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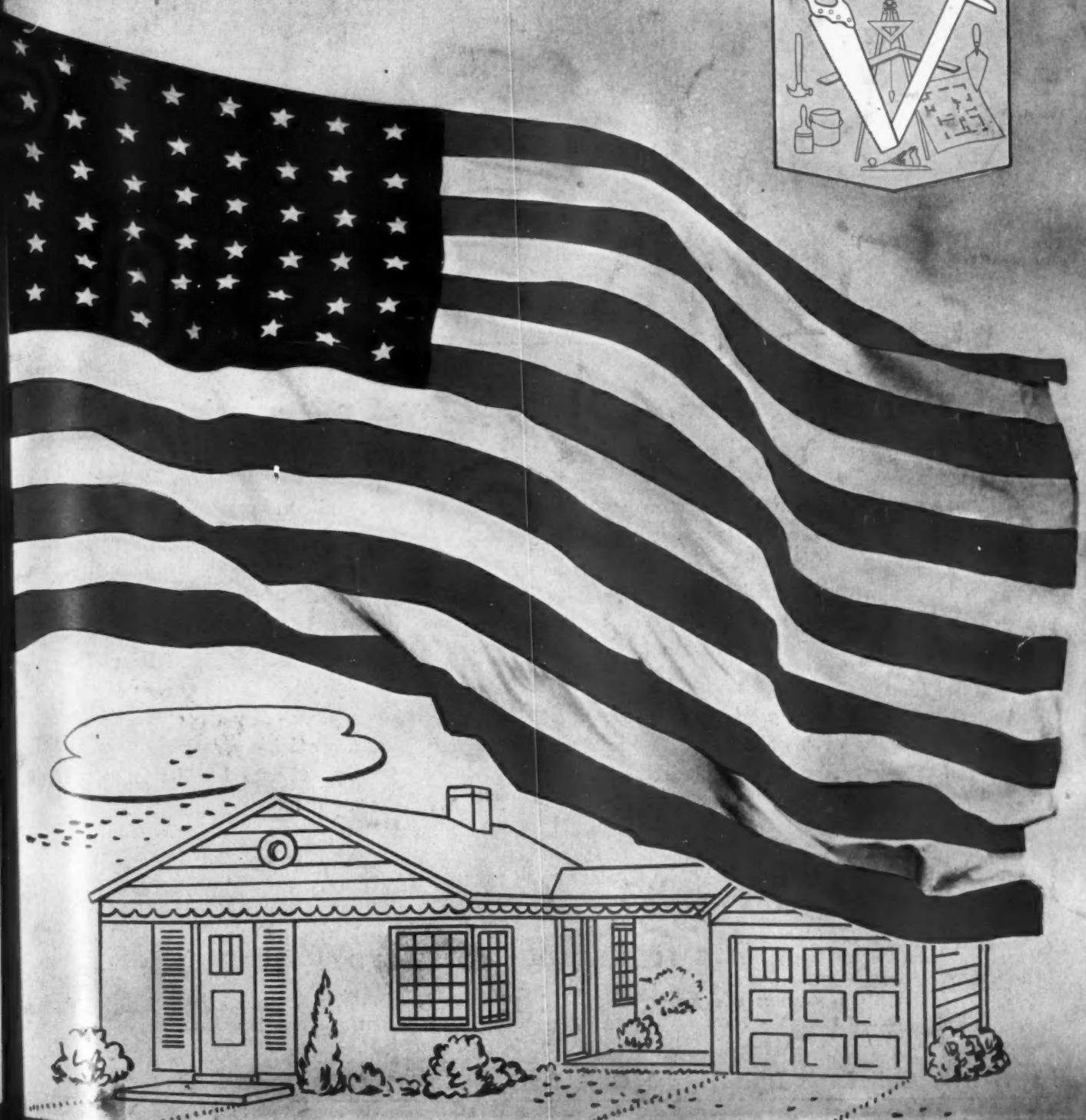
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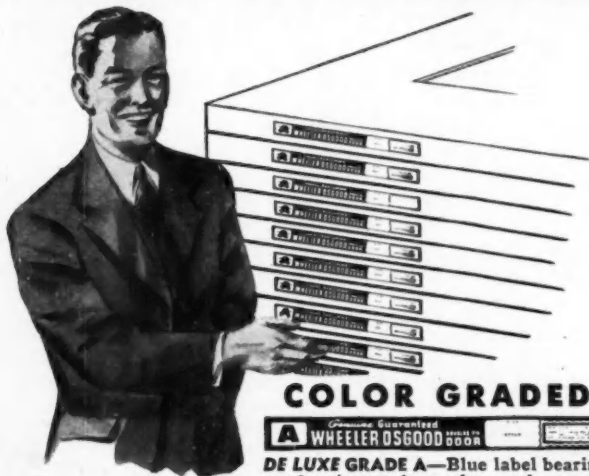


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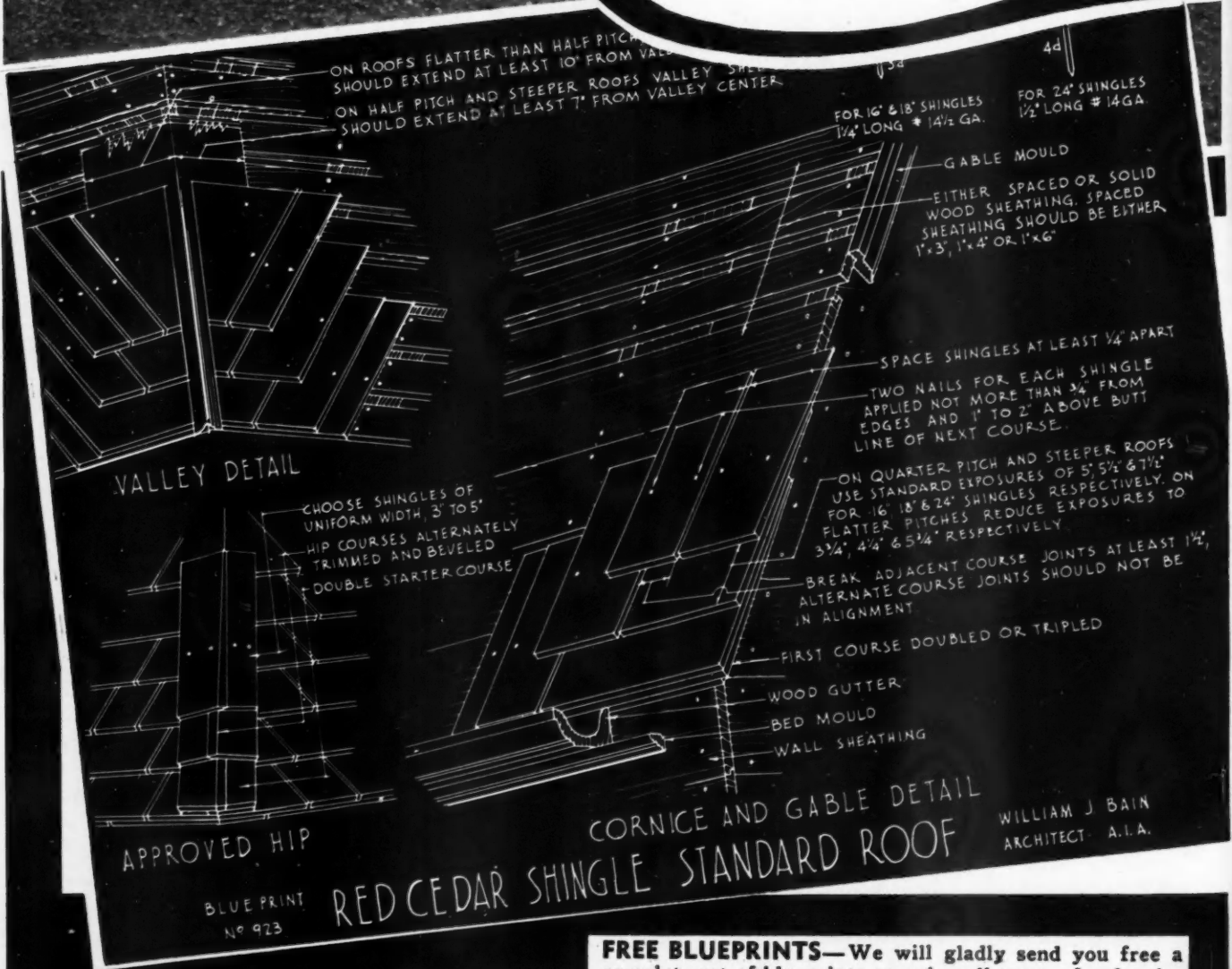
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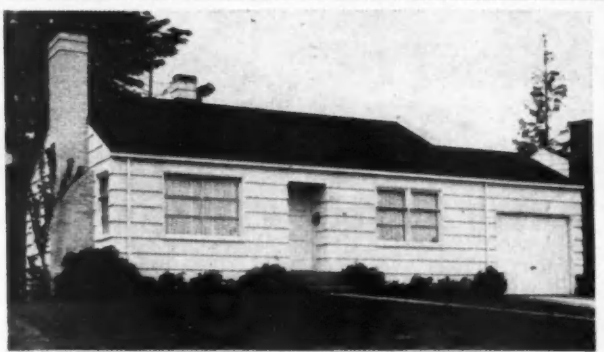


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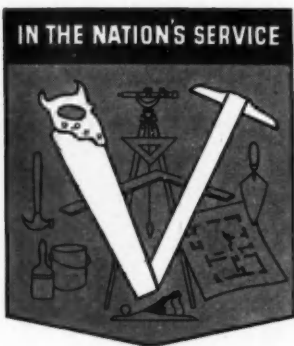
BUILDER



64 YEARS OF CONSTRUCTIVE LEADERSHIP

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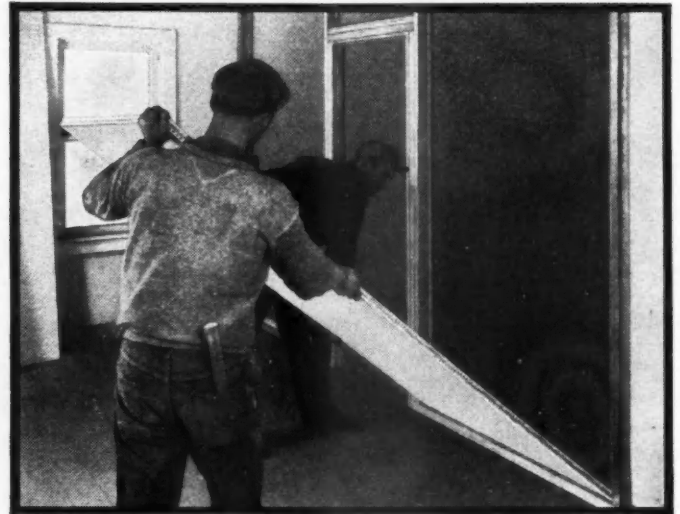
4 New Ideas to help you get wartime volume



★ NEW ONE-HOUR WASHABLE WALL PAINT. Thousands of home-owners are already giving interiors new beauty with Gold Bond Sunflex Deluxe, the new washable wall paint. It cleans perfectly with ordinary soap and water, gives better lighting with less electricity, saves up to 30% on painting costs, and uses no critical war materials. One coat covers practically any surface, including wallpaper, and dries in one hour without any unpleasant after-odor. Ask your Gold Bond Dealer for free Gold Bond Sunflex Deluxe color cards.



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Publisher's Page

During the War—and After

THERE WAS published on this page in the June issue of *American Builder* a letter from a general contractor painting a picture of demoralization in the building industry in his small city. The following letter from Prescott C. Buffum, Lenox Builders Supply Co., Inc., Lenox, Massachusetts, paints a quite different picture:

"I don't know whether your editorial in the June issue was a private fight, or whether anyone could get in it.

"I do, however, want to say this for the FHA in Massachusetts. Our experience has been entirely different from that outlined in the letter which you quote in your editorial and from your remarks in that same editorial. We have found the local representative at Springfield most co-operative at any time we have visited him, and at the Boston office we have been able to get information of almost any kind whenever we write for it.

"Also, when I have visited the FHA office in Boston I have noted contractors and builders receiving the most courteous attention from the officials there. I hold no brief for the present administration, but I believe in giving the devil his due."

Numerous replies received by this paper to a recent questionnaire emphasize just what these two letters indicate—that the conditions and mental attitudes of different communities and persons differ widely.

The impact of war is affecting communities and lines of business differently. Therefore, it affects different persons differently; and they react to it differently. The confusion caused in the building industry is now at its height. Even before the war ends the industry will become more stabilized as a result of many large war projects being finished which now demand large quantities of materials. This will afford opportunity for more ordinary building.

Meantime, the *probabilities* of the post-war period should never be disregarded. Nobody's estimate of how long the war will last is worth much. Few realize how suddenly the last war ended. The writer sailed in a convoy on October 25, 1918, on a mission to the European front sanctioned by both the American and British governments—showing there was then no official expectation of early peace. The armistice was signed *only fifteen days later*.

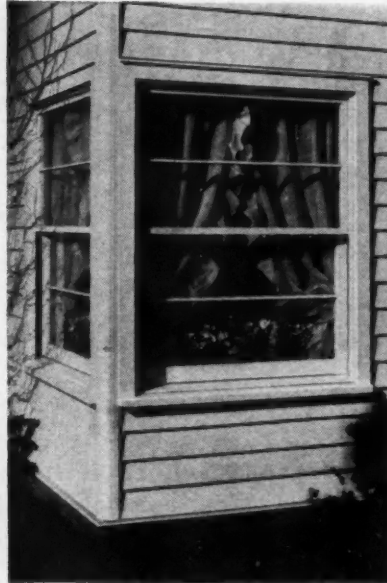
Whether this war is short or long, there are the best reasons for believing that soon following its end there will occur a great increase of building. Non-farm residential construction and farm construction increased from \$1 billion \$300 million in 1918 to \$2 billion \$300 million in 1919, and never stopped increasing until in 1925 and 1926 they reached peaks of \$5 billion.

They never approached this last figure after the depression. The shortage of housing will be greater after this war than after the last war. The problem in every community is to keep the building industry during the war as strong and healthy as conditions and restrictions will permit in order that it may be prepared to take prompt and full advantage of the huge prospective post-war market. This will require foresight, courage, resourcefulness, initiative. But those in the building industry who showed these qualities did finally come through the depression all right. And those who show these qualities now won't suffer as much and long from the war as they did from the depression.

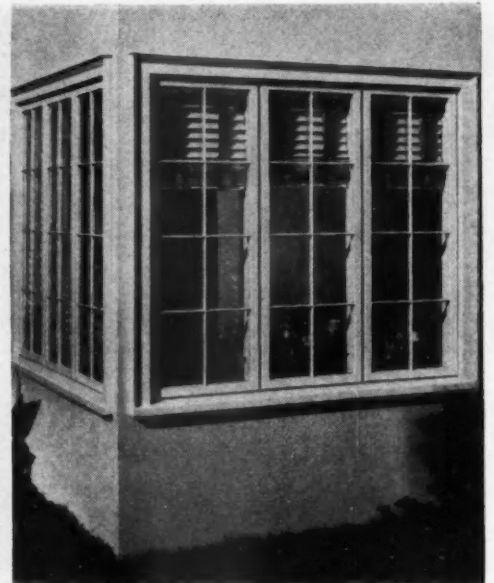
Samuel O. Drun,



CORNER of kitchen-dinette showing how Curtis Silentite windows can add utility and interest to small homes—at low cost. Several sash styles are available.



EXTERIOR VIEW of corner Silentite double-hung windows—a modern arrangement that is easy with Curtis stock sizes. Ideal for small homes.



SILENTITE CASEMENTS—“Insulated,” trouble-free, fuel-saving, quickly installed. Can't rattle or swing in the wind, no exterior hardware, opened from inside only, several sash styles.

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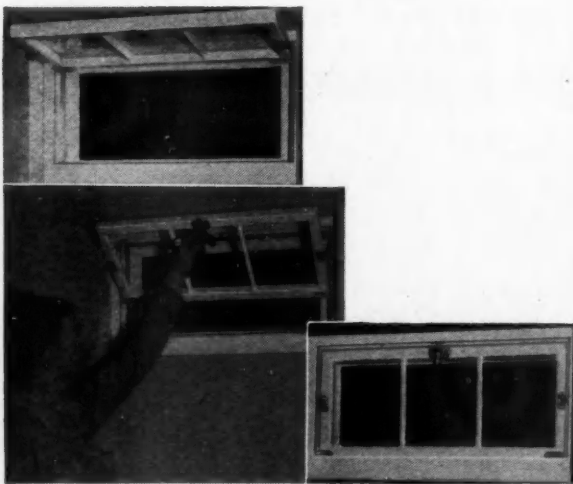
OWNERS want Silentite Windows—architects recommend them—builders prefer them! That's the story of Curtis Silentite pre-fit windows in war housing . . . in *any* housing.

Today, these modern wood windows are winning 100% approval in small house projects from coast to coast . . . because they cut installation time and cost . . . because they are delivered promptly . . . because they lower heating costs to a minimum . . . because they have Curtis built-in quality! For the houses of today—and of tomorrow—the wide range of Curtis

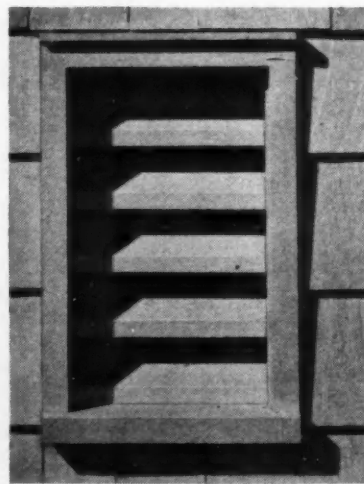
window applications assures the *right* answer for every window problem.

Curtis makes windows for every purpose. Today's demands call for speed—and for known, dependable quality. There's no time for guessing or experimenting. That's why CURTIS fits in so well—whether the job calls for a few sash or several carloads.

We'd like to tell you how you can be sure of woodwork satisfaction with Silentite Windows and other Curtis stock architectural woodwork. Mail the coupon today—or wire us if your need is urgent.



FOR LOW COST—speedy installation—use Curtis Silentite pre-fit basement sash. Made in sizes ranging from 2—2 x 1—6½ to 3—0¼ x 1—10½. Unit includes weatherstripping, screen, hardware. Carton packed and ready to set in wall. A real buy for any house or building!



NEW STYLE Curtis louvre sash. Back is covered with 16-mesh wire cloth. Rough opening 14 inches by 23 inches. Fine for small house. See other styles in Curtis Catalog.



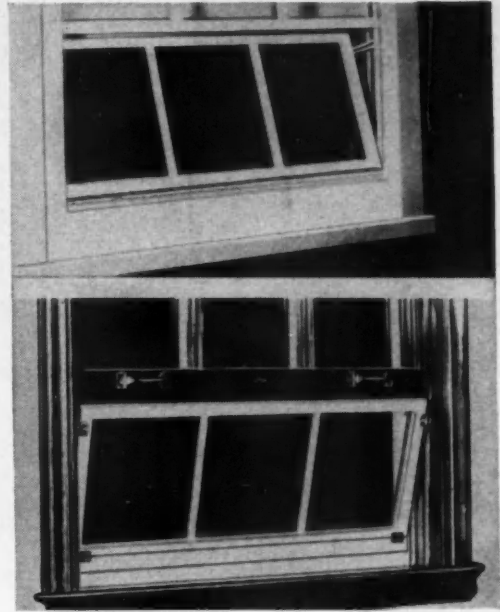
CURTIS ROTOVENT WINDOW for halls, lavatories, vestibules, attics, basements. Notice that it opens, is screened, weatherstripped. Complete unit carton packed.



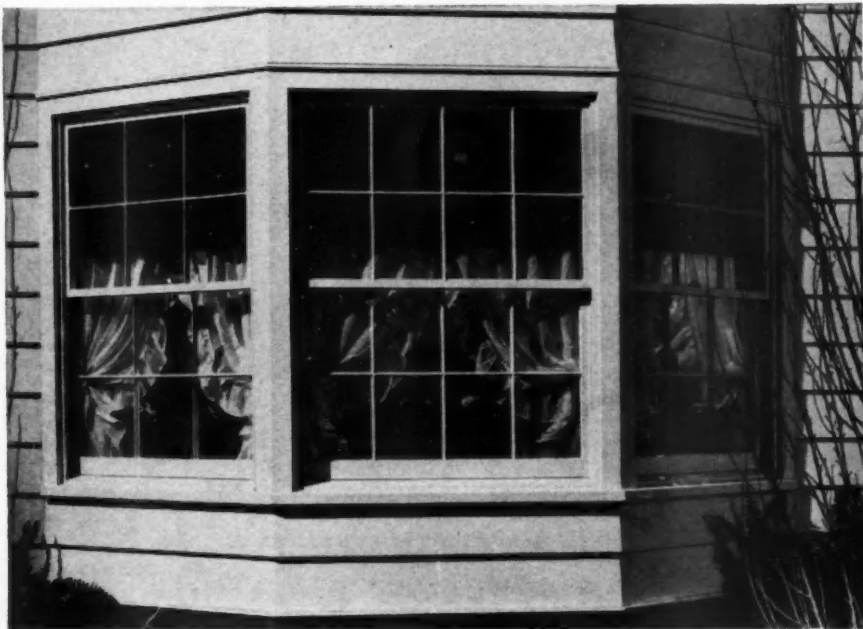
BEAUTIFUL AND PRACTICAL is this Curtis "view" sash. Provides modern way to assure maximum light in small homes. Several sizes and styles available.



JUST A MINUTE OR TWO is all it takes to hang a Curtis storm sash or screen, from either inside or outside. Order your screens and storm sash with your windows.



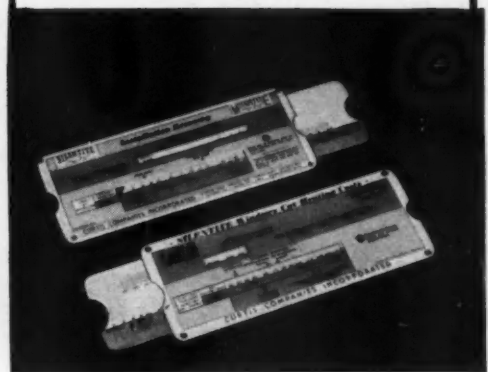
STORM SASH are made by Curtis in all stock sizes and styles. This is a close-up of "Protector-vent" sash which gives controlled ventilation. Use storm sash to save fuel.



