-cost house for war workers under a system in which wall, roof and floor sections are built in its own local shop. More than 5,000 people came out to see the first house erected—it was a regular field day.

The following description by Charles D. Hummer gives an interesting picture of this war house development:

On the Day of Erection

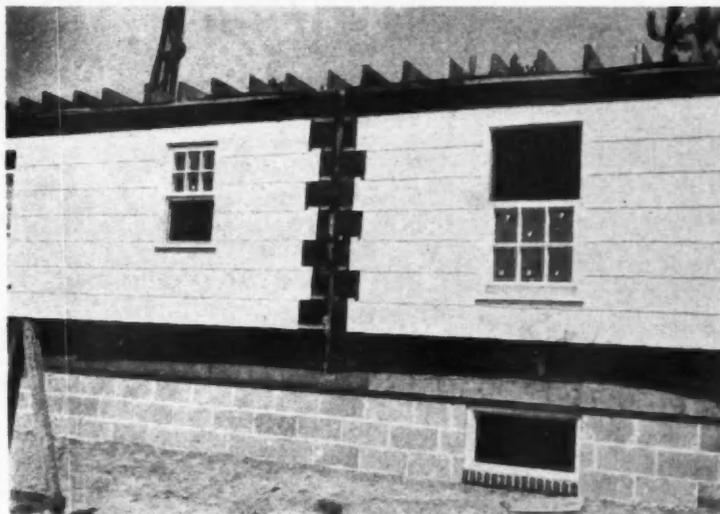
Four trucks loaded with the entire house in sections left the plant at 8:30 a.m. The site had been prepared. A 12" concrete block wall for a 7 foot cellar, with 2 x 8 fir joists supported by a 4 x 10 girder resting on concrete-filled iron columns, was covered with 5/16" fir plywood to which was nailed the 25/32" prefinished oak flooring. This floor structure had been covered with Sisalkraft waterproof paper to protect the flooring as the erection proceeded.

With the occasional help of a crane, the wall sections were all quickly placed in their proper sequence. As soon as all the kitchen walls were set, the cabinets and sink were installed. The bathtub and other bath fixtures were placed after two sides of the bathroom were set, thus enabling easier handling. The stairs, in one piece, were set as soon as the wall on one side was in place.

At each exterior corner and at all joints where interior partitions intersect, the sections are joined with three 6" x 16" plywood splines nailed between the double studs placed at each section end. In addition, at each of the



COMPLETE END-GABLE with window is set in place with crane.



WALL SECTIONS are delivered to job with shingles applied. Spaces at joint are shingled over later, leaving no trace of intersection.

above intersections, the upper of the 2-2 x 4 plates overlies the abutting section and is nailed there, thus permanently preventing any movement. In addition to nailing each exterior section to the floor, any motion is eliminated by a strap member of 1 x 12's placed around the entire house, tying together the wall sections, the

(Continued to page 111)



HOUSE nears completion at end of first day.



SHINGLED roof sections being moved into place.

Builders Turn to Remodeling, Repairs and "Add-a-Room Drive" for New Volume

Free technical advice, cost estimates and remodeling plans from HOLC offices in 265 cities help speed jobs. Co-ordinator urges greater use of existing structures

CONTRACTORS and builders in growing numbers are turning to remodeling and rebuilding as a source of new business to keep their crews busy during the war. In doing so they are acting on the advice of Charles F. Palmer, Defense Housing Co-ordinator.



who recently stated that "it is imperative that the nation utilize all possible existing housing to provide homes for defense workers."

Palmer urged the reconditioning and remodeling of existing dwellings and said that expert technical services are available without charge through Home Owners' Loan Corporation offices.

Thus a vast new market for the services of building firms, large and small, is opening up and growing daily in importance.

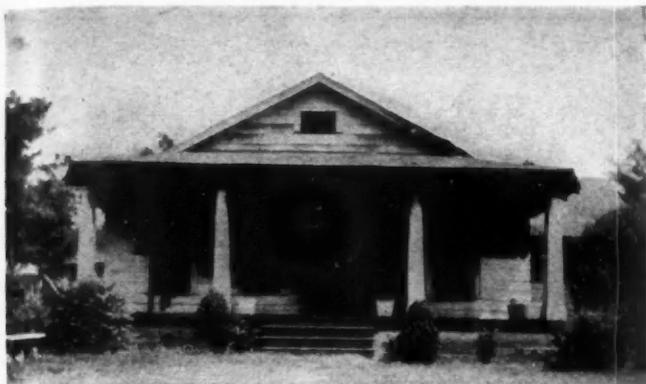
"Homes Registration Offices are now operating in 265 cities," Co-ordinator Palmer said. "Through arrangements made with the Home Owners' Loan Corporation, an HOLC architect or technician will be furnished to inspect any property which can be reconditioned, discuss remodeling plans, estimate costs and the revenue obtainable through rent. These services are free. If a property owner wants detailed working drawings and supervision of construction, they will be furnished at a moderate fee.

"The President has granted \$100,000 from his emergency funds to enable the HOLC to employ fee architects and technicians where its own salaried staff cannot do the job. These technicians have been selected as a result of their reconditioning experience; all of them had some

←
BEFORE—Structurally sound but practically unusable, the old house at left in Fargo, N.D., was of no value to the community, just as thousands of others are today. Housing Co-ordinator Chas. F. Palmer urges that such houses be put into livable condition to provide needed defense housing.



←
AFTER—When modernizing experts of HOLC got through with the old house, it looked like this—a livable, valuable piece of property, contributing to the housing requirements of its community. HOLC offices now provide free modernizing service in 265 cities.



MIRACLE CONVERSION of a useless property in Atlanta is shown above—another example of Home Owners' Loan Corporation rebuilding.

part in the HOLC's own program, which embraced the repair of some 550,000 homes.

"In almost every large city, there are thousands of dwellings which can be made into homes for defense workers," he declared. "These structures are located on paved streets and are served by existing utilities—lights, gas, water and sewers. They are near to shopping centers and already have adequate transportation.

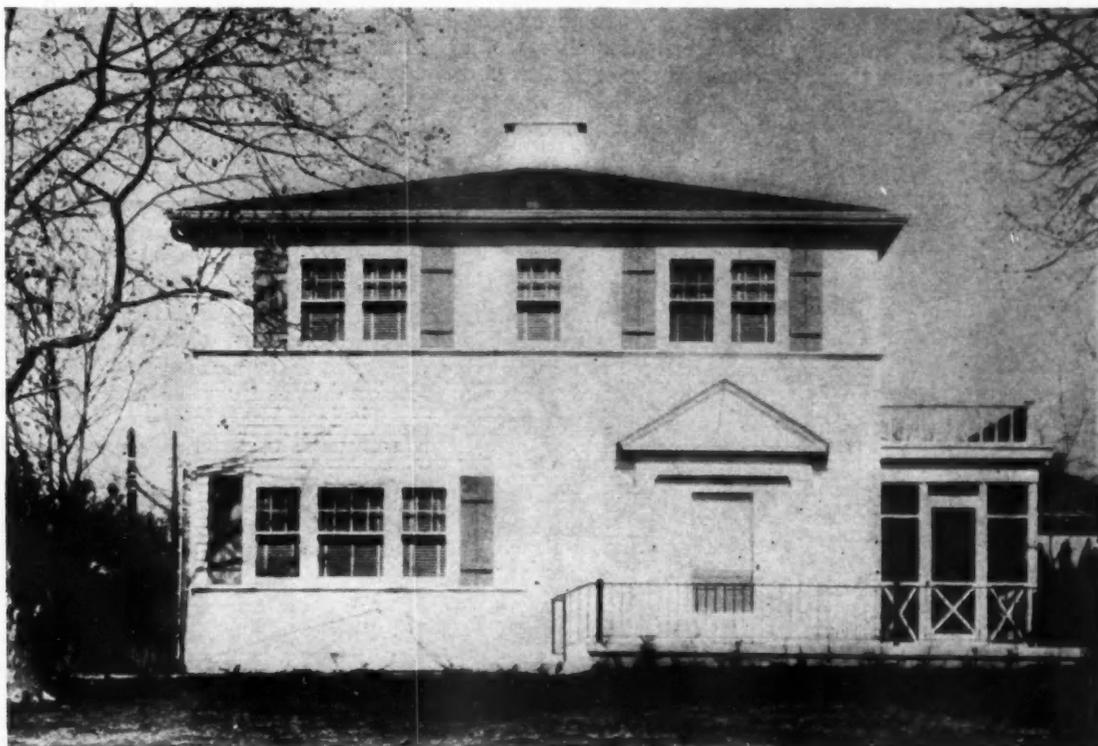
"If we can utilize these existing structures, our work will be greatly reduced. There will be an important saving in money, time and critical materials. Moreover, such a program will preserve community assets and avoid the danger of over-building during the emergency.

"Any community which sponsors rehabilitation pro-

grams now will be making a valuable contribution to the defense housing program; every structure which can be used to quarter defense workers saves on new construction. And the community, as well as the defense program, stands to gain."

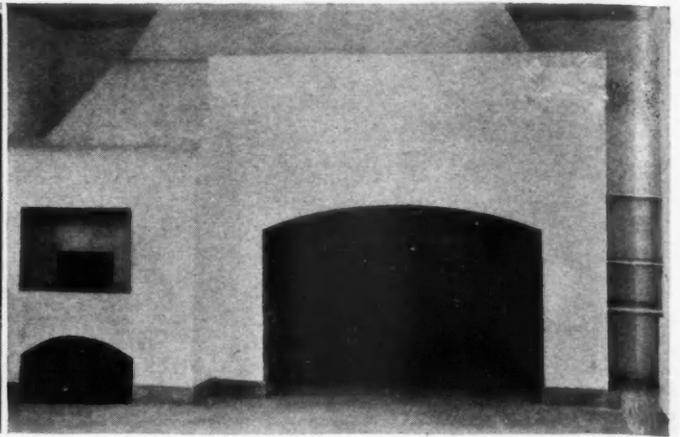


BEFORE—This house in Dallas, Tex., was vacant and for sale because of its bad exterior appearance and need for interior repairs. Technicians of HOLC prepared remodeling plans, sketches and estimates so that it was sold before work actually started.



AFTER—A modern, livable house resulted when the remodeling program was completed, providing additional living space in a community where it was needed. Defense housing officials urge builders to do more reconditioning of old structures to add an extra room.

mod-
ts of
rough
house.
this—
uable
erty.
o the
quire-
com-
C of
rovide
nizing
cites.



FIREPLACE in old kitchen was used mainly for roasting meats, with oven at left; and same fireplace, after restoration.

What's Worth Salvaging Today?

Present conditions throw new light on economic aspects of modernization; southern demonstration points the way to start local home reclaiming drive

WHEN every available bit of living space is needed this year in defense areas, even those down-at-the-heel wrecks which, at first glance, do not seem to be worth saving, can often be made habitable through modernization. While the job shown here is more extensive and costly than the usual remodeling project, it does show what can be done with an otherwise uninhabitable structure, and demonstrates effectively how an old house can be made comfortable and up-to-date.

This historic southern mansion, erected in 1826 by Alabama's second governor, was recently remodeled at a cost of about \$30,000 by the Athens Lumber Co. of Athens, Ala., under the supervision of the architect, E. B. Van Keuren of Birmingham.



IMPRESSIVE facade of old Governor Bibb home at Belle Mina, Ala., which was recently remodeled by Athens Lumber Co., Athens, Ala., and set the pace for other modernizing jobs in the surrounding territory.

In commenting on this modernization job, P. W. Hendricks, Jr., general partner in the Athens Lumber Co., which furnished the materials and did the work, stated: "This was a good example of how an old mansion, somewhat decayed by the ravages of time, can be brought up to date. Of course, this was a rather pretentious job, one which does not come often, but it set the pace for other jobs not quite so elaborate. There are many run-down farm homes in our area and already we have obtained two or three jobs as a result of our part in modernizing the Bibb home. Incidentally, hundreds of persons visited this historic mansion during the time it was being remodeled and before the new owners moved in. They were surprised at the way in which an old home can be brought up to date so far as comforts and conveniences are concerned."

The building remodeled was the old Governor Thomas Bibb home at Belle Mina, erected 115 years ago with slave labor. Governor Bibb set up his own brick yard, lumber mill and woodwork shop in order to erect the pretentious structure, a two-story brick house with a half-dozen solid masonry columns in front.

The governor at his death willed that the estate should pass from eldest son to eldest son down through the ages, but in so doing he failed to take into consideration the flux and flow of fortune. A grandson, seeing the old mansion going to ruin and being financially unable to repair it himself, sold it to a New York physician who has restored it to its former glory, retaining its original lines so far as outside appearance is concerned, but adding all modern conveniences including electric lights, central heating plant, three complete bathrooms and a double-duty planned kitchen.

The house was gone over from foundation to chimney top during the six months of its modernization. This included repainting and redecorating inside and out, and the placing of a new Eternit asbestos cement roof. The basement with its dirt floor was concreted and a U. S. Radiator forced hot water heating plant with Iron Fireman coal stoker installed. In the olden days the basement was used as a storage place for meats, the smoked hams and shoulders being hung to the floor joists. The copper piping for the heating and water pipes is recessed in the 24-inch thick brick walls, and some of the radiators are also recessed.

All the old fireplaces by which the home was formerly heated were restored, including the elaborate mantels and hearths. There was a fireplace in each room, including an unusually large one in the 70-foot wing which housed the kitchen. This fireplace, which extends almost across one end of the room, was also restored. In the old days it was used for cooking and for roasting meats.

Except for the redecorating of walls and ceilings and refinishing of floors, the first floor of the main building was left practically unchanged. In that part of the wing which was formerly open and known as the "dog trot," a modern electric kitchen was installed, including a butler's pantry with sink at one end. Also, space in this wing was found for a powder room and for a bar.

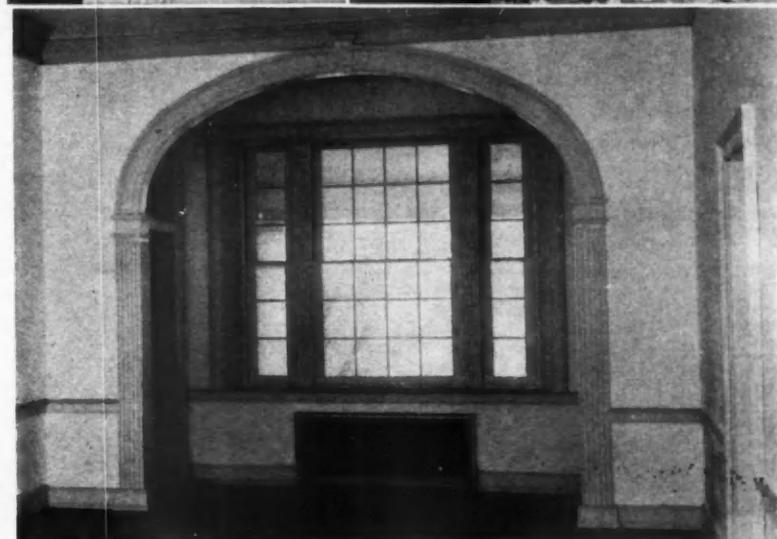
The greatest change was made on the second floor where one former bedroom was utilized entirely for the installation of two baths and adjoining dressing rooms and linen closets. Another bath was installed in a closet space between two bedrooms. The upstairs now includes four bedrooms, three baths and a large hall which connects with the winding stairway to the first floor. One of the baths, done in Du Barry rose, has a shower with glass door, another is in plain white with shower, and another in Lucerne blue with modern fixtures.

A separate one-story building was erected in the back as servants' quarters with bath, laundry and garages with National upward-acting doors. The laundry includes an electrical water heater, double compartment laundry tub, and Bendix washer.

Running water for the house is supplied by an electric pump in a deep well located some 250 feet from the house. As the house is in a rural area, remote from any municipal sewage system, a large septic tank was installed with a Miller siphon jet leading from the bottom of the tank into a disposal field of 600 feet of field tile. The disposal system is protected by Josam grease traps installed under the kitchen sinks.

MODERNIZATION IS AN ESSENTIAL PHASE OF WAR EFFORT

Dramatizing Salvage Possibilities by
Local Industry Will Create Such Jobs



TOP: Part of new electric kitchen, with new garage wing visible through window. Center, left, P. W. Hendricks, Jr., head of Athens Lumber Co. examines old door lock, and right, the old original timbers were mortised and tenoned. Bottom, new second floor hallway with arch, looking toward front of the house.

Bibb
re-
Co.
mod-
tory.

SERVICE TO READERS

EACH ITEM in this department is numbered for convenience of readers. Please use coupon on this page for requesting further product information or new catalogs. Mail coupon to American Builder Reader Service, 105 W. Adams St., Chicago; or write direct to these manufacturers mentioning your profession, occupation or connection with building industry.

NEW TOOLS, MATERIALS AND EQUIPMENT

AB842 "Pierceway Sectional Plastic Surface Wiring Systems" are illustrated and described in Catalog No. 101 from Pierce Laboratory, Inc., Summit, N. J. This is a two-color data sheet of 8 pages making clear this improved system of surface wiring with outlets provided every eight inches.

AB843 "How to Build Houses Fast" is a big new portfolio on prefabrication with plywood prepared by the Douglas Fir Plywood Assn., Tacoma, Wash. In its photographs, drawings and text modern prefabricated house building is clearly explained.

AB844 "Laucks Construction Glues for Contractors, Builders and Prefabricators" is a new, illustrated 8-page broadside by I. F. Laucks, Inc., Seattle, Wash. It presents timely and important information for strong construction without nails—very important in prefabrication, dri-built construction and in laminated arches and beams.

AB845 "Fiberglas Insulation For Prefabricated Buildings" is a 24-page handbook from Owens-Corning Fiberglas Corp., Toledo, O.; a valuable chapter gives diagrams and details, the thermal properties of various residential types of walls, ceilings and floors.

AB846 "Wood Lath of Western Pines" is a timely little folder contributed by Western Pine Assn., Yeon Bldg., Portland, Ore. Advantages of

pine lath, how to apply pine lath, and how to figure lath coverage are made clear in this folder.

AB847 "Sound Control, Gold Bond Acoustical Systems" is the title of an impressive 16-page brochure from National Gypsum Co., Buffalo, N. Y. It presents the problem of architectural acoustics and illustrates how Gold Bond materials, including Acousti-metal and Acoustex, are available to solve these problems.

AB848 "Glass and Its Adaptability to Modern Needs" is a brochure of 30 pages and covers from the Pittsburgh Plate Glass Co., Pittsburgh, Pa. In its 12 chapters it presents important technical information on polished plate glass, laminated safety glass, window glass, Carrara glass, mirrors, enameled Herculite, Nucite glass chalkboard, lighting glasses, rough rolled glass, PC glass blocks, PC architectural glass and PC foam glass.

AB849 "Glorifying the American Bathroom with Miami Bathroom Cabinets, Mirrors, Accessories" is a new deluxe 40-page book from Miami Cabinet Div., Philip Carey Mfg. Co., Middletown, O. It is the 1942 catalog of this extensive line which brings beauty and convenience to the modern bathrooms. Complete layouts are suggested for the guest bathroom, master bathroom, small family and large family bathrooms and suitable selections for low cost homes.

AB850 "Atkins Hacksaw and Metal Cutting Hand Saw Blades" is a new bulletin from E. C. Atkins and Co., Indianapolis, Ind. It gives interesting information on these tools.

AB851 "The Comfort-Conditioned Home" is a new 12-page booklet of useful information from Kimberly-Clark Corp., Neenah, Wis. It explains the advantages of blanket type insulation and shows how Kimsul has been improved by adding an asphalt impregnated facing to guard against abrasions and to make easier and faster installation.

AB852 The portable, gasoline driven chain saw unit illustrated here is manufactured by the Mall Tool Co., 7740 S. Chicago Ave., Chicago. It is designed to cut a tree or pile and leave three or fewer inches of stump. It can be swiveled to cut in any direction. It quickly cuts through timbers or logs. Each



CHAIN saw cuts timbers, logs or trees.

saw is equipped with a chain saw sharpening device which can be used at the job site. The saws are available in 24", 36" and 48" lengths and in models powered by compressed air, electricity or gasoline. The air driven unit may be used under water.

AB853 "Pressure-Treated Wood For Permanent Low Cost Housing" is a timely data sheet from the Wood Preserving Div. of Koppers Co., Pittsburgh, Pa. The illustrations show construction for low cost basementless houses, the parts of buildings which need protection against decay and fungus and the treatments suggested for painted and unpainted wood.

AB854 "Facts, Questions and Answers on Fluorescent Lighting in Stores, Offices and Public Buildings" is a new 30-page booklet from Westinghouse Lamp Div., Bloomfield, N. J. It has been prepared for non-technical readers and answers popular questions in regard to cost, efficiency and maintenance of fluorescent lighting for retail stores.

AB855 "Operator's Handbook" for truck, bus, trailer, tractor and implement users has been prepared by the Public Relations Dept., B. F. Goodrich Co., Akron, O. It is a pocket size, illustrated booklet of 100 pages. Thoroughly indexed and diagrammed, it presents a wealth of timely information.

CLIP AND MAIL TO CHICAGO

Readers Service Department

(March 1942)

American Builder,
105 W. Adams St., Chicago, Ill.

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

Numbers.....

Name.....

Street.....

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

OCCUPATION*.....

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

Just the Door

FOR YOUR DEFENSE HOUSING JOBS!

RoWay MODEL "R" OVERHEAD TYPE

—and wherever a Quality Door of the Overhead Type is needed at Low Cost!

The Ro-Way "R" Line of Overhead Type Doors is especially designed and especially fabricated for the small home garage. Manufactured in quantities of hundreds at a time and packaged in warehouse ready for shipment, they are priced to give most value per dollar. They are completely made in the Ro-Way Factory—even to Hardware, Hinges, Rollers, Tracking, Springs, Sheave Wheels, etc.

Six Extra Values, Too!

Track Rollers made on our own specially-designed machines. All Rollers have "double thick" wearing tread, and full ball bearing (7 to each roller).

New Friction-Reducing Track. Track is formed so rollers ride well away from the track side wall, giving extra clearance and easier operation. This track design also gives extra strength and rigidity. No counter-sunk holes in track—no slot head bolts used.

Extra Bearing Support. The load sheave wheel of this Ro-Way Door is reinforced with an inner bearing support. No opportunity for side pull or twist. Insures long life of smooth, easy operation.

Rust-proof Hardware. All Parkerized and Painted after fabrication.

Streamlined Appearance. Stiles and rails are of the modern streamlined type. Hinges are streamlined and of rigid anchor type.

Time-Saving Installation. Complete pictorial instructions sent with each Door enable any capable carpenter-mechanic to install in 2 or 3 hours.

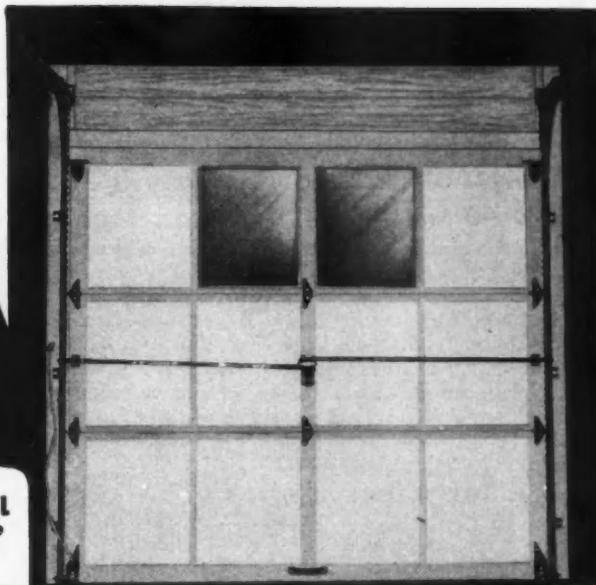
Model "R" requires 13½ in. headroom.

Model "RL" requires 9 in. headroom.

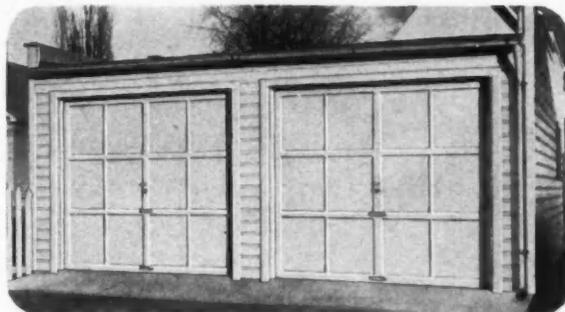
Each of these models is made in only two standard sizes—8 ft. x 6 ft. 6 in., and 8 ft. x 7 ft. They are regularly supplied with 3 sections, as illustrated, but are also available with 4 sections under the Model numbers "R-4" and "RL-4".

Glass Openings. Models "R" and "RL" (3-section styles) regularly are supplied with 2 center panels of the top section open for glass. Models "R-4" and "RL-4" (4-section styles) regularly are supplied with 2 center panels of next to top section open for glass. All models may be had with or without glass panels.

ROWE MANUFACTURING CO. 740 HOLTON STREET, GALESBURG, ILL., U.S.A.



Above is shown the Ro-Way Model "R" Overhead Type Door of 3-section type with 2 glass panels. This model is made in either 3 or 4 sections, and in only two sizes—8 ft. x 6 ft. 6 in. and 8 ft. x 7 ft.



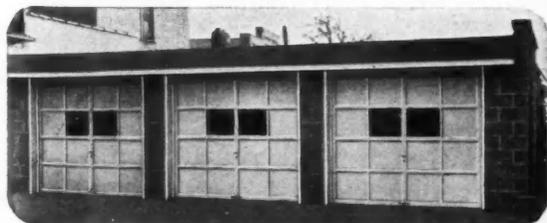
Installation of Ro-Way Model "R" Overhead Type Doors in 2-family residence garage.



The Ro-Way Model "R-4" Overhead Type Door installed in a single family residence type garage.

NATIONWIDE SERVICE

Sales Offices with competent engineers are located in principal cities. Write for name of one nearest you.



This 3-car apartment garage is equipped with three Ro-Way Model "R" Overhead Type Doors.

ROWE MANUFACTURING CO.,
740 Holton St., Galesburg, Ill.
Gentlemen: Please send me Free Descriptive Folder and Prices on Ro-Way Overhead Type Doors.

Name

Address

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

There's a RoWay for every Door way!

NEWS of the MONTH

Additional Areas on Defense Housing Critical List

MORE additions to the defense housing critical areas list have been announced by the War Production Board.

Builders of family units for defense plant workers in Wahoo, Nebr., and Clewiston, Fla., as well as Sturgeon Bay, Wis., Orangeburg, S.C., Americus, Ga., Taft, Calif., Chico, Calif., Miami, Okla., and Port Angeles, Wash., will now receive benefit of priority assistance in securing the necessary materials.

Huntington W. Va., had previously been added to the list.

The widely separated communities of Seward, Alaska, Dothan, Ala., Le Moore, Calif., Marfa, Tex., Lancaster, Calif., and Hurley-Santa Rita, N. Mex., are the latest towns where the construction of dwelling units for defense industry workers will be expedited by the application of high priority ratings to the required materials.

Realtors Ask Appointment Director of War Housing

HOLDING that the war housing emergency is constantly becoming more urgent, and pointing out that the present multiplicity of federal agencies and the multiplicity of standards and procedures under which the work must be done has come to be seriously in the way of our meeting war housing needs, the National Association of Real Estate Boards, in communications addressed to President Roosevelt and to heads of the major agencies concerned, urges a streamlining of the entire national defense housing effort, for the period of the war. The multiplicity of standards and procedures under which enterprise now must work throws confusion upon the home building industry and upon public officials as well, handicaps full use of our productive capacity, the Association states. It suggests that the Office of Director of War Housing be created, that it include the present functions of the Defense Housing Co-ordinator and that in addition it receive from the Chief Executive "full power to direct each and all of the federal agencies which are concerned with the financing, mortgage insurance, construction, management or operation of housing as to what they must do during the period of the emergency."

The Association's suggestion is made through a resolution adopted unanimously by its Committee on Housing and by the Home Builders Emergency Committee of the Home Builders Institute of America at Washington meetings just closed. The action follows a review by the Committees of the whole housing outlook. For the streamlining of all our war housing production the resolution suggests these two cardinal principles of action:

1. That every possible means, including liberalizing amendments to the National Housing Act, be used to enlist the resources of private enterprise to produce all housing for war workers which can reasonably be expected to be permanent in character and to find appropriate local use after the close of the war.

2. That housing for war workers built with public funds be temporary in character, with minimum facilities essential to a healthful life for war workers, and that such housing be erected on the basis that it shall be removed or disposed of in accordance with the wishes of the local community as soon after the conclusion of the war as possible.

"We find that there is confusion in every community as to what it should do to meet requirements, both those set up for private housing and for public housing. Executive action of the kind suggested should effectively accelerate the production of needed war housing and at the same time save materials and money," the Association states.

The Association points out there were before the housing reorganization order of Feb. 24, putting all into a new National Housing Agency some 18 federal agencies (in addition to offices of the Army and Navy) concerned in a direct way with war housing production.



The Barcol OVERdoor

A GOOD INVESTMENT FOR WAR PRODUCTION PLANTS...