BAYS ADD NEEDED SPACE and give style and beauty to small homes as well as large ones. Silentite double-bung windows offer all the improvements that made Silentite America's most popular window. Several bay styles are available—larger and smaller. Ask for bay details and illustrations of other types.

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HERE'S PROOF that Curtis Silentite windows save money—both in installation and in fuel. Write today for this FREE "economy calculator" and for fully illustrated literature on Curtis windows.

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 WOODWORK
SILENTITE
 PRE-FIT
 the "Insulated" window

CURTIS COMPANIES SERVICE BUREAU
 Dept. AB-7 Curtis Building, Clinton, Iowa

Please send me information about Curtis Silentite Windows and Curtis Stock Woodwork for low cost housing. I am especially interested in—

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On and Off the Record

by *Structor*

NEWS, VIEWS AND COMMENTS

BETTER NEWS—It is good to be able to report better news after all the tough breaks builders have been getting. Top man Blandford of National Housing Administration told Congress last month that he expects private builders to construct 200,000 houses this coming year—that is between July 1, 1942, and July 1, 1943. Also 260,000 units by remodeling. He said the War Production Board would see that the materials were forthcoming.

That's a lot of work, war or no war, and will keep a good many builders busy. It will all have to be done in places where the housing shortage is acute.

DURATION DORMS—At the same Congress hearing Blandford asked for \$600,000,000 more for publicly financed war housing under the Lanham Act. Most of this, he indicated, will be temporary construction, and a large part will be "duration dormitories." There will be 100,000 dorms to take care of single workers; 75,000 for couples; and 60,000 units for transient workers with children.

SENSIBLE SOLUTION—It seems sensible to let private builders handle as much of the permanent housing as possible, and Lord knows even with government encouragement it will be a tough job under present conditions. The dormitories to be built by the public agencies will be temporary, with critical materials cut to the bone. Some fantastic studies are being made as to how many people can be serviced by one toilet fixture.

PRIVATE VS. PUBLIC—Private builders have rightly earned the respect of top government officials. During the first four months of this year they produced 85,627 houses, worth \$287,118,000. This is an average of about \$3,350 per unit.

During the same four months the public agencies contracted for only 28,334 units, costing \$100,247,000, or an average of \$3,540 per unit.

Thus private builders put up three times as many houses at less cost per unit, and at NO cost at all to Uncle Sam.

VICTORY CABINS—Another smart idea which private builders can well take up is the building of small tourist-cabin type projects for war workers. *American Builder* has publicized this idea before. Now government officials are giving serious thought to encouraging the building of tiny units stripped to the bare essentials. A central wash house would serve the cabins which would be built in areas where they could later be useful for resort or tourist purposes.

ROSICLAIRE AND TONOPAH—The War Production Board has added Rosiclaire, Ill., and Tonopah, Nev., to the list of defense housing areas. Someone must have a lot of fun picking these fancy names. They also added Bagdad, Ariz., Hanna, Wyo., and Rising Sun, Ind.

WOOD IN WAR—At the start of war we heard a lot about wood being used as a substitute for critical metal material. Now wood itself is so much in demand for war uses that it resulted in the L-121 "lumber freeze" order which raised such havoc with building. Vast amounts of wood are being used in barracks and in the building of all kinds of war structures. It is rumored that prefabricated army housing has been flown to distant lands. Experimental plywood training planes have

attracted much attention and plywood with plastic glue is also used in the hulls of torpedo boats.

WPB points out that the amount of lumber used in 20 average civilian homes will build one mine sweeper. Yes, wood is in the war.

CONSERVATION NOTE—WPB statisticians also point out that beauty parlor equipment makers are in the war. They say that the metal that used to go into a single hair dryer now makes six hand grenades.

IN THE AIR—William V. Kahler has moved his entire Bureau of Construction of the War Production Board to New York, with offices on the 54th floor of the Empire State Building. From that elevated position the world looks smooth and peaceful, which is more than can be said for the way the building industry looks to Mr. Kahler and his associates.

Only a small staff of the Construction Bureau was left in Washington, with Thomas L. Peyton in charge.

In case you don't know, the five divisions of Kahler's Bureau are as follows:

- Project Analysis Branch
- Materials Control Branch
- Project Service Branch
- Housing Branch
- Consultation Branch.

NORFOLK PROBLEMS—The situation of many builders who went into business in Norfolk, Va., is acute. Acting in good faith and at the urgings of government officials, they bought land, materials, and invested large sums in equipment.

Today many of their houses stand completed, but without utility services. One builder has more than 50 houses standing without water. Others are unable to get enough copper wire to bring current in from the street to the house. Still others have been unable to get gas connections. In some cases families have moved into houses even though the utilities were not installed, creating such new hazards as disease resulting from the use of construction water.

Some of the families have been getting along with candles and kerosene lamps, as well as cheap kerosene stoves.

It is tough on everyone, and hardest of all on the builder who has large sums of money tied up which cannot be released until the jobs are fully completed. Even those that have been able to get utilities have had periodic stoppages due to the lumber tie-up, shortages of nails, wire and other items; and every time this happens they are forced either to keep paying their men, even though they're not working, or else run the risk of losing them to the shipyards.

The builders feel that they have been badly treated by government officials who got them into this situation, and then failed to see that the materials to finish their projects were forthcoming.

MORAL OBLIGATION—It seems to me that when the U. S. Government urges a builder to construct needed war houses and then gives him a priority preference rating on that job it has assumed a moral obligation to see that materials are available to enable the builder to finish the job.

If any further houses are to be built, the government must make its priority system on materials for utilities, as well as

(Continued to page 73)



Helping **THOSE WHO HELP**

M-H UNIT HEATER CONTROLS KEEP DEFENSE WORKERS AT TOP EFFICIENCY



Minneapolis-Honeywell is not only doing its share in the all-out war program, but is helping others who help as well. Minneapolis-Honeywell automatic processing controls and automatic heating and air conditioning controls provide faster production, conserve raw materials and promote employee efficiency. When you convert your present plant to war production, or build a new one, remember the essential importance of M-H Controls. Remember that M-H Controls eliminate production waste by maintaining product uniformity and conserve fuel by maintaining exactly the temperature needed. Minneapolis-Honeywell manufactures a full line of both electric and pneumatic controls and is in a position to assume undivided responsibility for the complete control system. Minneapolis-Honeywell Regulator Company, 2842 Fourth Avenue South, Minneapolis, Minnesota.

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Letters

from Readers

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

Complains WPB Is Holding Up Project

Troy, N.Y.

To the Editor:

Unquestionably many other small builders throughout the country, who subscribed to the *American Builder*, find themselves in the same predicament which I now face, i.e., the impossibility of getting authorization on new construction from the War Production Board. Apparently it is of no interest to the Board whether we stay in business, but it does seem that if the building industry is going to be productive in these critical times we must have quicker action on applications.

I have contacted my local FHA office and the Washington office and find that my application was promptly processed and forwarded; but apparently they have no more influence with the War Production Board than I have, as they merely referred me back to the Board.

I was told several weeks ago by a WPB official that the building program as affecting single-family dwellings was in a "state of flux" and that is the most I have been able to get from the all-powerful War Production Board to date, and I have been working on one project since April 9.

This may be of interest to you as it must be typical of the situation the small builders are now facing.

DONALD B. NICOLL.

Relies on American Builder

Osborn, Ohio.

To the Editor:

Enclosed is my renewal subscription to your *American Builder* publication for an additional two years. May I say that I have enjoyed your magazine for the past five years, and in these changeable times we rely very much on the latest information in each issue.

We are at present working on a project of 33 defense houses for Wright and Patterson Fields, in Osborn, Ohio. This work includes some Peaseway prefabricated houses, of which we are taking a house a day for twenty days. This is, of course, on priority and the new title six FHA financing.

ARCHER-MORRIS & CO.,
By Armand F. Archer.

Would Modify Restrictive Codes

Milwaukee, Wis.

To the Editor:

In serving the building industry generally, I believe that the keynote of the *American Builder* should be along the line of Donald Nelson's recent message before the Federal-State Conference on War Restrictions. He appealed to state and local governments to speed our war program "by moving in on restrictive laws at the earliest possible moment and ruthlessly trimming them" The restrictive effect of some building, sanitary, and safety codes was censored insofar as they require the exclusive use of critical materials or forbid the employment of satisfactory substitutes.

For example, local electrical codes illustrate the general problem involved in the whole network of construction regulations and ordinances. Many cities require the use of steel conduit or elec-

trical metallic tubing for electric wiring in all classes of dwellings. In the case of single-family dwellings, and some other classes of buildings, this requirement is not essential to safety or sound construction. It was suggested that local authorities compare their electric codes with the National Electric Code, which is the recognized authority for good wiring practice, and bring all of the local codes into conformity with it.

CUTLER-HAMMER, Inc.

By A. R. Johnson, Manager, Merchandising Sales

Plastering Before Brick Veneer Is Laid

Hebron, Ind.

To the Editor:

We are constructing a brick veneer home, and at present the brick is up to the grade level, and the frame part of the house is completed including all frames, roof and rocklath.

In your opinion, is it advisable and safe for the owner to plaster the house and continue with the finishing of it before the brick work is completed? He would of course wrap the house in Sisalkraft or some other equivalent paper.

HEBRON LUMBER CO.,
By D. A. Root.

ANSWER:

It would be entirely safe and practical to proceed with the inside plastering and other finish after the wood frame and water-proofing Sisalkraft application have been completed. The brick veneer course is really mostly for appearance; it is not in itself a weatherproof. A driving rain will penetrate a 4-inch brick wall; the water-tightness of the house will depend on the Sisalkraft or other waterproof building paper applied over the wood frame and sheathing before the brick veneer is laid up.

Of course, there should not be an unreasonably long delay before the brickwork is applied; because wind and storm would have a tendency to break and tear the waterproof paper. The brick wall does act to protect it from damage.

—EDITOR.

Progress in Lime Industry

Woodville, Ohio

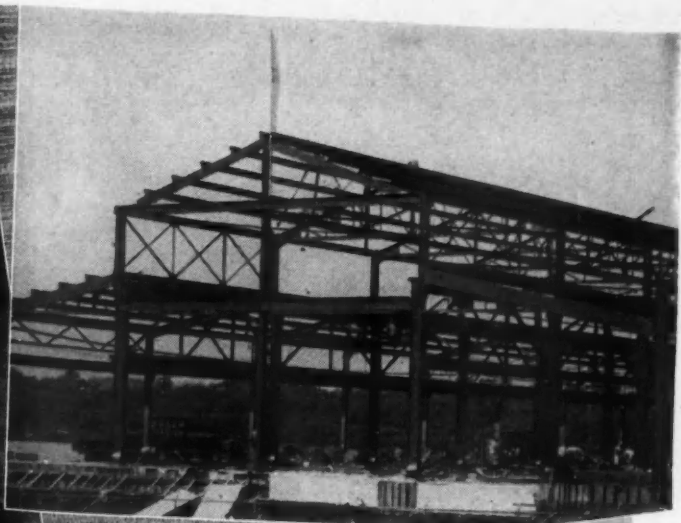
To the Editor:

After the World War we had an unprecedented demand for finishing lime and other lime products in building construction as well as for use in industrial plants and agriculture. We, therefore, stepped up production capacity until finally in 1927 we had provided facilities to produce 600 tons of burned lime products per day. As the result of recent restrictions on building, coupled with a higher unit cost of construction, the volume of material per individual home has been reduced. In spite of the increased demand for lime in agriculture and by chemical plants, the shrinkage in building has resulted in reducing total demand to approximately 60 per cent of capacity.

During the past three or four years we developed a pressure or autoclave hydrated lime, containing from 95 to 98 per cent hydroxides, to meet the new proposed federal specification. This product becomes plastic upon the addition of water and, therefore, does not require soaking over night. It is ideal for use in small buildings,

(Continued to page 74)

MACHINE TOOL PLANT addition, New England
HYDRO-ELECTRIC station, western New York
TELEPHONE EXCHANGE near Penna. army camp



*You Bet
it's war construction!*

It takes all kinds of construction to wage a war. Not just camp buildings, camp roads, airplane runways, but tool factories, ammunition plants, telephone exchanges, power plants.

And speed in this kind of war construction is all-important, too. That is why the concrete in the three assorted projects shown here was made with Lehigh Early Strength Cement. With this cement you save time, a lot of time, priceless time . . . otherwise lost

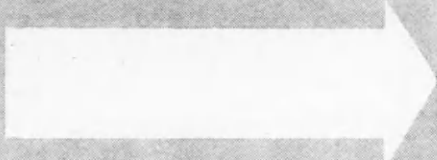
forever. For Lehigh Early Strength Cement gets concrete ready for full-time service in 1/3 to 1/5 the normal time.

Be sure to use this time-saving cement in all your concrete work. Its advantages are many and important, both in war construction and in such civilian building as the rules allow. The Lehigh Service Department will gladly answer any questions on this point.

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

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

THREE OFFERS AND A PROPOSAL



IMAGINEERING



★
SO MUCH
SO SOON
★



FIRST OFFER: If you operate *any kind* of equipment made of aluminum and you are baffled in any way in maintaining it in top condition—give us the facts, and we will rush you our recommendations.

We are busy making more millions of pounds a month than we made in a whole year, not so long ago—but not too busy to make sure that no single pound of aluminum at work anywhere on war effort shall fail to do its share of making whatever it takes to win.



SECOND OFFER: If you are making anything whatsoever out of aluminum, and are stumped in any way in setting up the best methods of fabricating it—give us the facts, and we will see that you get all the know-how in our power.



THIRD OFFER: If you have joined the host of those who believe that industry must even now be planning the new products that will make jobs when this thing is finally over; if you are letting your imagination soar: Won't you ask us to help you engineer it down to earth with all the up-to-date facts about Alcoa Aluminum, plus some of the very practical dreams we have been dreaming?

AND THE PROPOSAL: Do some personal Imagineering, right now, for the sake of your own personal tomorrow.

We have been talking Imagineering for some months largely in terms of the future. And in terms of industry. But here is the personal slant:



Thirty billion dollars is loose in the country. It is the gap between what is available for spending and what is available for personal purchases. Each of us has a sliver of that chunk of excess purchasing power.

If we put it into War Bonds, we are told that it will both finance the war, and avoid inflation. We sometimes forget that it will also finance ourselves, as users of goods, to buy the new products we are all readying, as makers of goods. Buying tomorrow, today, is patriotism and sense—business sense.

Aluminum Company of America, 2120 Gulf Bldg., Pittsburgh, Pa.

ALCOA ALUMINUM





**LOW COST CAN STILL MEAN
HIGH QUALITY**

when the plumbing is by Crane

HERE is the Crane Victory Bathroom especially designed for low-cost defense homes. Crane quality throughout, it represents the minimum use of critical materials. The lavatory is of vitreous china with faucets and waste pipe of cast iron. The closet is the efficient *Newton* made of vitreous china and the shower stall uses less than 25 pounds of metal.

In any low-cost housing project you are developing in defense areas, you will find the Crane Victory Bathroom will fit in with your plans—meet government requirements and provide the future home owner with economical, efficient service.

Consult your Plumbing Contractor for further information or call the nearest Crane Branch.

CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO
VALVES • FITTINGS • PIPE
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NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS



WASHINGTON

Review

Latest Rulings Affecting Builders



"Lumber Freeze" Is Not So Solid

THE War Production Board, on May 28, amended the Construction Lumber Order (L-121) to release from the restriction several grades and items no longer being bought by Federal Agencies, which are usable for war housing and farm purposes.

Among types of construction lumber released from the freeze provisions are 2-inch dimension shorter than ten feet; scant size 1-inch boards and 2-inch dimension; No. 1 heart common in three species not usually used for construction purposes; all No. 3 common dimension; all No. 2, 3 and 4 common boards in some species, No. 3 and No. 4 in other species, and No. 4 in still others; one grade of drop siding and flooring.

Among other purposes, these types and items are usable in side wall and roof framing which require only short lengths, for sheathing and subflooring in all types of housing and small buildings, and for the storage and packing of agricultural products.

No Priorities Now on Domestic Stokers

DEALERS can now sell and deliver, without priority, all stokers now in their stocks, regardless of size, and also sell, without priority, any additional domestic stokers (60 pounds and less) which the factory is able to ship them from now on. Announcement has been made by the War Production Board that Limitation Order No. L-79 was amended on May 23, 1942. In its amended form, coal stokers are not mentioned. The limitation order still applies to warm air furnaces using coal or oil as fuel; heating stoves and space heaters, for use with coal, oil and gas; oil burners; and metal fuel oil tanks.

Emergency Repairs to Plumbing and Heating Permitted

THE RECENT government order freezing plumbing and heating stocks in the hands of retailers does not mean that necessary emergency repairs cannot be made by plumbing and heating contractors, says the Plumbing and Heating Industries Bureau.

The freezing order, L-79, does not apply to plumbing and heating work which carries a rating of A-10 or better. The order, therefore, does not annul or supersede a previous WPB order, P-84, which gives plumbing and heating contractors and wholesalers an A-10 rating on emergency repairs and replacements for farms, residences, apartments, and other buildings.

The purpose of the P-84 order is to maintain minimum sanitary conditions and minimum heating required for public health, not only in defense areas but anywhere in the United States. The repair installation cannot include superior equipment or substitutions more extensive than required to replace wornout parts.

FHA Is Again Functioning on Title VI

FIELD offices of the Federal Housing Administration were authorized on June 6 to begin operations under the recent amendments to the National Housing Act making available substantial new funds for continued private building of war housing in designated critical areas, Federal Housing Commissioner Abner H. Ferguson has announced.

The new legislation increases by \$500,000,000 the FHA's authorization to insure loans by private lending institutions for the con-

struction of needed housing facilities for war workers under Title VI of the Act. Other changes are also designed to facilitate war housing construction by private builders, especially for rent.

In instructing FHA field offices to proceed under the new amendments, Commissioner Ferguson stressed that only housing which is urgently needed for the war effort and which is so designed as to effect maximum economies in use of scarce materials would be financed under the program.

In order to qualify for FHA war housing insurance commitments, proposed projects must meet the following tests.

1. The builder must have preference rating orders to secure critical materials, or must present evidence that the necessary materials are on hand and that the War Production Board has authorized the starting of construction.

2. Plans must be rechecked by FHA field offices to assure minimum use of critical materials.

3. There must be satisfactory assurance that lumber needed to complete the construction is obtainable.

4. Materials required for utility connections must not exceed the maximum standards established for war housing by the War Production Board.

5. Commitments will not be issued if readjustments in present or proposed war industry operations has eliminated the essential need for such war housing.

Bigger Loans for FHA Remodeling

REMODELING loans on the FHA plan have been converted to a strictly wartime basis, Federal Housing Commissioner Abner H. Ferguson has announced.

A new type of "war conversion loan" up to \$5,000 is available for converting an existing structure into additional living accommodations for war workers. The remodeling job must be in a designated war production area.

"This type of loan, with a term as long as 7 years, is of first importance because of its direct contribution to the war effort," Mr. Ferguson said.

Examples were cited by FHA of the type of work which may be done. Several rooms suitable for rooming or housekeeping purposes may be remodeled. An attic or a second story may be remodeled into an apartment. A structure not now a dwelling may be remodeled into a one- or multi-family house.

In spite of some misunderstanding about the new FHA terms, loans up to \$2500 are still available for necessary maintenance and repair work to safeguard health, safety, and maintain property in good working condition. These loans are not limited necessarily to war production areas.

Dealer Sales of Fencing and Roofing Permitted

AMENDMENTS to Orders M-21 and M-21-b to permit the sale on unrated orders of fence wire, barbed wire, poultry netting, fence posts, gates, staples and corrugated roofing and siding have been issued by the War Production Board.

These items are added to nails, bale ties and small pipe on which no priority ratings are necessary for sales from warehouses and dealers. The action was taken because these items are constantly used by farmers and householders for maintenance and repair.

(Continued to page 20)

Concentrating on RE-ROOFING



MEANS BUSINESS *right now!*

Right in your own
community folks who
need new roofs . . .
know Texaco!

When you talk Texaco you're talking a famous trade name that millions know—that goes a long way to make the sale. Tie in *your name* with *Texaco*. It's a sales-clinching combination—two names that are *well known right in your own community*.

We repeat: Concentrating on re-roofing means business — right now, when business is not-as-usual. Farm and home owners have homes and other buildings *that need re-roofing*. And they've got the money to do it. It's a *profitable market*.

Remember — *Texaco shingles are asphalt shingles*, and asphalt roofing is the most popular type in America — actually a 2 to 1 favorite over all other types of roofing combined! In fact today *more asphalt shingles are being bought than ever before*. They've reached a new high in popularity! And remember — many of these shingles carry a famous name — *Texaco* — a name that millions know and trust.

So — pair up these two selling angles: a highly *popular product* and a mighty *popular name*. It's an unbeatable combination for bringing home the business!

* * *

Texaco Asphalt Roofing Products are available to Texaco Roofing Dealers through a large network of Texaco warehouses — east of the Rockies. Drop in, write or 'phone your nearest Texaco Roofing Dealer today, or write The Texas Company, Roofing Sales Division, 135 East 42nd Street, New York, N. Y.



TEXACO *Asphalt* ROOFINGS

Made with Texaco's own asphalts 99½% pure

WASHINGTON REVIEW

(Continued from page 18)

Construction Estimates Boosted

WAR construction is running at a rate of about \$12,500,000,000 a year, it was estimated on June 15 by the War Production Board.

A further increase in building is expected to send the volume of essential construction past the \$13,500,000,000 mark by the end of the year—topping by 20 per cent the total construction for 1941, when an all-time record was set.

The construction industry has been converted almost entirely to work directly connected with the war effort. Of construction put in place through mid-June, all but 22 per cent was for airfields, war plants, camps, shipyards, war housing and the like.

Last year civilian construction amounted to approximately \$4,000,000,000 and it has been falling off sharply since that time. In the first quarter of this year such construction totaled approximately \$215,000,000—or an annual rate of about \$850,000,000.

Sale of Old Houses Picks Up

THE "For Sale" sign is disappearing from more and more older houses throughout the country—one encouraging development in the wartime housing picture.

With material shortages virtually preventing new construction except for war workers, home seekers are turning in greater numbers to the purchase of existing structures, the Federal Home Loan Bank Administration, has reported. Its officials cited two illustrations of mounting activity in the "used house" market.

In the first four months of 1942, savings and loan associations made loans totaling \$161,022,000 for such purchases, an increase of 9 per cent over the same period in 1941, although the same institutions' total lending volume of \$342,703,000 for the four months represented a decrease of 11.8 per cent from the year before. In the month of April alone, more than \$52,000,000 of the \$100,000,000 loaned by these associations went into "home purchases," a gain of 27.5 per cent over their March figures on such transactions.

Dept. of Ag. Buys Grain Storage Bins

THE Department of Agriculture announced on June 8 that Commodity Credit Corporation had contracted for construction of 26,610 wooden grain storage bins having a combined capacity of approximately 60,000,000 bushels. Half of the bins were to be delivered during June and the other half during July.

Negotiations are proceeding for the construction of facilities to accommodate an additional 40,000,000 bushels for delivery during the same period and other contracts are expected to be let shortly, CCC officials explained.

The bins are to be either precut or prefabricated and will contain no metal; in fact, some will be mortised to fit without nails. They will be delivered to the heavy wheat-producing states. Some will be used for storage of wheat owned by CCC, but it is expected a greater number will be sold to farmers.

Producers desiring to purchase any of the storage bins should make application immediately to their county AAA committees. Purchases may be made for cash or on the security of a note and chattel mortgage to be paid from the proceeds of the producer's first loan or conservation payment.

No More "Amusement" Construction

IN A MOVE to free more material and equipment for the war program, the War Production Board on May 23 ordered all construction costing \$5,000 or more which is primarily for the amusement of the public to be stopped before June 6. Construction already underway is included.

This order—L-41-a—exempts only playgrounds for children, strictly temporary construction, and construction costing less than \$5,000. To continue construction of any other projects of this type, specific authorization must be obtained from the War Production Board.

Construction for both the outdoor and indoor amusement of the public is affected by this stop order. Included are amusement parks, stadia, race tracks, movie theaters, arenas, baseball parks and the like.

Inspectors Checking L-41 Compliance

ANATION-WIDE survey of all construction started since April 9, effective date of Conservation Order L-41, has been inaugurated by the Compliance Branch, WPB announced on May 20. Home Owners' Loan Corporation is lending the services of approximately 3,000 of its examiners for a detailed check on the degree of observance of the terms of the conservation order, to assure use of scarce materials only in essential building operations.

Reports of the HOLC examiners will be reviewed by the Compliance Branch, and appropriate action will be taken in cases of violation of priorities procedures or the provisions of L-41.

Added Plywood Production—Fewer Sizes

REDUCTION of the number of sizes of moisture-resistant Douglas fir plywoods from about 4300 to approximately 300 has been ordered by the War Production Board in order to create an additional production of about 20 million feet per month. The sizes permitted will satisfy all normal consumer demands, including war requirements, according to officials of the Lumber and Lumber Products Branch.

"Lumber Freeze" Order Relaxed

MORE than 100,000 of the most essential war housing units now under construction have been given relief from the restrictions on lumber deliveries contained in Limitation Order L-121.

After investigation by the National Housing Administration and the WPB Lumber and Lumber Products Branch, these war housing projects were selected as the ones whose completion was most urgently needed in the war effort.

John B. Blandford, Jr., National Housing Administrator, reported that construction activity on these projects would have ceased almost immediately unless relief had been granted.

The 100,000 war housing units involved are divided almost equally between those publicly financed and privately financed. In the former category are 76 projects in 25 states, covering 54,039 units. The privately financed projects include 51,350 units in 32 localities in 20 states.

Dormitories Planned for War Workers

"DURATION dormitories," temporary in structure but providing the accommodation essential to the health and welfare of war workers, are now being developed by the Federal Public Housing Authority as part of its war housing program.

These new self-contained dormitories are planned for a two-fold purpose—(1) to promote the worker's productive efficiency and increase the output of war industry plants, and (2) reduce the use of critical war materials to a minimum and provide a solution to the growing transportation shortage resulting from the restrictions on tires, gasoline and automobiles.

Planned particularly for round-the-clock, three-shifts-a-day plant schedules, the sleeping rooms are planned with a view to avoid disturbing noises. Ceilings, walls and floor coverings will muffle noise. Space is cut to a minimum through careful placing of the few essential pieces of furniture for these rooms which are used only for sleeping.

Each dormitory, as planned, is composed of from two to four sleeping wings, with a sanitary center with lavatories and showers. In the basement of the sanitary unit will be located the central heating system for the dormitory. Short passageways connect the sleeping wings with the other parts of the dormitory.

Dining facilities are provided in one hall for the entire dormitory block. Like the rest of the dormitory, the dining facilities are adapted to the 24-hour-a-day operation of the plants, with breakfasts for workers going on shift and dinners for those finishing their shifts.

The principal recreational facilities are located in a central building. This area will provide: a lounge, library and writing room, indoor games room and combination gymnasium-auditorium for multiple community use. Each dormitory will also have an infirmary.

AMERICAN HEATING EQUIPMENT & "Standard" PLUMBING FIXTURES
 "in wartime!"

AMERICAN Heating Equipment and "Standard" Plumbing Fixtures meet requirements in price, type and suitability. For more housing . . . more factories . . . more urgently needed building to help the war program . . . needed Heating and Plumbing is supplied by these two famous lines under current regulations governing production.

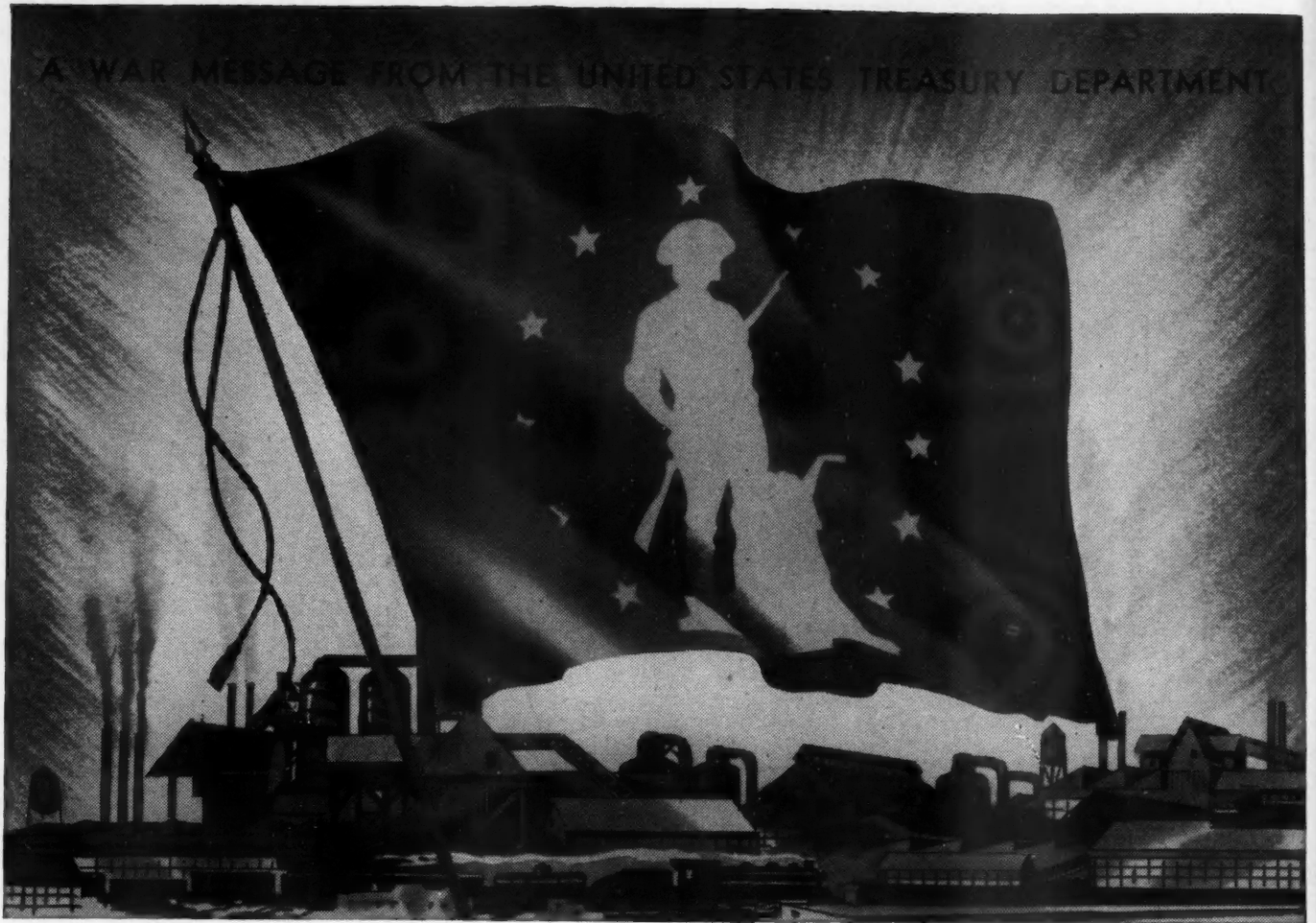
AMERICAN HEATING EQUIPMENT
 COST NO MORE THAN OTHERS
 "Standard" PLUMBING FIXTURES

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Cast Iron & Steel Boilers & Furnaces for Coal, Oil, Gas • Radiators • Cast Iron Enameled & Vitreous China Plumbing Fixtures & Plumbers' Brass Goods • Winter Air Conditioning Units • Coal & Gas Water Heaters • Oil Burners • Heating Accessories

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Next to the Stars and Stripes . . .

AS PROUD A FLAG AS INDUSTRY CAN FLY

Signifying 90 Percent or More Employee Participation in the Pay-Roll Savings Plan

IT doesn't go into the smoke of battle, but wherever you see this flag you know that it spells Victory for our boys on the fighting fronts. To everyone, it means that the firm which flies it has attained 90 percent or more employee participation in the Pay-Roll Savings Plan . . . that their employees are turning a part of their earnings into tanks and planes and guns *regularly*, every pay day, through the systematic purchase of U. S. War Bonds.

You don't need to be engaged in war production activity to fly this flag. Any patriotic firm can qualify and make a vital contribution to Victory by making the Pay-Roll Savings Plan available to its employees, and by securing 90 percent or more employee participation. Then notify your State Defense Savings Staff Administrator that

you have reached the goal. He will tell you how you may obtain your flag.

If your firm has already installed the Pay-Roll Savings Plan, now is the time to increase your efforts: (1) To secure wider participation and reach the 90-percent goal; (2) to encourage employees to increase their allotments until 10 percent or more of your gross pay roll is subscribed for Bonds. "Token" allotments will not win this war any more than "token" resistance will keep our enemies from our shores, our homes. If your firm has yet to install the Plan, remember, **TIME IS SHORT.**

Write or wire for full facts and literature on installing your Pay-Roll Savings Plan now. Address Treasury Department, Section D, 709 12th St., NW., Washington, D. C.

Make Every Pay Day "Bond Day"

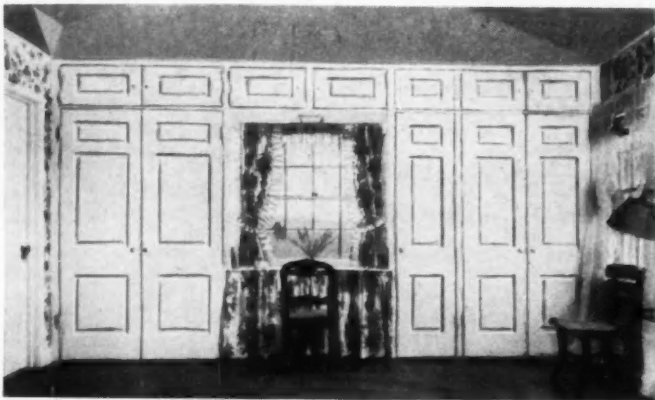


U. S. WAR Bonds ★ Stamps

This Space is a Contribution to Victory by AMERICAN BUILDER AND BUILDING AGE

**"HERE'S HOW I PREVENT
WARTIME 'HEADACHES'
IN BUILDING—"**

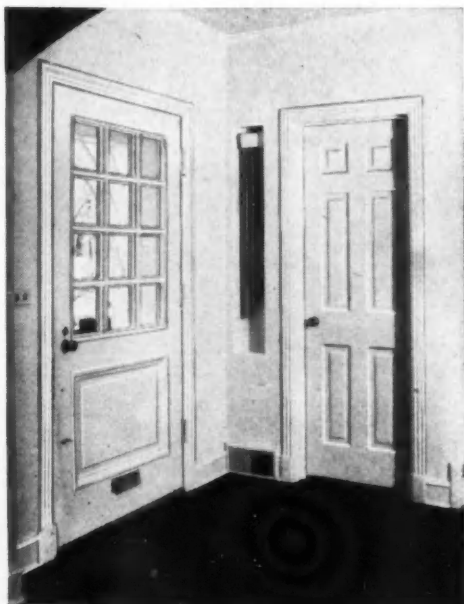
● "There are plenty of problems in building today. Shortages of critical materials—cost restrictions—the need for extra speed in construction—are just a few. In meeting these conditions, I've found that stock doors, frames and windows of Ponderosa Pine are an invaluable aid. Let me tell you why!"



NON-CRITICAL—QUICKLY AVAILABLE—Note how the Ponderosa Pine window, door and roomy closets create new charm, and make this room more useful. Even though Ponderosa Pine is so extensively used in defense housing, it is available for private remodeling also. With remodeling costs restricted, the versatility of Ponderosa Pine woodwork assures your getting styles adaptable to any architectural design.



LOW IN COST—HIGH IN VALUE—Windows can make all the difference in a home! In the room above, notice how the windows make the room look larger—a valuable device where space is limited. Notice, too, the storage area which Ponderosa Pine provides in the window seat. The Ponderosa Pine door makes it possible to shut off the adjacent room, if desired, to conserve fuel. All of this can be done at *low cost*.



GREATER SPEED—PLUS GREATER CONVENIENCE—A wide selection of well-constructed, appropriately styled doors, frames and windows of Ponderosa Pine will help you speed the job of building today—will help you increase convenience without increasing cost. In this hallway, for example, note the architectural beauty of the two doors—and the convenience of having a big, roomy closet adjacent to the entrance door!

FULL OF PRACTICAL IDEAS—THE NEW "OPEN HOUSE" It's crammed with ideas that fit today's needs and conditions—ideas that are a definite aid in building and remodeling for the duration, and after! This new edition of "Open House" is a revised and authentic version of the book that has created a sensation with the public. You'll find it a valuable idea-source to keep in your file—and to use. Write for your free copy! Ponderosa Pine Woodwork, Dept. XAB-7, 111 W. Washington St., Chicago, Ill.



Ponderosa Pine
WOODWORK



START PLANNING NOW FOR SLOAN-EQUIPPED HOMES



AFTER the war, even modest homes and inexpensive apartments will be Sloan-equipped. Heretofore, flush valve usage has been largely restricted to luxury homes, large apartments, clubs, hotels, hospitals, schools and all types of large buildings. But here is our promise to you now:—after the war is over and priorities on critical materials have relaxed, there will be Sloan Flush Valves, with all their inherent advantages, for residences.

What advantages? Many. For 36 years Sloan Flush Valves have proved their trouble-free durability 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.

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





Private Construction Can Be Resumed Long Before End of War

AS DUSK approaches men stand before a huge switchboard of a big city power and light company adjusting the power input from day-time to night-time needs. Needles of indicator dials on the board twitch and jump spasmodically as lights are turned on throughout the city. Then, as more electricity is fed into the circuits, the needles become quieter, until balance is reached between power input and consumption. In much the same way the building industry is making a bumpy switch-over from peacetime to war production. Right now conditions seem chaotic to many building men, yet not far ahead can be seen the approaching balance that can permit the building industry to resume some of its essential services to the nation without depriving war production of either vital materials or man-power.

As this is written the building industry has come face-to-face with the cold hard fact that we are at war, and that war has first call. Men and materials are needed to complete factories for arms production, for training camps, and to man war industries. In order to supply these needs, new private construction has been brought to a virtual standstill. Cramping price limits have been placed on residential and commercial remodeling, and even on farm building. Up to 50 per cent of carpenters and other building mechanics in many communities have either migrated to build army camps or war plants, or have quit building temporarily to take jobs in war industries. Contractor-builders, other than those building war plants, or in war industries, are short-handed. They are finishing work started prior to April 9, 1942, are busy with remodeling or repair work, or are standing by awaiting developments.

Because of these conditions there has been a severe, but temporary, dislocation of buying factors in the building industry.

AT THIS MOMENT the industry is in turbulent condition, and—to a few pessimists—might seem to have no hopeful future. But we should never forget that building men are resourceful. They have to be, in order to live. They frequently have demonstrated their ability to live through booms and depressions and to

come out on the other side ready for business. To seasoned building men, the present war brings another unusual condition in a long succession of unusual conditions.

Fortunately there are indications of smoother sailing ahead. Our cantonment building program is approaching its peak. Most arms plants are completed, or will be completed within six months. The original "lumber freeze" order has nearly run its course; and before it had reached the half-way mark some of the original stringent requirements were relaxed, making dimension under 10 feet long, and certain other items, available for distribution through normal channels.

MANY ACTS of the War Production Board are designed to force men and materials into vital war production. When our nearly completed cantonments and war plants are built, and the latter are staffed and running full blast, there will remain surplus non-critical building materials and man-power that can be released for private use without in any way hampering war production. It should be kept in mind that even under the present unusual conditions about half of the nation's carpenters and building mechanics have not found places in war industries and are still available in their home communities. *American Builder* has reports from 734 lumber and building material dealers in all parts of the country, indicating that about 80 per cent of the contractor-builders still are available in their home communities. Age limitations keep many building mechanics and contractor-builders out of jobs in war industries. These men, when engaged in private construction, render an essential service to the nation by providing shelter, factories, stores, and by protecting the public health and welfare in other ways. The essential nature of their services is shown today by critical housing shortages, and by urgent need for additional grain-storage facilities on farms, neither of which can be filled at the moment.

The instant America reaches its peak of war production, much of the present drain on man power and materials in the building industry will no longer be a war necessity. That time is not far away, (Continued to page 60)

FIX up the kitchen.



ADD a dining nook.



BEAUTIFY the bath.

How to

STAY in BUSINESS Dur

101 Jobs You Can Do at a Profit under L-41. Use this List to Help Sell

THERE'S no use being a Pollyanna under present conditions but neither is there any point in ignoring or neglecting the work you CAN do. Too many people are talking about what they *can't* do. Well, here is a list of at least 100 jobs that under most conditions, and with due reference to reasonable cost, can be done at the present time, even under war conditions.

After all, the war isn't going to last forever, and in the meantime the job of every builder is to carry on—as far as he can without interfering with, or retarding, the war effort. There are hundreds of jobs that can still be done—profitable, useful work that is necessary to keep America's housing and structural plant in shape.

It might be wise, just to refresh your mind, to go back and read the famous L-41 Construction Conservation Order issued by the War Production Board, or better yet, write the Construction Division of WPB in its new quarters in the Empire State Building, New York City, for the latest revisions and interpretations of the order. Be sure you're right, then go ahead. There is no question at all about builders in defense areas being able to keep busy if they are willing to hunt around for jobs—particularly remodeling jobs to add additional living space. In nondefense areas the attached list should prove helpful. There is still plenty of work that needs to be done in the building field and that CAN be done by firms that are willing to go after it.

101 HELPS

1. Sell reroofing jobs.
2. Add a modern screened porch.
3. Build a basement playroom.
4. Add extra room in attic.
5. Install new linoleum floors in halls, bath, kitchen.
6. Refinish living room floors.
7. Rebuild old closets and add new.
8. Give house a new "overcoat" of shingles, siding or stucco.
9. Add a guest room.
10. Build a child's play house.
11. Build a rose arbor.
12. Modernize the kitchen.
13. Add dormer to enlarge upstairs.
14. Install shower; noncritical materials.
15. Refinish bathroom walls with washable, durable material.
16. Paint exterior in modern colors.
17. Restyle interior paint job.
18. New kitchen cabinets, counter tops.
19. Add dining bay off kitchen.
20. Build dining room corner cabinets.
21. Add wing to living room.



SELL reroofing jobs.



INSULATE attic to save fuel.



NAUTICAL guest room in attic.

During the War

22. Install more windows.
23. Build an attic storage and study.
24. Build bay window and seat.
25. Build a basement bar.
26. Sell Williamsburg fences, gates.
27. Add a dining terrace.
28. Build double bunks for boys' room.
29. Enclose a sleeping porch.
30. Add a needed bedroom.
31. Repair and refinish stairs, steps.
32. Cover walls with washable paper.
33. Build protected entrance.
34. Insulate house to save fuel.
35. Enamel kitchen and bathroom walls for easy cleaning.
36. Build upstairs broom closet.
37. Weatherstrip doors and windows.
38. Install storm windows.
39. Waterproof basement walls.
40. Rehang sticky windows and doors.
41. Install door and window flashing.
42. Repair gutters and downspouts.
43. Repair sidewalls, and shingle.
44. Eliminate warped, sagging joists.
45. Examine sills and treat for termites.
46. Check foundation and basement walls for settling, cracks, leaks.
47. Build a new garage.
48. Install modern woodwork.
49. Build in new bookcases.
50. Enclose open porch.
51. Build cement drive, walks, steps.
52. Build a vegetable storage room.
53. Repoint and repair masonry walls.
54. Rearrange kitchen to save work.
55. Add a built-in broom closet, ironing board or kitchen table.
56. Repair or rebuild back porch.
57. Add a room for war worker.
58. Rearrange living room entrance.
59. Build new china cabinets.
60. Build a new fireplace.
61. Enlarge entrance and coat closet.
62. Install a cedar-lined closet.
63. Build new shelves, linen closet.
64. Install a clothes chute.
65. Add a dressing room.
66. Install mirror doors.
67. Build cabinets under open sink.
68. Repair leaky flashing.

BASEMENT recreation rooms are still a good source of business, as indicated by this pleasant job with knotty pine walls and colorful asphalt tile floor.