GET enduring, efficient door service and keep maintenance at a minimum by using Barcol OVERdoors with Barcol Electric Door Operators. Barcol hinged-roller construction is an outstanding feature of this free-running, non-sticking door that closes tightly yet opens easily. Thousands of industrial installations testify to the success of the Barcol OVERdoor for industrial service. Ask your Barcol representative for detailed information.

See our Catalog in SWEET'S (Architectural and Industrial)



BARBER-COLMAN COMPANY

104 MILL STREET • ROCKFORD, ILLINOIS

SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

Now, more than ever, it's easy to sell a TEMSEAL-PROTECTED HOME



FUEL conservation and lower-cost heating make home insulation more important every day. They're in the minds of every customer for a home. That's why it's so important for you to be able to tell your customers that a Temseal-protected home uses less fuel—an annual saving of 30% or more—and gives the benefits of better health and greater living comfort, too.

At one low cost, Temseal both sheathes and insulates. Its high efficiency is guarded against air and moisture infiltration by its double seal of asphalt and strong kraft paper. Temseal also eliminates the need for building paper or felt.

But savings don't stop there. Temseal is made in large-sized boards, in standard $2\frac{5}{32}$ " sheathing thickness, which are light and easily handled. Since each unit

covers such a large area, sheathing time is cut to a minimum. Structural strength is not sacrificed either. In fact, this efficient insulation actually provides much greater bracing strength than standard thickness wood sheathing laid on the horizontal.

Temseal is one of three multipurpose insulating materials in Armstrong's Temlok Family. Others you should know about are: TEMLOK LATH, which provides efficient insulation and a firm-bonding plaster base; Armstrong's TEMLOK DE LUXE, the low-cost interior finish that insulates, decorates, and quiets noise. Get the full facts now about this cost-cutting line of insulation products. Write today to Armstrong Cork Co., Building Materials Div., 979 Concord Street, Lancaster, Pa.



FOUR TYPICAL SMALL HOMES featuring the sales advantages of Armstrong's Temseal Sheathing. (TOP) Attractive home in the Heldervale development, Slingerlands, N. Y., H. C. Wülte, contractor. (TOP RIGHT) Lund and Esping built this Temseal-insulated house in Youngstown, Ohio. (CENTER RIGHT) Michigan Lumber Company, Detroit, supplied Temseal Sheathing for this attractive Detroit home. (BOTTOM) Builder H. S. Weber, Lititz, Pa., relies on Temseal to lastingly protect this small residence.

ARMSTRONG'S TEMLOK INSULATION

SHEATHING • LATH • DE LUXE INTERIOR FINISH • HARDBOARDS • MONOWALL

Total Construction Volume Up for January; Residential Building Off Slightly

TOTAL construction figures for January, 1942, according to F. W. Dodge reports on 37 eastern states, amounted to \$316,846,000, as against \$305,205,000 for the same month a year ago. Residential building for the same period declined from \$111,306,000 to \$102,758,000. However, the number of projects covered increased about 18 per cent, indicating a large number of smaller homes.

Statistics for the four classes of construction are as follows:

37 Eastern States	January, '42	January, '41	December, '41
Residential	\$102,758,000	\$111,306,000	\$104,276,000
Non-Residential	123,231,000	118,757,000	171,016,000
Public Works.....	64,428,000	59,622,000	105,989,000
Utilities	26,429,000	15,520,000	50,345,000
Total	\$316,846,000	\$305,205,000	\$431,626,000

Teco Suggests Non-Residential Construction

BECAUSE of probable further curtailment of residential building, non-residential construction, especially in defense areas, will become increasingly important to local lumber merchants in 1942. This may mean that the local dealer and the local contractor will be obliged, as a means of maintaining their volume, to turn their attention to types of construction which may be relatively new to them. Stores, warehouses, and new industrial construction, together with repairs, farm buildings, and small improvements which do not include critical materials may offer the local dealer his best sales opportunities for the coming year.

Because of direct priorities or allocations involving the metals, more of this type of construction than ever before will be turning to wood. Thus, the local lumber merchant and his contractor-friends face a shift in the type of construction work to which they are accustomed.

Since the only material from which structures of this type can now be built are ordinarily those stocked by the lumber merchant, this situation can spell opportunity to alert dealers. The Timber Engineering Company, Washington, D.C., has just published a new booklet intended to help retailers take advantage of this opportunity.

The new booklet—"New Jobs in Our Town That Can Best Be Built of Wood"—is intended for distribution by the dealer to the contractors in his trade area. Most of its 20 pages are devoted to illustrations of non-residential structures—some small, others with trusses up to 50' and 60' span—which can be framed of wood in sizes and grades found in retail stocks. Included are a few of the many Teco typical designs, so the builder can see how the 2" stock, with which his workmen are familiar, can be fabricated with Teco connectors, which have been setting new records for strength and economy.

Speed and availability are the most important selling points which any type of construction has today, the book explains, and Teco speed is made possible by these three factors:

The material, wood, is already in local retail lumber stocks, with no priorities required to purchase it and no long waits for delivery.

Local labor can do the job, with no necessity to import specially-trained men from elsewhere.

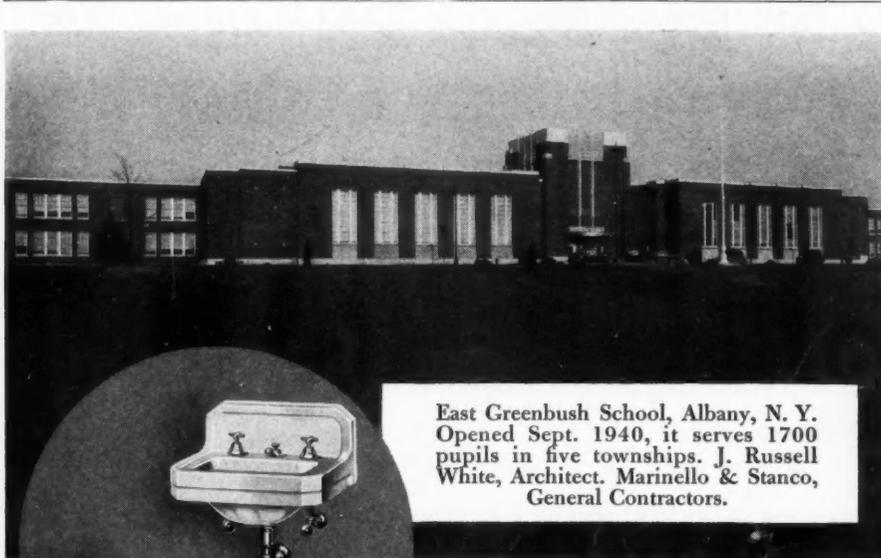
Teco connectors in the type and size required by each individually engineered job can be quickly delivered anywhere in the country.

The book is written so that either the dealer or the contractor can show it to a prospective customer—such as school board, farmer, factory, executive, merchant, or local or state official—to let the customer see for himself that this material and this kind of labor already have made a good reputation in the building of stores, barns, schools, grandstands, towers and many other structures.

Any lumber dealer can obtain as many free copies of "New Jobs in Our Town" as he needs for his trade, by writing the Timber Engineering Company, 1337 Connecticut Avenue, N.W., Washington, D.C.

Connectors from Europe

TIMBER has rapidly advanced from a carpentry material to an engineering material of first importance since the introduction of Teco timber connectors from Europe in 1933.



East Greenbush School, Albany, N. Y. Opened Sept. 1940, it serves 1700 pupils in five townships. J. Russell White, Architect. Marinello & Stanco, General Contractors.



IN THIS MILLION-DOLLAR CENTRAL SCHOOL

Fixtures by ELJER

Clean-cut beauty to harmonize with the building itself...sturdy efficiency to provide long service with minimum care...that's what the new East Greenbush School got from Eljer fixtures.

That's what *your* clients want, too. Be sure they see this very complete line of fixtures for institutions, homes, and industry.

ELJER CO. • FORD CITY, PA.

Write for our Condensed Catalog

For 35 years,
Stylists
of Bathroom
Ware

THERE ARE OVER 5 MILLION ELJER FIXTURES IN USE



HOW TO BUILD ROOFING BUSINESS TODAY!

The tremendous impact of America's all out Victory program has given Americans more money to spend and less opportunity to spend it...for hundreds of items that normally take their share of the consumer's dollar.

But home-owners can still spend money on their homes—for modernization, repairs, and other improvements that enhance the long term value of their investments. Re-roofing, for instance—

Not in years has there been an equal opportunity to sell re-roofing. Here are three ways to make the most of it:

1. Carry a complete line of Barrett Roofing and Building Products—Asphalt Shingles and Sidings, Asbestos Sidings, Roll Roofings, Rock Wool Insulation, Building Papers, Barrett Paints and Roof Repair Materials. They're all backed by "the greatest name in roofing." Be ready to cash in on the available business, wherever it develops.

2. Make use of Barrett's 1942 promotion material—mail campaigns, direct selling aids, job signs, product literature . . .

3. Make your dealer-contractor partnerships count. Work together to help each other do more business and make more money.

Your Barrett salesman will gladly help you. Or write us.

THE BARRETT DIVISION
ALLIED CHEMICAL & DYE CORPORATION



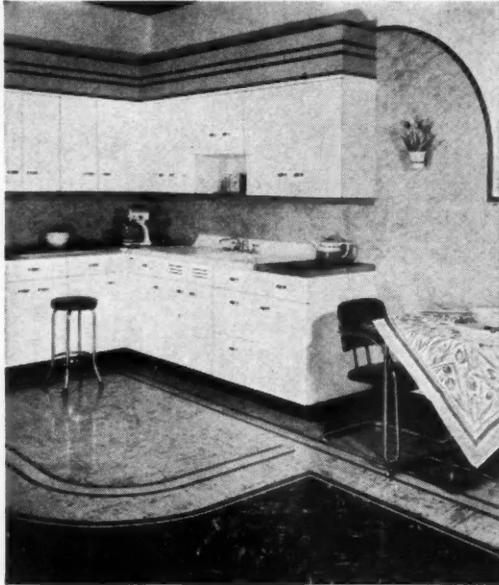
40 RECTOR STREET, NEW YORK

2800 So. Sacramento Ave., Chicago

Birmingham, Ala.

SHINGLES AND SIDINGS . . . ROLL ROOFINGS . . . ROCK WOOL INSULATION . . . PAINTS AND CEMENTS

GET A "PRIORITY" SALES APPEAL WITH TILE-TEX FLOORS and WALLS



Tile-TEX Floors and Walls in a Modern Kitchen

Today's conditions draw up a new set of specifications for both Builder and Buyer. Yet, despite pressure and "priorities," Buyers demand good value . . . and good Builders strive to deliver it. Whatever the Buyer may want in the way of color or decorative originality and long serving durability, Tile-TEX floors and walls provide. Front halls, kitchens, baths and basement playrooms done with Tile-TEX glow with sales appealing beauty.

To the Builder Tile-TEX presents unique and unequalled advantages. Here's a product with low first cost, plus speed of installation, plus maximum color and design appeal.

There is an approved Tile-TEX contractor near you who can show you Tile-TEX floors and walls in service . . . and show you how Tile-TEX can help you complete and sell new and remodeled homes. Write today for his name and copies of the new Tile-TEX booklets on Floors and Walls.

THE Tile-TEX Company CHICAGO HEIGHTS ILLINOIS

The Tile-TEX Company
Chicago Heights, Illinois

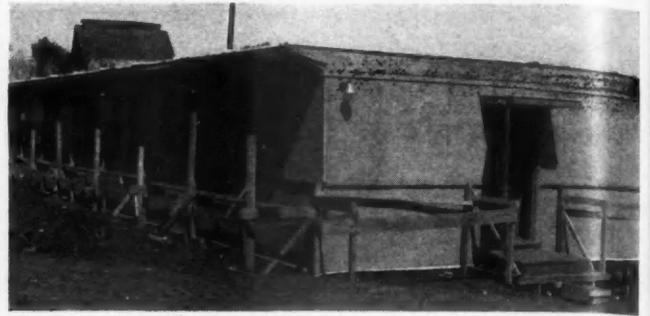
Send me complete literature on the following:

- "Floors That Endure" by Tile-TEX
- "Decorative Walls" by Tile-TEX
- "Flexachrome," an Exclusive Tile-TEX Product

Name.....

Address.....

AB-3-42



Demountable Housing for Defense Workers

WHEN one big defense power dam after another is built, housing of construction workers becomes a problem. The Tennessee Valley Authority has a string of dams yet to be constructed and, at the construction site of one of these, is experimenting with portable dormitories and recreation building.

Three demountable 20-man camp bunkhouses were built at Fort Loudoun Dam site, near Lenoir City, Tenn., 26 miles west of Knoxville.

Nine more were to be built for four other dams in Tennessee, North Carolina and Georgia.

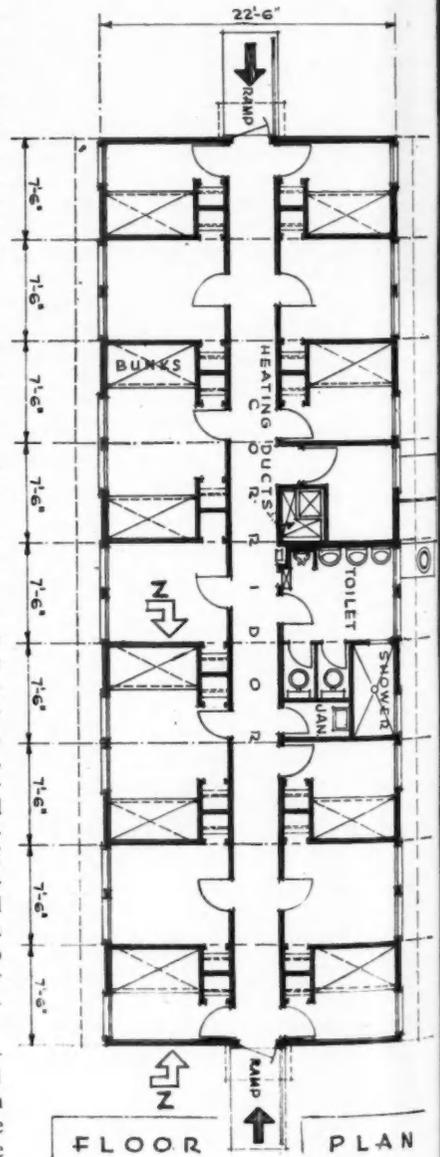
There is a possibility of others.

When one construction project is completed, the bunkhouses can easily be taken apart and, in sections, hauled on to the next job.

The demountable bunkhouses at Fort Loudoun Dam were built at their location, instead of being turned out by assembly lines and carried by trailers to the site, as were the 150 portable homes put up for defense workers in the Muscle Shoals, Ala., area and described in the May 1941 *American Builder*.

In actual construction, the methods for the bunkhouses and for the homes were much alike. A set of four wheels is mounted in the base of the floor frame of each section, one wheel near each corner. Although an inconspicuous detail throughout construction and in the finished product, the wheels contribute much to the practicability of the demountable principle. On assembly lines, wheels permit sections to be rolled along through successive stages of construction, then directly from the end of the line onto a trailer, and finally to be rolled into proper place on the permanent foundation.

The wheels, resting on rails imbedded in the foundation girders, support the entire weight of the



bunkhouse or cottage. The track upon which the wheels rest is made of ordinary one-inch galvanized iron pipe. Tracks are fitted to the assembly line rack and to the girders of the house foundations.

There are two connections between the frames of adjoining sections: bolts and meshing pins. Meshing pins are used to guide the sections together precisely. After the sections are bolted together, the meshing pins also serve as additional checks against lateral and vertical movement of sections. A meshing pin is an iron pin seven inches long and one-fourth inch in diameter. It fits snugly into two facing sleeves of galvanized iron pipe, the facing ends of which are reamed. As the sections are brought together, the pin is inserted in one of the sleeves with about half its length protruding; when the sections are united, the pin extends from one sleeve into the facing sleeve. Sections are bolted together through adjoining members of floor, ceiling, and roof frames.

Besides the portable dormitories to be sent to Apalachia, Chatuge, Nottely and Ocoee No. 3 dams, 100 demountable cottages will be sent to those projects. Pending delivery of the bunkhouses and cottages, 100 trailers and a demountable utility building are to provide temporary accommodations for workmen on the Hiwassee River projects.

A new feature of bunk space is in the demountable dormitories

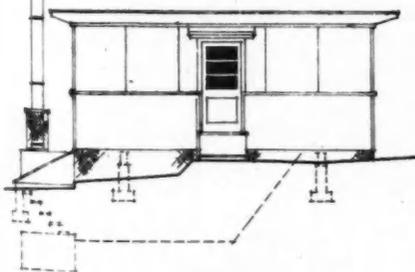
built at Fort Loudoun Dam. There are rows of separate rooms, with a hall through the center, the length of the building, but each room is not just alike. In one room bunk space at one side is raised and reached by a short ladder. The recess in the wall extends into the adjoining room and the space under that extension is lower bunkspace in the adjoining room.

The built-in bunks were designed to take up a minimum of space. By putting in cots, even more men could be accommodated in the dormitories.

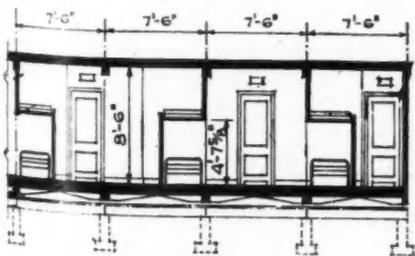
A recreation building at Fort Loudoun Dam, like the dormitories, is built on rollers, in sections which can be hauled on elsewhere, for re-assembling, after that job is done. It has a lounge, library and game room.



ABOVE: Workman points out one of the bolts which holds the demountable bunkhouse sections together. Exterior view, floor plan, section and elevation of this interesting housing shown on this and the opposite page.



ELEVATION



SECTION Z-Z

NOTE how bunks in alternate rooms are staggered either both above or both below.



GIVE ME A
STANLEY
"BAILEY" PLANE!



No. 5 Stanley "Bailey" Plane. The world's leading Jack Plane. 14" long, 2" cutter.

Stanley "Bailey" Planes were the *first* iron planes, developed over seventy years ago. Today they are still *first* by a big margin. Constant refinements and improvements have given them a balance and "feel" never duplicated . . . made them the easiest to use.



Add to this the easy adjustment, comfortable handle and knob, special steel cutters, and you have good sound reasons why nine out of ten craftsmen select Stanley "Bailey" Planes. Your hardware dealer has them.

Write for Stanley Tool Catalog No. 35—it's the handiest guide to good tools.

April 16th-25th—National Hardware Week. Visit your hardware store for Special values.

STANLEY TOOLS

Division of The Stanley Works, 133 Elm St., New Britain, Conn.

THE TOOL BOX OF THE WORLD

STRAIGHT-LINE GEAR DRIVE ON

Speedmatic
gives**11% MORE POWER****Here's Why!**

SPEEDMATIC uses Helical Gears . . . the most modern form of Straight-Line Drive. Cuts down friction resistance; minimizes power loss and gear wear. Result: 98% of motor power usable in cutting power.

EVERY mechanic knows that power applied in a *straight line* is more efficient than power that turns an angle. That's why **SPEEDMATIC** actually delivers to the cutting blade 11% more of its motor power than possible with other drives. You get Power-to-Spare . . . the fast, clean sawing that's making **SPEEDMATIC** the outstanding popular choice of builders, wherever jobs are toughest and speed essential. And on War Jobs that carry a completion bonus or penalty clause, you can be sure **SPEEDMATIC** Saws will never let you down.

SEE for yourself what a big day's work **SPEEDmatic** will do. Your local Porter-Cable man will gladly demonstrate. No obligation. See classified phone book for address. Or write us direct for representative's name and full descriptive literature.

PORTER-CABLE MACHINE CO.

1721-3 No. Salina St., Syracuse, N. Y.

Representatives in principal cities in U.S.A.



Speedmatic
Floor Sanders
Help You
Make Time

Get faster, better and easier floor sanding—and make bigger profits on your job.

Speedmatic Floor Sanders have the power, cutting-speed and balance for both Quality and Quantity of work. In suitable sizes for all requirements. Write for description.



CHARTER PRESENTATION DINNER of the Long Island Home Builders Institute. Builders, financial men and guests.

Long Island Builders Organize Institute Chapter

RECOGNIZING the need for a strong, vigorous organization to represent residential builders, prominent men in the industry on Long Island have recently formed a local chapter of the Home Builders Institute.

Last month they were formally ushered into the Institute at a formal dinner at the Garden City Hotel on Long Island. The new HBI Chapter is headed by some of the most successful home builders in the country. At present its membership is confined to Nassau and Suffolk Counties, which excludes Queens County, where a large part of the low-cost mass building is done.

Mezger Accepts Charter

At the formal dinner, Gustav A. Mezger, president of the new Long Island Chapter, was handed the charter by Robert Whitaker of Kenosha, Wis., a director of the National Association. An address was given by Herbert U. Nelson, executive secretary of the National Association of Real Estate Boards, who was introduced by Walter J. Harter, toastmaster.

Objectives of the Long Island HBI are of a permanent, long-term nature as well as the meeting of immediate problems, stated Mr. Mezger. "One of our most immediate objectives is to keep every member in business," he declared. "We will do this by getting together information on where the government wants defense housing built, in what quantities, and the conditions. Also information on contract housing offered by Federal Works Administration, facts and data on demountable housing and on procedure under the Lanham Act.

"We are conducting a survey of the present and future housing need on Long Island.

"For a long-range program we will work out new and better selling ideas, study advertising media, work out a standard policy of service in houses, co-operate with the Long Island Real Estate Board in standard commissions and selling arrangements, negotiate and co-operate with mortgage institutions on rates and policies, meet with the Federal Housing Administration, town and village departments and planning boards and other government agencies.

"Twenty years ago the life of the builder was comparatively simple. Today he has to deal with zoning restrictions, government rules, labor, FHA, electrical and plumbing code jack-ups, and



Institute was attended by a large gathering of builders, realtors, sup-



HBI LEADERS at Long Island dinner. Left to right (seated): Herbert U. Nelson, executive secretary, National Association of Real Estate Boards; Gustav A. Mezger, president, Long Island Home Builders Institute; William J. Levitt, vice-chairman, Home Builders Emergency Committee; Colonel John McC. Mowbray, Baltimore; (standing): Walter J. Harter, vice-president, Long Island Home Builders Institute; Walter S. Dayton, Long Island; Harold W. Cheel, New Jersey; and Robert Whitaker, Kenosha, Wis., director of National Associations; Edmund D. Purcell, president, Long Island Real Estate Board.

so many other problems that even a Moses can hardly lead him out of the wilderness.

"These problems make an association almost imperative and are among the reasons for the formation of the Long Island Home Builders Institute."

Nelson on Private Building

Herbert Nelson told the Long Island builders that "home building is the spearhead of real estate," and said that an important purpose of the Home Builders Institute is to argue the case for private building. He described the work of the Home Builders Emergency Committee at Washington and said that it would continue to press for revisions in Title VI to increase the ceiling on mortgage insurance from \$4,000 to \$5,400, and the length of the mortgage from 20 to 25 years.

(Continued to page 80)

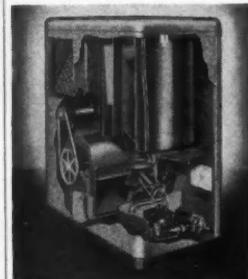


● Here's big news from Washington for builders . . . The National building program for this year will probably exceed by a billion dollars the 1941 figure of \$10,400,000,000.00. This is over and above the amount involved in the proposed stoppage of all civilian building...

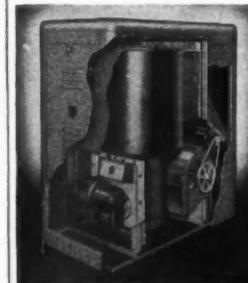
Included in this staggering figure is approximately \$600,000,000.00 of publicly financed war housing . . . \$100,000,000.00 more than last year.

Practically all houses in the whole war building program are necessarily small and low priced. Hence, extremely compact, low priced heating units will be required.

The RYBOLT complete line for 1942 meets these requirements because it includes a number of units especially adapted for the price and size limitations of War-Time housing. At the bottom are shown four such units . . . recent additions to the RYBOLT line . . . fired by coal, gas, and oil.



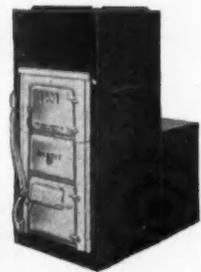
RYBOLT Series RS
Gas-Fired Automatic Heating Unit



RYBOLT Series RO
Oil-Fired Automatic Heating Unit



RYBOLT Series 1815
18" Coal-Fired Gravity Furnace



RYBOLT Series DH-705
Coal-Fired Forced Air Unit

WRITE FOR Descriptive Folders



THE RYBOLT HEATER CO.
619 MILLER STREET • ASHLAND, OHIO

(Continued from page 79)

"Private builders are a vital part of the war effort and can produce better houses at lower cost than any government agency," he said.

Officers and Executive Committee of the Long Island HBI include the following:

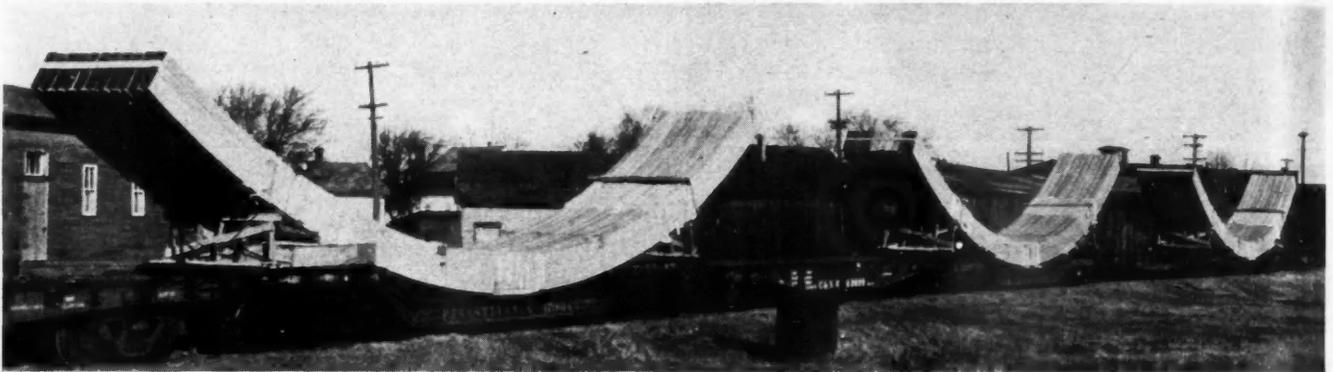
Gustav A. Mezger, Roslyn Heights, president; Walter J. Harter, Port Washington, vice-president; Lorenzo Pando, secretary; Charles M. Jaeger, Rockville Centre, treasurer.

Executive Committee: Patrick J. Callan, Callan Brothers, Munsey Park; F. G. Chalmers, Stately Oaks, Valley Stream; Frank Clauson, Rockville Centre; Laurence S. Garry, Port Washington; F. E. Gibson, F. E. Gibson Builders, Inc., Rockville Centre; James Graham, Realty Associates, Inc., Stewart Manor; Walter J. Harter, Williams-Harter Corp., Port Washington; Adrian Hegeman, Green-Muth & Co., Rockville Centre; Charles M. Jaeger, Jaeger Brothers, Rockville Centre; Mack Kanner, Mack Kanner & Sons, Inc., Merrick; Edmund C.

Laibach, Leo Laibach & Sons, Baldwin; William J. Levitt, Levitt & Sons, Inc., Manhasset; Gustav A. Mezger, G. A. Mezger & Co., Roslyn; Harold B. Mott, Mott Brothers, Garden City; LeRoy Newell, Newell & Daniel, Lake Success; Arthur A. Klapper, Great Neck; O. C. Olsen, Johnson & Olsen, Great Neck; Charles J. Rorech, Great Neck; Robert J. Rose, Great Neck; W. J. Shrimpton, Shrimpton & Grevert, Valley Stream; Wilfred Stewart, Lynbrook.

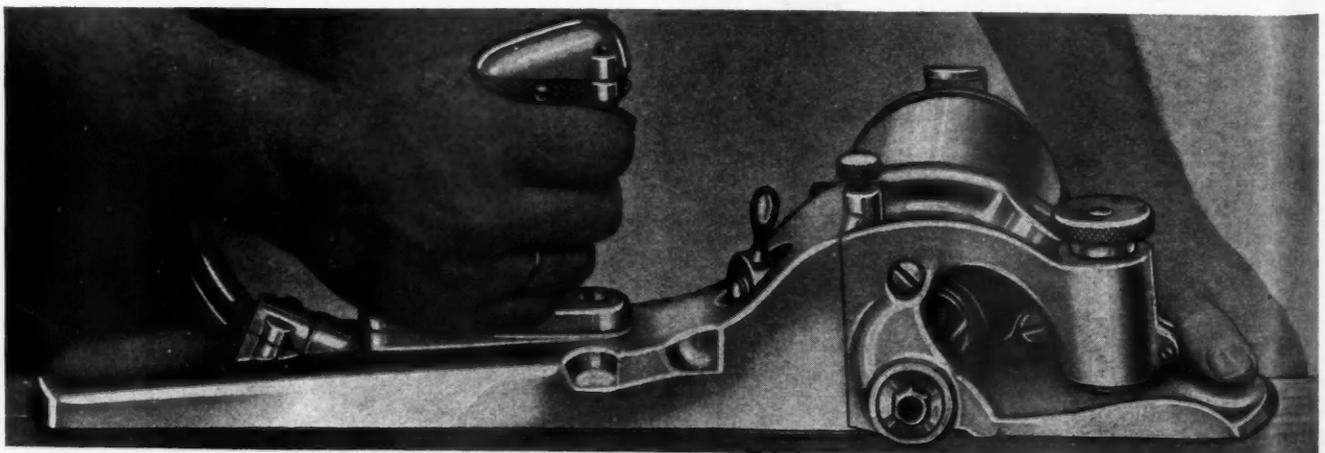
Built-up Wood Trusses Save Steel

GLUED, laminated timber trusses, 110 feet in span, have been moving by rail from Peshtigo, Wis., to Newport, R.I., where they were used in drill halls. (See picture below.) So large are these prefabricated timber units that the manufacturer, Unit Structures, Inc., had to obtain depressed center cars to carry them with idler cars between to take up the overhang. Unit Structures is now making arches for three more similar buildings.