RESIDING old houses produces big business.



ADD a dormer window for extra space, or reroof, repaint, or build a picket fence.

101 Helps to Business

- | | |
|--|---|
| 69. New garage door. | 86. Build new shelves. |
| 70. Rebuild walks, fences. | 87. Build small defense addition. |
| 71. Provide new window and door screens. | 88. Increase machine shop capacity by new wing. |
| 72. Restyle fireplace. | 89. Remodel subcontract plant to increase capacity. |
| 73. Panel fireplace wall, build in bookcases. | 90. Build small shop or store (under \$5,000). |
| 74. Enclose old-fashioned radiators. | 91. Build tourist cabins to accommodate defense workers. |
| 75. Convert space into sewing room. | 92. Remodel auto display room into defense workshop. |
| 76. Install new space-saving sliding doors. | FARM CONSTRUCTION |
| 77. Replace worn sash. | 93. Build a new barn. |
| 78. Build breakfast nook. | 94. Put hogs on concrete. |
| 79. Cut large bedroom into two small ones. | 95. Construct poultry sheds. |
| 80. Add an outside basement entrance. | 96. Build grain bins. |
| 81. Build dustproof coal bin and ash-pit. | 97. Repair and paint farm buildings. |
| 82. Build a tool room in basement. | 98. Reroof buildings. |
| 83. Add authentic Colonial shutters. | 99. Construct farm building addition. |
| COMMERCIAL JOBS | 100. Build new fences. |
| 84. Fix up store front. | 101. Fix up farm house. |
| 85. Remodel display areas. | |

Restyling the Old-Time "Cozy Corner"

How to Modernize with Glass and Mirrors

MOST of the better houses built back in the gay 90's boasted some sort of a cozy corner or nook, often as a part of the stair hall or as an alcove in living room, library or parlor.

These old cozy corners, once so highly prized, are now dead weight when a home is offered for sale, or when a new generation decides to restyle the old home to capture part of the thrill of present-day styling.

The photograph shown right below is quite typical of these choice old stair hall examples of the house embellisher's art. It has been selected by Libbey-Owens-Ford Glass Company as a fair sample for modernization and restyling. This is part of a new series of design suggestions and construction details offered by this company. The suggested scheme for revising this stair hall, screen and fireplace, as worked out by a leading decorator, is illustrated in sketch form immediately above the photograph, while working drawings showing the essential details of construction are pictured below.

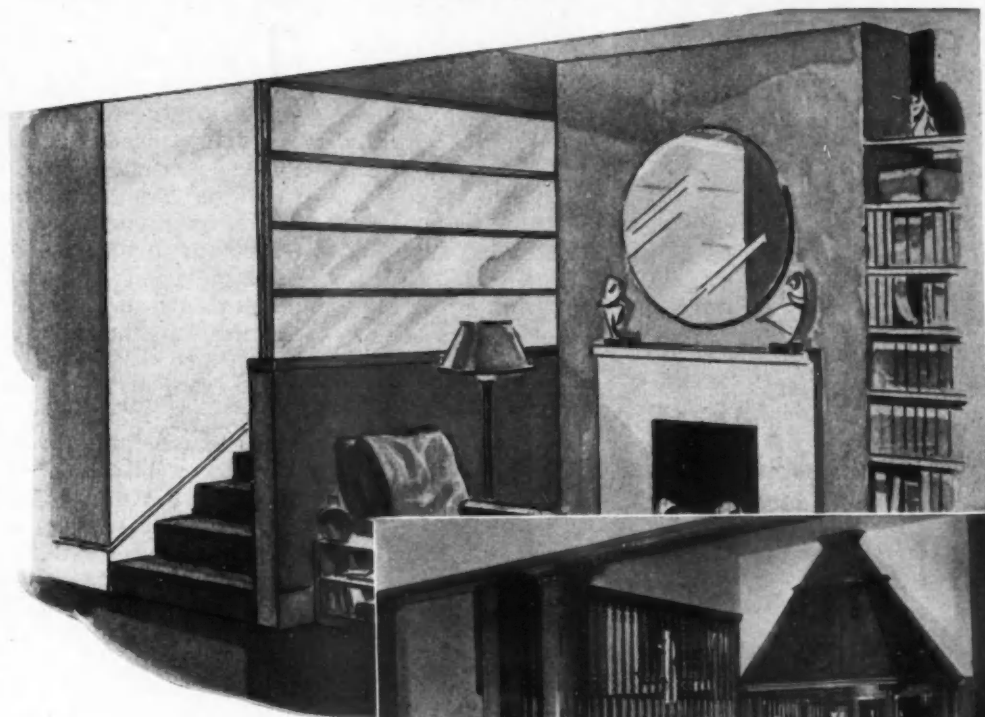
Notice that the beam work, with its supporting columns, has been cleared away, the spindle balustrade has been removed, and horizontal glass panels substituted to serve the double purpose of cutting off drafts, thereby effecting worth while fuel savings and added comfort, and giving to the stair hall a bright, fresh, modern feeling. The old elaborate over-mantel and bracketed shelf has been removed and a simple circular plate glass mirror

is mounted over the simplified mantel. Open bookshelves fill in the space to the right and complete the picture.

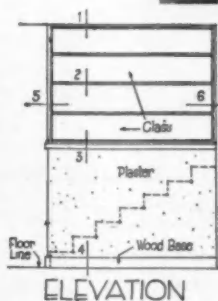
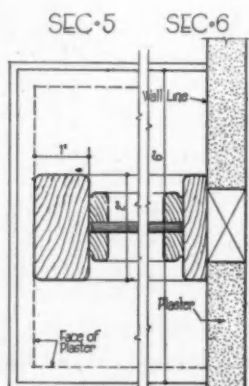
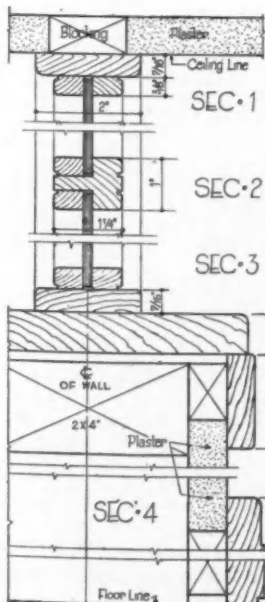
A project of this sort comes easily within the \$500 limitation for present residential improvements.

The method of handling an operation of this sort is extremely simple: Remove all unnecessary old woodwork, take measurements and order all new woodwork as detailed. The glass framework is to be delivered already finished in the shop except for glazing and painting.

Place all necessary plaster grounds, nailing blocks, etc., and have plasterer repair and patch all plastered walls to match present walls. After plastered surfaces are thoroughly dry, install new wood finish as shown on



MANY an old-time "cozy corner" cries out for restyling; here is a scheme using glass and mirrors that will brighten up any home.



the detail drawings illustrated at the left.

The glass frame should first be fastened to the ceiling and sidewalls and then the wood coping underneath (see Sec. 3) should be wedged tightly against it. All parts should be fastened together and finished as detailed. Install glass panels, securing them in place with glass mouldings as detailed. Paint or stain woodwork; paint or plaster surfaces.

We Put **EXCITEMENT**

INTO WAR HOMES

25-house job near Worcester, Mass., built and sold at top speed. "Plenty of materials here," builder reports as he starts 50 more houses



BLONDE SECRETARY Constance Whittington greeted war workers at the "Green Acres" model home opening. Sales soared.

THIS 25-house war worker job near Worcester, Mass., created plenty of excitement for everybody concerned. Scrambling for priorities, materials and labor afforded plenty of excitement for the builders. They decided to pass on some of the excitement to the buyers. War workers, like others, thrive on it.

In the first place, the builders tried to make the houses as interesting and exciting as possible, and that wasn't easy with a 28'-8" x 24'-8" plan and a Title VI price limit. Yet they did a pretty good job as the pictures with this story show. They made the kitchen really exciting for the war workers' wives, who definitely appreciated the bright colors, built-in cabinets, fine big sink with work counter and cheerful linoleum floors.

But what about the husbands? For them a pretty blonde hostess was provided at the model home opening. She created lots of excitement. And so, war or no war, priorities or no priorities, Green Acres has gone ahead with lots of zip and speed.

Green Acres was built by Security Homes, Inc., Benjamin Josephs, president, in Auburn, a little community near the war factories of Worcester. Construction operations were handled by John A. Olson, a local builder of long experience who is president of the Master Home Builders Association of Worcester.

The 25 houses were laid out with the aid of the FHA Land Planning Division in a very attractive fashion



HARRY C. PRINCE, bank teller, built this model of "Green Acres" and it was displayed in the bank preceding the formal opening.

"JUST a small job of 25 houses—but more than 3,000 people came out over the week-end to inspect the attractive little 28'-8" x 24'-8" houses.



arranged informally around a typical New England "village green."

Sales were so successful that an additional group of 50 houses is to be started in July. The new job, to be known as "Ridgewood Homes," will be located in the spot where utilities are already all in.

"There are plenty of building materials in our section," Josephs told *American Builder*. "We have had no shortage of lumber nor of anything else, and we expect to go ahead with our next 50 houses full speed under the latest regulations of the War Production Board and FHA."

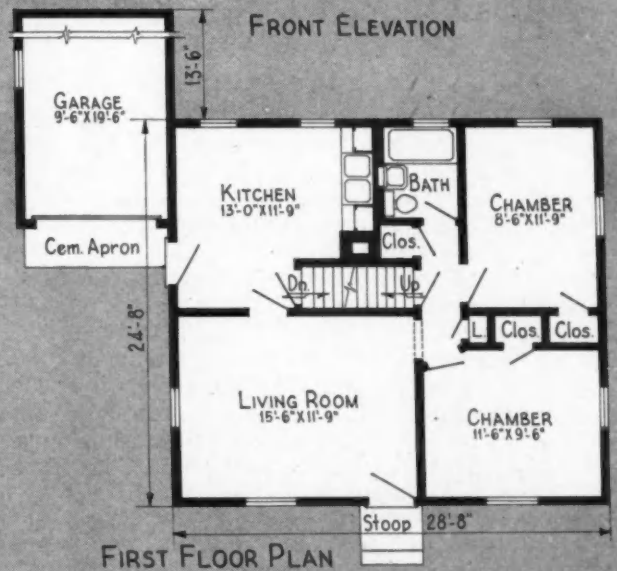
There are plenty of headaches, of course, Josephs readily agreed, but he said they have always found a way to keep going. The new job is to be located within walking distance of Worcester's war industries, where propellers, machine tools and steel and wire products are being turned out.

One reason for the success of Green Acres, according to Josephs, was the active co-operation and participation of the Worcester County Institution for Savings, which handles the financing. This bank paid for large space advertising announcing the model home opening and provided the blonde secretary who acted as hostess. One of the bank's tellers, Harry C. Prince, spent many

(Continued to page 79)



FRONT ELEVATION



FIRST FLOOR PLAN

COLONIAL COTTAGE PLAN used at Green Acres is compact, livable, puts punch in small plan.



PLENTY of excitement in this fine kitchen. The war workers' wives liked it—told their friends.

DOWNHEARTED?—Not this builder. He built and sold 25 houses under Title VI when times were at their toughest. Now he's going to build 50 more on site where utilities are already in. "Priority headaches? Of course, but we're getting the materials."

Evansville, Ind., Tackles War Housing



Conversion to war work turns prospective ghost-town into a boom-town and calls for quick housing. Nineteen-day homes resulted

LESS than a year ago, the people of Evansville, Indiana, were disheartened and afraid. As the rest of the nation tightened its belt to undertake the biggest program of production in history, the citizens of Evansville were dreading the day when their manufacturing plants would be forced to shut down because of inability to procure materials for consumer goods. Evansville seemed doomed to become a ghost town. The newspapers and magazines took up the story.

As a result, the spotlight was soon upon Evansville and upon its leaders in civic and business life who were determined that their city, with its outstanding facilities and advantages as a manufacturing town, should play a prominent part in the great battle of production. Evansville men went to Washington and became known to many important officials in the capital. And soon things began to happen back home.

The outlook for Evansville was brighter. Instead of economic extinction, the city faced an era of tremendous activity. The ghost town, transformed into a boom town, immediately prepared to face the next big problem—housing.

Again Evansville was on its toes. This time, a group of the city's leading lumber dealers met together and decided that there was no necessity of the government providing housing in Evansville—they could do it themselves. They believed they could do a creditable job and finish it within the required time. They could provide Evansville families with the kinds of homes they wanted, and at the same time give private enterprise whatever advantages were to be gained from the venture.

One of the city's outstanding builders, Bradford Homes, Inc., reputed to have built 33 1/3 per cent of the homes in Evansville, has contracted to build some 1200 of the homes needed this year. Their part of the project is already well under way, 17 houses completed in April.



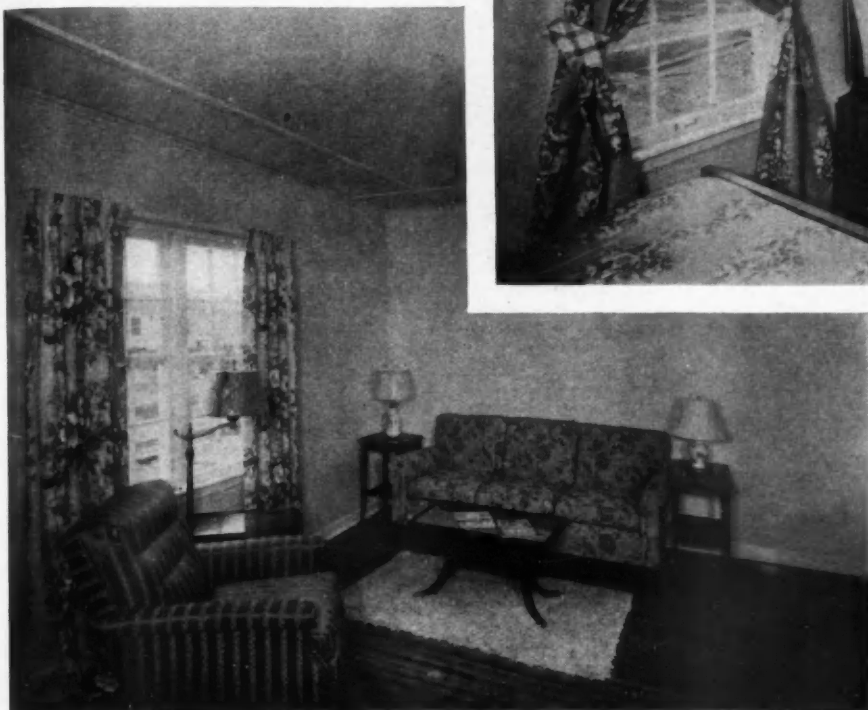
MEMBERS of Bradford organization are, left to right: William Hofar, priorities man; Ellis Ray, concrete foreman; Gale Bradford, president, Bradford Homes, Inc.; Kenneth K. Jackson, manager, Bradford Homes, Inc.; Edward Henager, carpenter contractor.

With the completion of the first FHA defense house in Evansville, Bradford Homes, Inc., announced that this home would be opened to the public on Sunday, April 12th. The publicity given to this opening aroused a great deal of interest in the work being done by these builders. A double page local Sunday newspaper advertisement announced the opening and invited inspection of the house.

On the opening day, people from nearby communities flocked to the site to inspect the FHA home. The effectiveness of Bradford Homes' publicity was shown by the fact that between noon and five o'clock, 8,000 people went through the house.

Probably the most outstanding single feature of this house was the fact that it was completed in exactly nineteen days. Credit for this achievement, according to Mr. Bradford and Kenneth Jackson, Manager of Bradford Homes, Inc., goes largely to Upson Strong-Bilt Panels and Dubl-Thik Fibre-Tile for providing dry wall construction with a consequent saving in application time. The first few houses built in their project were plastered, but in cooperating with Bradford Homes to find ways and

means of speeding construction and cutting costs, W. F. Donnelly and R. M. Graf of Building Products Co., Evansville distributors, recommended the use of Upson Panels for interior finish. These lumbermen were convinced that Strong-Bilt and its companion product, Upson Dubl-Thik Fibre-Tile, provided an ideal combination. They presented permanent, trouble-free walls possessing more than twice the insulating efficiency



INTERIORS of Bradford houses are attractive; buyers like the smooth flawless Upson Board walls. ABOVE, a two-window bedroom, LEFT, a typical living room.

All materials are carried to the workmen on location, and all workmen are taken in shifts from house to house.

In decorating the houses, Bradford deserves credit, too, for an attractive, harmonious choice of colors. Soft tints of green, blue and peach are among those effectively used to create charming decorative schemes. The interiors of the homes show minute attention to detail and excellent workmanship both in construction and decorating. They are cozy, homelike little houses and the smooth, crackproof walls and ceilings appeal to prospective home owners. According to Mr. Donnelly of Building Products Co., this feature always catches the eye of the home owner. Aside from the unseen qualities of Strong-Bilt, such as insulating value and structural strength—the absence of face nailing, the elimination of joints or seams, and the excellent painting surface are points which impress the buyer most of all.

of plaster and comparing favorably with that of specialized insulating materials. Quickly and easily applied and painted, they created beautiful interiors at a cost equal and frequently lower than a good plaster job.

All of the Bradford homes are built to sell from \$4,300 to \$5,300 and are of permanent standard construction, meeting all FHA requirements. Designed by James Bradford of Bradford Homes, Inc., there is a wide range of styles and sizes to meet various family needs. All houses have a living room, dinette, kitchen and bath. Most of them have two or three bedrooms, although a few have one bedroom. Each house has a garage, and a full basement with poured monolithic concrete walls. Each house is equipped with a warm air furnace and gas water heater, built-in tub, and linoleum floors in kitchen and bath.

The speed with which Bradford Homes, Inc., is erecting houses is made possible by production line methods. The organization controls its own excavating, concreting, heating, wiring and other building groups so they can be utilized for maximum efficiency. Workmen are thoroughly experienced in modern building technique.

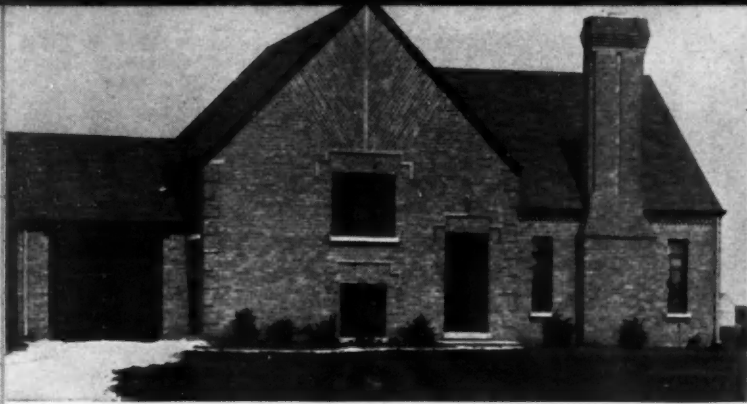
It is not too late for lumber dealers and builders in other parts of the country to follow the example of those in Evansville who, a year ago, thought themselves victims of a hopeless situation. Had they not, by coordinated effort, determined to do the job themselves, the government might have been forced to do it for them. But progressive builders in cooperation with lumber dealers are showing that they have had the vision and foresight to plan and carry out large scale building in a creditable way and at costs comparable to government built housing.



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How Smith & Dawson Have Kept 'Em Building

Chicago builders adjust operations
to meet currently arising problems

By R. E. Sangster



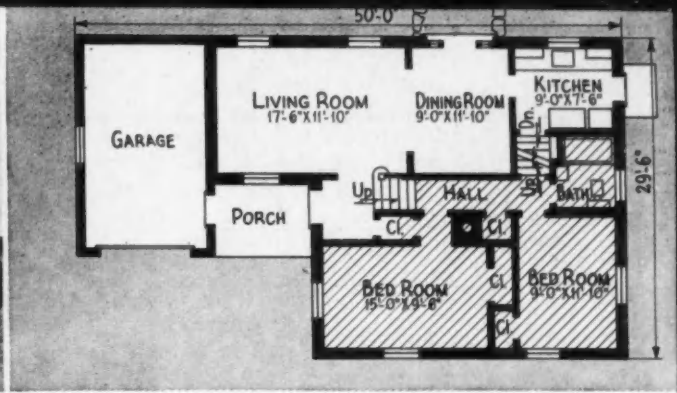
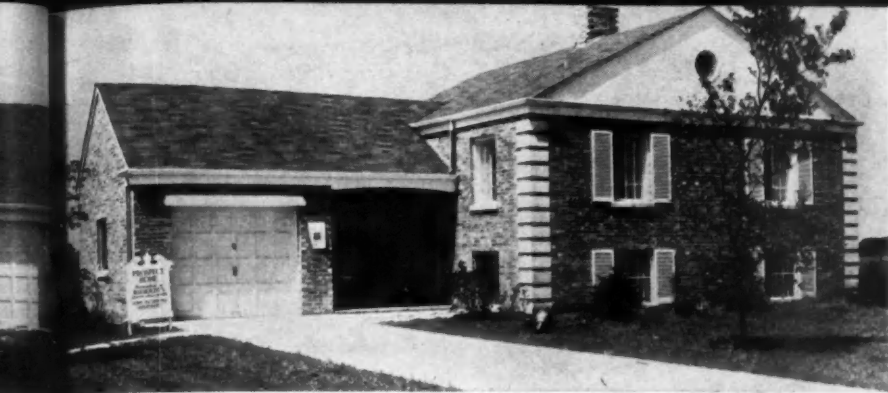
ABOVE: Left to right, Carlton Smith, FHA State Director Gael Sullivan, and Allen Dawson seen after inspecting the Smith & Dawson defense home on which FHA had granted the hundred-millionth dollar insured loan in Illinois.