SHIPMENT of laminated timber trusses from Wisconsin to Rhode Island.

MORE MAN HOURS FOR UNCLE SAM!



**Fit doors, sash, screens,
3 to 5 times faster with the
J-5 Portable Electric Plane**

There's no time to lose on any construction job these days. Uncle Sam wants to save all the man hours possible, and the J-5 will help you save a lot.

With its 1 H.P., 18,000 R.P.M. motor, the J-5 is the most powerful electric plane on the market. It will "hog it off" - 3/16" at a

stroke, or plane a paper thin shaving to a satin smooth finish. Easy to use - weighs only 16 pounds.

Set it up with the bench bracket and use it as a joiner for inside trim and similar work.

Let the J-5 help you help Uncle Sam by finishing more work per day. **R. L. Carter Division, The Stanley Works, New Britain, Connecticut.**



**R. L. Carter Div., The Stanley Works,
New Britain, Conn.**

.....Have representative demonstrate the J-5 Plane.
.....Send Catalog on Carter Time-Saving Tools.
Name

Address

SEND COUPON NOW FOR FULL FACTS!

CARTER TIME-SAVING TOOLS

Am
Ups
THE
ind
defen
an in
plish
indus
venti
Ma
one
wher
engin
in de
or un
best
and l
Pane
contr
built
imme
proj
WI
for a
vised
and
quiri
that
exact
panel
to th
ready

HOW
ABO

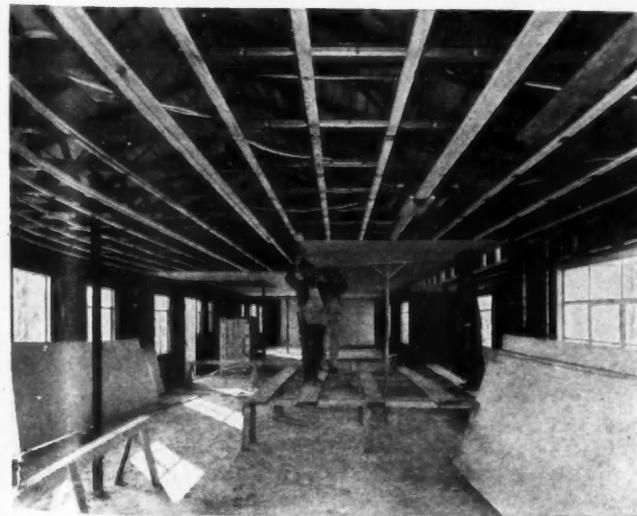
Upson Develops Site-Assembly Methods

THE DEMANDS that have been placed upon the building industry in providing adequate shelter for the vast army of defense workers, as well as men in uniform, are being met by an industry geared to move with speed and efficiency to accomplish its share of the war effort without delay. The building industry is breaking loose from many of the traditions and conventional methods which have bound it for generations.

Many building authorities foresee a day when prefabrication in one form or another will be an answer to the housing problem where groups of 100 units or more are involved. Architect-engineers who have been directing The Upson Company's part in defense housing agree that in the building of a group of houses or units of a given type, there are certain operations which can best be performed in the factory for obvious reasons of material and labor saving. In introducing the giant 8' x 14' Strong-Bilt Panel. The Upson Company, Lockport, N.Y., made a distinct contribution to the building industry by providing full wall dry built construction for new homes. This type of construction gained immediate acceptance by contractors in charge of large housing projects prior to the emergency.

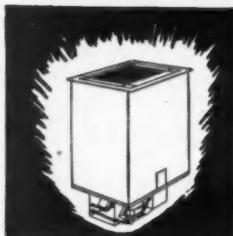
When called upon recently to furnish wall and ceiling panels for a large scale defense housing project, Upson engineers devised methods which were responsible for added savings in time and cost. Because so many identical units were involved, requiring a large number of panels of the same size, it was found that a distinct saving could be made by cutting the panels to exact size at the Lockport plant rather than furnishing the giant panels for the contractor to cut to size on the site. When delivered to the contractor, each panel was identified by a number and ready to be lifted into place and secured to studs and joists.

(Continued to page 82)



HOW Strong-Bilt panels are applied to ceiling in defense housing. ABOVE, view of finished living room.

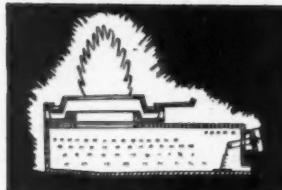
How to Solve the Small-Home Heating Problem



OIL-BURNING FLOOR FURNACE GIVES LOW-COST HEAT!

Here's a very compact and practical oil-burning furnace, completely assembled at the factory, ready to install right in the floor. Saves time, metal and space. NO warm air pipes, NO cold air returns, NO basement needed. Factory guaranteed. Offers

years of trouble-free service. Burns cheap No. 3 furnace oil. NO soot, NO smoke, NO noise. Listed by the Underwriters' Laboratories. Only unit of its kind with Manual Control or Automatic Operation, Electric Ignition and Thermostatic Control.

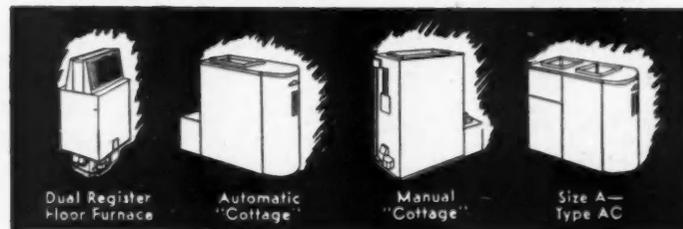


AMAZINGLY SIMPLE BURNER HAS NO MOVING PARTS

All our units have the trouble-free H. C. Little Burner, the only vaporizing burner with fully automatic operation and

electric ignition . . . the ideal burner for small-home use. It's Safe, Silent, Clean and Economical. Operates on patented principle of Progressive Low Temperature Carburetion. Has no pilot light to smoke or go out . . . no moving parts . . . igniter guaranteed for two years. Burns cheap No. 3 furnace oil and is Listed by the Underwriters' Laboratories.

OTHER H. C. LITTLE UNITS for SMALL HOMES



RECENT H. C. LITTLE INSTALLATIONS

- Wills Project, Dundalk, Md...112 Units
- U. S. Govt., Indian Head, Md. 65 Units
- Siems Drake Puget Sound Co...109 Units
- U. S. Navy Cont..... 20 Units
- Fairchild Addition, Seattle..... 22 Units
- U. S. Engineers, Seattle, Wn... 10 Units
- Towers Bldg. Co.,
Sparrows Pt., Md..... 52 Units
- Kelly & Sadtler, Dundalk, Md.102 Units

H. C. LITTLE Burner Co.

San Rafael, Calif.
Warehouse Stocks and Direct Factory Representatives in Boston, Newark, Baltimore, St. Petersburg, Aurora, Ill., Seattle and Portland, Oregon.

Please send me FREE BOOK-LET, "Six Low-Cost Oil Furnaces for Defense Homes".

Name

Address

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

Half Demountable House Program Placed

ASSISTANT Federal Works Administrator Baird Snyder, III, announced on Feb. 14 that a total of 22,058 dwelling units, out of an authorized total of 42,000, had been purchased since January 20 in the FWA demountable housing program financed from the President's emergency housing fund.

The average cost per unit, including fabrication, equipment, shipment to site and erection, but exclusive of the cost of land and utilities, was \$2,963.

The total cost of the 22,058 demountables, including fabrication, etc., but exclusive of land and utilities, was \$65,375,767.

Details follow:

FIRM	TOTAL UNITS	LOCATION	UNITS	COST (Fabrication, equipment, shipment and erection.)
Plywood Structures, Los Angeles, Calif.	2,000	Paso Robles, Cal.	150	
		Vallejo, Cal.	1,000	
		Campo, Cal.	30	
		Sacramento, Cal.	125	\$ 5,779,440.00
		Victorville, Cal.	140	
		San Diego, Cal.	555	
Green Lumber Com- pany, Laurel, Miss.	1,500	Jackson-Flora, Miss.	350	
		Charleston, S. C.	1,120	4,630,500.00
		Tuskegee, Ala.	30	
Barrett and Hill, San Francisco, Calif.	5,000	Norfolk-Portsmouth, Va.	5,000	15,336,750.00
National Homes Corp., Lafayette, Ind.	1,200	Kingsbury-LaPorte, Ind.	1,200	3,573,684.00
Southern Mill & Mfg. Co., Tulsa, Okla.	2,940	Wichita, Kans.	1,840	
		Choteau, Okla.	500	8,734,248.00
		Little Rock, Ark.	600	
Gunnison Housing Corp., New Albany, Ind.	750	Charlestown, Ind.	750	2,227,351.95
E. L. Bruce Co., Memphis, Tenn.	1,000	Louisville, Ky.	400	
		Shreveport-Minden, La.	500	2,887,871.00
		Texarkana, Texas	100	
Robert McCarthy, San Francisco, Calif.	1,000	Hope, Ark.	1,000	2,856,340.00
Houston Ready-Cut House Co., Houston, Texas	900	Midland-Odessa, Tex.	125	
		Mineral Wells, Tex.	100	
		Orange, Tex.	300	2,321,532.00
		Unassigned	375	
Libbey-Owens-Ford Glass Co., Toledo, Ohio	1,000	Kingsbury-LaPorte, Ind.	1,000	3,006,105.20
Henry C. Beck Co., Dallas, Tex.	1,000	Radford, Va.	500	
		Charleston, S. C.	500	2,925,000.00
Kroening Engineering Co., Milwaukee, Wisc.	500	Wilmington, Ill.	500	1,474,925.00
Bates Prefabricated Structures, Oakland, Calif.	1,000	Vallejo, Cal.	1,000	2,831,009.60
Allied Housing Asso- ciates, Inc., Langhorne, Pa.	500	Norfolk-Portsmouth, Va.	500	1,516,440.00
Hardin and Ramsey, Inc., Atlanta, Ga.	325	Moultrie, Ga.	135	
		Valdosta, Ga.	190	941,824.00
Arlington Fabricating Co., Arlington, Va.	250	Quantico, Va.	250	744,954.58
Home Building Cor- poration, Kansas City, Mo.	800	Granite City, Ill.	300	
		Weldon Springs, Mo.	300	2,387,546.64
		Alton—E. Alton, Ill.	200	
McCowan-Aldred Co., Macon, Ga.	193	Sebring, Fla.	193	557,245.50
Field Lumber & Im- provement Co., Detroit, Mich.	200	Sandusky, Ohio	200	583,000.00
	22,058		22,058	\$65,375,767.47



A DEMOUNTABLE unit by Plywood Structures, Los Angeles.



A TWO-FAMILY (top) and a single-family unit from Green Lumber Co., Laurel, Miss., housing plant; typical of program.

Home Builders Institute Chartering New Chapters

CHAPTERS of the Home Builders Institute of America recently approved by its board of directors include the following, according to E. L. Crain, Houston, president of the Institute:

Long Island Chapter, G. A. Mezger, Jamaica, president.
Denver Chapter.
Salt Lake City Chapter.
Birmingham Chapter, C. H. Cichester, president.
Milwaukee Chapter, George Faber, president.
San Antonio Chapter, H. C. Thorman, president.
Houston Chapter, William G. Farrington, president.
Southern California Chapter, Fritz B. Burns, Los Angeles, president.

New Orleans Chapter, C. Earl Colomb, president.

The Institute, a specialized branch of the National Association of Real Estate Boards formed a year ago to deal with both emergency and long-term problems of home building, already has a membership covering leading operative home builders in some 200 principal cities.

Upson Develops Site-Assembly Methods

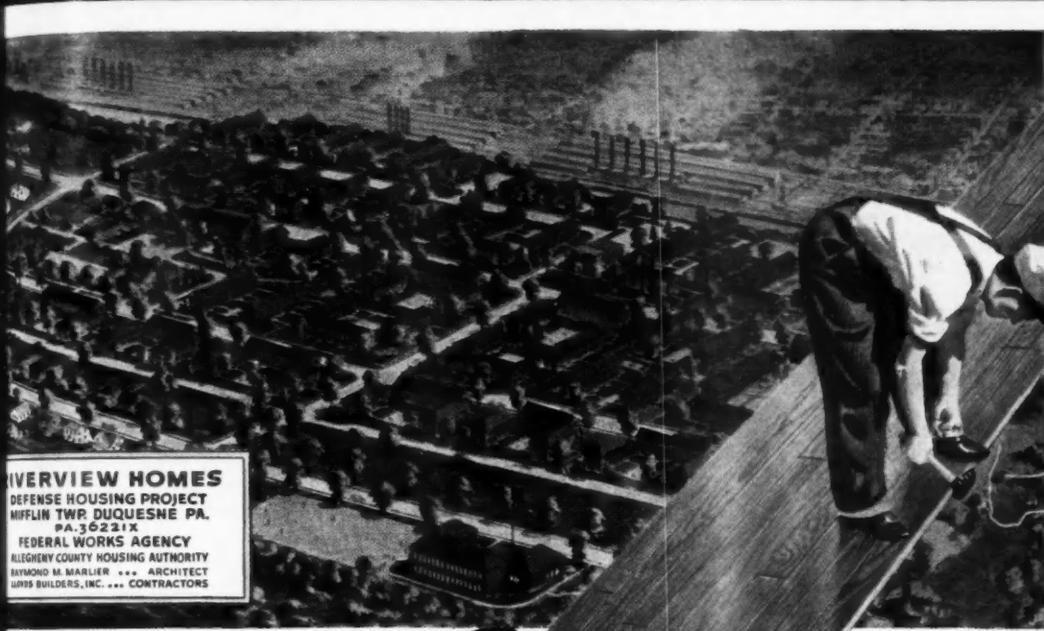
(Continued from page 81)

Incidentally, this project presented a new problem in that some steel framing was used, as well as wood. A slight change in the Upson Floating Fastener, however, permitted it to be attached to the steel members. The fastener provides a means of securing the panel which is invaluable when it comes to demounting because by clinching the panel from the back, the face of the panel is not marred. Consequently, when the panel is detached from the fastener in demounting, the panel itself is not destroyed and 100% salvage is possible. This application method therefore provides a truly demountable wall.

After application, door and window openings were cut out with light weight electric saws. Each small panel-salvaged from these openings was delegated to a particular use, usually in closets or similar places.

New kind of Hardwood Flooring SPEEDS ~~DEFENSE~~ HOUSING

Saves Days of Time.. Low in Cost



INTERVIEW HOMES
DEFENSE HOUSING PROJECT
MIFFLIN TWP DUQUESNE PA.
PA. 36231X
FEDERAL WORKS AGENCY
ALLEGHENY COUNTY HOUSING AUTHORITY
RAYMOND M. MARLER ... ARCHITECT
HARRIS BUILDERS, INC. ... CONTRACTORS

of 74 Big Defense Housing
cts Using Bruce Streamline
than 20,000 Defense Dwelling
from coast to coast, are floored
Bruce Streamline. For example: in
Pittsburgh area—8 out of 13 Defense
ing Projects have Bruce Streamline
... over one million feet used in
Christi and Orange, Texas ...
Washington area, more than 4,000
floored with Streamline!

Factory-Finished
Bruce Streamline
Flooring comes
completely finished,
ready for use the
instant it's laid. The
factory-applied
finish resists scratching
and marring. Easy to
maintain.

The Greatest Improvement Ever Made in Hardwood Flooring!

Bruce Streamline Flooring saves valuable days on every job, because it's completely finished at the factory—ready to use as soon as laid! No sanding or finishing on the job; no delays due to slow drying weather. Saves time and expense of temporary wiring for sanding machines. Streamline Flooring 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.

Yet the installed cost of Streamline Flooring is competitive with even the lowest available grade of hardwood flooring finished on the job! Defense housing contractors

tell us that, all factors considered, Streamline costs *less* than any other comparable floor.

And, most important, you are sure of "delivery as promised" on Streamline Flooring. It is made by Bruce, world's largest maker of hardwood floorings, with a capacity of half a million feet of flooring a day!

*** CONTRACTORS, ARCHITECTS, HOUSING OFFICIALS:** Send for this big new book, "Low Cost Floors for Defense Housing." Read what defense housing contractors say about Streamline. Get the whole story on this amazing flooring. Write for your free copy today.



E. L. BRUCE CO., 1484 Thomas St., Memphis, Tenn.



STREAMLINE *Factory-Finished* HARDWOOD FLOORING

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

OTHER BRUCE PRODUCTS FOR DEFENSE AND WAR: Pine and Hardwood Lumber, Shell Boxes, Wooden Containers, Furniture Dimension, Wood Parts. On any wood items needed in quantity, write: Wood Products for Defense, E. L. Bruce Co., Memphis, Tenn.

LOW COST NORGE OIL UNITS

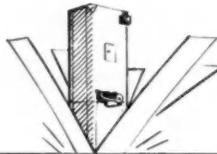
for Every Type of Defense Housing

It's simply a matter of getting a better product for less money when you specify Norge Oil Heating Units. These compact, efficient furnaces cut your initial costs to a minimum, and provide your customers with the most modern and dependable warm air heat. Important, too, the NORGE line is adaptable to every housing plan. So, don't delay! The nationally advertised name of NORGE BORG-WARNER—with its record of engineering leadership—will add prestige and saleability to your homes. Contact your sheet metal or heating contractor for full details . . . or write Norge direct.



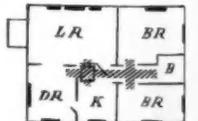
Sold factory-direct to sheet metal and heating contractors qualified to install and service these units.

Norge Units take as little floor space as 26 in. square. Whatever your specifications, a Norge Unit will fit!



Deliveries are prompt. Each installation costs you less because the unit is packaged and factory-wired.

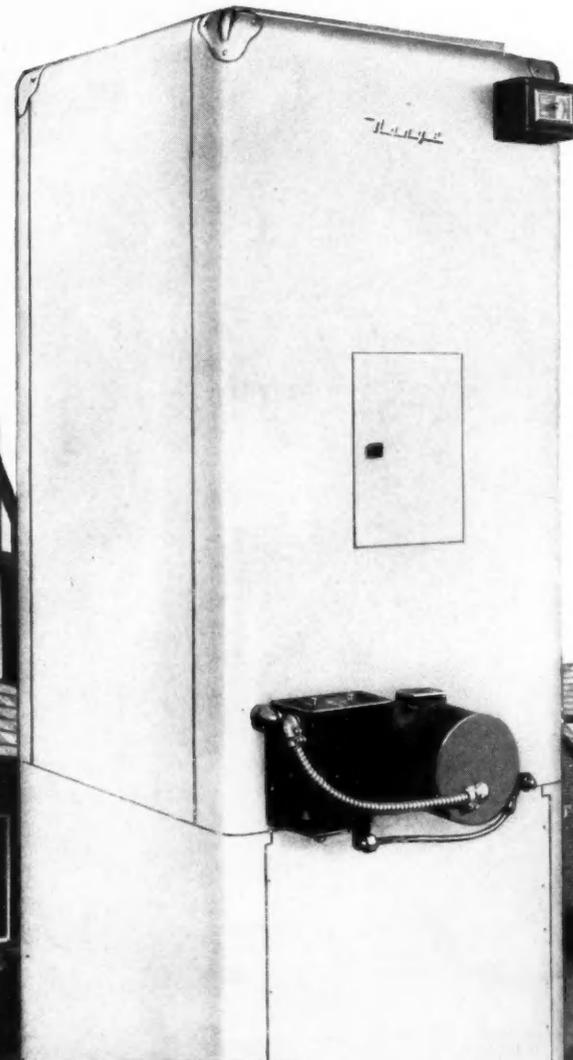
Because the unit fits your house, there is a minimum of duct work, further reducing installation cost.



NORGE HEATING and CONDITIONING DIVISION
Borg-Warner Corporation
 12345 KERCHEVAL AVE., DETROIT, MICH.



Norge-equipped Defense Homes in the Lafayette Hills Operation, Barron Hill, Pa., constructed by Jas. Stewart and Son.



ONE OF MANY UNITS IN THE NORGE LINE!

"Hi-boy" forced air Model OD-70 for utility room, closet or basement. Automatic controls. Modern cabinet with beautiful pearl gray baked enamel finish.

See **NORGE** Before You Buy



Amer
 No P
 Will
 PRIO
 of a
 Januar
 dustry
 cials o
 May
 statem
 "The
 from A
 made i
 allies
 away :
 ultima
 better
 The
 materia
 of such
 industr
 Bene
 engine
 protect
 metal.
 pounds
 amoun
 protect
 States
 Blac
 vate pl
 at the
 rials f
 textile

 Win
 N T
 was
 unuse
 of 105
 Calcul
 E. F.
 will be
 and th
 would

 Its
 provid
 cool t
 since
 This
 incendi
 The
 compa
 tectur
 Newa
 but to
 give a
 mater
 type.

No Priorities for Raid Shelters; Our Metal Will Be Used to Keep the Enemy Away

PRIORITY assistance will not be granted for the construction of air raid shelters in the United States, it was announced January 25 by J. S. Knowlson, director of the Division of Industry Operations, WPB, following a conference between officials of WPB and the Office of Civilian Defense.

Mayor F. H. LaGuardia, director of OCD, issued the following statement:

"The United States is fighting a war to keep enemies away from American shores. Steel and other scarce materials must be made into weapons to send to our own armed forces and to our allies on the fighting fronts. . . . We want to keep the enemies away: to use our critical materials at home will really make the ultimate danger greater. Steel in guns and tanks and ships is better protection than steel in American air raid shelters."

The decision was reached following a careful analysis of the materials which would be required for shelters and the quantities of such materials available, by representatives of OCD and the industry branches of WPB.

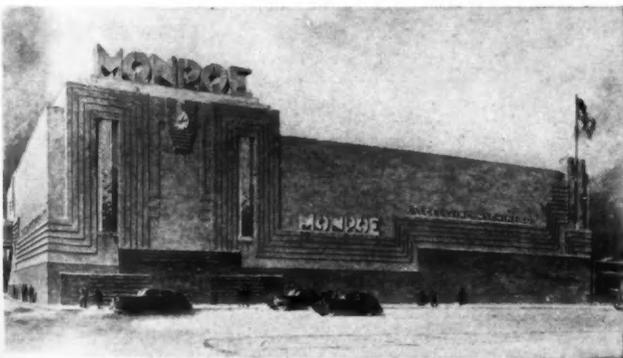
Benefiting from British experience and the skill of American engineers, OCD has developed a design for reinforced concrete protective shelter to hold 24 persons which uses a minimum of metal. Even this shelter, however, would require about 4,750 pounds of steel for reinforcement and for a steel door. The amount of steel necessary to build enough of these shelters to protect citizens inhabiting all the coastal areas of the United States would run into fabulous amounts.

Black paint, board or textile coverings for windows of private plants working on war orders will be available, but officials at the conferences did not recommend provision of such materials for other private buildings or homes, since both paint and textiles are more urgently needed for other war purposes.

Windowless Factory with Water Roof

IN THE PRESENCE of Army and Navy officials, ground was broken February 9 for a new factory embodying a hitherto unused combination of new features. The plant is an addition, of 105,000 square feet of manufacturing space, for the Monroe Calculating Machine Company, Orange, N.J.

E. F. Britten, Jr., president, states that the four story building will be windowless, in order to secure the best light for working and the best air conditioning. As a timely incidental, this feature would also simplify blackout demands.

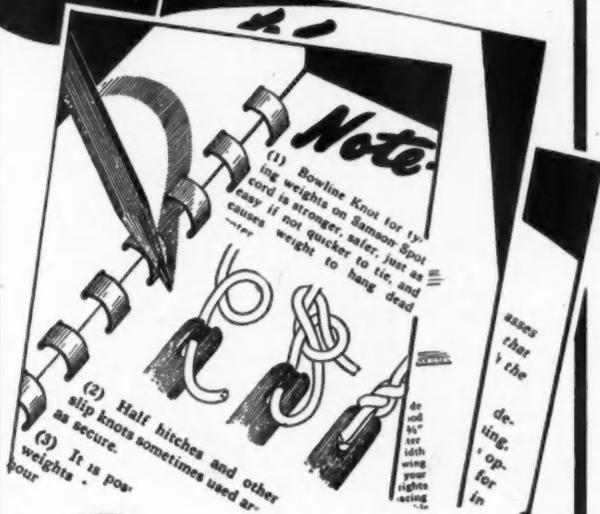


NEW Monroe factory at Orange, N. J.

Its roof will be covered with a 3-inch layer of moving water, provided from driven wells. The purpose of this is to establish cool temperatures in summer, and to assist insulation in winter, since in the coldest weather the roof cannot go below 32 degrees. This feature, engineers mention, has novel possibilities in case of incendiary bombs.

The new plant will be devoted 100% to defense work, and the company already has important aviation contracts. The architectural features, according to Epple & Kahrs, architects, of Newark, include two frontal columns of glass, not for windows, but to adorn the corner tower design. Their special glass blocks give a jewelled prism effect of unusual brilliance. Construction material is almost wholly concrete. Lighting will be of fluorescent type. Plant will open July 1.

\$5 FOR AN IDEA



These WE HAVE HAD

We have advertised several times on ideas for use in connection with double hung sash, hung with cord, weight and pulley. Now we want some more ideas for future advertising use — and if you have an idea along this line, just rough it out on a piece of paper and mail it in. For every idea we use we will pay five dollars. If your idea is used, you get five dollars and you will be helping us and others.

The idea is all we want — no fancy drawing or writing. No labels, nothing to buy, open to all. Duplicate ideas will be accepted on basis of first received.

**SAMSON CORDAGE WORKS
 BOSTON, MASS.**



REG. U.S. PAT. OFF.

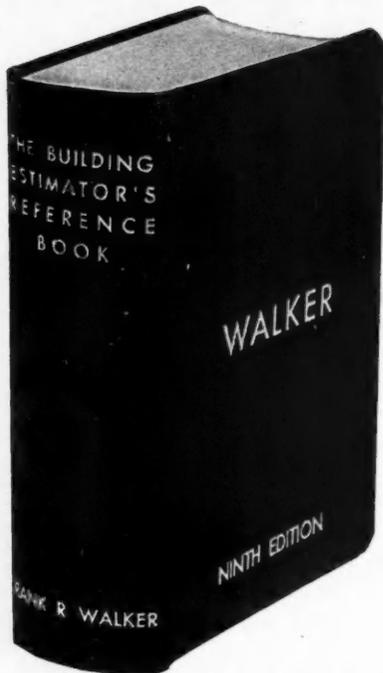
SAMSON SPOT

SASH CORD

The Building Estimator's Reference Book

Will Help You

1. Increase Your Profits
2. Stop Your Losses
3. Prepare More Accurate Estimates
4. Save Your Estimator's Time
5. Perform Your Work at the Lowest Possible Cost



This New Guide contains just the information you need to prepare your estimates quickly and accurately. It gives the correct method of measuring and listing quantities from the plans, together with accurate material quantities and the labor hours necessary to complete any class of work.

Regardless of whether you do alteration, remodeling or repair work; or whether you build houses, apartments, commercial or industrial buildings—large or small—it contains just the information you require to prepare money-making estimates in the shortest possible time and with the least possible effort.

1,678 pages, illustrated, index, 4½ x 6½, flexible, \$10.00.

Vest-Pocket Estimator

Size 2½ x 5 Inches—Flexibly Bound

FREE



This popular little book (not sold separately) contains 220 pages of up-to-the-minute estimating and cost data in condensed tabular form for ready reference. Fits right in the vest pocket and is always with you on the job or in the office ready to help you with your daily problems: Worth its weight in gold to every contractor and estimator.

Send for Your Copy Today!

You take no chances in sending for these new guides. Try them out for 5 DAYS FREE on your own work or when preparing your own estimates. If they don't more than prove their value to you, return them and the purchase price will be refunded at once.

Book Service Department

AMERICAN BUILDER and BUILDING AGE

30 Church Street,

New York, N. Y.

HOLC Manager Urges Home Remodeling

URGING the rehabilitation and conversion of existing dwellings as a means of speeding the war housing program, Donald H. McNeal, Deputy General Manager of the Home Owners' Loan Corporation, has declared that "the demand for new housing in some of our great population centers—the very places where the largest substandard and neglected areas exist—offers the opportunity to do a constructive job."

Mr. McNeal, in charge of HOLC reconditioning operations which have involved the expenditure of some \$175,000,000 on more than a half-million homes, cited as an example a recent survey conducted by that agency in Washington, D. C., "where the influx of Government workers has resulted in a problem almost unparalleled anywhere in the country." He declared the survey clearly indicated the practicability of the rehabilitation of whole neighborhoods to meet defense housing needs and, at the same time, to alleviate community deterioration and blight in such areas.

"There are some 85 blocks in this Southwest section of Washington—part negro, part white—all rapidly deteriorating and a considerable part already disreputable and a breeding place for disease and crime," said Mr. McNeal. "Yet this area is one of the best located in Washington and can be seen from the Capitol. In a nine-block area, we found that many existing buildings could be modernized and made into acceptable defense housing at 50 to 60 per cent of the cost of new construction. We found that 60 per cent more housing units could be created quickly within this nine block area and provide adequate park and recreational facilities as well.

"We found that we could demolish 121 buildings and provide 1,000 new dwelling units. Of these, 400 would be reconditioned homes which are structurally sound and 600 would be new. Every unit created or recreated in the area would be additional defense housing, because none of the units there now are suitable to defense workers who are not utterly desperate."

Mr. McNeal declared the necessity for speed would demand that the Government finance this particular project, for right of eminent domain would have to be exercised. "The Government can get its money back, however, for it could rebuild the existing structures to rent for \$6.50 to \$7.50 a room and amortize its investment over a period of 40 years," he said.

"There are sections of every major city in the country which can be rehabilitated by private capital," he said. "We hope the success of this project may convince private industry that similar enterprises are feasible, and that such investments can be made profitable."

OPM Survey Shows 758,492 Stokers in U.S.

THERE ARE a total of 758,492 stoker installations in the United States, according to a survey made by the Stoker Manufacturers Association, Chicago, for the information of the OPM and other governmental agencies.

The report is based on information supplied by 28 manufacturers representing approximately 90 per cent of the total unit volume of the stoker industry over a period of the past 15 years and up to August 1, 1941.

The east central states of Ohio, Michigan, Indiana, Illinois, and Wisconsin account for nearly half of the nation's total stoker installations. Illinois, with 116,767, leads in the number of installed stokers. The compilation does not include central station or large industrial stokers.

It is estimated that stoker sales in 1940 totaled approximately 160,000 units of which 89 per cent were the residential type.

Sales for the first nine months of 1941 total 149,630 or an increase of 37.02 per cent over the same period in 1940 and 120 per cent over the same period in 1939.

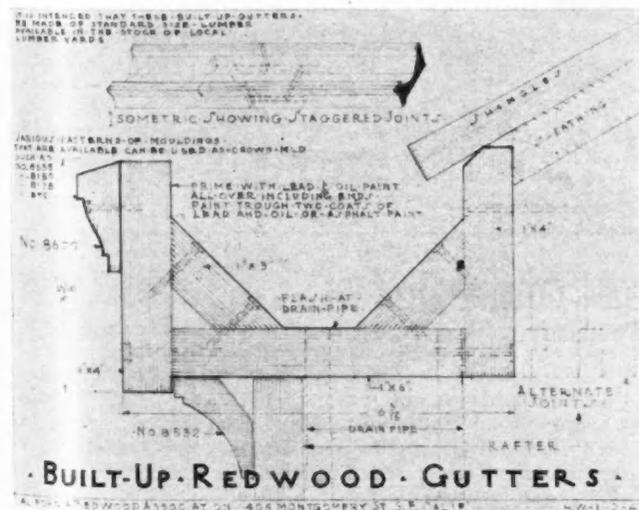
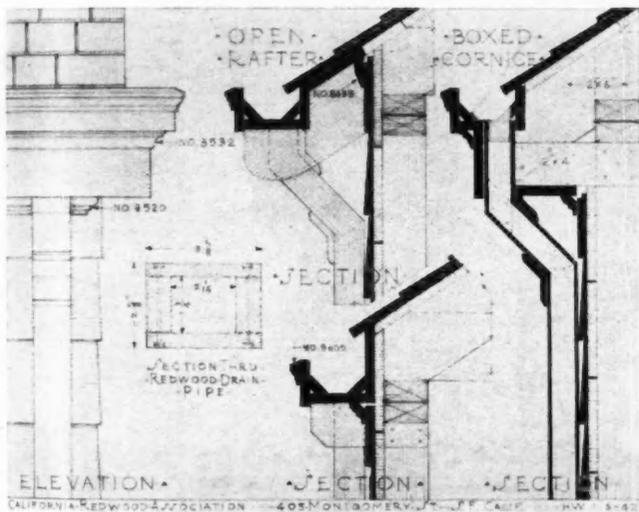
The growing popularity of the stoker is due to the fact that it provides trouble-free automatic heating at low cost, utilizing a fuel that is generally available in all parts of the United States. Better and more smokeless combustion is obtained with a stoker than by hand-firing. Stoker heat is uniform with no sharp ups and downs in room temperatures. Bin-feed stokers entirely eliminate any handling of coal by the stoker operator. Stokers are an aid in national defense because they conserve fuel and manpower.

PRACTICAL JOB POINTERS AND BUILDING DATA

AN EXCHANGE of ideas and methods in building practice. For individual contributions, two dollars or a year's subscription to American Builder is paid when published; state occupation.

How to Make Built-Up Wood Gutters

IN TIMELY ACCORD with the fact that current wartime restrictions on copper and galvanized metal make the market for redwood gutter and drainpipe a wide open one for the retail lumber dealer, two data sheets just released by the California Redwood Association, San Francisco, present plans, utilizing standard moulded redwood gutter or built-up gutter and drainpipe that can be constructed on the job or in the dealer's yard or mill from stock sizes of redwood boards as shown below.



Because of the range in lumber sizes, built-up gutters are of very flexible design and are particularly adaptable to defense housing and any construction where maximum economy is desired or moulded redwood gutter may not be available. Drawings of the data sheet on "Built-up Redwood Gutters" show how such gutters are constructed from regular sizes of (Continued to page 88)



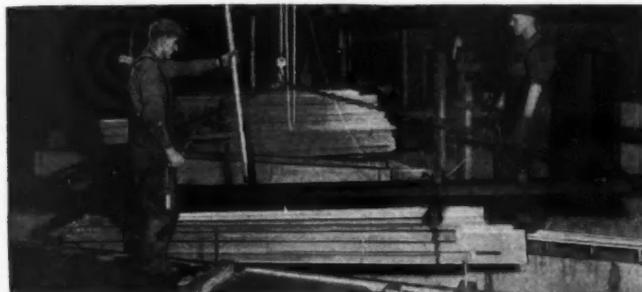
Get
DIMENSION CONTROL
with
Laux
REZ



TRADE MARK REG. U. S. PAT. OFF.
SWELLING and BINDING caused by moisture penetration in doors, sash, cabinets, etc., can be controlled by sealing and priming first with Laux REZ, clear synthetic resin sealer.

This water-repellent toxic . . . applied on the job with brush, spray or saturated cloth . . . is also a perfect base for paint or stain on all woods, including fir plywood. REZ checks grain raise and gives a sealed, even surface for decorating.

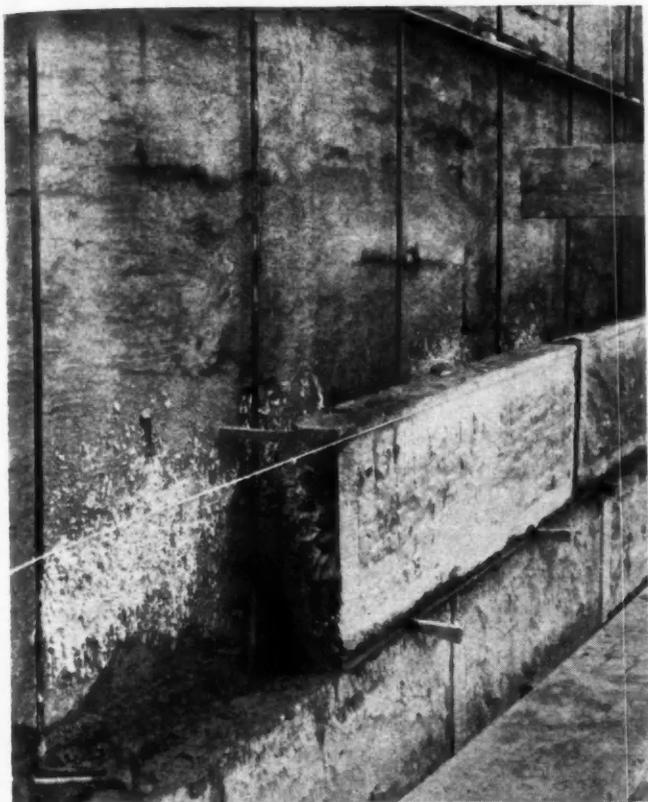
Lumber, hardware and paint dealers all supply Laux REZ, the first and still the best synthetic resin sealer . . . or write to addresses below for full information.



TANKS FOR DEFENSE—Waste helps the Axis. Dry rot, mould, decay in siding, millwork, flooring, sash, doors are being stopped by tanks filled with Laucks Industrial Wood Preservatives . . . tanks built by contractors, dealers, millwork plants. Write today for descriptive brochure on these industrial water-repellents and toxics.

I. F. LAUCKS, Inc.

Seattle, 911 Western Ave., Div. B Los Angeles, 859 E. 60th St., Div. B
Chicago, 6 N. Michigan Blvd., Div. B
Portsmouth, Va., Commerce and Broad Sts., Div. B
Vancouver, B. C., Granville Island, Div. B



STONE face attached to concrete retaining wall by steel rods and angles fastened by Rawl-Anchors.

The angle iron was secured by drilling holes every five feet into the concrete wall and inserting $\frac{5}{8}$ " and $\frac{3}{4}$ " Rawl-Anchors. Caulked home, they were there to stay. The cut stone was placed in position and the rest of the job securely cemented and anchored into place. Charles A. Mooney was the superintendent of construction on the job.

Cold Weather Hints for Cold Water Glues

By E. E. DECKER.

of I. F. Laucks, Inc.

WHEN GLUE manufacturers speak of cold water glues they refer to dry powder casein and soybean glues which are mixed by the user on the job with ordinary tap water of a temperature around 70° F. Since such glues are dissolved and set by means of a chemical reaction—which like most chemical processes is hastened by heat and retarded by cold—users of cold water glues during winter months should consider the effect of cold air and cold water on gluing processes.

Most glue manufacturers standardize their cold water glues so that for general use they should be mixed on the job in water of around 70° F. and with about the same room and stock temperatures. Tests are made on batches in the glue manufacturer's laboratory prior to shipment to insure that if such temperatures are maintained in the field the glues will be of a certain standard consistency with properties of known strength and durability.

Except in the middle of winter or in midsummer, when extreme temperatures of cold or heat might prevail, the glue user does not have to worry about temperature conditions. He may simply use tap water with no fear that he will get anything but the best results with his cold water gluing. During winter and summer months, however, certain precautions should be taken to insure uniform results. At the present time of year, tap water is likely to be considerably below 70° F.—sometimes close to freezing (32° F.). Water of temperatures below 70° will cause glue which normally dissolves in 15 to 20 minutes to require 30 to 40 minutes and even up to an hour to dissolve. And if the glue is used before it is fully dissolved, maximum strength will not be developed. Perhaps the glue will have but 60 to 80 per cent of its full strength. The safest procedure for winter is to always take the chill off the water before mixing.

(Continued to page 90)



BILT-WELL *puts a heap of living into* NU-STYLE kitchen cabinets

Quickly and easily installed in new or remodeled kitchens without damage to plaster.



CORNER OF CABINET
Beautiful, modern lines — Doors and drawers have same shape — Smooth flush surfaces.



JOINT OF DRAWER
Bottom of drawer — showing interlocking permanent joint.



OVERLAPPING DRAWER
Drawers (and doors) overlap the cabinet openings — Keep out dust.

Bilt-Well Nu-Style Kitchen Cabinets meet every need for quick, easy and economical installation in new or remodeled structures. Individual cabinets, including corner cabinets, are available from 15" to 42" widths—convenient for regular and irregular shaped kitchen walls and corners. Let "Bill Twell" save you the expense of cutting, mitering and fitting; let him pre-fit a Nu-Style kitchen for you.

Bilt-Well Nu-Style Kitchen Cabinets of kiln-dried white Ponderosa Pine offer such "tailor-made" advantages as overlapping drawer fronts; smooth-flushed counter tops, drawers and doors, sag-proof and warp-proof construction.

Built the way you'd like to build them yourself, these modern-day Kitchen Cabinets combine the utility, beauty and long life that only 76 years of practical experience can develop.

BILT WELL
WOOD WORK

CARR, ADAMS & COLLIER COMPANY

DEPARTMENT 3 AB, DUBUQUE, IOWA

Please send me free complete information on Bilt-Well Nu-Style Kitchen Cabinets today.

NAME _____
ADDRESS _____
CITY _____ STATE _____



BILT-WELL WOOD PRODUCTS
the "yardstick of quality"
for more than 76 years.

(Continued from page 89)

Another factor entering into winter gluing is the temperature of the glue itself before mixing. Dry glue is frequently stored in unheated buildings and is very much below 70° F. at the time of mixing. This results in quickly bringing the water down below the quick dissolving temperature. This situation can best be overcome by storing the dry glue at room temperature or by keeping a few bags ahead in the glue room so it will be at room temperature when mixed. The alternative, of course, is to use water slightly warmer than 70° F.—up to 75° or 80° F. But in no case should hot water be used.

Just as the dissolving of the glue is retarded by cold so is the setting held back by low temperatures. Therefore, if the stock being glued is cold and the work is done in a cold room, care must be taken to increase the pressure period in clamps or presses.

The greater prevalence of open joints during winter months is due to the fact that very often available stock is quite wet. When such high moisture lumber is moved into warm factories, it

naturally dries out rapidly and shrinks. The result is not only open joints but end checks as well. Special precautions should be taken with lumber to see that it is not subjected to extreme changes in temperature while it is being channeled through the process of gluing.

A great deal of time and materials can be saved and many headaches prevented if the foregoing simple rules are carried out in the use of cold water glues. It might be well to remember that cold water glues which are frozen, either in the container or in the gluing process, are ruined, absolutely. If a glue line is not given a reasonably warm temperature to permit its setting, a bond will not be obtained. Freezing will destroy the adhesive qualities of any glue containing water.

Blackout Pointers

HERE ARE SOME blackout techniques that every householder as well as every property manager is likely to find highly practicable in key defense areas. They are from "Blackout, the

Technique of Light Obscuration," a study by Richard Lawrence Nelson, C.P.M., published by the Institute of Real Estate Management of the National Association of Real Estate Boards, Chicago. With no precise definition yet issued by the Office of Civilian Defense or by the Army as to what a blackout involves, the study is valuable as presenting a digest of all available directions and experience.

Entry-Ways: Light locks are needed to guard every door or entry that must be used during a blackout. But most homes, apartment buildings, hotels, and multi-story office buildings have vestibules which can be converted to serve as light locks, the study finds. Glass doors on both sides of the vestibule must be covered with blackout protection walls on the vestibule painted a flat black, and all lights removed from the space. Bottoms of doors should be checked and weatherstripping installed if necessary. Someone must be designated to guard the light lock, which will provide a perfect blackout if only one door is opened at a time.

If there is no vestibule, a suitable light lock may be constructed by the use of screens, drapes, or temporary partitions.

To insure the effective operation of the light lock for entries, all sources of light near the entrance must be shielded, to prevent direct entry of strong light into the lock. Dimming of light in this area is also advisable to lessen the contrast between bright interior lighting and outside darkness, thus helping the eye to adapt.

Skylights: Skylight treatment is an essential part of blackout protection, whether the room below is to have lights on or off.

All skylights not necessary for required daylight may be made opaque by use of flat black paint or by covering with light material. But paint, if used, must be applied to the exterior glass. "If the paint is applied to the under side of glass, an almost perfect mirror would be formed and light from the moon, stars, or from flares be reflected brightly upward so as to be clearly visible from the air," it is pointed out. Skylights over such areas as store-rooms, where lights can be left off during the blackout, must also be treated, for a black room behind a skylight gives the same mirror effect as black paint on the inside of glass. In such rooms, the exterior of the skylight may be painted with a dark gray semiopaque paint to counteract the mirror effect of the dark of room below and admit some daylight.

BUILDING "BELIEVE-ITS"

STRANGE STORIES THAT STICK

4000 CALIFORNIA WARTIME HOUSES BUILT WITH LAUCKS GLUE
 GLUE IS NOW BEING USED IN WARTIME HOME BUILDING BECAUSE OF ITS STRENGTH-ECONOMY AND SPEED OF CONSTRUCTION



GLUE STICKS FOR 5000 YEARS!
 EGYPTIANS 5000 YEARS AGO VENEERED WOOD BY HEATING GLUE OVER A FIRE—SPREADING IT WITH A BRUSH AND HOLDING THE GLUED PARTS TOGETHER WITH CAULS WEIGHTED WITH BAGS OF SAND....



GUNS FOR DEFENSE
 A RECENT DEVELOPMENT OF I.F. LAUCKS ENGINEERS THE LAUCKS GLUE GUN IS SPEEDING PREFABRICATION DEFENSE HOUSE CONSTRUCTION—IT SAVES TIME, SAVES GLUE AND IS CHEAPER TO USE THAN NAILS

I. F. LAUCKS, Inc.

MANUFACTURING CHEMISTS
 "Leadership through Research"
 Seattle — 911 Western Ave.
 Chicago — 6 North Michigan Blvd.
 Los Angeles — 859 E. 60th Street
 Vancouver, B. C. — Granville Island
 Portsmouth, Va. — Commerce and Broad Sts.

THOUSANDS of jobs in wartime building demonstrate spectacularly what Laucks chemists and engineers have proved for years . . . the superiority of Laucks glue in construction.

Laucks Construction Glues are being used for affixing millions of feet of wall-board to studs, joists, etc., by contractors and prefabricators . . . in making laminated arches and beams for factories, barns, hangars, churches . . . for innumerable "glue-welding" jobs.

Why have Laucks CONSTRUCTION GLUES been selected almost exclusively for this work? Because they are formulated especially for this use. They are . . .

SELF-BONDING . . . no heavy weights or clamps are required, simply good contact.

WATER-RESISTANT . . . meet U. S. Navy and Army, federal aircraft specifications.

STRONGER . . . "stronger than nails" by test—and easier to get!

Builders, architects, contractors, dealers—write Laucks for full information!

• LAUCKS CONSTRUCTION GLUES •

Roof Camouflage: "In many communities there will undoubtedly be orders to eliminate such sources of reflection as sheet-metal roofs, light painted horizontal areas, and roofs which have been painted with aluminum paint to assist in insulating the building," the study finds. It advises: "Before this work is done, check with local military authorities so that any repainting may fall in line with the general camouflage scheme of the area."

Make Your Own Safety Glass

EXPERIENCE in both England and Spain proves that flying glass is air raids' greatest hazard. American chemical research has found an answer to this vital problem; a new product is announced known as Roxaneal, and is manufactured by Roxalin Flexible Finishes, Inc., Elizabeth, New Jersey. This new glass protector is a water-white, transparent liquid that prevents broken glass from flying. It is not claimed to stop glass from fracturing, but tests have proved that it will keep broken glass in place, thus preventing dangerous glass splinters from flying.

At the proving grounds of one of the country's leading explosive manufacturers, a test was made under conditions which as closely as possible resemble the actual concussion and vibration conditions that glass must withstand during an air raid bombing. An ordinary steel window frame was fitted with plain glass, safety glass similar to the type used in automobiles, and plain glass coated with Roxaneal. The window frame was securely fastened in an upright position, and a stick of 60% dynamite was exploded only 30 inches away from the glass. The plain glass was literally pulverized, while the safety glass and the glass coated with Roxaneal were fractured but remained intact in the frame.

Roxaneal is available in clear, transparent form which does not obstruct vision or light, and also is available in blackout type. It may be applied by brushing the material on the interior of clean glass. Windows may then be cleaned, when necessary, with mild soap solutions without affecting the strength of the protective film. After the emergency is over, Roxaneal is easily removed either by peeling it off with a razor blade, or by washing it off with solvents.



NEW LIQUID coating prevents flying glass during air raids.



Oakland, California, plant of Barrett & Hilp

In this plant 792 HOUSES WERE BUILT IN 43 WORKING DAYS

—that's an average of 18½ houses per day! Prefabrication continues to demonstrate its outstanding value—on one war housing job after another . . . continues to point the way to tomorrow's employee housing, to large-scale realty developments and similar projects.

THE ARCHITECTURAL FORUM'S Washington Building Letter says the progress of prefabrication and its "post-war implications" . . . constitute "one of the most significant new developments in housing, should be watched by everyone . . . architects, engineers, builders, realtors, bankers, dealers and producers".

Leading the prefabricated field is Homasote Precision-Built Construction—the system pioneered by Homasote Company in 1935 and already used in \$6,000,000 of architect-designed private homes. Homasote Precision-Built Homes feature the use of Homasote—oldest and strongest insulating and building board on the market—for extra strength . . . tight, sure insulation.

Homasote prevents dangerous chipping, falling plaster . . . eliminates ugly wall joints and batten strips through the use of large sheets (up to 8' x 14'). These large sizes are essential to satisfactory prefabrication.

The contractor has complete control over his costs with Precision-Built Homes—no matter what the size, style or section of the country. Homasote Precision-Built Homes are built by local labor, of standard, quality materials—purchased locally. They are ideal for private home construction . . . large-scale real estate developments . . . employee housing . . . slum clearance . . . tourist camps.

At the end of the present national emergency, fabricating plants throughout the country will supply architects and builders with Homasote Precision-Built Homes, for non-defense purposes. Then, more than ever before, Homasote Precision-Built Homes will represent the utmost in value for the building dollar—the vital key to the small-homes market.



HOMASOTE COMPANY . . . TRENTON, N. J.



FOR DEFENSE HOUSING



G-E GAS FURNACES

**Highly efficient . . . factory packaged
. . . low in cost!**

You get this new G-E Gas Furnace complete in one "package"—all factory wired and assembled for installation by any sheet metal contractor. Smallest size occupies only 3½ square feet floor space and is approved by Underwriters' Laboratories, Inc. for installation with only 2 inch wall clearance. Its corrosion-resistant cast iron heat transfer surface assures long life and high efficiency. These low-cost G-E units are available in 3 sizes: 48,000, 72,000, and 96,000 Btu per hour output.

WHATEVER TYPE OF HEATING YOU WANT,

TURN TO →



G-E units for radiator or warm air heat, using oil or gas, are available for almost every heating need. Get the details on prices and specifications from your G-E Distributor (look in the Classified section of your Telephone Directory) or send the coupon.

GENERAL ELECTRIC

Division 2113, Bloomfield, N. J.
Please send me data on G-E equipment for
Warm Air Heat — Oil Fired Gas Fired
Radiator Heat — Oil Fired Gas Fired

Name

Address

City County State

Home-Made Tape Will Protect Windows

DIRECTIONS for making and applying home-made tape to prevent shattering of window glass from bombing have been made available by the health supplies branch of the War Production Board, according to the Board's official publication, "Victory."

The Philadelphia College of Pharmacy and Science developed the method after reading a request by the health supplies branch that adhesive tape not be used for shatter-proofing windows. Adhesive tape contains cloth, rubber and zinc oxide, all of which have important military and essential civilian needs.

Protection Against Window Shattering

A. Cut old bed sheets into one inch strips. If old bed sheets are not available use a cheap material such as unbleached muslin. Lay the pieces on a board and with a paint brush generously daub them with the paste made according to the formula below.

B. Then crisscross the pasted strips on windows, keeping the pieces about an inch apart from each other in both directions. Then make two diagonals clear over the corners of the pane. All ends should reach and overlap the edge of the window frame. Very little light is lost through this method.

C. The formula for the paste is one which can readily be put together at home. It is as follows:

Wheat flour.....	6 ounces
Powdered alum.....	½ ounce
Corn syrup.....	¼ pint
Water	2 pints

Rub the flour and alum to a smooth paste with the water and syrup. Heat quickly to boiling with constant stirring to avoid burning. Remove from the fire at first indication of active boiling. A slower method involves the use of the double boiler.

If this paste is to be held in storage, refrigeration will keep it sweet for several days. But if it has to be kept over a long period there should be added to the above formula, with the alum, a level teaspoonful of benzoate of sodium. Silicate of soda should never be used as an adhesive because it will etch glass ultimately, and also because its free alkali dissolved in condensed water will seep into window frames and be particularly detrimental to metal frame windows.

Construction Glue for Wooden Columns

MUCH has been written about the construction uses to which glue has been put during the past couple of years, and many of these uses—especially in the field of prefabrication—have been outstanding feats in building history. However, there are other applications of wood and glue which are less spectacular perhaps but which have been of considerable importance in the development of the wood-glue technique.

One of these is the use of glue in building structural and ornamental columns, especially for exterior use. By the application of water-resistant construction glues, wooden columns for outside use have been given new strength and permanence and are today an important architectural element in many types of building.

The manufacture of these shafts is a specialized process, requiring the services of experienced craftsmen and precision equipment. In the A. F. Schwerd Manufacturing Company's factory in Pittsburgh, where wooden column building was pioneered back before the turn of the century, a craftsmanship has evolved which has given American architecture a headquarters for columnar design development.

In the production of a Schwerd column, only bone-dry lumber is used in order that there will be no chance of dimensional changes due to moisture fluctuations in the wood. The staves, which are shaped and tapered, are so machined that the completed shaft will be equally heavy at all points along its length. Of tongue-and-groove arrangement, these staves must fit perfectly. As they are assembled in cradles into columnar form, a special Laucks self-bonding casein construction glue is applied to them. No nails or other fasteners are used. The Laucks glue bears the entire responsibility for holding the staves together for life.

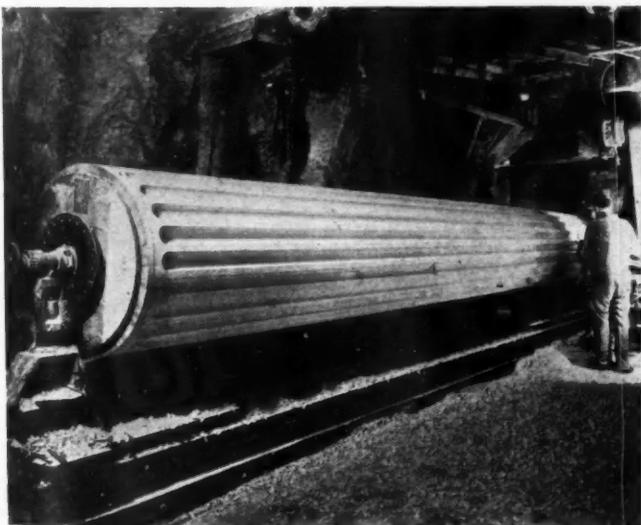
When the shaft is completely assembled and glued, it is subjected to the pressure of circular chain clamps which squeeze

the joints tight and assure perfect circularity of the shaft. After a period in the drying room, the column is ready for the wood-turners. With the aid of a lathe anchored on solid rock expert mechanics turn out perfectly cylindrical shafts which are not only symmetrical to the eye but mathematically true.

From the turning operation, the column goes to the finishing room where it is fluted or otherwise designed and painted and provided with cap and base members. A special preservative



IMPRESSIVE effect of columned porch at Drew University.



PROCESS of fluting 36" diameter by 30'-0" glued-up wood column.

treatment is given all columns to help prevent decay and insect infestation when the shafts are in place and subject to possible high humidities.

One of the most outstanding column jobs of 1941 is represented in the stately Schwerd replicas of some early 19th Century columns on the Rose Memorial Library addition to Drew University at Madison, N.J. Fashioned to detail, these graceful fluted shafts form the entire front of the new edifice and a courtway connecting it with the century-old administration building of the University.

When a nation goes to war, cleanliness and sanitation are of first importance to its armed forces and to the men behind the lines now working

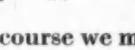
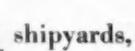


around the clock for Victory. Case plumbing fixtures are naturally called upon to help supply the need. ★ ★ Army posts



and camps, Army air bases and Air Corps training centers, Naval bases and Naval air stations must be supplied.

An even larger share of our production is required for the equally important needs of Defense housing, industrial plants and



shipyards, and vital public utilities and services. ★ ★ Of course we must meet Uncle Sam's requirements *first*—promptly, efficiently and unselfishly. But this means that, despite our recently increased production capacity, we are unable to furnish Case



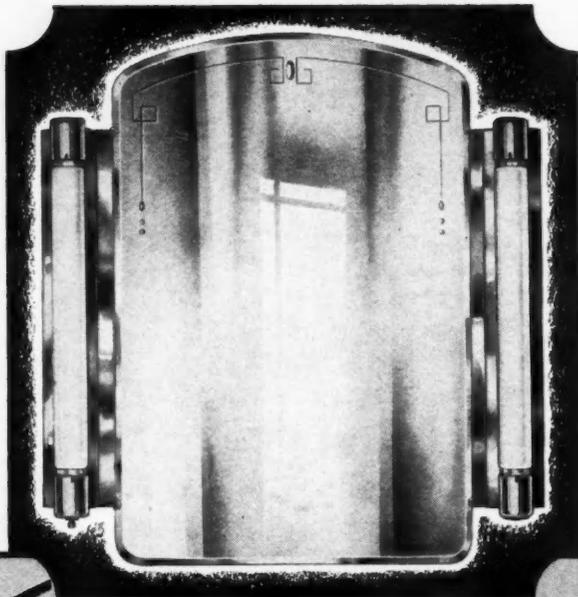
plumbing fixtures as promptly as heretofore for private, non-Defense customers. For the time being, new or modernized construction *not* covered by government priorities must necessarily take its turn. *Uncle Sam comes first.*

W. A. Case & Son Mfg. Co., Buffalo, N. Y. Founded 1853.

Case

DISTINCTIVE PLUMBING FIXTURES

Typical of the New Lawson Line of "Quiet" Fluorescent Lighted Cabinets is the Berkshire No. 888 FLR. Finished in "Lustre Lux" baked enamel, this handsome cabinet is also available without side lights.