FORESIGHT and fortitude—certainly two of the requisite qualities for successful home builders during the past decade—are almost without exception found underlying the home development that has constantly moved forward even under recent press of hazardous conditions. Lately, there have been plenty of reasons why those individuals and firms pioneering new properties might have honorably “given up the ghost,” but the building business is no place for the weak and faint hearted. Take Smith & Dawson of Chicago, for instance. A little better than five years ago, when building was just coming out of the doldrums, they firmly believed that a community could be built on the “Security Home” theme—a snug little subsistence dwelling

of high quality on a plot of one acre or less in size. In 1936, this firm selected a small tract of open farm land two miles from the Chicago suburb of Mount Prospect, and set to work building homes that would appeal to the white collar worker who had lost his shirt and house during the depression. From this modest start, Prospect Heights has grown to a community of over 300 homes and the development, including 540 acres on which there has been building and 225 acres under option, is now 765 acres in area. It isn't necessary to say that there were plenty of headaches between then and now in the building of ten miles of homes. This new community is entirely self-sufficient, with its own post office, improvement association, Lions Club,

FLOOR plan of defense house shown on opposite page; provides for five rooms, bath, utilities, and garage on one floor without basement. Note extra space in garage for work room and storage of equipment items.





ACROSS top of both pages: Three typical Smith & Dawson homes in Prospect Heights near Chicago; all feature three-level plan similar to the arrangement in the home above, which was awarded in a Lion's Club drive for funds to build a community center.

and shopping center. This latter feature is owned and controlled by Smith & Dawson. It has grown with the community, having been enlarged twice (see details on page 38). The whole project, an unincorporated village, is now well enough established and far enough out so that it is not likely to be swallowed up by some adjacent and less vigorous suburban town; it will remain a testimonial to the ability of the two partners—Carlton Smith and Allen Dawson.

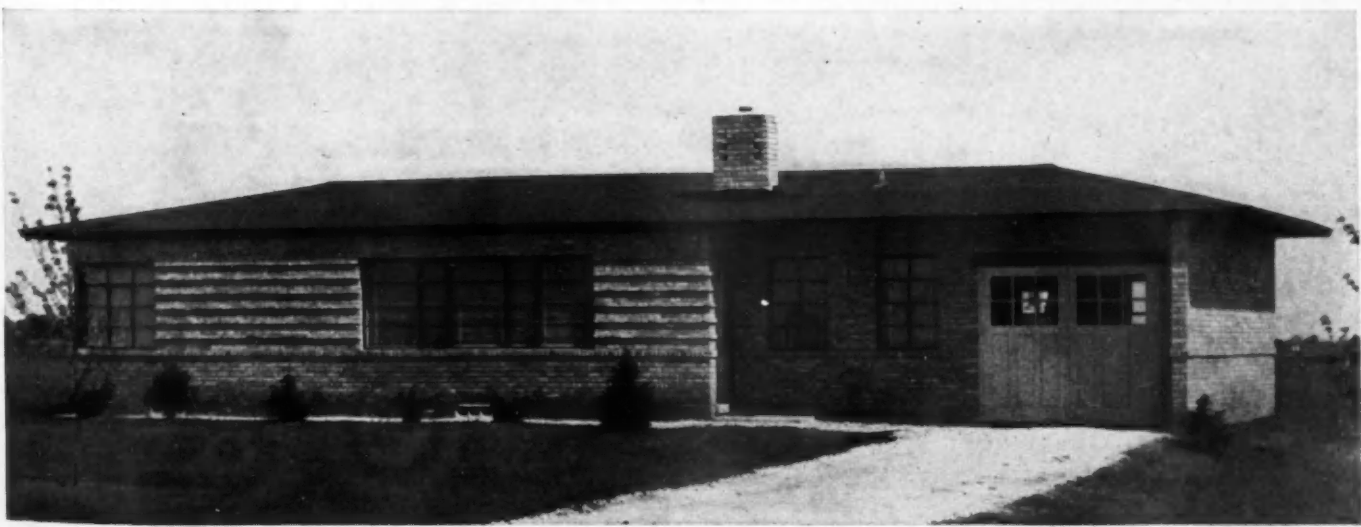
Going back and briefly reviewing some of the early operations will better show how changes have been made to meet current problems, and keep building under way. The views across the top on these two pages illustrate house types which proved most popular after the first few years of setting a pattern for the property. With lots running about a half-acre in size, an extended layout was evolved that offered a broad, impressive front elevation combined with economies of a three-level arrangement worked out by Smith & Dawson's designer, Architect W.

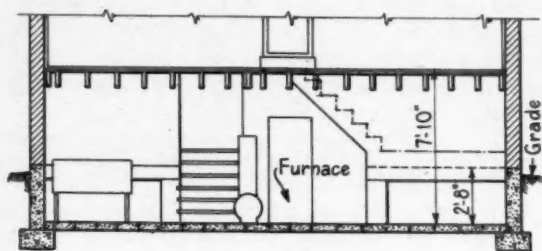
H. Kapple. One of the last of these designs to be built was the Lions Club prize home shown above; this group sponsored the home to provide funds for a Prospect Heights community center (this will not be built until after the war, proceeds meanwhile are in war bonds).

As the housing market tightened up under emergency conditions, Smith & Dawson shifted their operations into defense home building, possible because of neighboring industrial towns. This required a different type of design—one which would meet the cost requirements and, at the same time, be capable of placement throughout the development without depreciating previously built homes. Below is one of their ranch house designs built without

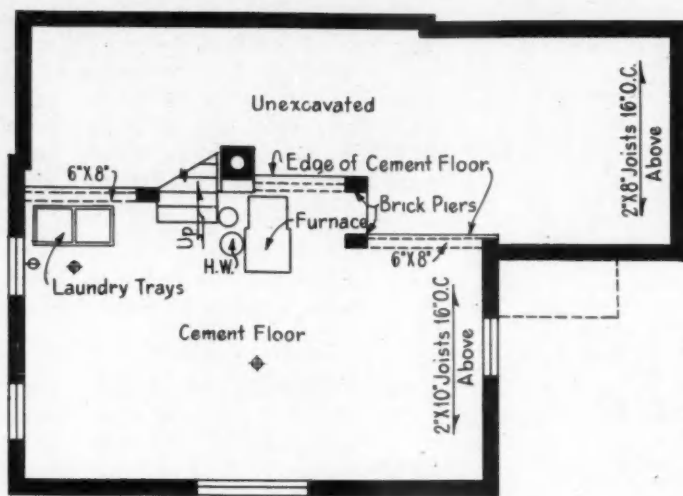


THE SMART looking living room at the right is typical of the interiors of the group of defense houses built by Smith & Dawson in the ranch house style illustrated below.

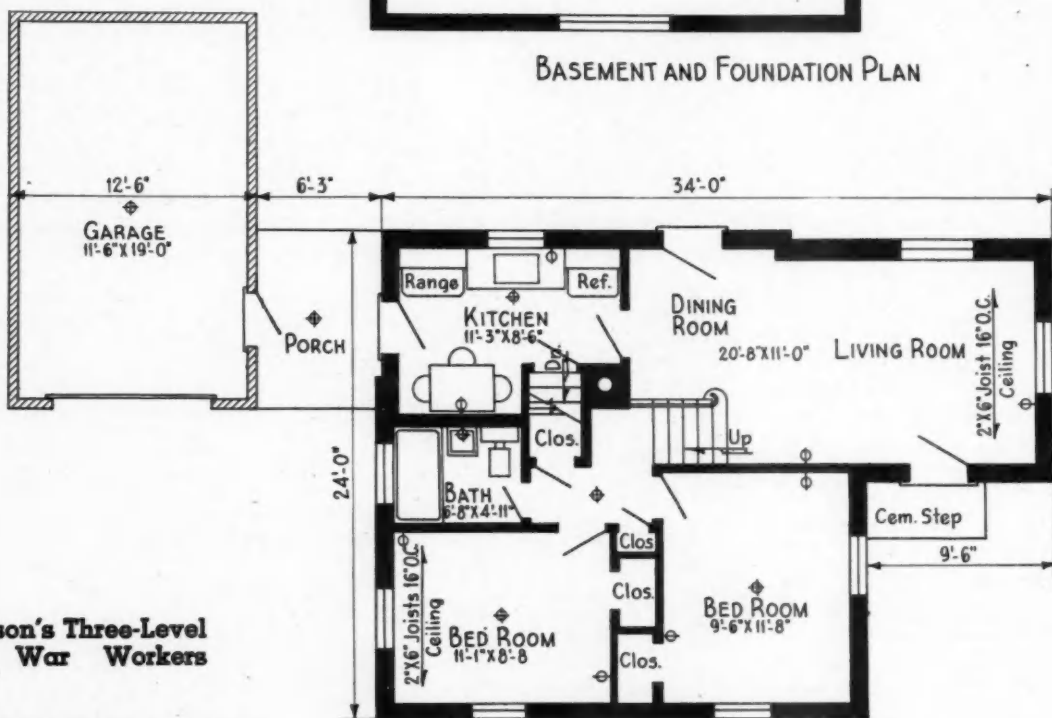




BASEMENT SECTION



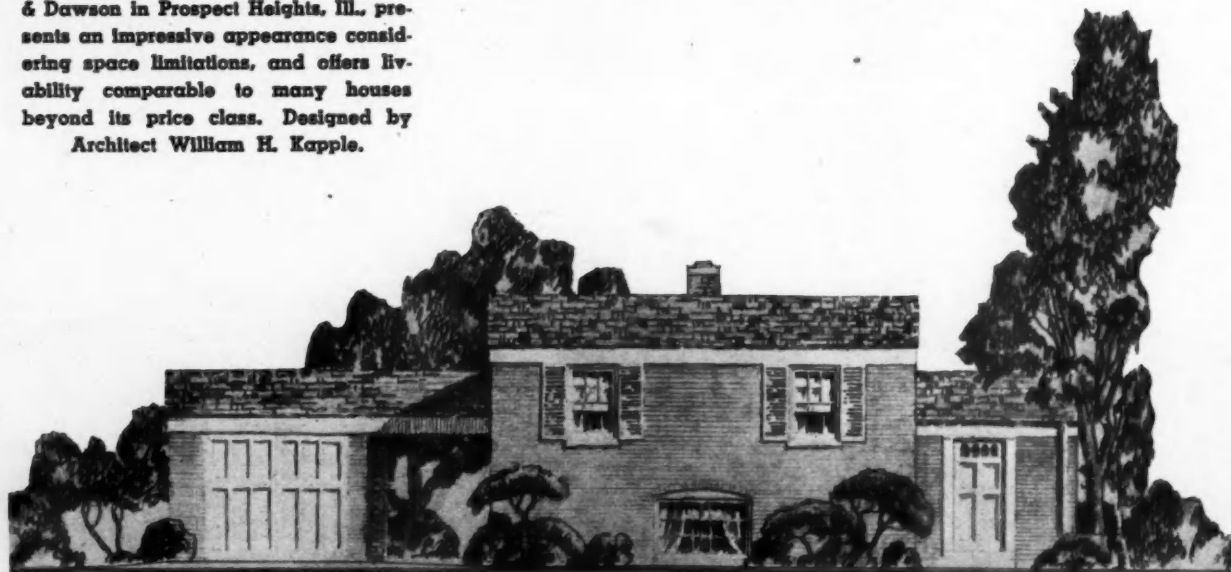
BASEMENT AND FOUNDATION PLAN



FIRST AND SECOND FLOOR LEVEL

Smith & Dawson's Three-Level Design for War Workers

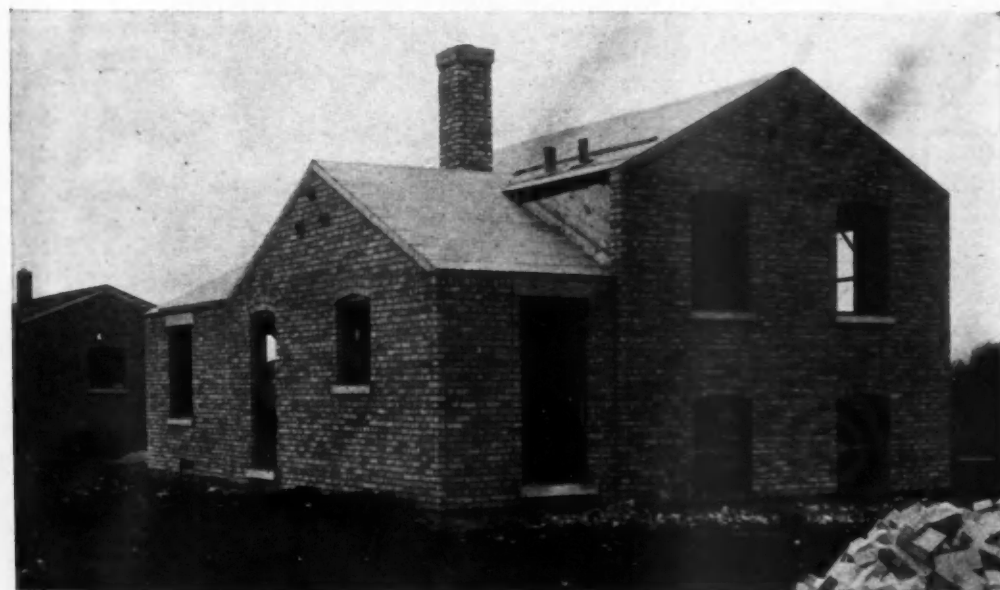
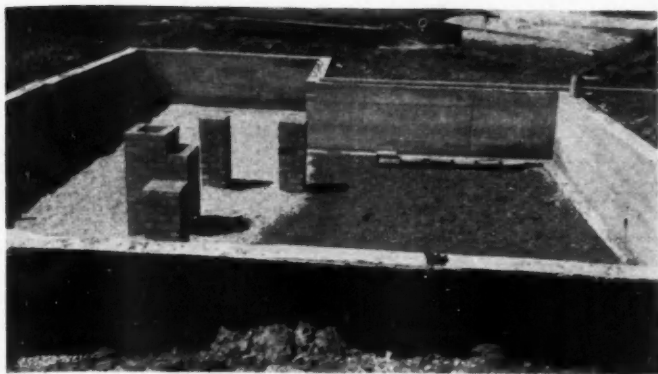
AS SHOWN in the floor plans, section and front elevation sketch, this attractive little Title VI home built by Smith & Dawson in Prospect Heights, Ill., presents an impressive appearance considering space limitations, and offers livability comparable to many houses beyond its price class. Designed by Architect William H. Kapple.



basement and otherwise economical in plan, but attractive both as to interior and exterior.

These houses found a ready market and a number of them were built and sold before restrictions on automatic heating equipment made such an arrangement temporarily obsolete. But these builders were up on their toes, and as soon as word got about that oil and gas were out, Architect Kapple threw all his ability into the design of a war worker's home that complied with the constantly changing conditions.

Approval for priorities was granted early last spring



on twenty of these units, and a number of them are now being finished. Shown below are construction views of one of them, and opposite, plans and details.

The design of this little house follows the pattern of the larger three-level type which had previously been so popular. Although small, plans for a future garage and connecting porch were worked out, as shown in the sketch and plan, and in the sale contract it is made mandatory that any garage built later in connection with these houses will have to follow this original design. (See sketch.) Also in the design, much thought was given to the four elevations so that the plan could be turned to have any one of the sides to the street, hence no monotony of exact duplication near together.

The basic feature of this five-room design is the use of a half-basement for utilities. The excavation, as seen at the left, need only be about three feet below grade, to give full headroom under the bedroom level. The balance of the basement provides a low storage space but has merely a gravel fill, concrete floor slab extending up to the line where floor levels change. (See section.) In this way, space for heating plant, laundry and coal storage is provided without the added expense of excavating full depth and finishing the entire basement.

Heating Plant Offers Marketable Sales Feature

In these houses, a Bryant coal-burning, forced-air furnace of 61,000 B.t.u. capacity is used. This overcomes the priority restriction on automatic-fired units and, at the same time, offers a unit in which there will be practically no loss in efficiency if the home owner desires to convert to oil or gas after the war. Thus there has been no noticeable sales resistance because of type of heating; in fact, because of possible further fuel restrictions, it allows the benefits of a complete choice of fuels—a sales advantage today.

The balance of the house, although compact, offers a great improvement and many advantages from a sales standpoint over many types of war housing which are essentially four-room "dog houses" without basement.

From a construction standpoint, they are the same high quality that Smith & Dawson have been offering for some time. Highlights are as follows:

FOUNDATION: 8½" poured concrete, waterproofed.
WALL STRUCTURE AND FINISH: 8½" solid brick wall with ¾" air space between 2 layers of brick; inside

(Continued to page 78)

CONSTRUCTION VIEWS: Left, top to bottom, foundation of Smith & Dawson's newest three-level Title VI design showing piers in place ready to receive beams and joists; after framing, basement view indicates space under living level; job at point where it is ready for roofing, plastering and finishing.



COMMUNITY SHOPPING CENTER built to serve Smith & Dawson's Prospect Heights near Chicago has expanded with this development.

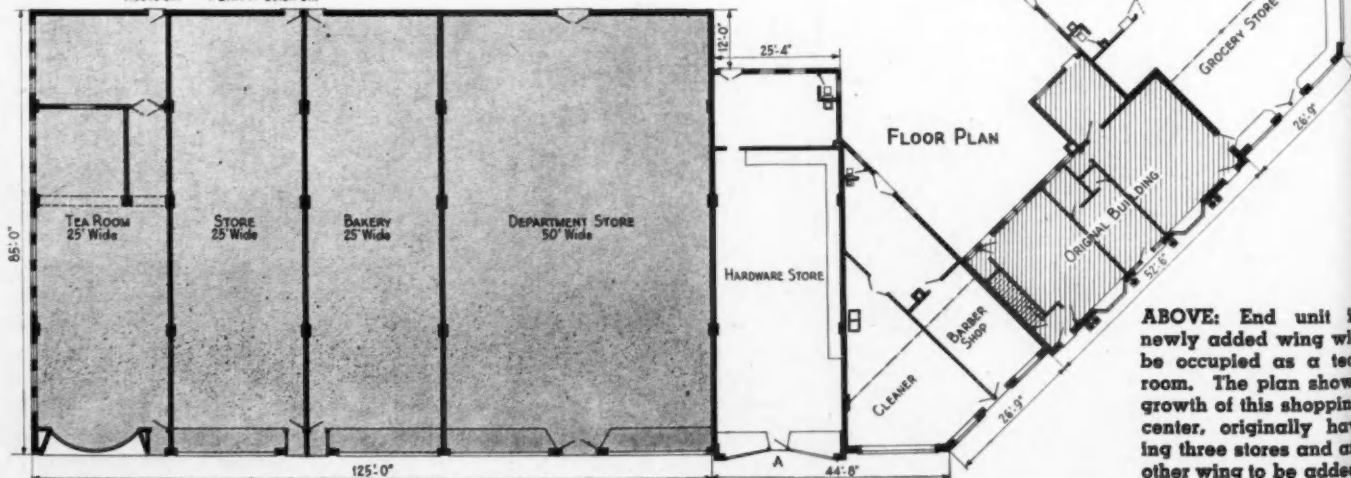
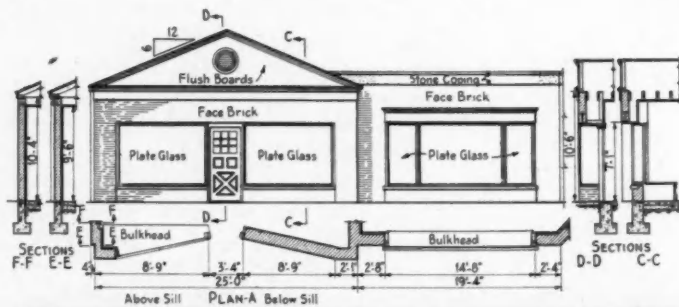
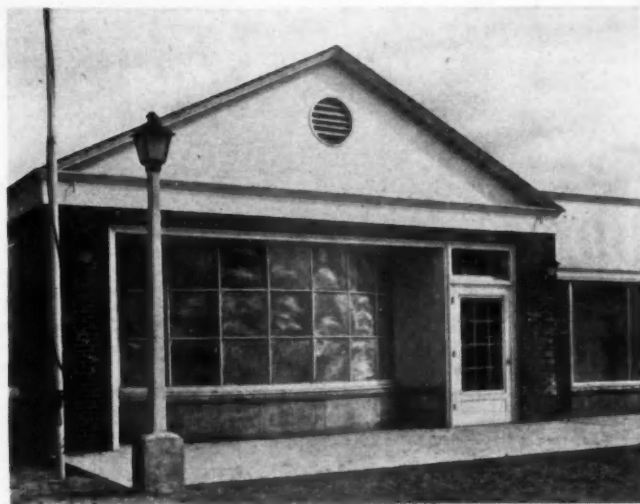
Shopping Center for a Defense Community

SINCE any home development which is an entirely new community must have shopping and service facilities provided, the project illustrated here should be of particular interest. This is in view of the fact that the wide dispersion of war industry has created many similar circumstances. The story of Smith & Dawson's Prospect Heights, where over 300 families have been housed in previously undeveloped area, appears on pages 34 to 37. This shopping center was created to serve these families.

Planned for expansion, the original building which consisted of three stores on the first floor and apartments above occupies what will be the center of the completed structure. The next step was the addition of five stores—three on one side and two on the other of this central unit. Just finished are four more stores (shown darker in plan below); a similar wing on the opposite side will later complete the shopping center.

Smith & Dawson, the developers, own this building, the tenants being on percentage leases. Two of the tenants

have already moved from smaller stores into larger units which were added after they had started and built up their business. Incidentally, all these merchants, as well as the professional men practicing there, are home owners in Prospect Heights; originally, apartments were planned above all the stores for these tenants, but it was found that each was an excellent prospect for a home. Building construction is standard, and equipment and structure include the use of Barrett built-up roofs, Nu-Wood ceiling tile, Tile-Tex flooring, and individual Bryant gas-heating units.



ABOVE: End unit in newly added wing will be occupied as a tea room. The plan shows growth of this shopping center, originally having three stores and another wing to be added.

HOME BETTERMENTS UNDER \$500 LIMIT

Three Clever Built-ins Added to Park Ridge, Ill., Research Remodel House

TIMELY WORK FOR LOCAL BUILDERS AND CARPENTERS

HOPES that United States Gypsum Company's Remodel Research House, as illustrated and described in the April *American Builder*, would uncover scores of sales opportunities for builders and dealers are being fulfilled to a startling degree. Completion of this timely experiment reveals numerous substantial remodeling jobs that are really wartime necessities and therefore eligible for WPB approval. It also brings to light many smaller improvements which can be held within \$500 and done without a government permit, avoiding the use of critical materials.