The New LAWSON "QUIET"

Fluorescent Bathroom Cabinets

THE FLUORESCENT LIGHTING BATHROOM
CABINETS THAT ARE MECHANICALLY RIGHT

Now you can offer your customers a fluorescent lighted bathroom cabinet that is *mechanically right* as well as beautiful in appearance.

The newly designed Lawson "Quiet" Fluorescent Lights are not just a makeshift attachment, but an integral part of the cabinet! Due to a patented self starting switch and an improved resistor, all hum and flicker have been eliminated. In addition, because these lights are luminous over the entire surface of the tube, they give more light with less glare. Switch to operate both lights in base of left bracket, convenience outlet in base of right bracket.

We will manufacture Lawson "Quiet" Fluorescent Lighted Cabinets as long as materials are available. For complete details write for new catalog and price list—today!

THE F. H. LAWSON CO.
Cincinnati, Ohio



"Specialists in Cabinets for Defense Housing"

SOLD EXCLUSIVELY THROUGH WHOLESALE OUTLETS

LETTERS from Readers on All Subjects

Facts, Opinion and Advice Welcomed Here

Secretary Versus Editor

Lebanon, Ky.

To the Editor:

May I presume on our friendship to the extent of mildly criticizing your release to the newspapers of February 7th under the heading "NO 'STOP BUILDING' ORDER LIKELY."

No one could be more vitally interested in building than I am, and when I saw this heading I immediately grabbed it to see what you knew that had escaped us. Of course you go on to say that it is going to be a "limitation" order and not a "stop building" order. But the limitations will take care of the stopping, don't you think?

It just struck me that so many readers would just look at the heading and not go much farther, and consequently would get it into their heads that they would be allowed to build; when we all know that there will be very little building of any kind this year, except for defense purposes.

I very seldom write a letter like this, neither do I criticize the work which other people so ably perform. However I just could not resist calling this to your attention, because I believe that many a reader is going to be very much surprised when the restrictive order hits him between the eyes.

DON CAMPBELL, Secretary
Kentucky Retail Lumber Dealers Association

ANSWER:

I am glad to see that you do not hesitate to speak out frankly when you disagree. However, I am sticking right by my guns on this matter of the outlook for building and construction for 1942. When Don Nelson writes me that no stop building order is going to be issued but that there will be, probably, a further limitation in the use of metals, I am going to take him at his word, until I get evidence to the contrary.

Official figures from Washington now estimate 1942 construction volume at \$10,700,000,000 as compared with \$11,000,000,000 in 1941. This is a decrease of a little less than 3 per cent. Now, with such a volume of building and construction on the program for this year, I cannot see where there is any room for "stop building" orders, or any lack of opportunity for firms and individuals in the building business to make their own contributions to this program. If the Government is going to realize on any such program by the end of the year, the course that I see ahead is rather one of encouragement and direction than of prohibition or interference.

I may be wrong in this, but when I read the numerous scare headlines in the newspapers that have been upsetting the public and killing market demand, without justification, since early last fall, I feel that this industry is justified in doing some constructive headlining itself, if it can, to correct the public view and to maintain its position as a genuine war and defense arm essential to the health and safety of the public as well as contributing directly to the nation's war efforts.

Defense industry housing, remodeling and conversions, and farm building improvements are all on the preferred list and will generate important business for practically every retail lumber dealer and builder, because this activity is almost as widespread as the population.

—EDITOR

Sees Master-Builder Dominant

Yellow Springs, O.

To the Editor:

I have one criticism of your paper and that is that you tend to play up the lumber dealers and building material dealers beyond their true value. The best building is still done by the architects and builders.

It has been my good fortune to have come from a family of builders. I learned the carpenter trade in Nantucket, Mass., with T. H. Giffin, a type of builder who is practically extinct now. He is nearly 75 years old and can or could design and build anything

from a piano bench to a congregational meeting house with his own hands. By the way, you should go to Nantucket next summer and have the old man show you his best stuff; and publish it. Perhaps it would be a good idea to hunt down the work of several of these old gentlemen and devote an issue to it.

I have worked as a carpenter, foreman, superintendent and then have gone through college to be a registered architect. I am now superintendent of buildings and grounds for Antioch College and am a practicing architect. I have worked for a lumber yard and I know their setup fairly well.

It is my considered opinion that while a great change in the building industry is coming and is needed, the first qualification of the builder always has been and always will be *technical ability*. Merchandising and business acumen are essential, but are definitely secondary. Building is an art quite like architecture. Being a good dealer for manufacturers does not entitle the dealer to be the principal in the building transaction—packaged housing or not. Perhaps the builders should become dealers, but not vice versa.

I am writing this as constructive criticism and with deep conviction. Yours for better building at lower cost.

MAX G. MERCER, Architect.

Endorses Education Plan

Rochester, Minn.

To the Editor:

I have read with a great deal of interest the article in February *American Builder*, "Tomorrow's Greatest Educational Need." It is a fine approach to a problem that is of vital importance to all branches of the building industry.

R. J. ALEXANDER, Building Counsel.

American Builder on the Air

Montgomery, Alabama

To the Editor:

I appreciate your forwarding me the sheet containing the story of the modernizing job I did to my property on Washington Avenue.

I am enclosing herewith a copy of the radio speech which Mr. Fred A. Duran, the vice-president of our Union Bank & Trust Company, made over the radio on the program known as "Town Topics" concerning this same job.

"John Haardt gets in the limelight this week. For many years the Haardt Real Estate and Mortgage Company has been building homes in Montgomery, and only included recently in its campaigns the modernization of old homes into apartments. His success has been so pronounced that the January issue of the *American Builder*, published in New York City, carried more than a page on his work, even reproducing the exterior, and showing the floor plans both before and after modernization, of an old home on Adams Street, almost in the shadow of the State Capitol.

"Not only was the revenue increased from \$20 to \$70 a month; the value of the property was increased by twice the \$1500 required to convert it into two apartments. Says the *American Builder*, 'Before John Haardt tackled this property the lot was worth more than the house. Now the property is valued at \$5,500.'

JOHN H. HAARDT,
Haardt Real Estate & Mortgage Company

How to Floor a Basementless House

Chillicothe, Mo.

To the Editor:

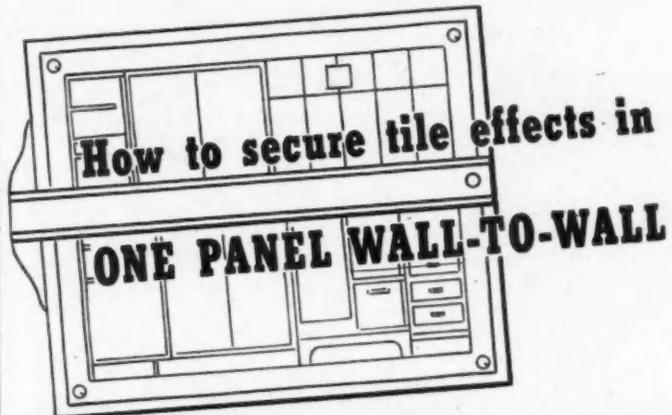
I am writing you to know how or where I might be able to obtain information on building a basementless house with utility room. I want to use oil furnace but I do not know just what will be necessary protection to keep the floors from being cold. Our winters here get quite cold, sometimes as low as 20 degrees below zero. I have no need for a basement and want to get away from steps. Any help you can give will be appreciated.

Also want to say that I could not do without *American Builder*. We have built a number of new houses and I find the *Builder* a great help.

MRS. CLIFFORD IRVIN

ANSWER:

I am glad to give you a little information as requested concern-
(Continued to page 96)



IN NEW construction and remodeling for the Victory program, where speed and economy are especially important, Presdwood Temprtle*—a Masonite* wood-fibre hardboard—is doing an outstanding job.

A single 4 x 12-foot panel of this grainless hardboard is sufficient to provide a durable tile-like wainscot the entire length of the average kitchen, bathroom or washroom wall.

Presdwood Temprtle may be either glued or nailed directly over old plaster walls. It can be cut to size with ordinary wood-working tools. Its marble-smooth surface can be painted or enameled. Masonite mouldings can be used for trim.

Grainless, moisture-resisting, Presdwood Temprtle will last as long as the building in which it is installed. Properly applied, it will not warp, chip, split or crack.

If you are engaged in designing new or remodeling old buildings for the nation's Victory program, just clip and mail the coupon below for FREE sample and more information about Masonite Presdwood Temprtle.

MASONITE
PRESWOOD TEMPRTILE
THE WONDER WOOD OF A THOUSAND USES
Sold by lumber dealers everywhere



MASONITE CORPORATION, Dept. AB-3
111 W. Washington St., Chicago, Ill.

Please send a FREE sample and details about Masonite Presdwood Temprtle.

Name _____

Address _____

City _____

State _____

TRADE-MARK REG. U. S. PAT. OFF. "MASONITE" IDENTIFIES ALL PRODUCTS MARKETING BY MASONITE CORPORATION. COPYRIGHT 1942, MASONITE CORP.



YOU NEED THE SPEED OF

SKILSAW

TO MAKE EACH HAND WORK LIKE TEN!

Today, more than ever, you need fast-cutting SKILSAW for every kind of sawing... because skilled hands are scarce, . . . because time saved on jobs that need doing means time saved on the road to victory! There are 9 powerful SKILSAWS—to cut every size of lumber you use as well as stone, metal, tile and compositions . . . faster, easier and at lower cost.

SKILSAW, INC., 5031 ELSTON AVE., CHICAGO

New York • Boston • Buffalo • Philadelphia • Cleveland • Detroit • St. Louis
Indianapolis • Kansas City • Atlanta • New Orleans • Dallas • Los Angeles
Oakland • Seattle • Toronto, Canada

LETTERS—(Continued from page 95)

ing the insulation of floors in basementless houses.

The custom differs in many local communities, some of which have building codes prescribing how such floors must be laid. If you have any such provision locally, you would of course have to conform to it. Some building officials have had the idea that a floor consisting of a concrete slab laid directly on the ground would be unsatisfactory and so have required 18 inches of air space below the floor. This, however, is not considered necessary by many experienced builders and building officials.

In any case, the outside foundation walls must be carried down below frost. This in itself tends to keep outside cold from working up under the house. If the floor is to be laid directly on the ground, the approved practice is to make sure that the site is well drained, leveled and filled in with fine gravel or cinders to a depth of about 6 inches. On top of this a reinforced concrete slab is laid with proper attention to a dense, water-proof job. The top surface should then be heavily coated with asphalt and any insulation material built in that may be considered necessary. On top of this the nailing strips would be laid with proper fastenings and the finished floor of wood nailed down. This construction gives a dead air space directly below the wood, which is an advantage.

A very satisfactory heating system for a house with floor laid as just described is a so-called radiant heating system consisting of a grill work of wrought iron pipes, imbedded in the concrete slab, to carry hot water.

If a dead air space is desired below the floor a very satisfactory method of construction is to place small concrete piers on 3 foot centers all over the area and use them to support heavy expanded metal mesh, on which the concrete floor slab is applied. This is then topped off with nailing strips and a wood floor as previously described. Of course, similar results could be secured if desired with wood joists and a double floor, with insulation or building paper between. The tight outside wall carried down below frost will greatly help in keeping such a floor warm and comfortable.

—EDITOR

Finds Our Figures Accurate

Vancouver, B.C.

To the Editor:

We are extremely glad to get the data regarding home building. Your issue of January 1941 shows the exact information that we were looking for. It is interesting to look back on your estimate of a year ago regarding total residential building for 1941. You certainly came very close to hitting the nail square on the head. Many thanks indeed for this valuable information.

CAPILANO SHINGLE CO., Ltd.
By W. H. McLallen

Out-of-Town Builders Invited

Norfolk, Virginia

To the Editor:

Builders and developers from all over the nation are writing our Committee to find out how many defense homes are needed around Norfolk, Virginia. Most of them think Norfolk has lain down on the Navy by letting the Norfolk house shortage grow so acute.

We only promised the Government to build 10,000 defense homes and we have completed the 10,000. Now the Government has brought in around 100,000 defense workers and the check up shows that we need 40,000 more defense homes and that is why we are inviting out of town builders to come and help build the 40,000 homes.

The Federal Works Agency is building one-fourth of our needs or about 10,000, so that leaves 30,000 more defense homes for private builders and developers.

The six new airports, the Norfolk Navy Yard and the new Government financed shipyards here are spending a half billion dollars for the Government. Besides the thousands of defense workers we have 79,000 uniformed men around Norfolk.

You can not blame Norfolk for the acute house shortage as our city population has jumped from 119,000 to over 230,000 and the U. S. Government is bringing in around 5,000 more defense workers per month.

W. B. SHAFER, Jr., Chairman
Emergency Housing Committee

TRENDS in Home Equip- ment, Building Materials

Erecto-Loxтите-Conduit Base Offered

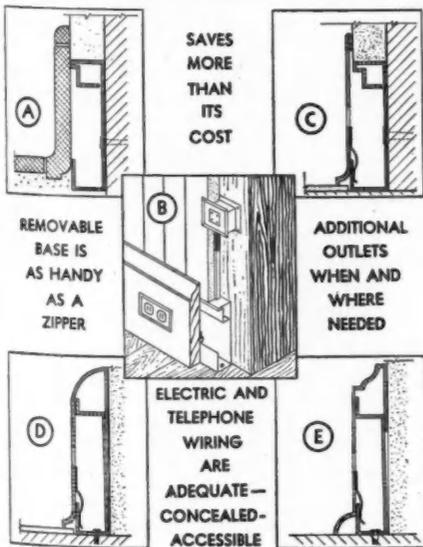
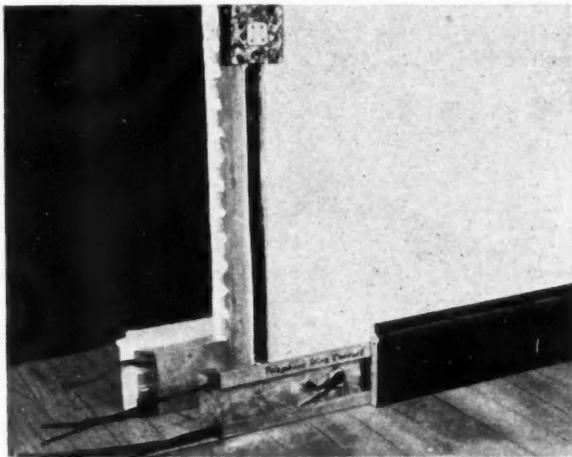
CHARLES E. BARNES & Son, Philadelphia, Pa., have developed E-L-C Base to provide concealed yet accessible current and telephone wires. The baseboards are removeable (just slip off) as no screws or splicing plates are needed for attaching them. Thus additional outlets and telephone connections can be made without "fishing" in walls for wires. All metal base fronts are provided with duplex knockouts on 30" centers.

Base closures can be of wood, steel, linoleum, cork tile, rubber tile, ceramic tile, asphalt tile, etc. This base functions with all popular wall materials—plaster, tile, wall board, plywood and wood panelling, etc., also, with all floor finishes—wood, cement, linoleum, tile, etc.

The floating front prevents separation of base and floor, thereby permanently ending floor drafts, mice and other vermin.

E-L-C Base erects on the job without special tools. Factory built or cast corners are unnecessary.

After base has been erected by the carpenter, electrician and telephone linemen place their wires. Then the plasterer, working from the metal edge of base conduit, applies his plaster. Meanwhile the painter, unhampered, paints the baseboards (on horses) and sets them aside while the sander and the floor finisher complete their respective duties speedily and without danger of marring the baseboards. E-L-C Base is also available in several types erected in front of the plaster line as well as under plaster. The type is particularly valuable in bringing old properties up-to-date without tearing apart walls and floors.



ABOVE: Wall section shows E-L-C base for concealed wires applied like types A, B and C at left.

LEFT: Types D and E base are erected in front of plaster line without the use of wood grounds.

SAVES MORE THAN ITS COST

REMOVABLE BASE IS AS HANDY AS A ZIPPER

ELECTRIC AND TELEPHONE WIRING ARE ADEQUATE—CONCEALED—ACCESSIBLE

ADDITIONAL OUTLETS WHEN AND WHERE NEEDED

FEEDING FLOORS

FACTORY FLOORS



CONCRETE aids war production —factory and farm

Contractors can render real service by helping war industries build needed improvements with concrete because.

- Concrete materials are readily available.
- Concrete conserves transportation—the bulk of concrete materials are usually found locally.
- Concrete conserves critical materials. Such materials are seldom needed in pavements, floors on grade and many other concrete jobs.
- Concrete "has what it takes" for war-industry buildings and repairs—strength, rigidity and fire-safety combined with economy of first cost and maintenance.

Concrete Contractors: Offer Your Services!

The contractor who "knows his concrete" can do his part today by showing food and war industry plants where concrete improvements will help speed war production. Many con-

tractors are helping farmers, too, by building concrete barn floors, feeding floors, milk houses, granaries and many other improvements needed to increase food production.

PORTLAND CEMENT ASSOCIATION

Dept. 3-3, 33 W. Grand Ave., Chicago, Ill.

Needed Concrete Improvements

{

Floors, foundations and footings • Leading platforms, ramps, teamtracks • Driveways, walks and steps • Machinery bases and pits • Concrete masonry walls • Pavement for storage yards and parking areas • Factory additions • Barn floors, other farm improvements

}

SUPPORT THE RED CROSS...BUY DEFENSE STAMPS AND BONDS

FRANTZ

Guaranteed BUILDWARE

"GLIDE" HANGERS AND TRACK




No. 1



No. 2

"RUMWEL" HANGERS AND TRACK




No. 12



No. 14



No. 12

"SHEDWEL" HANGER AND TRACK





No. 30 1/2

"ROLLAWAY" HANGER AND TRACK



FRANTZ MANUFACTURING CO.
Sterling, Illinois

PRIORITIES

favor

Miracle Walls

by

TYLAC



...under three Classifications:

- 1 Defense Housing maintenance, reconditioning and repair.
- 2 New Defense Housing.
- 3 Maintenance and repair of Institutional Plants in Defense work, including schools, hospitals, factories and public buildings.

TYLAC walls combine colorful beauty with outstanding permanence and economy. TYLAC is a wall covering with more practical features. Needs no painting or varnishing on the job—no refinishing. TYLAC sheets are easily ap-

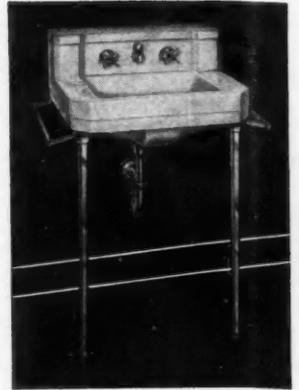
plied over old or new surfaces, flat or curved. Ideal for bathrooms, kitchens—any place where inexpensive walls of colorful, permanent beauty are desired. Four basic patterns, sixteen beautiful colors permit an endless variety of effects.

Write for literature and full information.

TYLAC COMPANY, MONTICELLO, ILLINOIS

Case Offers Small Lavatory

W. A. CASE & Son Mfg. Co., Buffalo, N.Y., has brought out a new lavatory for compact housing, the "Wilmington" model. It comes in the popular 22" x 18" size, and has a larger than average basin area. The front overflow is concealed, and a built-in soap dish means added usefulness. Available with legs or wall hung, with or without towel bars.



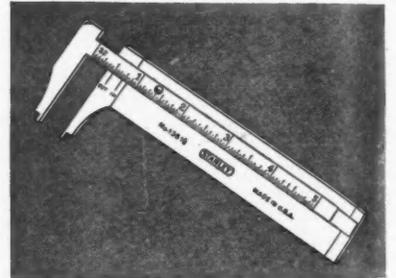
CASE "Wilmington" lavatory

The fittings, recessed beneath the shelf, are convenient yet unobtrusive. The metal spout is equipped with a special stream regulator that prevents splashing. The "Commander" and "Diamond" fittings—smart in appearance, brilliant in lustre—are "as modern as tomorrow" in every detail. Not only do they have exterior appeal, but "built-in" features, such as renewable valve seats, swivel discs, encased long-wearing washers—all of prime importance for ease and efficiency of operation. The "Wilmington" guarantees years of dependable, trouble-free service.

Made of twice-fired vitreous china—the finest material known—and furnished in white and over 60 beautiful colors.

New Stanley Pocket Caliper Rule, No. 136 1/2

HERE'S a new handy pocket size Caliper Rule made by Stanley Tools, New Britain, Conn., for mechanics, engineers, draftsmen, estimators, stockmen, building craftsmen, all kinds of service and repairmen, and homecraftsmen. It is a useful tool for measuring rods, tubing, squares, cable, rope, bolts, pipe, etc.



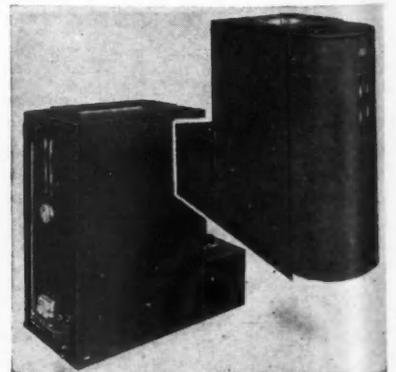
NEW Stanley pocket caliper.

Stanley No. 136 1/2 Rule can be used for accurate inside and outside measurements. Caliper capacity permits measuring hole diameters from 7/32" to 5", and widths or lengths up to 5". Diameters of rounds up to 3" can be measured with this new rule.

Rule is made of boxwood, with brass caliper slide graduated by 16ths and 32nds its full length of 5 inches. Head is carefully machined. Back of rule has vertical graduations in 16ths for easy measuring—up or down, right or left, on straight surfaces. No. 136 1/2 Rule is 5 7/8" long, 1 1/16" wide.

New H. C. Little "Cottage" Unit

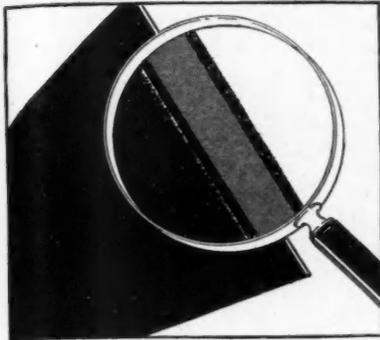
THE NEW "Cottage" furnaces of the H. C. Little Burner Co., San Rafael, Calif., are especially designed to give low-cost oil heat in defense homes. They are inexpensive, factory-assembled, easy to install and burn cheap No. 3 furnace oil. They are equipped with either manual control or fully automatic, thermostatic control, and with or without forced-air circulation fans. All units are listed by Underwriters' Laboratories and have capacities from 50,000 to 95,000 b.t.u. output.



H. C. LITTLE cottage unit.

Pitch-on-Metal Substitute for Copper Flashing and Galvanized Sheets

A SUBSTITUTE material for use in place of sheet copper and other sheet metals has been developed, undergone extensive tests, and is now offered by the Cheney Company, Ardmore, Pa., for either defense or non-defense construction, as no priorities are necessary.



Pitch-on-Metal.

The new material, called Pitch-On-Metal, has the strength of steel and the flexibility of copper. Made with a ferrous metal core, completely enclosed in a baked-on coal-tar pitch, it is not affected by moisture, or cement mortar and is resistant to most acid conditions. It has been found to be

particularly satisfactory in the manufacture of Cheney Thru-wall Flashing, and is made by the Cheney Company for this use during the copper emergency.

In addition to its use for flashing, Pitch-on-Metal is also available in regular sheet form for counterflashing, gutters, down spouts, gravel stops, termite shields, ducts, etc. It can be satisfactorily painted any desired color provided one coat of shellac is applied after all fabrication is completed.

Andersen Casements Now Have Wood Frame Double Glazing Panels

IN ORDER to conserve on aluminum needed for war-time industry, the Andersen Corporation, Bayport, Minn., is now manufacturing wood frame removable double glazing panels for its casement windows. The new panel is made of treated hard maple and is equipped with four locks.

Exhaustive engineering tests have indicated that the new maple frame double glazing for the Andersen casement window is entirely satisfactory and equally as efficient as the aluminum frame double glazing formerly supplied for this window.

The Andersen Corporation is prepared to manufacture necessary alternates for metal parts in its various window units when present stocks of these parts are exhausted. Announcement of these changes will be made at that time.

Scott-Newcomb Offers "Dispos-O-Matic"

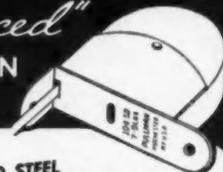
IN ROUNDING out its line, Scott-Newcomb, Inc., St. Louis, Mo., has developed "Dispos-O-Matic," a garbage disposal unit attached to the kitchen sink. This unit completely disposes of all

kitchen food waste, including bones, fruit pits, etc. Food waste is shredded into minute particles and carried down the sink drain into the sewer. One of the special features of this unit is the automatic reversing of the motor each time the unit is turned on. This feature prevents jamming, doubles the life and adds a self sharpening feature to the shredders. The motor is provided with overload switch.



ELECTRIC waste disposer.

HERE'S WHY
"Pullman Balanced"
IS THE BEST SPECIFICATION
FOR 1942



- 1
- 2
- 3
- 4

A SAVING OF IRON AND STEEL
Pullman Balances for average small homes weigh 334 pounds less than weights, chains and pulleys. You save critical material the Pullman Way.

FASTEST CONSTRUCTION
Simple plank frame (no weight box). Pullman Balances installed in an instant. Lowest material cost, lowest labor cost, quickest construction.

SIZES FOR ALL DOUBLE-HUNG WINDOWS
Nine series of models to balance sash 4 to 105 pounds. Uniform mortise size for all sizes in each series.

SUPERIOR CONSTRUCTION
True counterbalancing principle assures smooth-running operation. Lifetime guarantee. Elimination of weight boxes permits narrow mullions, narrow trim, true weather-tight construction.

PULLMAN MANUFACTURING CORP., ROCHESTER, N. Y.

Specify Window Units with
PULLMAN
Sash Balances

MAKE BIG MONEY With This AMERICAN FLOOR SANDER



You can be your own boss and make big money with this American floor sanding machine. The high-speed and ease of operation of this sander will light up a smile on the face of anyone who runs it. Features that will put money in your pockets —that's—

AMERICAN
Investigate the wonderful possibilities of this work today. Be sure to sign and send in the coupon below for complete details and prices—no cost or obligation to you.

THE AMERICAN FLOOR SURFACING MACHINE CO.
511 So. St. Clair Street • Toledo, Ohio

Gentlemen:
Send complete free details on how I can make big money with an American floor surfacing machine — no obligation.

Name _____
Street _____
City _____ State _____



For builders in those areas
Not vital to defense
This Shingle tip, you will agree,
Is full of common sense:
To make your shingle business boom
(So far from the parades)
Just profit from remodeling
With McNair Certigrades!

**McNair Red Cedar Shingles are not classified among the hard-to-get "critical defense materials." They are available in all areas for volume sales in 1942.

See advertisement on pages Four and Five.

ROBERT McNAIR SHINGLE CO.
VANCOUVER, BRITISH COLUMBIA
"OVER 400 DEALERS TO SERVE YOU"

WAR PROVES THE SUPERIORITY OF EDWARDS SHEET STEEL BUILDING MATERIALS

Nothing can take the place of sheet steel for the protection of life and property, for ease and speed of installation and economy of maintenance. Most of our supplies of steel have been allocated to defense projects.

Our stocks of Steel Shingles, Spanish Tile, Ceilings and Sidings are going fast. We can accept no orders for future delivery. But while they last, we offer them without reserve, subject only to prior sale and priorities.

THE EDWARDS MANUFACTURING CO.
542-562 Eggleston Avenue
Cincinnati, Ohio

New Kohler Sinks Offered

FOUR new enameled cast iron flat-rim sinks for military, naval and defense housing, the Clearfield, the Winfield, and two models of the Chatfield, have been announced by Kohler Co., Kohler, Wis.

These four, with the popular Delafield and Mayfield sinks, make up a line in lengths from 24 to 60 inches, all 21 inches wide for building into metal or wood cabinets.

The Clearfield has two basins and two drainboards; the Win-



NEW Kohler sinks appeal to buyers.

field, one basin and two drainboards. The single-basin Chatfield is available with the drainboard at left or right.

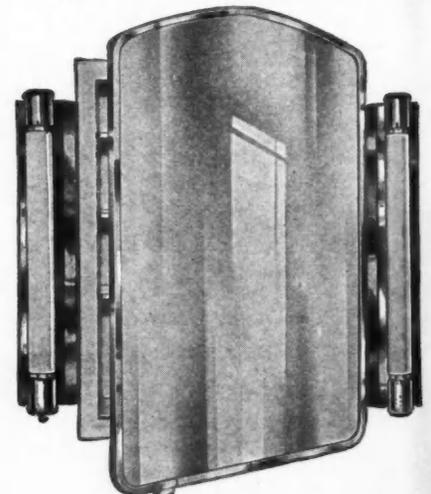
Each sink has an integral soap dish and a wide, full-length ledge, a water-proof surface for cleansers and brushes. Because it is a sanitary base for the built-in fittings, the ledge also makes possible a more satisfactory installation from the plumber's viewpoint.

All basins are 8" deep, and are fitted with cup Duo-strainers, making the sinks water-retaining for dish washing.

Cabinet Has Quiet Fluorescent Lights

THE F. H. LAWSON Company, Cincinnati, Ohio, has recently introduced a new line of "Quiet" fluorescent lighted cabinets that are as practical as they are beautiful. Mechanically right,

these newly designed fluorescent lighting fixtures are an integral part of the cabinet, not just a makeshift attachment. Due to a patented self-starting switch and an improved resistor, all hum and flicker have been eliminated. In addition, because these lights are luminous over the entire length of the fluorescent tube, they give more light with less glare. They are always cool, with practically no heat loss, and their power consumption is remarkably low. The switch controlling both lights is located in the base of the left bracket, a convenience outlet in the base of the right bracket.



NEW Lawson cabinet.

Although The F. H. Lawson Company has temporarily simplified all of its lines, in cooperation with America's victory program, it will continue to manufacture Lawson "Quiet" fluorescent lighted cabinets as long as materials are available.

Improvements for Grand Rapids Invisible Sash Balance

THREE MAJOR improvements for the Grand Rapids invisible sash balance are announced by Bruce Henderson, sales manager of the Grand Rapids Hardware Company, Grand Rapids, Mich.

"Our invisible balance gained wide and rapid acceptance when it was placed on the market about three years ago," Mr. Henderson states. "Now we are able to announce that the top fastener has been simplified; a new flexible steel bearing arm takes up play; and a new guide bracket machined to close tolerance gives a snug fit without binding."

The improved balance, according to Henderson, is easier to install, and performance is smoother, quieter and more dependable under all service conditions. The balance is actually invisible, in that the entire balance moves with the sash. There are no exposed tubes; tapes and cables are entirely eliminated. Adjustment of tension, if necessary, can be made after installation without the removal of a single screw and without disturbing trim. Same size balances fit both top and bottom sash, so that there is no problem of odd sizes or split packages if top sash are stationary.

IMPROVED invisible sash balance.

New G-E "Packaged Furnaces" for Defense Housing

DEVELOPED originally for civilian use as part of a long-range program to create low-priced "packaged" merchandise, a new line of winter air conditioners has been placed in production for defense housing, by the General Electric air conditioning and commercial refrigeration department at Bloomfield, N.J.

The new units, available in an oil-fired model and three gas-fired models, are completely factory wired and assembled, requiring a minimum of time, labor, and expense in installation. They are extremely compact, and have been approved for close-quarter installations. The oil-fired unit requires a minimum clearance of two inches on all sides. In small buildings, many of them without basement excavations, where living space is at a premium, this is a decided advantage, as it makes possible installation of the units in out of the way corners, hallways, or even closets. The smallest of the units requires less than three and one-half square feet of floor space and stands only a little over four feet high.

The oil-fired packaged warm air conditioner also provides complete winter air conditioning, and has a rated capacity of 100,000 Btu per hr. This unit utilizes the well-known atomization and combustion process used in the larger G-E furnaces and boiler-burner units, for economy in the use of fuel. The furnace requires less than six square feet of floor space and stands a little over five feet high.

None of these units is now available for general civilian purchase but the furnaces are being turned out on a newly set up production line to fill defense housing orders.



G-E production line for defense housing heaters.



ONE SATISFIED CUSTOMER TELLS ANOTHER . . .

BENNETT Fireplace Equipment is designed to give satisfaction to your customers . . . and therefore, to YOU! Complete units . . . or minor fireplace accessories . . . if it's BENNETT equipment, you know it is built for years of trouble-free service.



Bennett Fresh Air Unit

BENNETT FRESH AIR UNIT
Important because this unit overcomes frequent cause of smoking—especially in small tight homes.

Complete construction supplies—Fresh Air Unit, Recirculating Unit, Expansip Throat Dampers, Ash Dumps, Arch Bars and FLEXSCREEN.



Bennett Recirculating Unit

BENNETT FIREPLACE COMPANY

342 MARKET ST., NORWICH, N. Y.

Write for FREE Catalog!

Here are facts you need WHEN BUILDING NEW GARAGES OR MODERNIZING OLD ONES

ONE COPY OF THIS NEW BOOK GIVEN FREE TO BUILDERS

This new garage planning book was written by Joseph Weston, nationally-known architect, and edited by leading home, building and architectural magazines!



"Facts you should know before you build a garage" is a unique book that you should have in your reference library. It gives data on proper garage locations, sizes, construction, doors, driveways, workbenches—as well as a great deal of other useful information. This 20-page manual was designed to sell for 10c, but one copy is being sent free to every builder who requests it. Get yours now! Use the coupon below!

This garage handbook is published by the makers of the Craw-Fir-Dor. This is the overhead-type garage door that can be installed by any carpenter in less than half a day and that retails for as little as \$31 in any U.S.A. jobbing center. The Craw-Fir-Dor fits any 8' x 7' opening . . . is ideal for new and old garages. Four attractive designs. There are thousands of satisfied users in every part of the country. Ask your dealer about the Craw-Fir-Dor today.

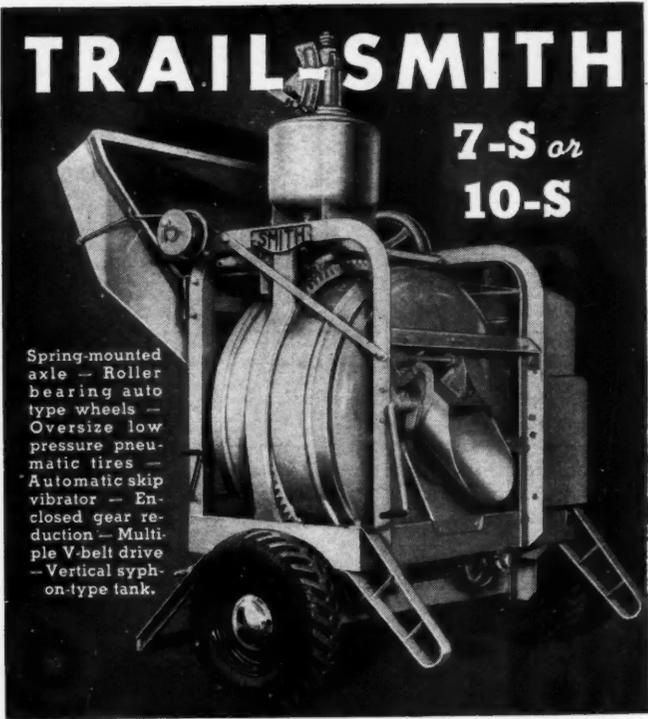
• For special residential or industrial installations, write Crawford Door Co., Detroit, Mich., who make a complete line of sectional overhead-type garage doors.

MAIL THIS COUPON NOW!

FIR DOOR INSTITUTE
1550 Tacoma Bldg., Tacoma, Wash.
Please send me a free copy of "Facts you should know before you build a garage".

Name _____
Address _____
City _____ State _____



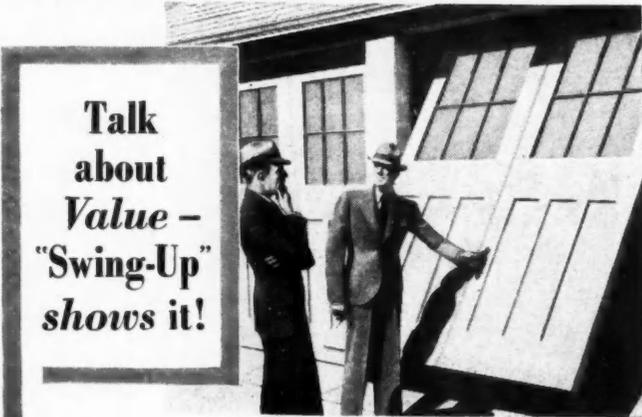


Spring-mounted axle — Roller bearing auto type wheels — Oversize low pressure pneumatic tires — Automatic skip vibrator — Enclosed gear reduction — Multiple V-belt drive — Vertical siphon-type tank.

Compact, lightweight trailer mixer. Tows behind car or truck at fast driving speed. Husky, "able-to-take-it" construction. Famous end-to-center mixing action. Write for descriptive bulletin.
THE T. L. SMITH COMPANY
 2849 North 32nd St. Milwaukee, Wisconsin



SMITH MIXERS
 THE BOULDER DAM MIXERS



Talk about Value — "Swing-Up" shows it!

--only \$20 more

When you use Stanley "Swing-Up" Hardware on the garage doors, you don't have to talk about value, you can show it. For only \$20. added cost, it makes the stock doors you'd ordinarily use, a single, easily-operated unit. Glides up out of the way with only a slight starting pull... easy to install.

Just like reupholstering a piece of furniture—old hinged doors that sag and drag can be made over to last a life-time by using Stanley "Swing-Up". Write for a folder. The Stanley Works, New Britain, Connecticut.

April 16th-25th — National Hardware Week. Visit your hardware store for special values.

STANLEY

TRADE MARK
 HARDWARE FOR CAREFREE DOORS

Simplified Kitchen Cabinet Line

IN ORDER TO DO its part in the war-time building program, the Kitchen Maid Corp., Andrews, Ind., has announced an additional line of condensed, simplified kitchen cabinetry—designed and priced to fit the limitations of low cost defense housing.

Identical in principle to this company's higher priced lines, all units of the new cabinetry are standardized and may be used singly, or in group assemblages. As a further aid in simplifying kitchen planning and cabinetry installation, frills and extras have been eliminated, and the complete line reduced from 200 units to ap-



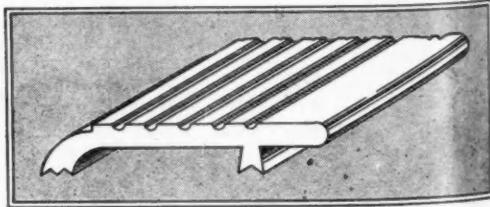
NEW Kitchen Maid cabinets for low cost homes.

proximately 50 units. In spite of this reduction, Kitchen Maid states that there is always a standard unit or combination of units to fit practically any plan—regardless of size or shape of the kitchen, or how much wall space is available.

Construction features include—smooth surface, warp-proof doors, non-sticking drawers, dowel joints, hardwood frames; and, thanks to a special factory sealed finish, all units are always ready for immediate installation and immediate use. If desired, they can also be supplied in prime coat only.

Plastic Threshold Offered

TO SUBSTITUTE for its formerly popular and widely used brass threshold, the Protex Weather Strip Mfg. Co., Chicago, has developed, after extensive research, a very satisfactory plastic unit, known as "Gardex" threshold. It has great dimensional stability and is tough and unbreakable even at low temperatures.

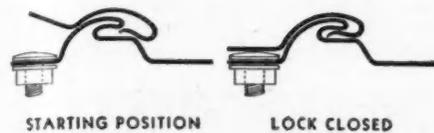


NEW "Gardex" plastic threshold.

In color "Gardex" is offered in a soft buff, pearl grey, and silver-tone, suggesting beauty, refinement and stability. A full range of sizes is available.

Corrugated Siding Porcelain Enameled

PORCELOK Company, a subsidiary of Davidson Enamel Company, Clyde, Ohio, is manufacturing corrugated porcelain enameled roofing and siding. Due to the shortage of zinc, a very critical defense material, the ordinary galvanized corrugated sheet is being eliminated wherever possible in construction programs. The Porcelok product is rapidly growing in acceptance.



View showing workmen applying Porcelok. No scaffolding required. Application from upper surface of roof. ABOVE: Detail of side joint.

Porcelain enameled roofs have been giving "free-of-maintenance" service for over 20 years.

Big and exclusive feature of the Porcelok sheet is the special "interlock" that permits complete protection for all bolt heads or other fasteners. It is well-known in roofing circles that the life of the roof

depends on the life of the fastener. Due to a special method of crimping the Porcelok sheet, the sheets lap in such a way that each covers the fastenings of the preceding sheet.

Porcelok sheets are available in lengths up to 12'-0". Full sheets are 25 3/4" wide and expose 24" to the weather. Half sheets, approximately 12" wide, are available for starting alternate courses. All sheets are cut, beveled, punched and otherwise prefabricated to erection drawings before enameling, thus eliminating the troublesome job of field drilling and cutting.

On the job, quick erection is a favorable factor of Porcelok. The men work outside and no inside scaffolding is necessary.

Several standard colors are available, including the latest in camouflage effects. Cost of Porcelok is approximately the same per square as other forms of protected metal sheeting.

All-in-One Cabinet-Sink Combination

ONE of the new engineering achievements in behalf of busy housewives was placed on display during the recent House Furnishings Exposition in Chicago by the Morton Manufacturing Company, Chicago.

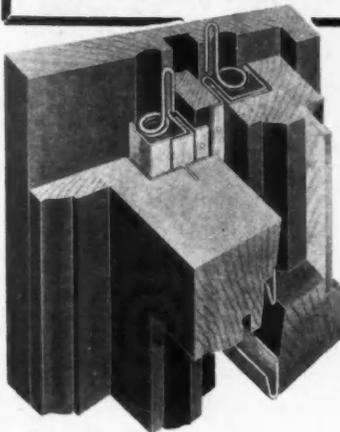


NEW Morton sink cabinet

As a modern all-in-one combination sink-and-cabinet, it was given high rating in efficiency, step-saving and time-saving. However, the feature which attracted most attention was the automatic closing of the drawers. Here was a porcelain-enamel sink, with drawers and compartments, available in either 60" or 54" width. Completely equipped with the necessary accessories (hardwood cutting board, bread-cake drawer, soap basket, etc.)—it provided enough to satisfy the most exacting housewife in this streamlined age. But, in addition the manufacturer has discovered a way to make the drawers close themselves!

It's fascinating to watch one of the drawers close! The secret is in the balanced precision of the cabinet-making, plus the use of roller-bearings, aided by gravity. When the drawer is extended, it stays there. When touched with a fingertip, it automatically glides shut.

2-IN-1 COMBINATION SPRING BALANCE & WEATHERSTRIP



- Sash move easily
- Prevents all rattles
- Locks out air leaks, dust and moisture
- Permits use of narrow trim

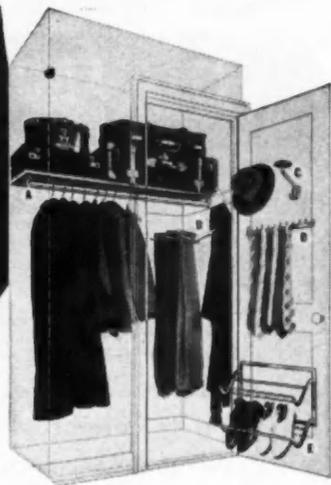
Built To Last a Lifetime

The Dorbin is a perfect two-in-one combination spring balance and weatherstrip for double hung windows. Positive coil spring counterbalance is completely enclosed with 9-gauge zinc housing which interlocks with the sash member, making a perfect weatherstrip. Zinc interlocking weatherstrips are furnished for meeting rails and rib strips for head and sill. Write for further information.

DORBIN METAL STRIP MFG. CO.
2410 S. Cicero Ave., Chicago, Ill.



MAKE WASTE SPACE INTO USEFUL CLOSETS



ANSWER the eternal demand for more closet room and adequate fixtures with *K-Veniences*. These cleverly designed devices not only make the most of any closet size or shape—but provide an easy, inexpensive way to turn the most out-of-the-way corners—or the

oddest shaped nooks—into really serviceable closets. *K-Veniences* double capacity—insure handy, orderly arrangement of all apparel, and are just what your clients are looking for—for added comfort and convenience.

FREE
New *K-Venience* catalog with space-saving closet plans and ideas.

Shoe and tie racks, garment brackets, hat holder, trouser-skirt hangers, clothing carriers, extension closet rods, towel bars, umbrella and cane holder, many others, all chrome finished.

KNAPE & VOGT MFG. CO.
K-VENIENCE CLOSET FIXTURES

KNAPE & VOGT, DEPARTMENT M-3, GRAND RAPIDS, MICHIGAN

IN A FEW WEEKS you'll wish you had this



Better get the Facts NOW and get your order in early!

It won't be long before your Spring rush begins. Be ready to get more jobs—do more work—make more profits, with a Walker-Turner Radial Saw. Use it to cross-cut, rip, miter, dado, shape, rout, tenon . . . on wood, metals, transite, tile, plastics. Save enough in a few months to repay the entire cost. Use it in your shop or carry it to the job. Write today for illustrated folder showing exclusive features, many uses and attractive, low price. Order early and avoid delay.



Walker-Turner Co., Inc., 1032 Berckman St., Plainfield, N. J.

walker-turner WALKER-TURNER WOODWORKING MACHINES
 RADIAL SAWS • BAND SAWS
 BENCH SAWS • TILTING ARBOR SAWS • JOINTERS • JIG SAWS • SPINDLE SHAPERS • DRILL PRESSES • LATHES

IT'S ABOUT TIME IN NEW YORK

TIME, always valuable, is now more precious than ever. Save time by staying at the McAlpin. Its ideal midtown location is right where it's most convenient for business or pleasure.

Rooms with private bath
 Single from **\$3.30**
 Double from **\$4.95**

- 1 BLOCK FROM PENN STATION
- 5 MINUTES TO TIMES SQUARE
- B. & O. Motor Coaches stop at our door



HOTEL M'ALPIN
 BROADWAY at 34th STREET, NEW YORK
 Under KNOTT Management JOHN J. WOELFLE, Manager

Plastic Stair Rail Used in Shoe Salon

UNUSUAL decorative effects and a luxurious sparkle were attained in the new Joseph Shoe Salon in Chicago through the use of machined Plexiglas rods in the stair rail and mezzanine rail. Designed by Frank J. Lapasso of Chicago, the Plexiglas rail is built of transparent plastic rods furnished by Rohm & Haas Company and fabricated by Industrial Arts, Inc., of Chicago. The twisted rods are machined and polished on



ADVANCE styling in Joseph's Shoe Salon, Chicago.

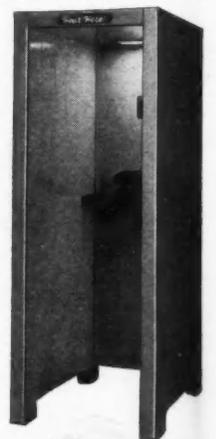
wood-working tools, while the curved rods were heated and formed in a special jig. Both are attached to the upper and lower stair rails by the use of triangular Plexiglas blocks. Because the Plexiglas rods have the peculiar property of "piping" light rays through curved or angled sections, the staircase sparkles with reflected and refracted light rays picked up from the many lighting sources throughout the salon.

New Industrial Model Acousti-Booth

TO CONSERVE steel for national defense, the Burgess Battery Company, Acoustic Division, 530 W. Huron St., Chicago, has developed a new line of Acousti-Booths, constructed of heavy reinforced birch plywood, specifically designed for industrial use. This new booth is available, without priorities, to all users, because no critical materials are used in its construction.

The walls and ceiling of this new booth consist of perforated, reinforced panels, which are filled with a thick blanket of sound-absorbent material. The perforated acoustic panels blot up stray noise and create a remarkable "zone of quiet" in the booth. The combination of perforated heavy birch plywood and the sound-absorbent material, which it protects, is a patented Burgess development.

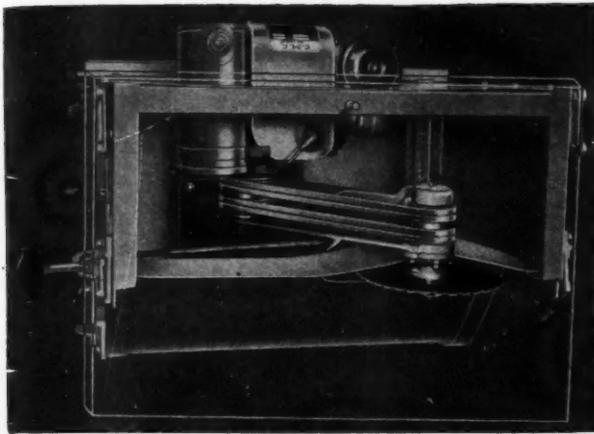
Like other Burgess Acousti-Booths, the new Model 207 provides a quiet place for telephone users in factories, power houses, or other noisy industrial locations. Thus, errors due to confusion in 'phoned orders are eliminated. Burgess Acousti-Booth has no door because it needs none. Factory racket is absorbed so completely by the lining of the booth that telephone calls can be made in the noisiest locations without interference. Conversation within the booth in ordinary tones cannot be understood outside the booth, thus assuring privacy. Its open, doorless construction allows better ventilation than in ordinary enclosed booths. There is practically no maintenance, because there are no locks, hinges, or other mechanical parts to get out of order. Use of rounded corners and other design features keeps this booth from being marred too easily when used in busy shops or factories.



BURGESS Acousti-booth of birch plywood

CMC "Kost Kutter" Power Saw Meets Wide Demand

ONE OF THE POPULAR power saws in the new CMC Line is the Kost Kutter, a streamlined 14" outfit that is giving a "bang-up" account of itself in cutting, framing and other work, particularly on cantonments and other defense projects. It's a sturdily built unit that will stand continuous use, and handle a wide range of work.



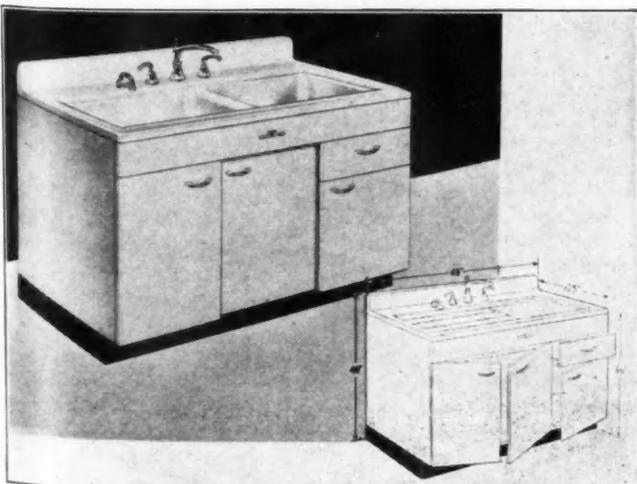
VIEW looking down into new CMC Kost Kutter.

The phantom picture shows a view looking down into the simple and compact mechanism of the Kost Kutter. Note the multiple V-belt drive, the Timken bearing swinging arbor, and the easy starting, 8 H.P. air-cooled engine. The entire unit is completely protected against saw dust; has tilting table, size 32" x 48", and weighs only 725 lbs. So it is easily moved on the job and from job to job. Complete information with specifications and price on this CMC Kost Kutter Power Saw may be had by writing Construction Machinery Company, Waterloo, Iowa, or seeing any CMC distributor.

New A-C Cabinet Sink

HERE'S the very latest thing in Auburn Cabinet Sinks—a combination double-bowl sink with sliding, removable tray, designed principally for defense-housing requirements; a standard bowl for dish washing, a deeper bowl for rinsing, and a removable drainboard top that slides into position for use with either bowl. Entire sink and backsplash is heavy, acid-resisting porcelain enameled steel. The linoleum lined drawer is divided for cutlery, and one of the three storage compartments is fitted with a rack for cleansing materials.

This is the seventh unit in the Auburn Central showing of kitchen sinks, now offering sizes varying from 42" to 60" in width, a part of the "Pak-Age Kitchen Line" of matched units made by the Auburn Central Manufacturing Co., Connersville, Ind.



NEW Auburn-Central cabinet sink.

JUST OFF THE PRESS !

THE NEW IN-BILT CATALOG

How a home can be truly designed for healthful living is the story told in Victor's new catalog. Architects, builders will use it as a pictorial guide to show potential buyers In-Bilt ventilator superiority — for every style and price home. Get the Victor story — today!

FREE additional copies for clients also available. Address Dept. IB-33.

VICTOR ELECTRIC PRODUCTS, INC.
2950 Robertson Ave., Cincinnati, Ohio

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

3 1/2-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

SONNEBORN'S



LAPIDOLITH
LIQUID

Patented
Concrete Hardener
and Dustproof

**SURE SIGN OF A FLOOR THAT NEEDS
LAPIDOLITH**

Any concrete floor that can be scratched easily, needs the extra protection of Lapidolith Liquid to assure long, dust-free and heavy-duty service.

Lapidolith Liquid, because of its unique, patented improvements, is not expensive to use, yet gives greater protection against wear. It can be applied easily to new or old floors.

Write today for the factual booklet, "Concrete and Lapidolith Liquid," giving full details.

Where Results Count—Count on Sonneborn

L. SONNEBORN SONS, Inc.
88 Lexington Avenue New York, N. Y.

What It Means To Be A
TECO DEALER

If you are in a Defense Housing area, it will pay to stock TECO Termite Shields. Due to shortage of critical materials, builders will have difficulty procuring metal termite shields.

Private architects and builders are specifying

**TECO DIE PRESSED
TERMITE SHIELDS**

because TECO Shields meet requirements of both the FHA and U. S. Bureau of Entomology.

OPM has placed metal termite shields on the priority list for privately financed Defense Housing construction in certain termite infested areas.

TIMBER ENGINEERING COMPANY, Inc.

Dept. H-3, 1337 Connecticut Avenue
Washington, D. C.

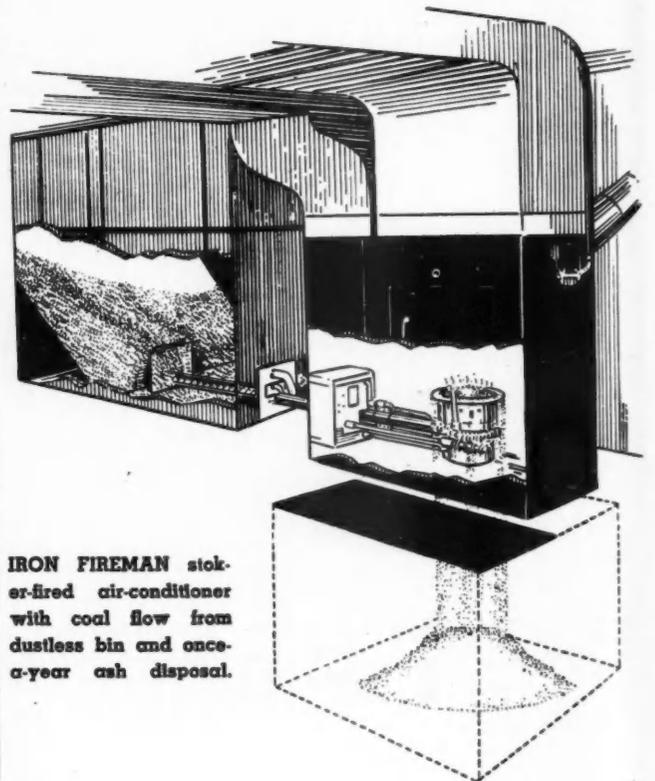
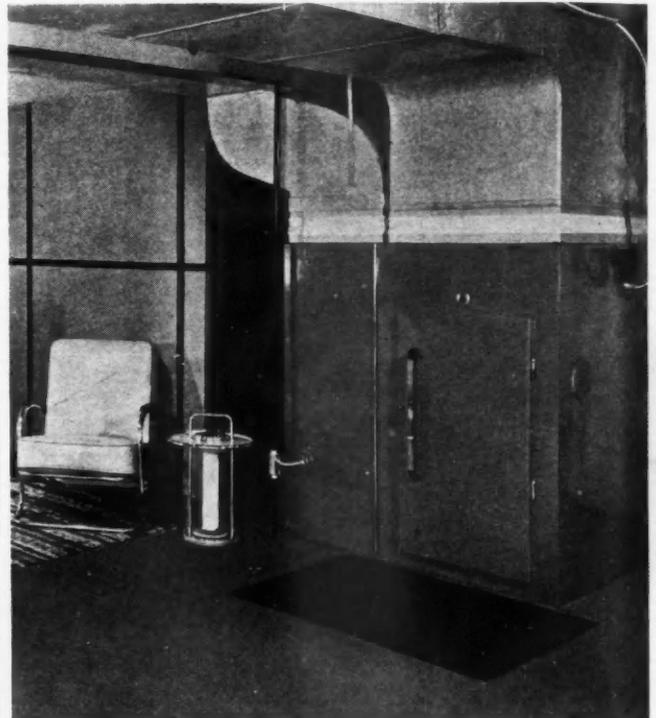
Please send us complete information on TECO Termite Shields and give us data on sales arrangement:

Individual.....
Firm.....
Street.....
City..... State.....

**New Winter Air Conditioner
Burns Coal without Shoveling**

NEW stoker-fired winter air conditioners can be made part of a basement party room. This attractive green enameled cabinet combines a "coal flow" stoker, furnace, humidifier, filters and circulator. The stoker is controlled by a thermostat in the living room.