There must be thousands of homes today in need of repairs to foundation, siding and roofing, such as were made on the USG house. Maintenance work of that character is absolutely essential for those residences in order that they may better withstand air raids if and when they come. Shabby dried-out, inflammable home exteriors are easy prey for incendiary bombs. Giving them a permanent fire-proof covering is a definite contribution to civilian defense and morale.

Likewise, there are many interior jobs which assist in the war effort. A basement recreation room, for instance, makes an ideal air raid shelter, providing basement beams and joists that have been put in first-class condition.

It is advantageous to contractors and dealers to promote this type of work, which saves vital metals and helps to offset any loss in "business as usual."

Illustrated on this and the two pages following are photographs, specially posed, and explanatory working drawing details from the architect, Eugene Voita of Chicago, to show builders and carpenters the salable results that can be secured by these remodeling methods.

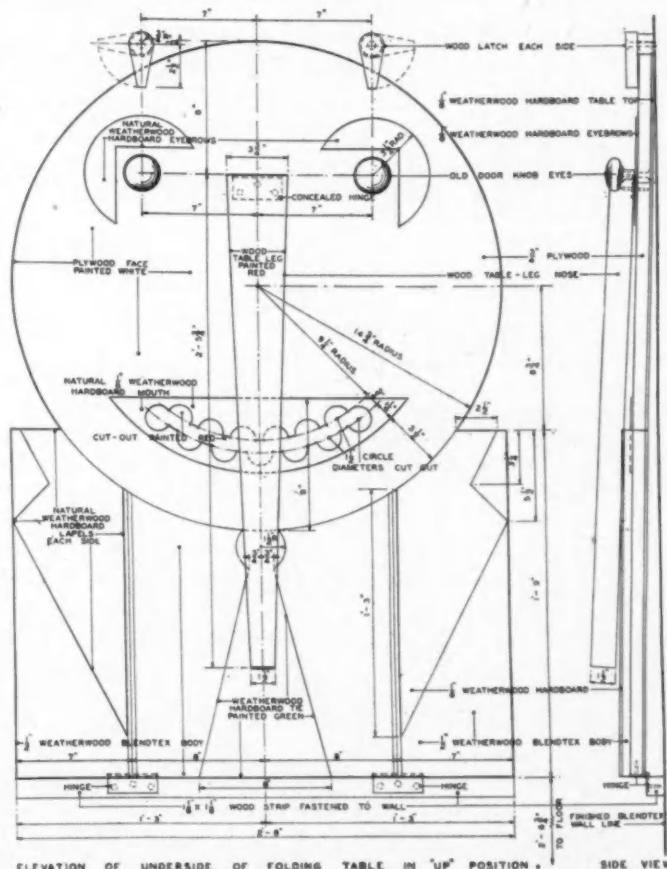
First there is the attractive recreation room, shown on this page, created from the old furnace room and coal bin. Walls are 1/2" Weatherwood Blendtex plank; ceiling, 1/4" Sheetrock. Note handy cabinets, built-in bench with back of 1/8" Hardboard and "demon's face" which lowers to become a card table. Floor level was dropped to add room height, then new concrete flooring poured and painted red. Swinging "bar" doors lead to the laundry.

On the next page is a view in the master bedroom; a closet extending the full width of one wall, with a small door in the center, was taken out and a triplicate arrangement of wardrobes built in. Each of the three doors has a full length mirror, a scheme which produces a huge triplicate mirror when the two side doors are open and the center one closed.

On the third page is shown a wonderful transforma-



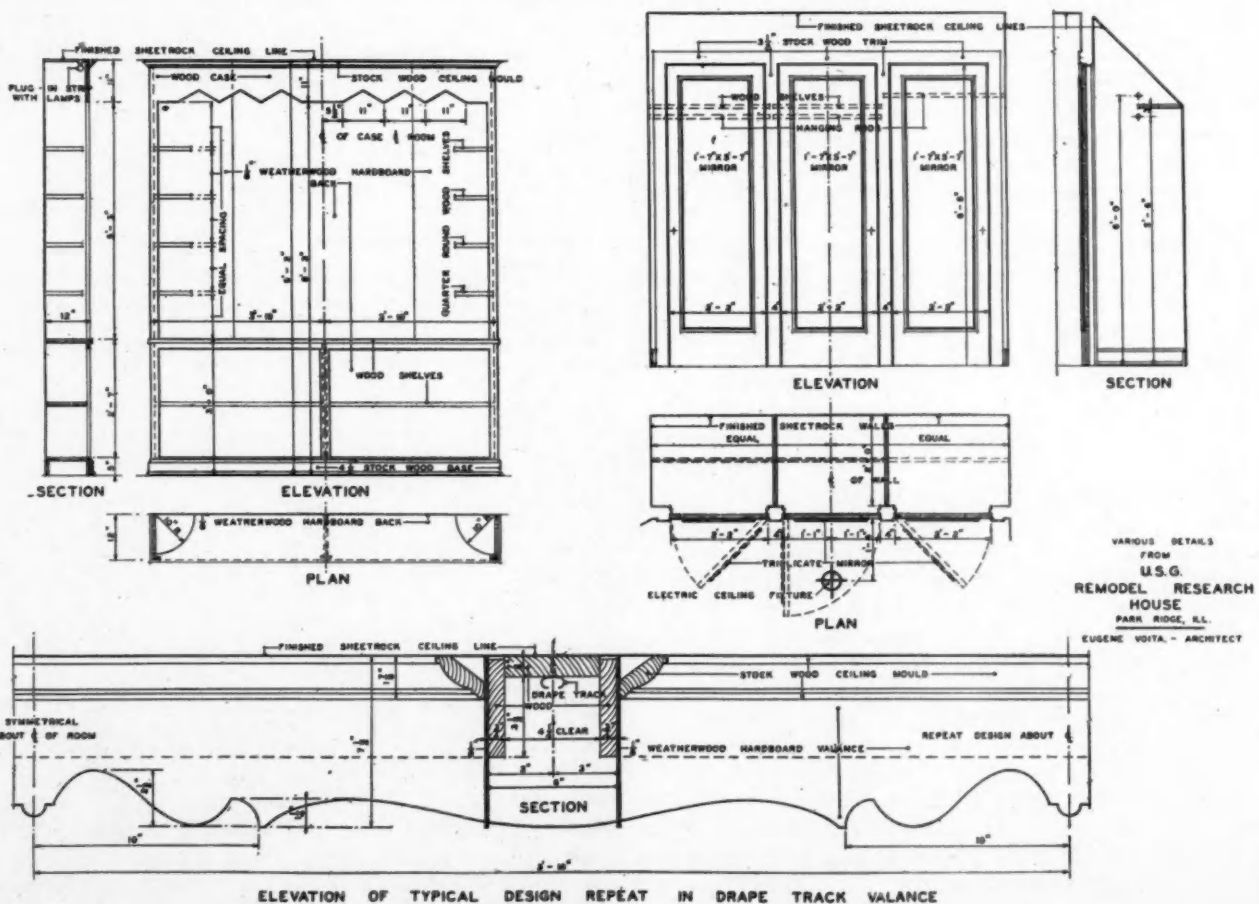
REMODELED basement space in USG Research House provides this attractive recreation room with tricky built-in folding table, as detailed below. Door to right leads to laundry.



tion in the girl's bedroom; a closet, which broke up the space into a difficult shape, was replaced with a built-in vanity flanked by wardrobe case with full-length mirrors. Handy shoe racks are underneath the vanity.

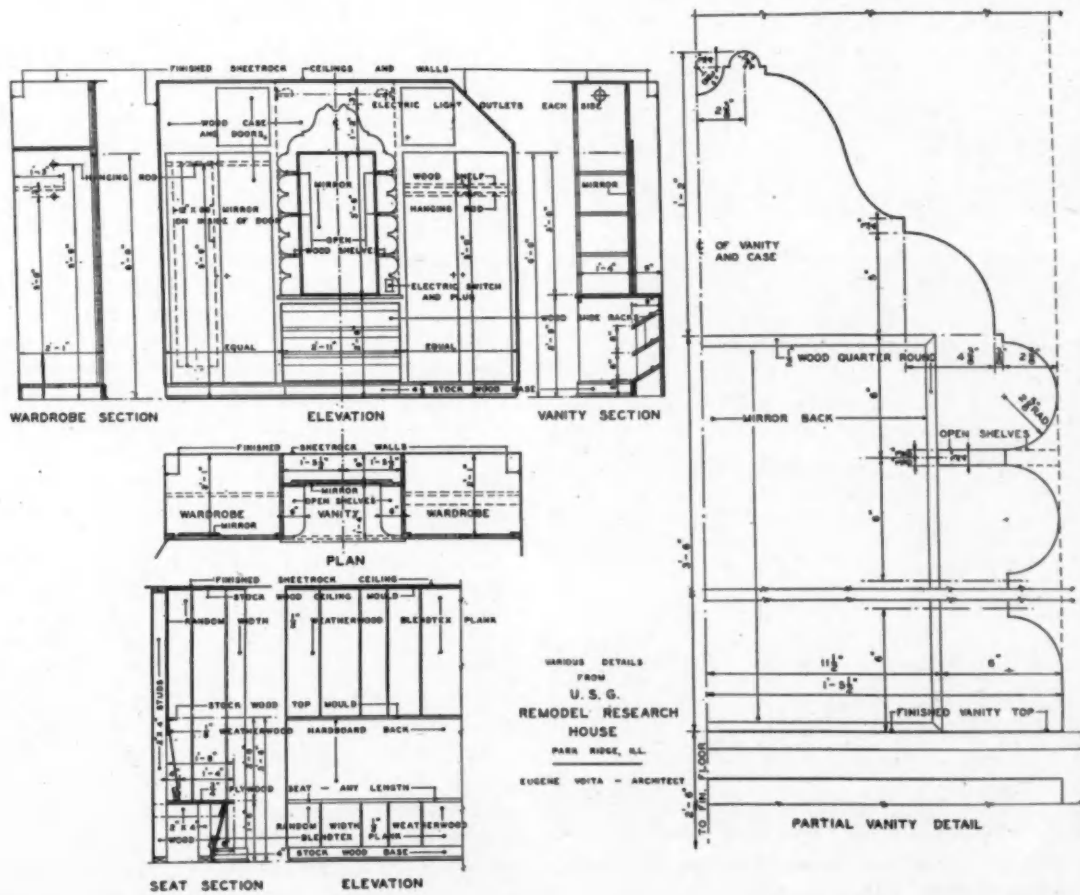


INEFFICIENT closet space in master bedroom became this triple wardrobe with full-length triple mirror doors in the USG Remodel Home.





THIS built-in vanity in girl's bedroom, flanked by wardrobe cases with full-length mirrors, replaced an inconvenient closet—an idea that should spread.



VARIOUS DETAILS FROM U. S. G. REMODEL RESEARCH HOUSE PARK RIDGE, ILL. EUGENE VOITA - ARCHITECT

HOW TO BUILD

An Arched Roof Underground Storage Cellar

A SMALL underground concrete storage cellar or cave often is a solution to the problem of economical and satisfactory storage of fruit and vegetables for home use. It is also an ideal place for cooling and storing eggs until delivery.

The arched roof storage cellar shown here can be built without the use of critical material. The roof is built in an arch shape to eliminate the need for reinforcement.

When built on level ground the storage cellar is placed about 4 ft. underground and approximately 4 ft. above ground. The soil taken from the excavation is banked over the arched roof to a depth of 1 to 2 ft. When the storage cellar is built into a side hill, a stairway may not be needed. The cellar may be made any length desired. The width should not be changed from the dimensions shown without first getting advice from a structural engineer as to thickness of concrete, forming details, and so on.



THIS concrete underground storage cellar, built near Wilmington, Ohio, has served well since 1915.

FOOD STORAGE on the farm and in the "victory garden" home will help win the war. Building industry men can construct these storage facilities.

Cost will run well inside the limits set by Order L-41; so there is no restriction on builders' enterprise in offering this timely service to the public.

Make a canvass today and line up a string of these patriotic and profitable jobs!

Ventilation is obtained through a louver in the door and an 8-in. concrete pipe set in the roof near the back wall. Both openings have adjustable dampers to regulate the air flow.

The excavation may all be done at one time before any concrete is placed. When this is done, inside forms are used as shown on the back side of this sheet. The curved sections are laid out according to the pattern. Four sections are needed for each inside arch support. Supports are placed 2 ft. apart. If forms are to be used several times the braces should be bolted rather than nailed together at the center post. Long storage cellars may be built in sections if desired, 8, 10, 12 or any other even number of feet in length at a time.

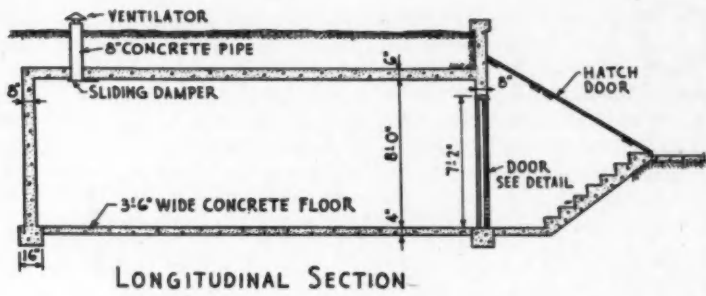
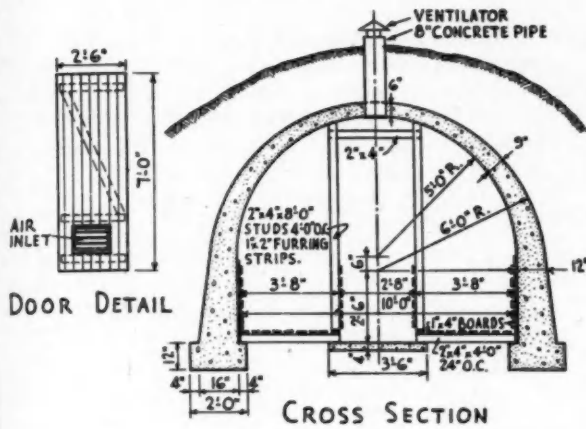
It may be possible, however, to use earth as the inside form. If this is done, excavation for footings and wall is made and the soil heaped up in the center to conform to the curve of the roof arch. Soil should be moist to compact well. Waterproof building paper is laid over the rounded earth form before concrete is placed to obtain a smooth surface on the inside wall. A thin coat of cement plaster can be troweled on the wall if desired after excavating the earth under the arch.

Outside forms are needed about half way up the wall. The forms may be made as shown. It is easier to place the concrete if form boards are put on as needed. Concrete should be placed in the forms on both sides of the arch at the same time and kept about the same height. A mushy but not soupy mix is used where concrete is placed between forms. A somewhat stiffer mix is required for placing over the arch so that it will not slump or sag. Concrete should be thoroughly spaded and floated to the profile and thicknesses shown on the plans. After surface water has disappeared, exposed concrete should be smoothed with a steel trowel to provide a dense, watertight wall. End walls may be constructed of cast-in-place concrete or of concrete masonry. Forms should be left on at least 7 days, and soil should not be banked over the cellar until it is at least 14 days old.

When the soil is used for the inside form, it should not be removed for at least 14 days after the concrete is placed. Newly placed concrete should be protected from drying out for at least 7 days. It may be covered with a thin layer of soil or straw, and this material kept wet for the required time.

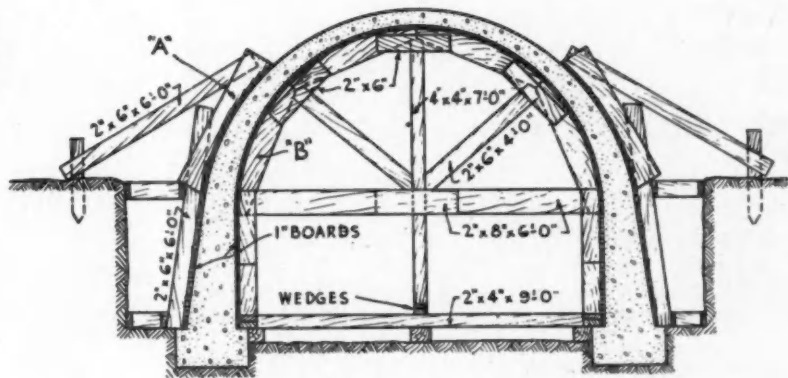
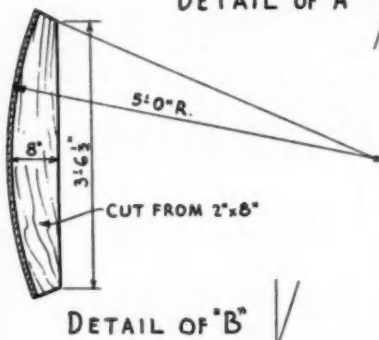
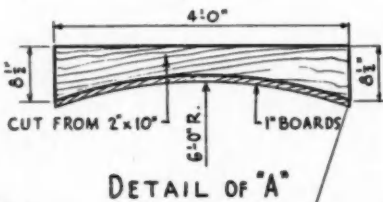
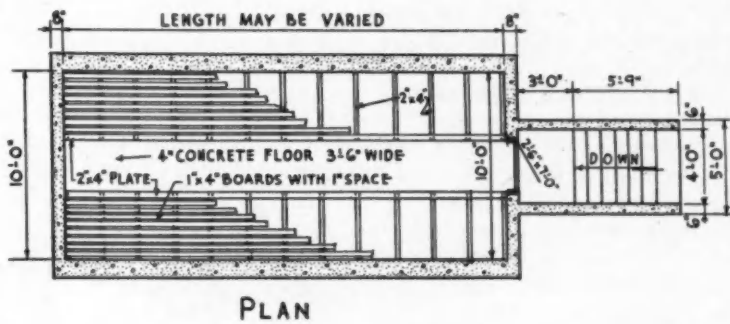
Use a concrete mix of 1 part portland cement to 2½ parts sand to 3½ parts gravel or crushed stone, 1-in. maximum size, with not more than 5½ gal. of water per sack of cement, using average moist sand. It may be found necessary to use slightly more or less sand and

gravel in about the proportions indicated to obtain the proper consistency or workability for placing in the forms and over the arch. Do not change the amount of mixing water used per sack of cement. Approximate quantities of materials are shown on the plans.

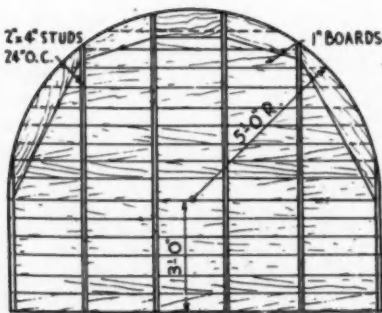


QUANTITIES OF CONCRETE MATERIALS	IN ARCH & FLOOR IN TWO PER FT. OF LENGTH	
	PER FT. OF LENGTH	END WALLS
CEMENT (SACKS)	5.1	28.3
SAND (CU. YD.)	.46	2.6
COARSE AGG. (CU. YD.)	.65	3.7

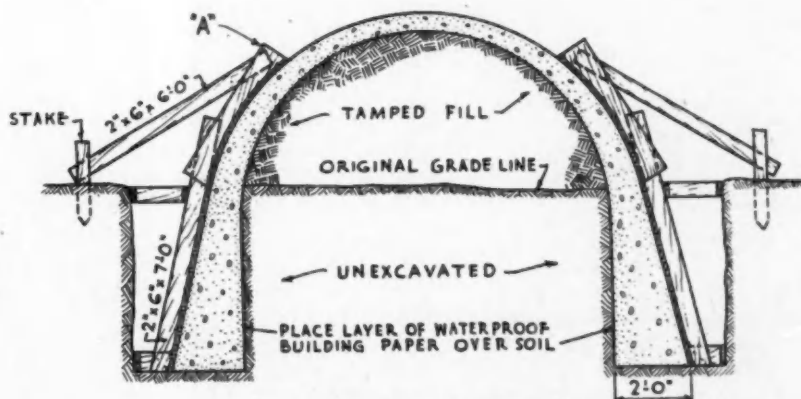
USE A MIX OF 1: 2½: 3½ WITH NOT MORE THAN 5½ GAL. WATER PER SACK OF CEMENT USING AVERAGE DAMP SAND. MAX. SIZE OF AGG. 1"



USING INSIDE FORMS



DETAIL OF END FORM



USING NO INSIDE FORMS

CONSTRUCTION DETAILS

Put Sink and Bath Back to Back!

Save Money and Critical Materials

by Grouping Kitchen and Bath Plumbing

ONE HUNDRED dollars, it is estimated, could have been saved, on the average, on 90 per cent of the small homes built during the past ten years if study and attention had been given to them as now in the matter of locating kitchen and bath plumbing back to back, instead of each in a far corner of the house layout, in order to cut down on the use of critical materials needed for piping and plumbing.

It is really amazing, in the light of these current studies, to go back just a few months or years and discover how extravagant architects and builders have been in this matter of laying out a house so that the plumbing service is properly grouped and concentrated for efficient service and low cost.

The National Homes Foundation, an informal non-profit organization of leading building trade associations and companies interested in home building, brought out in 1941 a pamphlet showing eight small home designs suitable for farm and village construction. These designs, and more particularly their floor plans, represented the best thought of the Technical Committee of the Foundation, and yet in the light of the present

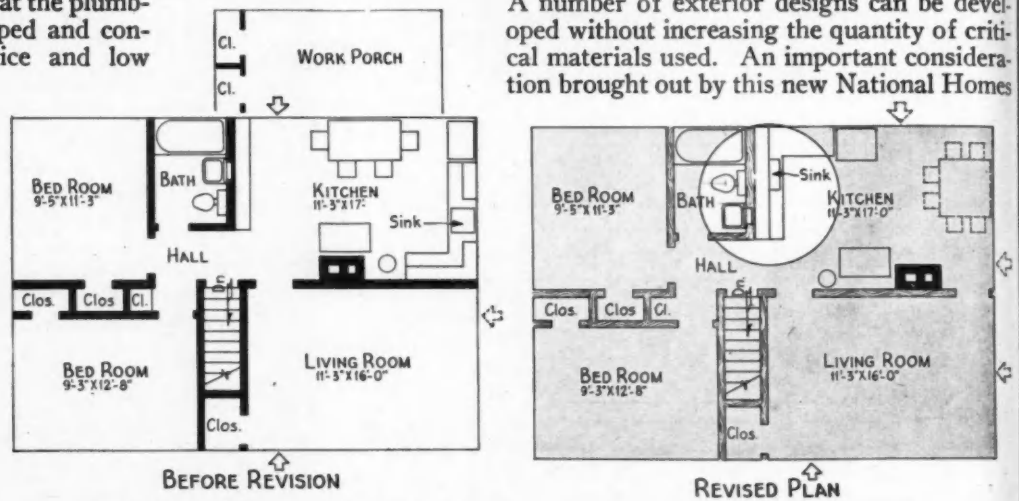
necessity for conserving all critical materials in home building to meet war needs, it has been found necessary and desirable to redesign these floor plans to bring the bath and kitchen plumbing closer together.