A diagram of the installation shows the dustless coal bin, tightly constructed from floor to ceiling, with a sloping bottom which guides the coal to the stoker's conveyor. Beneath the unit is an ash pit of sufficient capacity to hold a year's ash deposit. The ash is removed once a year by the dealer supplying the coal.



IRON FIREMAN stoker-fired air-conditioner with coal flow from dustless bin and once-a-year ash disposal.

Ame
F
Wh
ON
the pl
to the
proces
\$100,0
The
operat
the fir
The
becaus
for de
Bolt
T IS
Skill
man c
BOLTO
GM
Sav
"V
n
and g
Little,
and C
"Pr
nature
this pe
mainte
tire li
operat
"In
elemen
which
tain hi
"Fir
which
used in
countr
time o
and co
adjust
the ne
possibi
road.
"nation"
as two
failure
"The
overha
This p

PRODUCERS TELL US— About Products, Personnel, Plants

Wheeler Osgood Rebuilds Burned Plant

ON THE MORNING of January 17, 1942, the Wheeler Osgood Sales Corporation had a fire break out in the drier section of the plywood plant at Tacoma, Wash. The damage was confined to the building and the machinery, all of which is already in the process of being rebuilt and repaired. The estimated loss is \$100,000, fully covered by insurance.

The door department of the plant was not damaged, and started operating on a normal basis at the beginning of the week following the fire.

The company officials were glad that the damage was limited, because it will not handicap very seriously the producing of orders for defense purposes.

Bolton Sullivan Now Skilsaw President

IT IS announced that J. W. Sullivan, founder and president of Skilsaw, Inc., Chicago, has been elevated to the post of Chairman of the Board, and that Bolton Sullivan has been elected president. For the past eighteen years he has been an officer active in the executive management of the business. E. W. Ristau, Vice-President, continues to direct sales and advertising activities of the company. L. E. Parker, Vice-President, continues in charge of the company's augmented operations. Paul J. Kennedy continues as Vice-President and Director. E. J. Kelley, the newly elected Secretary, has been associated with the firm for the past ten years. L. I. Meyerpeter continues as Assistant Secretary.



BOLTON SULLIVAN

GMC Truck Announces a Special Truck-Saving "Victory Maintenance" Plan

"VICTORY MAINTENANCE" is the name given to GMC's nation-wide program of periodical truck inspection, servicing and general rehabilitation, according to announcement by J. P. Little, Vice President, Directing Sales for General Motors Truck and Coach, of Pontiac, Michigan.

"Practically every automotive manufacturer has a plan of some nature for the repair and maintenance of motor vehicles during this period of restricted production," says Mr. Little. "Scientific maintenance for dependable performance and longer truck and tire life is receiving greater consideration than ever before by operators, both large and small.

"In the GMC 'Victory Maintenance' program are several major elements, designed to take care of practically any situation with which the truck operator may be confronted in his efforts to maintain his truck equipment at peak efficiency.

"First, there is the Company's Preventive Maintenance Plan, which was originated by GMC back in 1928 and which is being used in many of the larger truck and coach fleets throughout the country to keep their equipment on the job with a minimum of time out for service. In addition to protecting the life of the truck and covering such necessary operations as regular lubrication and adjustment, Preventive Maintenance therefore reveals in advance the need for repairs or replacement of parts, thus reducing the possibility of breakdowns on the job or costly loss of time on the road. Essentially, this is the same system as used by one of the nation's largest fleet operators, where total yearly travel as high as two hundred and sixty million miles is recorded—with road failure reduced to an average of only one in 165,000 miles.

"The second feature of this program consists of a series of group overhaul operations designed to put new life back into the truck. This phase of the plan will be of particular importance to light

(Continued to page 108)



Save MAN-POWER . . . MATERIAL and TIME . . . with SISALKRAFT

Low-cost, quickly-built defense houses NEED the greater protection of SISALKRAFT building paper. Its great strength and toughness prevent rips, tears, and punctures — insure faster application — prevent waste. And . . . don't forget the speed and economy of SISALKRAFT for CONCRETE CURING. Write for samples and information.

The SISALKRAFT Co., 205 W. Wacker Dr., Chicago, Ill.
New York San Francisco



Majestic NEW FIREPLACE DAMPER



A new high in value! Features, design, quality you'd never expect in a damper priced so low! It's the new Majestic STANDARD—with a revolutionary new poker control that works so easily and is so nearly trouble-proof that patents have been applied for! Extra wide, extra strong backledge and built-on lintel. Heavy, steel-plate valve! A fitting companion to Majestic's popular QUALITY dampers! Write!

INGENIOUS NEW
POKER CONTROL
PATENT APPLIED FOR
Always Works Right
Always Works Easily

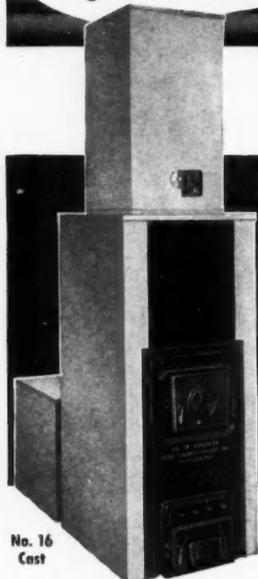


THE MAJESTIC CO.
850 ERIE STREET, HUNTINGTON, INDIANA



Extensive Line of
Quality Building Necessities

SPECIALLY DESIGNED FOR DEFENSE HOUSES



No. 16
Cast

★ Four new Moncrief heating units afford choice of forced air or gravity circulation, cast or steel heating element. Quality made, fine appearing, efficient. Sized and priced to meet defense housing specifications. Send for new illustrated circular.

Illustrated here is the new No. 16 forced air furnace with cast heating element. 60,000 B. t. u. capacity. Made also with steel heating element. Two other types also available.

THE HENRY FURNACE & FOUNDRY CO.
3479 E. 49th St. • Cleveland, Ohio

MONCRIEF
CAST and STEEL FURNACES

"INTERLOX" OPENS, CLOSES 3 TIMES AS FAST



No. 106—6 ft. At your dealer or order direct. Graduated in 1/16s. \$1.50 ea.

Master "Interlox" opens and closes like a telescope—three times as fast as zig-zag rules. When open you can hold it straight out or straight up—can't slide shut accidentally. You read inside measurements direct from rule—no adding, subtracting, remembering—another aid to faster, easier work.

Every stick is replaceable; this feature alone outweighs the slight additional cost of "Interlox".

Sticks are made of the finest, select, straight grain white maple that money can buy—finished with a glass-hard, friction-proof lacquer. All joints and clips are made of solid brass.

You'll save money in the long run by buying "Interlox", and enjoy its extra speed and convenience while you save. If your hardware dealer doesn't have it, just mail the coupon and we'll send your "Interlox" Rule direct—postpaid.

Master Rule Mfg. Co., Inc.
Dep't. J-3, 815 E. 136th St., N. Y. C.
Enclosed find check, money order, cash for \$1.50 for which send one 6 ft. Master "Interlox" Wood Rule, postpaid.

Name _____
Address _____
City _____
State _____

MASTER RULES AND TAPES

Producers Tell Us—

(Continued from page 107)

duty truck operators who are faced with the possibility of having to operate their trucks over a long period. Provision is made for the complete replacement of entire groups of engine and chassis parts which experience has shown should be replaced at periodic intervals for lowest maintenance cost and freedom from more costly repairs at a later date.

"As a third element in our 'Victory Maintenance' program we are offering complete engine or partial engine assemblies for replacement. The motor is naturally the hardest working part of the vehicle. Operators have found, in many instances, that an exchange or replacement engine is far more economical than the continued repair and servicing of a motor that has outlived its economical usefulness. Therefore, we are making available either a remanufactured engine or a new partial engine assembly replacement for GMC trucks. Our exchange engines are completely remanufactured in our own factories on our regular engine assembly lines. As a result, new engine performance is assured. We are also making available to the owner of any make of truck a new GMC engine, either Diesel or gasoline, for replacement.

Offer Special Financing Program

"A special program for financing various service operations included in our 'Victory Maintenance' plan has been worked out with our own Yellow Manufacturing Acceptance Corporation and is being made available to our entire dealer and branch organizations.

"GMC's new 'Victory Maintenance' program is being supported by newspaper and publication advertising, together with localized promotion and direct mail to help the GMC dealer body impress truck operators with the necessity of proper driving and protective maintenance of their vehicles to assure the maximum of trouble-free operation and longer truck life during the war emergency."

Stan. Hall Resigns Door Association, Joins Protection Products Staff

THE NATIONAL Door Manufacturers Association, Chicago, regretfully announces the resignation of Mr. Stanley O. Hall, Secretary-Manager for the past 5½ years. He will become associated with Protection Products Manufacturing Company, Kalamazoo, Michigan, effective May 15.

Fluorescent Lighting Association Organized

PRIMARILY as a wartime measure to provide maximum illumination from a minimum of materials, particularly as regards metals and other items subject to rigid priorities and restrictions, leading manufacturers of fluorescent tubing and components have organized the Fluorescent Lighting Association, with quarters at 509 Fifth Avenue, in New York City. In addition to the conservation program for wartime needs, the Association proposes to make more widely known and available the remarkable flexibility and economy of cold-cathode continuous-tube lighting (the latest development in fluorescent illumination) for general industrial, commercial, office and other usage. Because of its extremely long life, reliability and complete freedom from starting gadgets, combined with its large surface area and relatively low glare, this form of fluorescent illumination has already been recognized as filling a real need.

Perfection Oak Flooring Changes Name

ANNOUNCEMENT is made by Perfection Oak Flooring Company, Inc., Shreveport, La., of the change in the name of the Company to "Frost Hardwood Floors, Inc." No changes in the officers or the operations at Shreveport, or Trout, La., are being made. Sales are in charge of Don Watrous as Sales Manager and J. W. Fowler, Assistant Sales Manager. Production of Frostbrand Oak and Louisiana Pecan Flooring will be carried on as before.

Sharp Elected President Warm Air Association

H. S. SHARP, Sales and Advertising Manager of the Henry H. Furnace and Foundry Company, has recently been elected President of the National Warm Air Heating and Air Conditioning Association.

1942 Heating Guide Ready

THE 1942 edition of "Heating, Ventilating, Air Conditioning Guide" marks the Twentieth Anniversary of publication by the American Society of Heating and Ventilating Engineers, 51 Madison Avenue, New York, N.Y. In 1922 the first issue of *The Guide* was a book of only 360 pages, limited in its coverage of the technical phases of the industry and in presentation of manufacturers' equipment data. The 1942 edition contains 1,256 pages and treats exhaustively every phase of heating, ventilating and air conditioning, and related phases of refrigeration.

During the 20 years of publication, many men of long training and expert knowledge of their respective fields have contributed engineering data and general information that have made the Technical Data Section the accepted authority in every branch of the profession and the industry. *The Guide* is now widely used as a reference book in America and abroad; in many schools and colleges it is used as a text and reference book.

In the earlier years of publication, *The Guide* was distributed chiefly among members of the Society and other organizations interested in this field. With each issue the field has broadened and distribution has increased and *The Guide* is now annually procured by more than 10,000 men.

This year *The Guide* is bound in a stiff blue cover with gold stamping and individual copies can be obtained at \$5.00 a copy. A thumb-indexed edition is available with chapter tabs at \$5.50 per copy for those who desire this particular feature.

5000 Homes to Be Built in 5 Months

A CONTRACT for 5000 Homasote Precision-Built homes to be completed in five months for personnel of the Portsmouth, Va., Navy Yard, and totaling more than \$15,000,000 in cost, has been awarded to Barrett & Hilp, San Francisco contractors, by the Federal Works Agency, according to F. Vaux Wilson, Jr., vice-president of Homasote Company, Trenton, N.J., developer of the Precision-Built type of construction. Upon completion of site plans, homes are to be fabricated at the rate of 60 per day, and it is estimated that the fabricating will be completed within 105 calendar days, a rate never before attained.

The houses, designed by Homasote Company's own architects, are to be of three sizes: in addition to a living room, kitchen, bath, storage space and an average of six closets, 3,000 of the houses will have 2 bedrooms, 1,000—three bedrooms, and 1,000—one bedroom. They will be finished in redwood siding, with insulation and interior finish of Homasote, an insulating wall-board material. The homes are to be completely equipped with a heating system, gas range, kitchen cabinets, plumbing, hot-water heater and a six cubic foot electric refrigerator. The structures are to be completely demountable, capable of being taken down and reassembled in six hours.



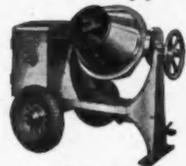
TYPE of Homasote home to be built at Portsmouth, Va.

BOOST YOUR YARDAGE 30% to 40% FASTEST 3 1/2 S ON MARKET



Faster Than a Power Loader -- Merely Lift Gate to Charge Next Batch -- Load Hopper While You Mix and Discharge

Today's leading half bagger. Jaeger Drum gives more thoro criss-cross re-mix, faster discharge — Syphon Water Tank is accurate, fast—3 3/4 H. P. Air-Cooled Engine is light, compact—End Discharge Design is fast to trail, easy to spot and pour. Get Catalog and prices.



3 1/2 S HIGH SPEED TILTER TRAILER Also Non-Tilt Trailers up to 14S Size—World's Biggest Selling Line.

THE JAEGER MACHINE CO. 521 Dublin Avenue Columbus, Ohio

JAEGER SPEEDLINE

Dumb Waiters & Elevators

ALL TYPES ALL SIZES Precision Built by Sedgwick

Note: In the interest of conservation of metals and motors for National War needs, and where Sedgwick Electric Dumb Waiters and Elevators are not essential—Sedgwick recommends for general use



HAND POWER

—For—

IMMEDIATE DELIVERY

Let us help you to select the right dumb waiter or elevator for any lifting job you are figuring on. You can't go wrong if you put in a Sedgwick.

DUMB WAITERS

FREIGHT & SIDEWALK ELEVATORS

RESIDENCE & HOSPITAL ELEVATORS

SEDGWICK MACHINE WORKS

Member of Producers' Council, Inc. Established 1893
154 WEST 15TH STREET, NEW YORK, N. Y.

USE THIS COUPON

SEDGWICK MACHINE WORKS
154 West 15th St., New York
Please send catalog. I am interested in:

- DUMB WAITERS
- FREIGHT ELEVATORS
- SIDEWALK ELEVATORS
- RESIDENCE ELEVATORS
- HOSPITAL ELEVATORS
- TRUNK LIFTS
- FUEL AND LOG LIFTS
- Electric or Manual?

Name

Address



Glamour, Too, in War Homes

(Continued from page 61)

sparkling 4-foot wainscoting of Marlite prefinished wall paneling that catches the eye immediately.

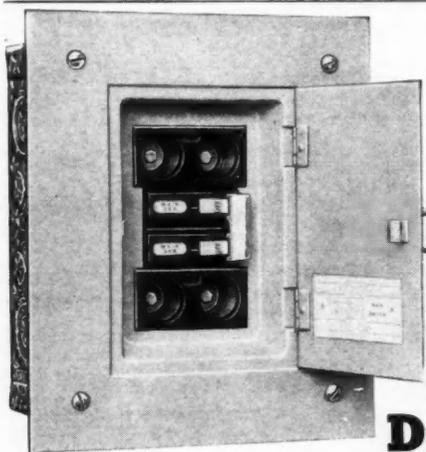
"We use this in the bathrooms and the kitchens," reports Creran. "It's easy to wash off. There's no splashing. And those who arrange to buy before the houses are built can select their own color preference. We find it durable and appealing to the men as well as the women. And we point out that they'll never have to refinish it."

In the kitchens a colorful pattern of Sanitas washable wall fabric is combined with a wainscoting of Marlite all around the working and cooking areas. Modern built-in cabinets and sinks with floors of inlaid linoleum in harmonizing colors complete the picture.

That buyers of Blue Ridge Manor homes would have good, sound design and materials was assured when Creran and his associates undertook the design of the Blue Ridge Manor homes

and specification of materials used in their construction. And typical of the pride and personal interest that the enterprising private builder takes in his own work is Mr. Creran's daily round of inspection. No cursory inspection, either. With 30 years of building experience to his credit he knows where to look in every nook and cranny to see that his mechanics are doing a good job with good materials.

Blue Ridge Manor homes are of all-frame construction with storm sheathing. Weyerhaeuser lumber is used throughout. Interior walls are of U. S. G. Sheetrock. Both bathroom and kitchen walls have a wainscoting of Marlite prefinished wall



Combination Type **FA** Service Equipment with **FA** Type AC Circuit Breaker Main, and Plug Fuse type Branch Circuits. Cat. No. SE353-P4F

Quick Delivery

is important in defense housing—and quick delivery can be made on



Fuse Type SERVICE EQUIPMENT

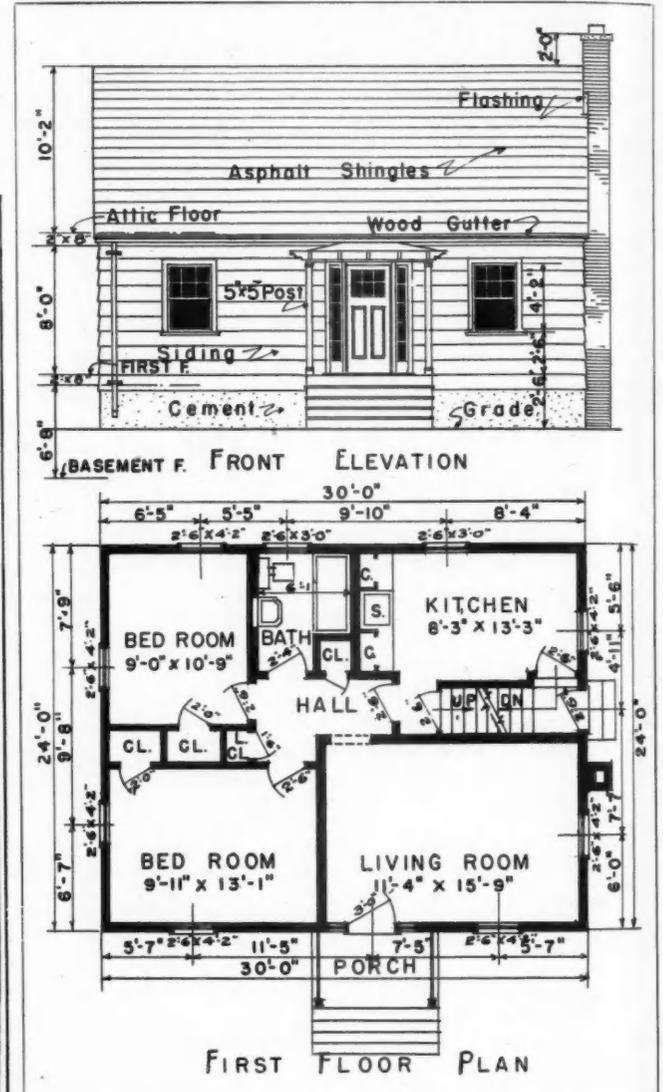
which is assembled with standardized units—in standardized boxes. Ample knockouts and commodious wiring space simplify installation. Practical, sturdy and attractive in appearance.

There is a Wholesaler Near You

who carries **FA** Service Equipment in stock, for prompt delivery. Write for his name and address, and for complete catalog information.

Frank Adam

ELECTRIC COMPANY
ST. LOUIS



ELEVATION and plan of popular small 4-room bungalow at Blue Ridge Manor, built for war workers. Picture is shown on page 61.

Whether you are building new homes in the popular-price field or remodeling, here are three known wood products that will prove extremely practical in your plans—products that permit you to work well within established cost budgets. Investigate these products thoroughly. Literature obtainable on request.

WALLWOOD 3-PLY PANEL

—the stock all-wood panel that works magic on walls, beautifies rooms and reduces upkeep cost:

Send for the Free Illustrated Booklets

NEW LONDONER HOLLOW-CORE FLUSH DOORS

—the doors that have made such remarkable service records everywhere:

AMERICAN FLUSH CUPBOARD DOORS

—the doors that help fill the need for more cupboard space —an essential in every new or remodeled house.

AMERICAN PLYWOOD CORPORATION

NEW LONDON, WISCONSIN

paneling with Sanitas upper walls; Standard plumbing fixtures with brass piping; B-X cable wiring, with plenty of convenience outlets; built-in Paramount cabinets and inlaid Armstrong linoleum floors in the kitchens. Universal circulating warm-air furnaces provide the heat; Flintkote shingles in various colors help to individualize the homes. The concrete block foundations are 24' x 30' making possible spacious basements with cement finished floors.

Wall Sections for War Homes

(Continued from page 65)

joists and the 2 x 6 plate on top of the foundation. This plate is bolted to the foundation as in good conventional construction. Thus the house is progressively fastened from plate, through joist, wall sections to the roof, making a house considerably more rigid than in conventional frame construction.

After the first floor wall sections are secured as described above, the ceilings are placed. When the 2 x 8 ceiling joists are placed the 1 x 3 ribs of the ceilings are nailed to them, and the plate for the rafters is secured to these joists. The gable ends are then placed and secured after which the ridge pole is placed to receive the roof sections.

These roof sections, approximately 8' x 16', are No. 1 red cedar shingles spaced 5 1/2" to weather on 2 x 6 No. 1 common fir rafters. The heel cut of these rafters is so made that all roof pressure is opposed by the opposite section in addition to the ceiling joists which are tied together and to the roof sections through the plate. Immediately after the roof sections are secured and the collar beam placed, the shingles already sized for the purpose are placed over the joints between sections thus making tight the entire roof. While this is being done, the cornice and wood gutter and down spouts are being placed. Another mechanic is meanwhile closing joints of the asbestos siding at corners and where exterior sections meet.

While these external features are being completed, the electrician is completing his installation including placing of fixtures so that the house is lighted before the house is really tightly enclosed. The paperhanger has started to paper as soon as the ceilings are in place, so actually the house is completely papered before the roof is finished. The doors are being hung, having previously been sized and fitted with hardware, while the base board and moulding, the kitchen cabinets, the closet shelves and other small items are being completed. The plumber and the heater men have likewise been busy so that they too, leave before final completion. To emphasize the complete job, the landscape gardener has meanwhile worked between other workmen and has placed the shrubbery and sod.

Shop-Built Methods

Modern-Way Homes are planned, engineered and produced in a method designed to take advantage of all the benefits of the production line coupled with precision machinery.

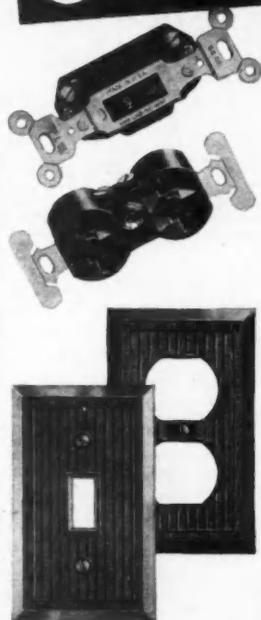
The flooring of the house is Bruce Streamline oak flooring over 5/16" fir plywood sheathing laid on 2 x 8 No. 1 common fir joists 16" O.C. The interior and exterior partitions are made of a 2 x 4 No. 1 common fir stud framework 16" O.C. with single bottom and double top plate. Exterior walls are covered with 5/16" plywood which is nailed every 8" and is glued around all openings (windows and doors) and also around the outside edges. Over this plywood Johns-Manville asbestos siding shingles 12 x 24 are applied with waterproof paper between the shingles and plywood. The interior of the wall is covered with 1/4" plywood glued into one piece by a hot press under 45 lb. pressure and 350° heat. The use of a gusset in back of each joint in this process makes a joint which is stronger than this plywood itself. This process and press are the result of years of experimentation by Jacques Willis, of the Willis-Way System. The interior sheets are glued to all studs and nailed securely.

The interior partitions are covered on both sides by these large one piece sheets of 1/4" plywood. On the interior as well as the exterior walls, two pieces of 1 x 3 fir are let into the studs to afford additional glue surface and to add more rigidity to the walls. Thus each wall becomes in effect a truss where the six

(Continued to page 112)

G-E WIRING DEVICES

FOR DEFENSE HOUSING
FOR HOME MODERNIZATION



G-E Wiring Devices are easy to install and will give durable service. Their quality is high. Included in the line are switches, convenience outlets, combination devices, plates, lamp-holders, fuses, circuit breakers, etc.

These devices are handled right in your own territory. G-E Distributors are located at all key points in the country.

For further information see the nearest G-E Merchandise Distributor or write for a G-E Wiring Device Catalog. Address Section D-2803, Appliance and Merchandise Department, General Electric Co., Bridgeport, Conn.

GENERAL ELECTRIC



Model 85
Capacity 8 1/2"

ON A

FACTORY PRODUCTION BASIS
with A Mall Saw

- Powered Beyond Ordinary Requirements
- Perfectly Balanced for Safe One-Hand Use
- Light in Weight and Easy to Handle
- Simple Depth and Bevel Adjustment
- Cuts Stack of Like Members at One Time

Men with MALLSAWS are in Big Demand on Defense Jobs. Mail coupon TODAY for Literature on 7 powerful models blade sizes 6 1/2" to 12" and ask for FREE Demonstration.

MALL TOOL COMPANY

7737 S. Chicago Av.
Chicago, Illinois

Please send free folder on MALLSAWS, MALL DOOR MORTISERS, DOOR PLANES, SURFACE PLANES, DRILLS, and MALL RADIAL SAW ARM. AB-342

Name

Street

City State

AVOID COSTLY Wall Fractures

WITH **PAINE "SUDDEN DEPTH" DRILL BITS**



Here is the safest, fastest way to make anchor holes and rout for rafters in Concrete and Masonry Walls. It eliminates noisy pounding—safeguards the wall against fracturing, cuts drilling time one-half and assures an accurate size hole without reaming. PAINE "Sudden Depth" Drill Bits can be used in any rotary drill (slow speed). Ask your hardware dealer TODAY.

THE PAINE CO. 2959 CARROLL AVENUE CHICAGO, ILLINOIS
New York Warehouse & Sales: 48 Warren St.



Kinneer Doors provide quick, convenient, space-saving upward action plus all-steel protection now so vitally important in the nation's war-production. Kinneer Rolling Doors are more widely in demand today than ever before!

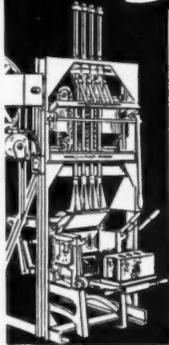
KINNEAR ROLLING DOORS

NEW DOOR DATA JUST OFF THE PRESS

You'll find the most complete, up-to-the-minute information on doors for every requirement in this catalog. It gives full details and specifications on Kinneer Steel Rolling Doors, with the famous interlocking steel-slat construction, and other types of upward acting doors. WRITE TODAY FOR FREE COPY!

THE KINNEAR MANUFACTURING CO.
1560 - 80 FIELDS AVENUE COLUMBUS, OHIO

Profit in MANUFACTURING Start at Low Cost

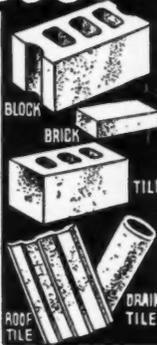


Own a business. Build it by supplying more for less. Eliminate all unnecessary expense. Manufacture and deliver direct to job. You profit by reducing costs.

Learn how you can make your own materials or supply building trade in your territory. We supply low cost machine and equipment for making any permanent material.

Write today for free catalog containing low factory prices and liberal terms. Act now and see how easily you can make this profit.

Concrete Equipment Co.
514 Ottawa Ave. Holland, Mich.



Authoritative information about the designing, construction and financing of buildings can be found in up-to-date books. We will be glad to recommend suitable books on any subject you are interested in.

AMERICAN BUILDER—BOOK DEPT.
30 Church St. New York City

laminations of plywood carry most of the load, the studs merely holding it in place.

The ceilings are made with room size sheets of plywood glued and nailed to 1 x 3 fir strips on edge. After ceiling joists are placed, the 1 x 3 is nailed to the 2 x 8, thus forming in effect a floating ceiling. The use of these room and wall size sheets make "plaster cracks" impossible.

In the partition between kitchen and bathroom the rough plumbing is installed in the factory, thus saving time and money in the field.

The roof is made of No. 1 red cedar shingles applied on 1 x 3 lath over 2 x 6 No. 1 common fir rafters 16" O.C. The roof is made in sections approximately 8' wide and 16' long, thus covering the roof with eight sections, four opposed to four on the ridge pole. Shingles are left out at the joints and are applied in the field after erection, thus insuring a tight roof with no apparent joints.

The gables (made in one piece) measured approximately 24' x 12' were constructed as the other exterior walls and contained a louvre and a full size double hung window in each gable. Exterior trim of gables was factory-applied.

Douglas fir 4 x 6 gutter was placed in the front and rear, this having been joined at the shop.

Wiring is done in plant so that only connections and hanging of fixtures are necessary in field.

All window (toxic-treated W.P.) were fit and hung and weather-stripped and were shipped to job in the walls. All doors were fit and hung and hardware applied so that the hanging of each door was the work of a moment in the field. All doors and windows were trimmed in the shop, and these plus all interior and exterior woodwork received two coats of paint before leaving the plant.

Kitchen cabinets were located on the walls, kitchen sink was pre-assembled with the cabinets and required a short time for installation.

Home Building Costs Up 11 Per Cent

CONSTRUCTION costs of a standard six-room house rose 11 per cent during 1941 and on December 31 were nearly 20 per cent above the average month of 1935-1939, Federal Home Loan Bank Board economists have reported. Building material costs increased 11.1 per cent during the year, and the cost of labor rose 10.4 per cent.

While the upward trend of construction costs was maintained during the month of December, the increase was only 6/10 of one per cent over November. The Bank Board report pointed out that, while labor costs increased more than material costs during the first 10 months of 1941, prices for materials rose sufficiently during November and December to bring their percentage increase for the year above that of labor. Labor costs, however, showed an increase of 24 per cent above the average for the 1935-1939 period, used by the Bank Board's Research and Statistics Division as a cost index of 100. Material costs have risen 18 per cent on this index.

Changes in the total cost figures for various cities during the period of October-January were mixed. Increases of more than \$100 were registered in 13 cities with gains in Evansville and South Bend, Ind., amounting to more than \$400. Thirteen cities reported increases or decreases of less than \$100.

Figures for use in the Bank Board's monthly compilation of building costs on a standard six-room house are obtained through the cooperation of local contractors and material dealers in cities located throughout the country.

4 Coats of Paint BAKED ON FABRIC

OLD TIME FAVORITE MEETS TODAY'S HOUSING NEEDS

Famous for 40 years because of its SUPER-washability and wearability, SANITAS provides an AVAILABLE, efficient method for resurfacing and decorating old walls in conversion or remodeling jobs. For Defense Housing, SANITAS is ideal in both plaster and dry wall construction. Write for the Sanitas X-Ray, and samples of this famous washable DECORATOR-STYLED fabric wall covering.

Standard Coated Products Corporation, Dept. AB 3-42 40 Worth St., New York

does a wallpaper job without using wallpaper
•
does a paint job without using paint

SANITAS X-RAY

See how 5 successive processing steps... (1) start with a strong cotton fabric base; (2) impregnate it; (3) coat it to render it stain-proof; (4) strengthen it... and (5) finally give it the decorative character that makes every one agree "SANITAS is winning a new name for BEAUTY."

Sanitas FABRIC WALL COVERING

On & Off the Record

(Continued from page 44)

and that they also require larger amounts of utilities and create difficult transportation and school problems.

Speaking on this subject recently, Baird Snyder, III, Acting Federal Works Administrator, said, "We are now giving consideration to erecting defense homes in small groupings in scattered localities. Acquisition of small tracts in central locations would simplify transportation, utilities, schools."

"SLUM RING"—Nathan Straus took one last fling at his opponents—who seem to be legion—when he resigned as head of the U. S. Housing Authority. He referred to a "carefully worked out plan to destroy the USHA housing program" and asserted that ownership and operations of slums is one of the "most profitable industries in America." In an industry as disorganized and scattered as the building industry and its related fields, we doubt whether anyone could get far with any "carefully worked out plan." The opposition to Straus and his policy was so widespread that it would better be described as the spontaneous objections of millions of taxpaying American citizens in construction, real estate and related fields, not to mention private owners of homes.

GUARANTEE MATERIALS?—The thing that is holding up building in some sections is the fear of builders that even with a priority number they will not be able to get materials. The old bogey of having money tied up in land, utilities and improvements and then not being able to finish the job still haunts many builders. One answer would be for Donald Nelson's war production board to *guarantee delivery of materials*—there is certainly a plentiful supply in the country as a whole, and what would principally be required would be a little direction of the flow of products.

OLD HOUSES FOR WAR WORKERS—There is something illogical about the government's present plan of building new houses for temporary or transient war workers. We are putting our best quality new homes into the hands of temporary tenants who, everything considered, are least likely to take care of them. We ought to be doing just the reverse—that is, *letting the transient worker occupy old dwellings and putting the permanent, well settled citizen in the new houses.* Perhaps the government ought to buy up all the old houses in certain parts of our industrial cities and give the owners cash and priority assistance to build good new houses that will be a permanent asset to the community. I suspect that this idea would not be approved by the social workers.

PRIVATE HOMES HEAD TAXES—Most everyone thinks of New York City as a place of huge apartments, skyscrapers and business buildings. Yet a new tax inventory just completed shows that more than two-thirds of all the city's buildings are private homes, and their valuation is greater than the combined value of all office structures, lofts and store buildings.

New York City, the inventory shows, has 477,248 one- and two-family houses valued at \$3,309,000,000. There are 20,715 loft, store and office buildings in the city, which are valued at \$3,164,500,000. The city's 7,062 elevator apartment houses are carried on the tax books at \$2,285,000,000.

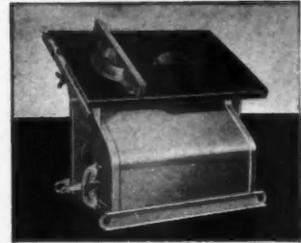


MIXERS
BATCHERS
PUMPS
SAW RIGS
HOISTS
CARTS
BARROWS

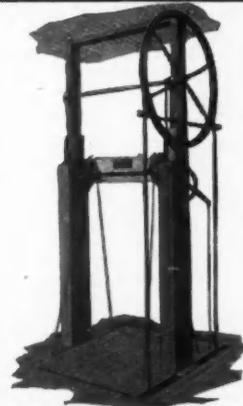
KOST KUTTER SAWS!

Streamlined... Fast Cutting... Sturdy!

Contractor says:
"There's no vibration. The engine floats on rubber and springs. I like its portability, too."
Get information on CMC's 3 popular size power saws... Kost Kutter, Kost Kutter Jr. and Heavy Duty Power Sawyer.



CONSTRUCTION MACHINERY CO.
Waterloo, Iowa



KIMBALL HAND POWER ELEVATORS

A complete line of efficient Hand Power and Electric Elevators built to suit any requirement.

Fitted for rapid installation in your building. These straight-line-drive machines are little giants of lifting power and are surprisingly nominal in costs.

FREE Engineering Data

Give us your problems and let our engineers help you. Full descriptive literature on request.

KIMBALL BROS. CO.
915-989 Ninth Street Council Bluffs, Iowa

The RIGHT START
to a BETTER FINISH!

FIRZITE

THE SUPERIOR FIR PLYWOOD PREFINISHER

First things come first! For richer, smoother finishes on Fir Plywood, use **FIRZITE first**. FIRZITE tames "wild" grain, reduces hair-line checking. Especially necessary on Exterior (Phenolic Resin Bonded) Fir Plywood. FIRZITE builds profits for dealers. Mail this ad with your letterhead for details and free "Firzited" panel.



WOOD FINISHES

BREINIG BROTHERS

INCORPORATED

HOBOKEN, N. J.

SAVE TIME AND SAVE AMERICA!

Construction of war projects must be speeded up! Every lost second aids the enemy! Uncle Sam calls on builders to double and redouble their efforts to get America's arsenal in production. Here's one sure way you can save time and help win the war!

USE "TROUBLE SAVER" NAIL ATTACHED BRACKETS!

These brackets can be hung as fast as nails can be driven! In a few minutes you can put up neat, rock-solid scaffolding and start actual work. No wasted materials! No cleaning up! Order all-steel "Trouble Savers" for safer, faster work!

Write Today For Information And Prices

THE STEEL SCAFFOLDING CO., INC.

402 Missouri St., Evansville, Indiana

Just Drive Four Nails
And Hang A Bracket



When Finished—Unhook
Bracket—Drive Nails Home

For "CABINET-BUILT" FRAMING!



For tight-fitting, accurately-cut framing work, at lower cost, investigate the Wallace No. 1 Radial Saw.

With the exclusive Wallace ANGULATOR, it saws rafters without marking and with only ONE handling! Zips thru every kind of sawing cut, plus all milling operations such as dadoing, grooving, ploughing, routing, shaping, fluting, and cutting tile and brick.

Saves \$75 to \$200 on average homes. Portable—easily carried from job to job. For extra profits, write today for leaflets on the No. 1 Radial Saw.

J. D. WALLACE & CO.
136 So. California Ave., Chicago, Ill.

FLOATING ACTION "UNI-ROL" GARAGE DOOR

LOW COST! HIGH QUALITY
ALL PARTS TOXIC TREATED
TWO STOCK SIZES IN TWO ATTRACTIVE DESIGNS SHOWN

Complete with Stanley "Swing Up" Hardware Bronze Cylinder Lock and Metal Weather-strip.
Doors 13 1/2" thick. Prefitted for 8-0 x 7-0 and 8-0 x 6-6 openings.

The popular price of this "QUALITYBILT" smooth operating door creates real sales volume. Easy to install. Only 1 3/4" headroom and 2 1/2" sideroom needed.

If your dealer can't supply you write us, Dept. AB-342

FARLEY & LOETSCHER MFG. COMPANY
"QUALITYBILT" WOODWORK DUBUQUE, IOWA

BIG OPPORTUNITY Stucco Spraying

Present day construction needs better and faster finishing methods. Plastic COLORCRETE is waterproofed. It can be used on new or old buildings. It fuses with any masonry surface. Fills cracks and checks. Can be applied in any thickness and in 80 beautiful colors and shades.

Fully proven by over 14 years actual use under all climatic conditions. Offers big earnings. With this machine you can supply the big waiting market at amazingly low cost. Present operators report costs of 2c and up per sq. ft. and sell up to 7c. Some have paid for their equipment from first few jobs. Machine capacity up to 1,000 sq. ft. per hour.

Get the facts. Send for free book "Proven Business Opportunity." Write today.

COLORCRETE INDUSTRIES, INC.
500 Ottawa Ave., Holland, Mich.

QUICK CHANGE from Level to Transit

Try it FREE

Two motions shift it from level to transit. One-piece standard casting gives great rigidity and strength. Built especially for contractors.

Try the Universal Avoid Costly Errors

\$10 brings you the "Universal" Level-Transit. One hour teaches you how to accurately check up surveys, avoid costly errors. Money-back guarantee.

Easy Payments. Use instrument. If not satisfied, return and your money is refunded. Or keep on easy monthly payments. Particulars on request.

Ask for FREE booklet "How to lay out building lots"

DAVID WHITE CO.
311 W. Court Street, Milwaukee, Wis.

We Do Expert Repairing

Tapes Rods Supplies

Only \$10 Down

INDEX TO ADVERTISERS MARCH, 1942

A

Adam Electric Company, Frank.....110
Aluminum Company of America.....12
American Builder.....30-31-36-86-112
American Floor Surfacing Machine Company.....99
American Plywood Corporation.....110
Andersen Corporation.....6-7
Armstrong Cork Company.....73

B

Barber-Colman Company.....72
Barrett Company, The.....75
Bennett Fireplace Co.....101
Black & Decker Mfg. Co., The.....11
Borg-Warner Corporation.....84
Breinig Brothers, Inc.....113
Bruce Co., E. L.....83

C

Carey Mfg. Company, The Philip.....75
Carr, Adams & Collier Co.....89
Carter Div., R. L.....80
Case & Son Mfg. Co., W. A.....93
Celotex Corporation, The.....2
Chicago Tech College.....115
Colorcrete Industries, Inc.....114
Concrete Equipment Co.....112
Consolidated Machinery & Supply Co.....115
Construction Machinery Co.....113
Crane Co.....18
Curtis Companies Service Bureau.....19

D

Detroit Steel Products Company.....3
Dorbin Metal Strip Mfg. Co.....103
Douglas Fir Plywood Association.....15
Dunn Mfg. Co., W. E.....115

E

Edwards Manufacturing Co., The.....100
Eljer Co.....74

F

Farley & Loetscher Mfg. Co.....114
Fir Door Institute.....101
Frantz Manufacturing Co.....98

G

General Electric Company.....92-111
General Electric Home Bureau.....8-9

H

Henry Furnace & Foundry Co., The.....108
Homasote Co.....91

I

Insulite Company, The.....25

J

Jaeger Machine Co., The.....109
Johns-Manville.....20

K

Kees Manufacturing Co., F. D.....115
Kimball Bros. Co.....113
Kinnear Manufacturing Company, The.....112
Knap & Vogt Mfg. Co.....103
Kohler Co.....21
Kwik-Mix Concrete Mixer Co.....105

L

Laucks, Inc., I. F.....	87-90
Lawson Company, The F. H.....	94
Lead Industries Association.....	10
Lehigh Portland Cement Company.....	26
Little Burner Co., H. C.....	81
Lone Star Cement Corporation.....	44
Louisville Cement Company, Incorporated.....	13

M

Majestic Company, The.....	107
Mall Tool Company.....	111
Masonite Corporation.....	95
Master Rule Mfg. Co.....	108
McAlpin Hotel.....	104
McNair Shingle Co., Robert.....	100
Mengel Company, Incorporated, The.....	27

N

National Gypsum Company.....	40
National Lead Company.....	42
National Manufacturing Company.....	4th Cover
Norge Heating and Conditioning Division.....	84

O

Overhead Door Corporation.....	3rd Cover
Owens-Illinois Glass Company.....	33

P

Paine Co., The.....	112
Parker Rust Proof Company.....	14
Pittsburgh Plate Glass Company.....	29-37
Porter-Cable Machine Co.....	78
Portland Cement Association.....	97
Pullman Mfg. Corp.....	99

R

Red Cedar Shingle Bureau.....	4-5
Rowe Manufacturing Co.....	71
Ruberoid Co., The.....	28
Rybolt Heater Co.....	79

S

Samson Cordage Works.....	85
Sedgwick Machine Works.....	109
Sisalkraft Co., The.....	107
Skillsaw, Inc.....	96
Sloan Valve Co.....	24
Smith Company, The T. L.....	102
Sonneborn Sons, Inc., L.....	106
Square D Company.....	17
Standard Coated Products Corp.....	112
Stanley Works, The.....	23-77-102
Steel Scaffolding Co., Inc., The.....	113

T

Texas Company, The.....	34
Tile-Tex Company, The.....	76
Timber Engineering Company, Inc.....	106
Tylac Co.....	98

U

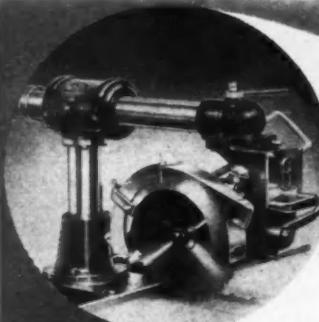
United States Steel Corporation Subsidiaries.....	35
Universal Atlas Cement Co.....	35
Upton Co.....	38

V

Victor Electric Products, Inc.....	105
------------------------------------	-----

W

Walker-Turner Co., Inc.....	104
Wallace & Co., J. D.....	114
Western Pine Association.....	88
Westinghouse Electric & Manufacturing Co.....	22
Weyerhaeuser Sales Company.....	32
White Co., David.....	114
Wood Conversion Company.....	116



COMETS ON DEFENSE

Day after day Comet Clipper Radial Power Saws are pouring into defense projects in ever increasing numbers. These medium sized, greater horsepower saws offer speed, power, accuracy. Comets are saving precious time wherever in use. Order from your dealer or write Consolidated. Dealer franchises still available. Write for details.

CONSOLIDATED MACHINERY & SUPPLY CO.
LOS ANGELES, CALIFORNIA

The Comet
CLIPPER

USE KEES GOSSETT HANGERS ON ALL FULL LENGTH WINDOW SCREENS

Special Guides and extra large eyes make it the easiest to hang. Inexpensive. Free catalog on request. Write today.



★ ★ FOR VICTORY ★ ★

Kees products are going into cantonments, defense housing, plants producing munitions, and Army equipment. Subject to steel available, we will continue to supply our hardware through retail hardware and building material dealers.

F. D. KEES MFG. CO. Box 93, BEATRICE, NEBRASKA

OPPORTUNITY REPLACE CRITICAL MATERIALS



PRIORITIES, SHORTAGES AND INCREASING COSTS are rapidly forcing changes in the building industry. Your future may depend upon your ability to overcome and solve these problems. You can profit on these conditions by manufacturing your own building products out of low cost materials available in every locality and without restrictions.

WE CAN STILL EQUIP YOU with manufacturing machines enabling you to make permanent, attractive building material in many sizes and wide range of colors. Arrange to supply your building trade with this proven material offering permanent construction at price level of good frame.

WRITE TODAY. Learn about this exclusive opportunity by sending for Free Book.

W. E. DUNN MFG. CO.
450 W. 24th St., Holland, Michigan

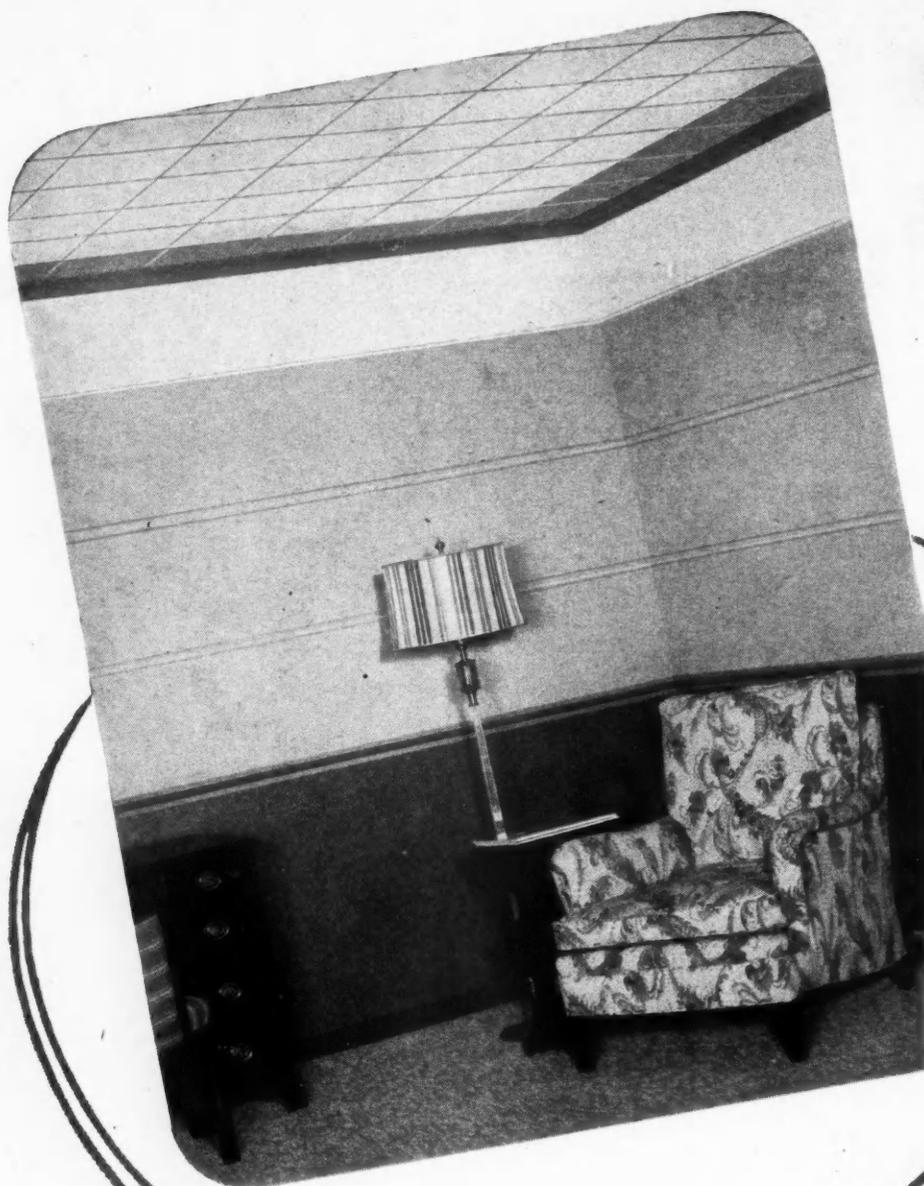
Set of BLUE PRINTS and **Free BOOK** "HOW TO READ BLUE PRINTS"

This Free Trial Lesson on "HOW TO READ BLUE PRINTS," and a set of blue prints plans—sent to show you how this 37-year-old School for Builders makes it easy for men in the building industry to lay out and run jobs, read blue prints, estimate costs, superintend construction, etc. Drawing of plans included if wanted.

LEARN AT HOME IN SPARE TIME

Men with this training are needed now to handle expanding business in building construction. This knowledge leads to promotion. Building contractors urge employees to get this training. For Free Trial Lesson address:

CHICAGO TECH COLLEGE
C-125 Tech Building 2000 S. Michigan Ave., Chicago, Ill.



**FOR A BETTER
MEASURE OF
VALUE CHOOSE**

Nu-Wood
**INTERIOR
FINISH!**

● There are excellent reasons why Nu-Wood Interior Finish is able to maintain its position of leadership year after year... why it remains first choice among insulating interior finishes with so many builders. For behind Nu-Wood is a program of continuing research, devoted to the single-minded task of keeping Nu-Wood value far above the average. That is why Nu-Wood has been so constantly improved... why it is always a step ahead of the field. And that too is why it offers your clients a greater measure of beauty, efficiency, and service.

FADEPROOF COLORS—Nu-Wood Kolor-Fast interior finish has warmer, richer hues that blend harmoniously with each other. Nu-Wood colors are made fadeproof by an exclusive process.

BETTER JOINT TREATMENT—A superior type tongue and groove joint on Nu-Wood Tile, Plank and Wainscot provides for application of various sized units in combination to produce an attractive and distinctive wall and ceiling treatment.

CONCEALED CLIP APPLICATION SYSTEM—A special clip system is available whereby nails are concealed—lending additional refinement to Nu-Wood applications where Adhestik is not used.

KOLOR-TRIM MOLDINGS—The warmer, richer colors of Nu-Wood blend harmoniously with Kolor-Trim pre-decorated wood moldings—enhancing Nu-Wood beauty and distinctive charm.

STA-LITE—Nu-Wood Sta-Lite has a special white matte surface with the high light reflection factor of 76%—a surface which grows lighter with exposure.

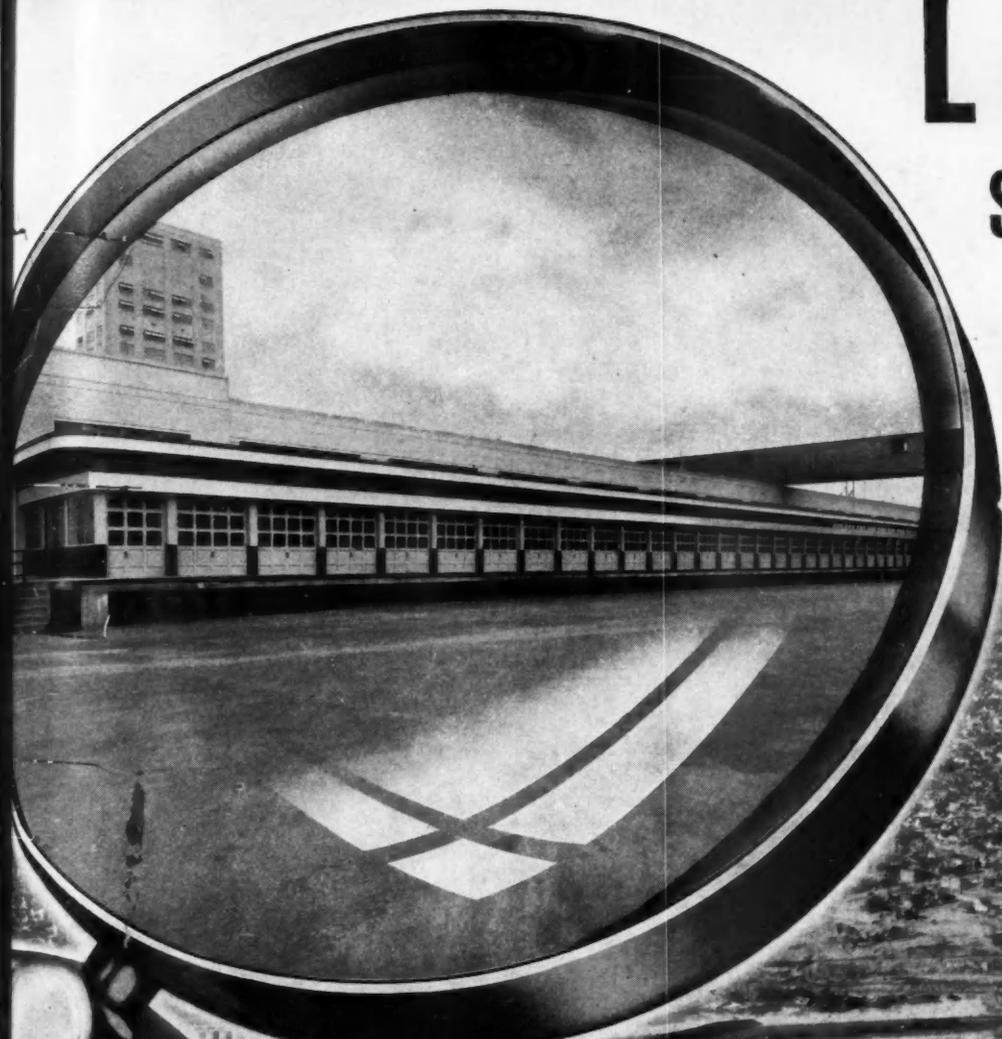
A WEYERHAEUSER PRODUCT—Nu-Wood is manufactured by the Wood Conversion Company—a division of Weyerhaeuser, the world's greatest name in lumber. No wonder you get more value in Nu-Wood products!

NU-WOOD
Kolor-Fast INSULATING INTERIOR FINISH

WOOD CONVERSION COMPANY
Dept. 119 First National Bank Bldg., St. Paul, Minnesota
Gentlemen: Please send me complete information about the new
Nu-Wood Kolor-Fast and Sta-Lite.
Name.....
Address.....
City.....State.....

LOOK!

SELECTED FOR
DEFENSE . . .

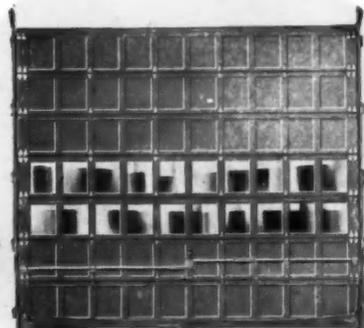


Quality construction--expert installation--are still the two essentials for long service and easy operation. The "OVERHEAD DOORS" now being installed in Army, Navy and Marine bases, Coast Guard stations, defense manufacturing plants and home garages in defense areas will be giving the same efficient service for many years after the present emergency is over. Choose The "OVERHEAD DOOR" for your job, industrial or residential.

One door or hundreds, wood or steel--Manually or electrically operated--Sold Installed by a Nation-Wide Sales-Installation-Service.

COPYRIGHT 1942, BY OVERHEAD DOOR CORPORATION

OVERHEAD DOOR
TRADE MARK
WITH THE
MIRACLE WEDGE



OVERHEAD DOOR CORPORATION
HARTFORD CITY, INDIANA, U. S. A.

NATIONAL

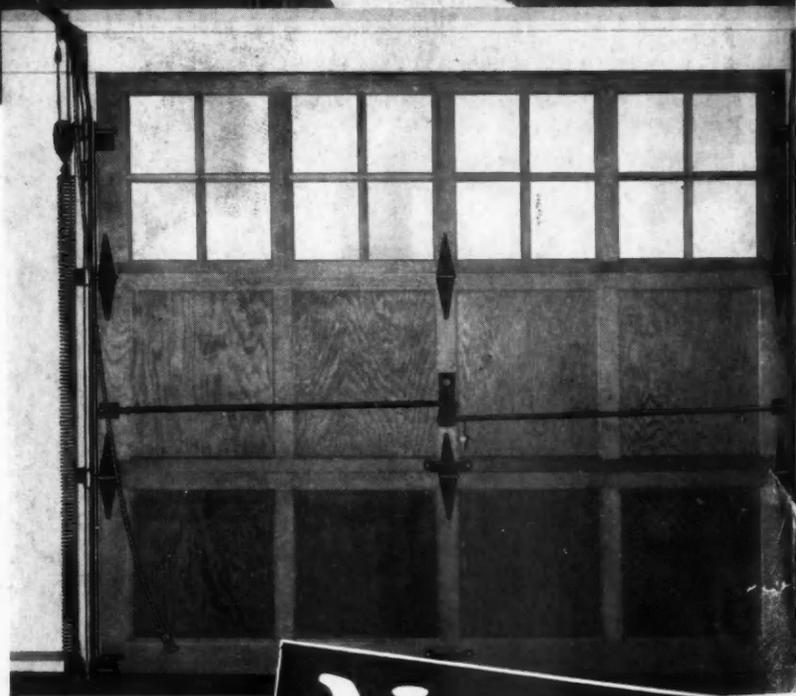
HARDWARE

For
**DEFENSE
HOMES**



You can install a National No. 900 Upward-Acting Garage Door Set yourself in three hours or less. The saving in time effected helps to keep the cost within the prescribed \$6000 limit for Defense Homes—and gives your customer the benefit of this better type door.

Each National No. 900 Garage Door Set is individually weighed and fitted with springs of the proper tension for perfect balance. These function with steel cables which operate easily over large enclosed pulleys. Each set comes packed complete—there is nothing else to buy.



NATIONAL MANUFACTURING CO.
STERLING ILLINOIS

National
No 900

SEE IT AT YOUR DEALER'S