The Foundation has just issued from its Washington headquarters, at 815 Fifteenth Street, N.W., a six-page bulletin, "Information on Design and Equipment of War Houses." Two of the designs illustrated are reproduced herewith. Notice how a slight rearrangement of the kitchen brings the sink over against the bathroom wall without any loss of convenience to the housewife. In Plan F-1 illustrated above, the revised plan eliminates one set of water supply and drainage piping by relocat-

ing the kitchen sink near the bath. Space for a hot water storage tank is also provided closer to the kitchen and bath plumbing fixtures. If basement plumbing for laundry trays is desired, this can be located directly below the first floor plumbing. In Plan V-1, illustrated below, the basement stairway has been changed to allow space for the kitchen sink on the bath partition.

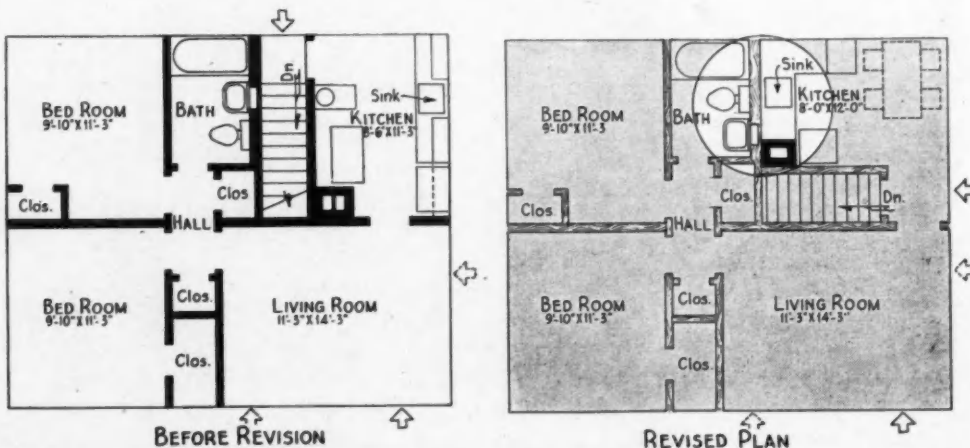
Suggested door locations are shown on these plans by arrows. The location of doors and windows should be determined by factors such as the orientation of the house, the view from the house, available space for furniture, etc.

A number of exterior designs can be developed without increasing the quantity of critical materials used. An important consideration brought out by this new National Homes



NATIONAL Homes Foundation Plan F-1, original and as revised, size 24 by 33 feet.

Foundation pamphlet is to keep the plumbing simple and compact, thereby using a minimum of critical materials. The resulting low cost is an "extra," this time on the right side of the ledger.



NATIONAL Homes Foundation Plan V-1, original and as revised, size 24 by 28 feet; this plan arranged with first floor utility room instead of basement stairway measures 24 by 30 feet. It is designated Plan V-1B.

Important Service for the Home Front

New Driveways, Aprons, Walks and Terraces Increase Value and Home Utility with Non-Critical Materials

CURRENT limitations on home building throw emphasis on modernization and improvements which maintain residential values, fall within definite cost brackets and use the minimum of critical materials. Hence, such items as new driveways, walks and other outdoor features that add to the pleasure and value of the home are increasingly popular. Many builders who have not yet been absorbed by the war effort, in some instances because of their non-defense location, and others because of inability to adapt their skills, are meanwhile turning to this field.

To assist them in this work, the illustrations, drawings and information in specification form are given below:

I. General

1. The contractor shall provide all materials and equipment required to complete the work under this project in accordance with the plans and specifications.

II. Materials

1. Portland cement and lime shall comply with the current A.S.T.M. specifications for these materials.
2. Concrete masonry units shall conform to the physical requirements (compressive strength, absorption and moisture content)

of the local building code. In the absence of a local building code, the current A.S.T.M. specifications covering the particular use or construction in which they are employed shall apply. Concrete masonry units shall be in a dry condition when delivered to the building site and shall be protected against wetting prior to laying in the walls.

3. Aggregates for use in concrete shall be clean, free from vegetable matter, hard, durable and well graded. Sand shall be graded with at least 95 per cent passing the No. 4 sieve and not more than 15 per cent passing the No. 50 sieve, and not more than 5 per cent passing the No. 100 sieve. The coarse aggregate shall be well graded gravel or crushed stone having clean, hard, durable, uncoated particles free from deleterious materials.

4. Steel bars or welded wire fabric used for reinforcement shall be clean, free from harmful rust and shall otherwise conform to the current A.S.T.M. specifications for these materials.

5. Coloring material shall be commercially pure mineral oxide pigments which are guaranteed by the manufacturer to be suitable for concrete.

6. Water shall be clean and fit to drink.

7. All other materials used in this project shall be subject to approval by the architect.

III. Concrete Mixes

1. Concrete shall be machine-mixed in the proportions of 1 volume of Portland cement, $2\frac{1}{4}$ volumes of sand and 3 volumes of coarse aggregate (1:2 $\frac{1}{4}$:3 mix). Not more than 6 gal. of water,



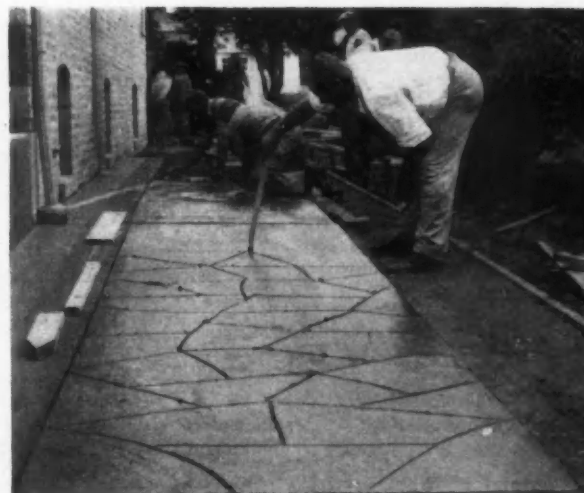
CONCRETE slab is screeded to proper elevation and excess water removed. Dust-on color mixture is then spread uniformly not less than 125 lb. per 100 sq. ft.



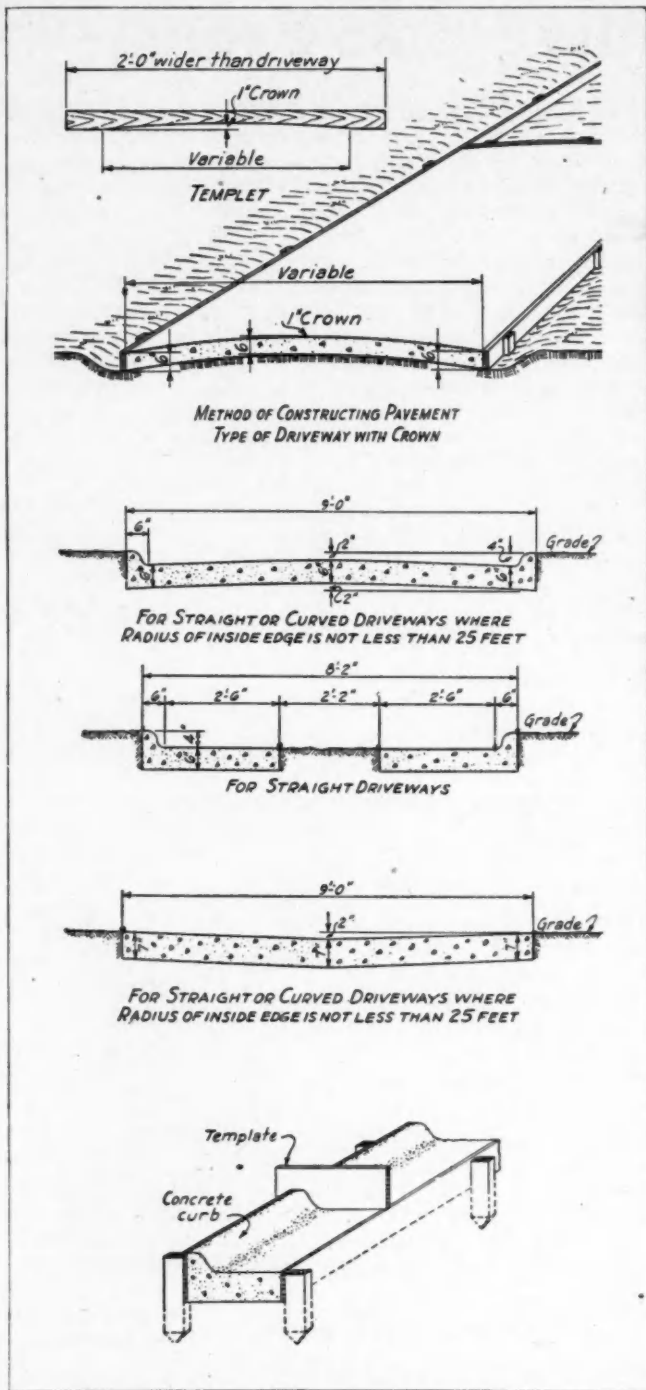
STEEL troweling to a smooth surface. Final troweling should be delayed until water sheen produced by floating has practically disappeared from the surface.



FIRST floating forces color mixture into concrete surface. Should be discontinued as soon as surface becomes wet.



PATTERN is first lightly marked on surface with sharp tool, then cut with grooving tool and finished.



DETAILS for several typical concrete driveways.

including that contained in the aggregates, shall be used per sack of Portland cement. Maximum size of coarse aggregate shall be 1 in.

(NOTE: The above mix shall be specified for sidewalks, driveways, concrete aprons, concrete gutters, flagstone, porch floors and for retaining walls.)

Concrete Topping Mix

2. Concrete topping mix shall range between 1 volume of Portland cement, 1½ volumes of sand and 1½ volumes of gravel or crushed stone (1:1½:1½ mix) and 1 volume of Portland cement, 2 volumes of sand and 2 volumes of gravel or crushed stone (1:2:2 mix). Maximum size of gravel or crushed stone shall be ¾ in. Not more than 5 gal. of water shall be used per sack of Portland cement, including the water in the aggregates. Concrete shall be machine-mixed not less than 2 minutes after all materials are in the mixer.

SUPPLEMENT—Where dust-on colored topping is specified:

Dust-on mixture shall consist of 1 volume of Portland cement, 1 to 1½ volumes of well graded sand, at least 80 per cent of which

passes the No. 8 sieve and not more than 3 per cent of which passes a No. 30 sieve, and the amount of mineral oxide pigment required to produce a finish to match the color sample approved by the architect. All materials shall be accurately proportioned by weight and the same amounts used in each batch. These materials shall be mixed dry in a mortar box or in an approved mixing machine until the mixture is of uniform color.

(NOTE: The amount of color required should be determined with sample panels made under job conditions and allowed to dry. From 10 to 15 lb. of pigment per sack of Portland cement usually will be sufficient when dark pigments are used, and 15 to 20 lb. per sack for light pigments. Mortar colors containing a large percentage of filler or organic colors will not produce satisfactory results.)

Precast Concrete Flagstone

3. Precast concrete flagstone shall be made in the pattern and thickness detailed on the plans. Concrete for flagstone shall consist of 1 volume of Portland cement, 2¼ volumes of sand and 3 volumes of coarse aggregate (1:2¼:3 mix). Not more than 6 gal. of water per sack of Portland cement shall be used including the water in the aggregates. Concrete shall be machine-mixed not less than 2 minutes after all materials have been placed in the mixer. After being deposited in the molds, concrete shall be struck off and compacted with a wood float. Finish shall be as described below: (State whether finish is to be wood float, steel trowel, rough, etc.)

SUPPLEMENT—where integrally colored topping or integrally colored flagstone is specified:

Mineral oxide pigment shall be thoroughly mixed with the Portland cement to a uniform color prior to mixing with water and aggregates. All the ingredients shall be of the same proportions as used in the sample panel approved by the architect for colored work.

IV. Concrete Sidewalks, Driveways, Aprons and Terraces when Located On Well Drained Soil

1. Contractor shall excavate and prepare subgrade for concrete sidewalk, driveway and/or apron to the lines and dimensions shown on the plans. Subgrade shall be compacted by tamping or rolling to a firm, uniform bearing at a depth of in. below finish grade.

(NOTE: It is good practice to place the top surface of the sidewalk, driveway and/or apron about 2 in. above grade so it will drain easily. Recommended thickness for sidewalks and for porch floors built on earth or fill is 5 in. Thickness of driveways and aprons should be not less than 6 in.)

ALTERNATE FOR POORLY DRAINED SOIL:

A. Contractor shall excavate and prepare subgrade for concrete sidewalk, driveway and/or apron to the lines and dimensions shown on the plans. Subgrade shall be level at a depth of in. below finish grade. Contractor shall place fill of clean cinders, (Continued to page 75)



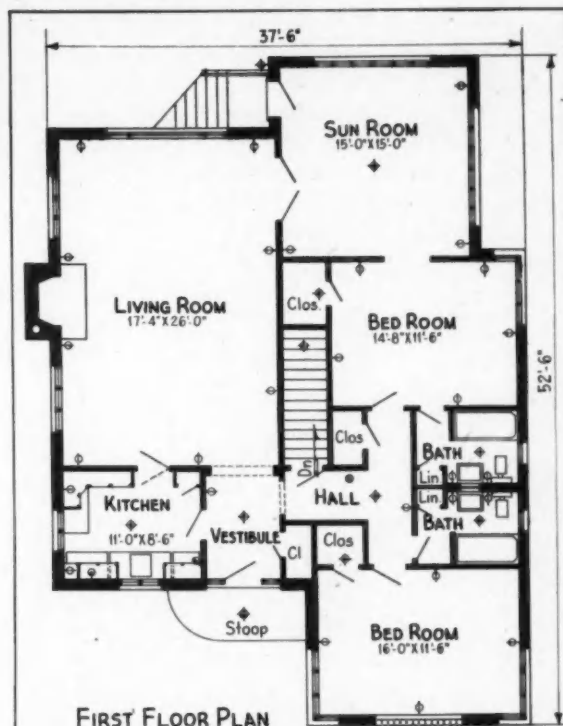
CURING concrete sidewalk by covering with waterproof curing paper; particularly recommended for colored surfaces.



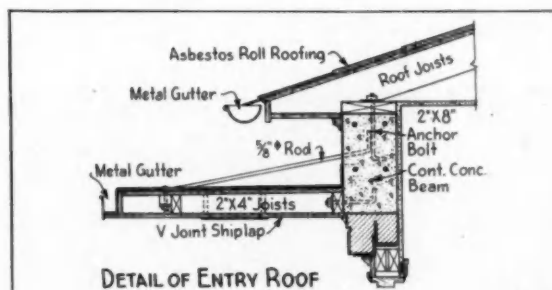
THIS Pensacola, Fla., home, designed by Yonge & Hart and built by McDonald Home Building Co., fits its site which falls away to the rear, with rooms taking advantage of this pleasant view.

Forward-looking in Florida

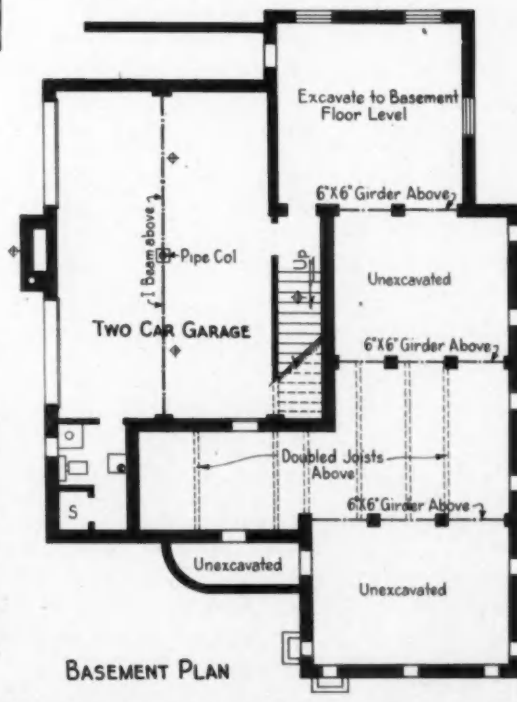
FEATURES of this Pensacola, Fla., home by Yonge & Hart, architects, that are quite unusual and will be again usable at a later date include placing of the two-car garage in the basement with doors flanking the chimney; twin baths with fixtures economically placed back to back; and generously proportioned living areas with exterior walls largely window units for good light, ventilation and outlook. The structure is of combination brick and tile walls, with brick piers and partitions supporting wood joists. The top of the wall is tied together with a continuous reinforced concrete beam; a wood plate to take roof joists is tied to this with anchor bolts. (A detail of this construction is shown below in the section through entry roof.) The low pitched roof is covered with Philip Carey asbestos roll roofing. Crane fixtures, and gas floor furnaces are used.



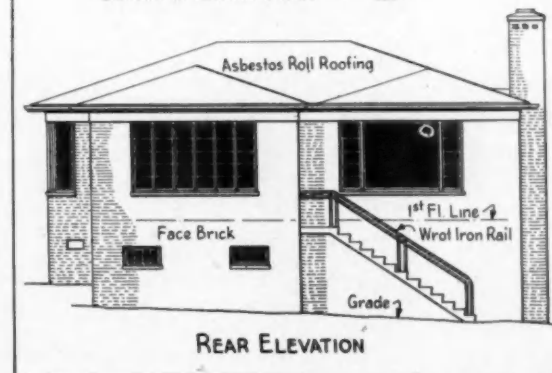
FIRST FLOOR PLAN



DETAIL OF ENTRY ROOF



BASEMENT PLAN



REAR ELEVATION

GLASS has been used extensively in this modern home which has a large picture window at the rear of the living room. Insulux glass block panels in the front elevation, Andersen unit windows, some of which are placed in corners of rooms.

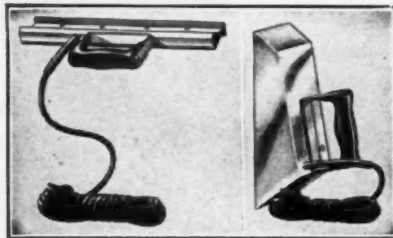
SERVICE TO READERS

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

AB896 "Ideal" millwork items produced by the Ideal Co., Waco, Texas, include a very popular line of step-saving kitchen cabinet units illustrated in a new 4-page folder in full color. A companion piece illustrates "14 Built-in Units," including medicine cabinets, telephone cabinets, bookcases and ironing boards.

AB897 Two new electric appliances have recently been designed by Tamms Silica Co., Chicago, for quick, safe removal of paint and putty. One, the King Electric Paint Remover,



ELECTRIC putty and paint removing tools.

eliminates risk of burning or singeing the surface beneath paint to be removed. Completely electric, unit is well insulated to protect operator from getting overheated or burned. The other appliance, known as Master Electric Putty Softener, simplifies the job of removing putty around window sash, or any glazed surface. Quick electric heating action softens putty for easy removal with putty knife. Risk of glass breakage is practically eliminated.

AB898 A new 12-page handy reference catalog from the National Brass Co., Grand Rapids, Mich., presents the "Commander Line" of Dexter Tubular Locksets and Latchsets. Illustrated are all-steel trim, glass knob trim and plastic trim. These are certified to conform to Federal Emergency Specifications for Defense Housing. This new catalog is designed to simplify the "paper work" required in figuring defense housing jobs.

AB899 The new R-W power drive conveyor, developed by the Richards-Wilcox Mfg. Co., Aurora, Ill., is illustrated and described in a new 36-page catalog. This is of particular interest to the many manufacturers engaged in war production. This new conveyor consists of a steel tubular track in which is a continuous chain made up of a series of vertical and horizontal wheel units. Two-foot radius curves are successfully handled.

AB900 "Designing Truss Joints with Timber Connectors" is an 8-page data sheet supplemented by numerous loose-leaf work and detail sheets, prepared by the West Coast Lumberman's Assn., Stuart Bldg., Seattle, Wash., to help engineers and builders to use Douglas fir timbers most efficiently for many types of wartime construction.

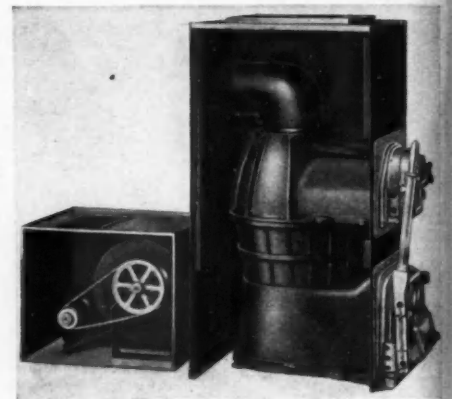
AB901 The National Fireproofing Corp., Pittsburgh, Pa., has brought out two new mailing pieces stress-

ing the availability of its non-critical products for war construction. Natco structural clay tile is presented in detail and its use in many forms suggested.

AB902 "Special Grates for Conversion from Oil to Anthracite" is Bulletin L-40 from the Anthracite Industries, Inc., Chrysler Bldg., New York City. It illustrates and describes the development of a universal grate for the purpose of converting oil burners to the use of anthracite.

AB903 International Heater Co., Utica, N.Y., has brought out a new 4-page 2-color data sheet describing the V-60 Defense Housing Unit. This was designed to conserve metal in all ways possible, yet retaining proper efficiency.

AB904 The Williamson Defense Housing Heating Unit, Model D-18, presented in a new data sheet from the Williamson Heater Co., Cincinnati, O., has been designed especially to meet the requirements of defense housing.



WILLIAMSON defense housing unit.

The furnace itself is of cast iron, while the casing is of sheet steel with gray, baked enamel finish. There is a silent-running centrifugal blower unit attached, to assure even heat distribution to all rooms. Firepot size is 18 inches; grate area, 170.9 square inches; B.T.U. rating, 64,000.

AB905 "How to Waterproof Concrete, Stucco and Masonry" is a new 12-page handbook from Medusa Portland Cement Co., Midland Bldg., Cleveland, O. It explains how lack of waterproofing causes water damage in buildings, various methods of waterproofing, and the advantages of integral waterproofing in preventing water damage. Specifications for the waterproofing of concrete and stucco are included.

AB906 "Thor" portable electric tools are presented in Catalog No. 37, 66 pages well illustrated, from the Independent Pneumatic Tool Co., 600 W. Jackson Blvd., Chicago. These "Thor" portable electric tools include drills, hammers, saws, grinders, sanders, polishers, screw drivers, and nut setters. They are widely used as factory-production tools, and are also popular among building contractors and carpenters.

CLIP AND MAIL TO CHICAGO

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

(July, 1942)

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View of Door from inside of Garage

**Ro-Way Model "R"
Overhead Type Door**

Made with 3 or 4 Sections, and in two sizes, 8' x 6'6", and 8' x 7'.

Write for Special Ro-Way Model "R" Folder and Prices. Address . . .

THE *Ideal Door* FOR TODAY'S
LOW COST HOUSING JOBS!

First of all, Ro-Way designed this streamlined Model "R" Door especially to meet the demand for a Quality Door of true "Overhead Type" that could be easily and quickly installed.

Second, Ro-Way arranged to produce in its own plant every part of this Door—even to the Power Springs, Track, etc.

Third, Ro-Way factory production was geared up to produce them in lots of hundreds at a time.

Then to Top Everything

Ro-Way put into these Doors four Extra Values found only in the more expensive Ro-Way Door Models. These features are:

"Friction-Reducing Track"—Rollers ride well away from the track side walls . . . **"Double-Thick-Tread"**—Track Rollers with 7 Ball Bearings to each Roller . . . **"Extra Bearing Support"**—for the load—Sheave Wheel to prevent side pull or twist—insures extra life and smoother operation . . . **"Rust-Resisting Hardware"**—all Parkerized and Painted after fabrication.

Remember, too, this Ro-Way Model "R" is of true Overhead Type . . . not a one-piece or tilting door. When opened, gives full drive-in clearance. When closed, locks securely to track at both sides by special device operated from center of door.

ROWE MANUFACTURING CO., 748 Holton Street, Galesburg, Illinois, U. S. A.

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

Getting Along with Less of Critical Materials

TO KEEP PACE with new restrictions imposed by Federal agencies, a new outline of suggestions for the conservation of critical materials has been prepared by a committee of the American Institute of Architects, which, in conjunction with the Producers' Council, is conducting a study of this problem. These suggestions for conservation are:

DEMOLITION: Particular care should be exercised to require that all critical materials be not only salvaged but also sorted into their various kinds so that they may be readily available for reuse or as usable kinds of scrap.

EXCAVATION AND GRADING: The specifications for excavation should require the use of timber coverage during blasting. Mats, heretofore largely used, employ hemp or jute both of which are extremely critical. Again, as in "Demolition," the contractor should salvage and sort all piping, conduit and electric wiring. Utility service connections should be protected and maintained or salvaged for reuse.

SHORING, SHEET PILING AND BRACING: This division should be carefully studied so that metal, both structural and sheet, may be eliminated and wood used to the fullest extent.

FOUNDATIONS: Footings, when of concrete, should be designed, wherever possible, without the use of reinforcing steel. In many cases, masonry may be satisfactorily substituted. Foundation walls of concrete, through careful design and location of construction and expansion joints, may be constructed without reinforcement. In many localities rubble masonry will be not only satisfactory but economical. Greater use should be made of concrete blocks for foundation walls, especially for smaller structures. Where ready-mixed concrete plants are available, specifications should require the use of the ready-mixed product

teriors so that openings may be spanned with stone lintels, or brick arches on the face and with brick arches or wood lintels for support of backing. Chimneys and fireplaces should be studied to eliminate metal accessories. Openings for smoke pipes can be formed with tile instead of metal pipe rings. Design chimney tops for stone, terra-cotta, concrete or similar finish instead of metal.

FLOOR AND ROOF CONSTRUCTION: Eliminate reinforcing from basement floors (in earth), wherever possible, or increase thickness and reduce reinforcing to minimum. Where fireproof structures are mandatory, adopt systems of construction requiring the minimum quantity of steel. Concrete joists in combination with tile provide soffits to which plaster may be applied directly and avoid the necessity for lath. In all cases require the use of wood forms and avoid the use of metal specialties. Local practice frequently employs greater live loads than are necessary. These should be reduced to the minimum consistent with safety.

WALKS AND DRIVEWAYS: Concrete walks and driveways may frequently be increased in thickness and the use of reinforcing avoided.

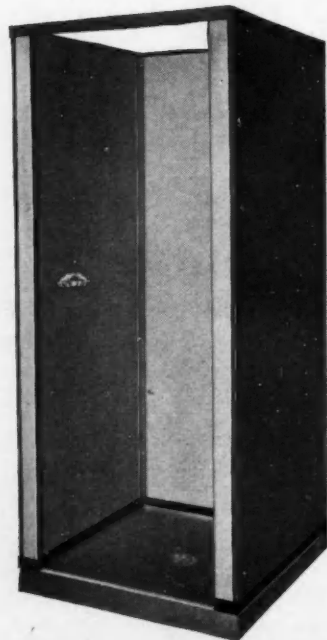
STAIRS AND STEPS: Stairs and steps in fireproof structures should be designed in reinforced concrete, in place of steel. Specify wood forms. Use non-slip inserts or an integral material in place of metal safety treads. Construct exterior steps of masonry, cut stone or wood.

STRUCTURAL STEEL: Except in special cases the use of structural steel will not be permitted. Where permission is given, the design should be carefully studied to insure the utmost value out of every pound of steel used. A review of most

(Continued to page 52)

New "Victory" Shower Cabinet Offered

AN IMPORTANT contribution to wartime building is the new "Victory" Shower Cabinet recently developed by the Milwaukee Stamping Company, Milwaukee, manufacturer of Bath-Rite Shower Cabinets.



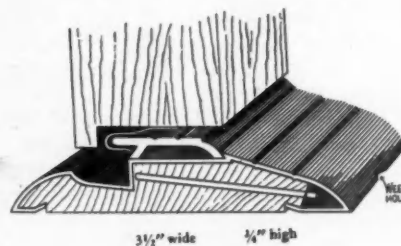
PANELS in "Victory" shower cabinet are of fibre board.

Using non-critical materials, the new shower cabinet meets latest Government Specifications, and conforms to War Production Board's restriction orders. Walls are made of hard-pressed, treated fibre board. Receptors are reinforced, non-slip, pre-cast cement composition. Frame is of galvanized steel. It is made in one standard size, with cast iron drain and soap dish, and optional equipment—shower head, valves, curtain rod, curtain—as required by specifications.

The new "Victory" Model answers the urgent need for a low priced shower cabinet to provide shower facilities for millions of workers, soldiers, air pilots, and other war personnel in war housing, camps, cantonments, naval bases, training centers, war production plants, schools, hospitals. Using a minimum of critical materials, it can be built in great quantities without drawing upon stocks of metal.

Zancras Waterproof Thresholds

DORBIN Metal Strip Mfg. Co., 2410 S. Cicero Ave., Chicago, has developed a successful threshold of wood and alloy zinc to serve builders for the duration, while brass is off the market. The special zinc used, known as Zancras, is hard, durable, noncorrosive, and has a satin silver finish that makes a very pleasing appearance. The cross section drawing shows the efficient weathering contour of this new threshold.



WATERPROOF threshold of wood and alloy zinc.

Pinch-Hitting for Rubber Runner

SUBSTITUTE materials are being utilized with increasing success to replace many products of rubber now unavailable for the thousand and one daily uses previously found for this almost indispensable material. Service obtained from many of these alternate materials compares favorably, in most respects, with that of rubber products.

One substitute, an asphalt composition material, has been found highly satisfactory for floor runners and mats, according to its manufacturer, The Philip Carey Manufacturing Company, Lock-

(Continued to page 52)

150,000 More Homes Available

Without building a single new one!

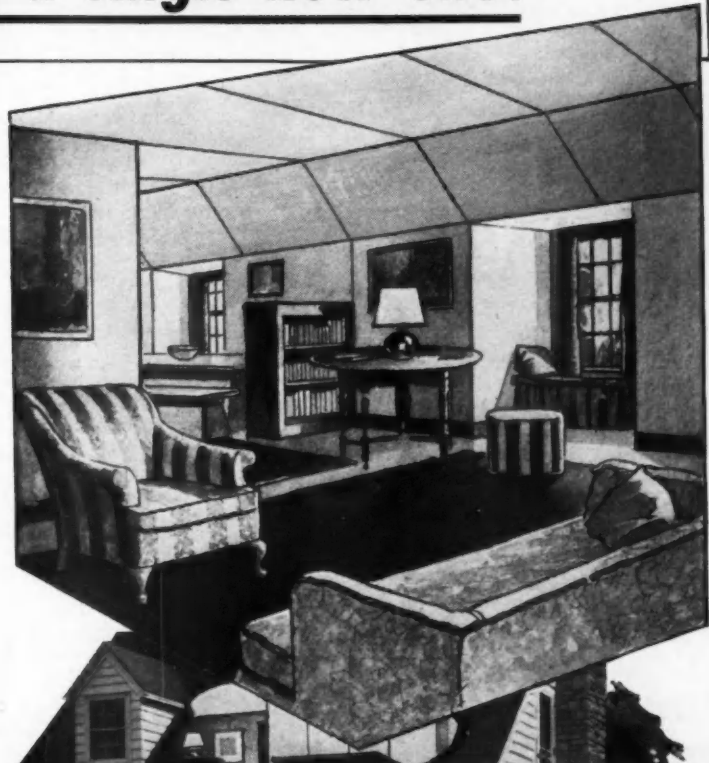
FOR more efficient war production, our workers need comfortable, healthful housing. Today, this country faces a housing shortage for defense workers.

In the past four years, more than three-quarters of a million homes have been built with stairways accessible to unfinished attics.

The equivalent of 150,000 new homes can be made available by finishing these attics into small apartments.

Insulite is easily, quickly and economically applied to studding or existing walls. A few hours will convert unused attic space into charming, healthful living quarters.

Our country's workers need decent living quarters. Don't let unused space go to waste—build a "victory apartment" with Insulite.



Saves Time

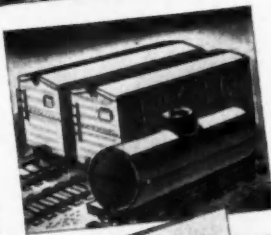
Insulite is quickly applied. The panels fit easily into place, and provide serviceable, attractive interiors, without plastering, papering or painting.

Saves Fuel

Insulite insulates as it builds. There is a shortage of freight and fuel cars. Insulite insulation saves freight shipping space; only a minimum of space is required for Insulite as compared with other materials. One car of Insulite, used in insulating walls and ceilings, can save up to half a tank car during one heating season.

Saves Lumber

The use of Insulite releases much needed lumber for other uses where Insulation board cannot be used—such as for framing members, floors, etc. If you use Insulite, you save lumber for other much needed purposes.



INSULATE WITH INSULITE

THE ORIGINAL WOOD FIBRE STRUCTURAL
INSULATING BOARD

INSULITE
Minneapolis,
Minnesota



Division of
Minnesota and Ontario
Paper Company

REG. TRADEMARK

Getting Along with Less of Critical Materials

(Continued from page 50)

structures will show that assumed live loads are too great and design stresses too low.

MISCELLANEOUS METAL: The use of bronze, nickel and aluminum is out for the duration. Steel and iron will be permitted only where their use is absolutely essential. Galvanizing is not permitted. Where steel or iron is used and exposed to the weather, protection can be obtained by bonderizing and painting.

METAL WINDOW FRAMES AND SASH: Metal window frames and sash may be used only where specifically authorized. When used, designs should be studied to avoid the use of members introduced mainly for architectural effect. Make every member work.

ROOFING AND SHEET METAL: The use of non-ferrous metal in connection with roofing has been prohibited. Steel or iron may be used in some instances such as flashings, gutters, downspouts, gravel stops, skylights, ventilators, etc. Careful study of roofing details will develop methods which will eliminate the necessity for metal for several of these uses. Where metal is used, black iron only will be available. It should be protected by bonderizing or heavy bituminous coatings.

CARPENTRY: The regulations prohibiting the use of metals will necessitate the greater use of wood. The lumber industry, in order to meet the demands, will find difficulty in furnishing seasoned material or the grades and dimensions heretofore available. Architects and engineers should therefore design with these conditions in mind: 1. Wood framing should be designed to avoid use of joist and beam hangers and post caps. 2. Nail sizes should be carefully considered. A well-studied nailing schedule can, with advantage, be placed on the

drawings. This practice has already been adopted in some sections of the country. In finished carpentry it will be found that manufacturers' standard millwork is much more economical in material and production cost than architects' designs. Use standard millwork to the fullest extent. Where necessary to use wood in locations subject to fire hazards, study methods of protection—fireproofing of wood by chemical treatment, flameproofing by spraying with a fire retardant or covering with a non-combustible and non-conducting material, provide varying degrees of protection.

FURRING AND LATHING: The use of metal for furring and lathing, except woven wire lath, is prohibited. Use masonry furring (structural clay tile, cinder concrete block or gypsum blocks) or wood furring for walls and wood furring for ceilings. Wood furring may be fireproofed where non-combustible furring is required. Since woven wire lath requires steel, plaster base material which avoids the necessity of lath should be used wherever possible.

TERRAZZO: The terrazzo industry is offering plastic strips in place of the metal previously employed. Marble mosaics have also been successfully employed as dividers and the industry is endeavoring to develop other materials which may be used.

TILE: Tile is not on the prohibited list. Many installations of wall tile require the use of metal or woven wire lath. Even though woven wire lath is available, it is suggested that architects investigate the adhesive now being tried since its use permits the application to a dry base. The tile industry has also developed a tile bathtub which may be built in place. This may be found to be a satisfactory substitute for the prohibited cast iron enameled tub.

HARDWARE: Hardware manufacturers are required to eliminate non-ferrous metals except for essential working parts. Protective zinc coatings may be used only in hardware exposed to corrosive action. Plastics may, in many cases, be used for trim. Use glass or plastic push plates. Tempered hardboard produces satisfactory kick plates.

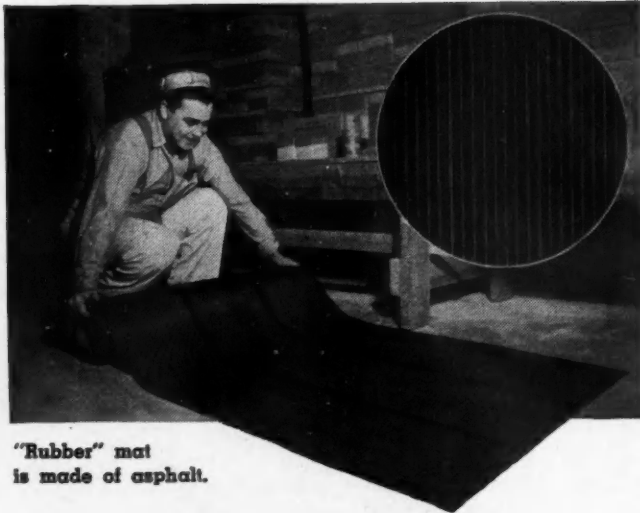
Pinch-Hitting for Rubber Runner

(Continued from page 50)

land, Cincinnati, Ohio, and is immediately available for delivery.

Corrugations or ribs form a non-skid surface to provide firm footing, an effective aid in wet weather. Where water collects on floors, as in washrooms, basements, corridors and lobbies, this runner serves a useful purpose. Easily handled, it lies flat and will not hump. It is available in rolls 36 inches wide and 30 feet long.

Companion products made of the same material are Corrugated Floor Mats, for small areas, in sizes 2' x 3', 3' x 4', 3' x 6' and Corrugated Treads, for stairways, in sizes 9" x 18" and 9" x 24".



"Rubber" mat is made of asphalt.

Armstrong Offers Plastic Trim

THE INTRODUCTION of a line of plastic trims for linoleum and Linowall installations has been announced by the Floor Division of the Armstrong Cork Company, Lancaster, Pa.

Developed and perfected as a substitute for peacetime brass

the new plastic parts will be supplied in the form of binding strip, cap strip, inside and outside corners, and right and left end stops. Distinctive in design, the plastic line will be furnished in six colors—Ivory, Gray, Blue, Brown, Red, and Black.

In announcing the plastic line, the Company said that actual test installations have proved the new trims to be highly practical because of their strength, ease of installation, durability, and color harmony.

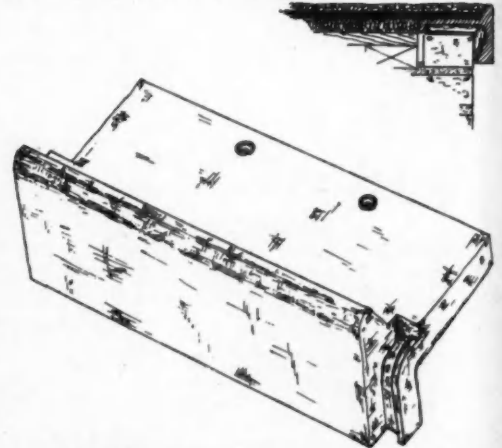
Ceramic Gravel Stop & Coping Block

LUDOWICI-CELADON Company, Chicago, has developed a metal-saving unit for flat roof edging where there is no parapet. This saves critical list sheet metals formerly needed for flashing around roof edges. The utility of this new gravel stop comes from the fact that it is a permanent coping fixture which will provide ample provisions for roofing insulation and also for the various layers of the roofing membrane as a protection against the flow of loose gravel.

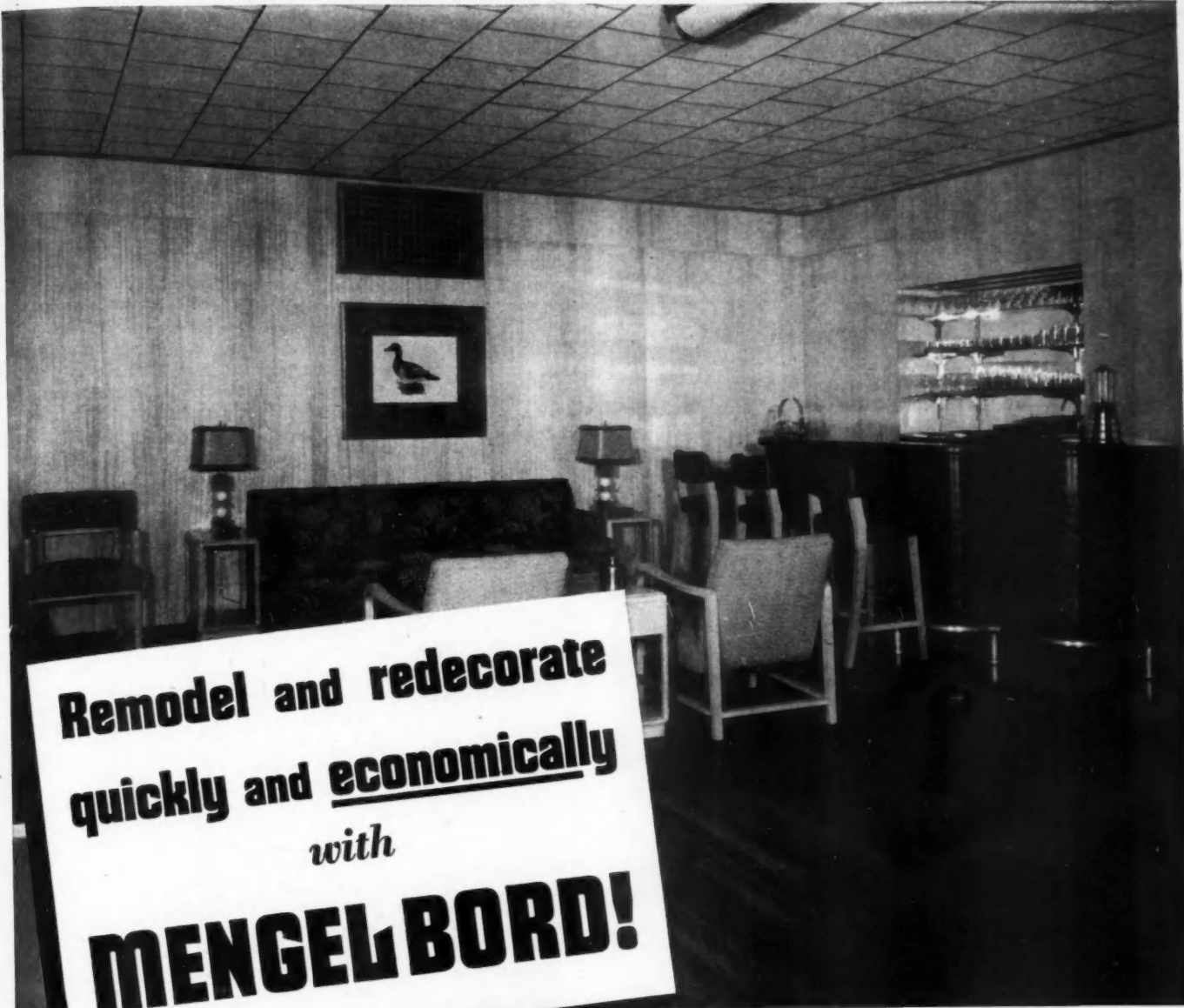
The item can be furnished in 12" lengths; width at the widest point—5 $\frac{3}{8}$ "; width to top of gravel stop 4"; weight 6 pounds per piece. The shipment will be made in cartons, 16 pieces per carton with a total weight of about 108 pounds.

From the standpoint of cost, it is believed the material can be installed at about 50c per lineal foot.

(Continued to page 54)



LUDOWICI interlocking cornice block.



**Remodel and redecorate
quickly and economically
with
MENGE LBORD!**

● An extra room in the attic or basement—beautiful new wood-panelled walls or ceiling in *any* room or office that needs remodeling—low-cost *new* housing that must go up in a hurry—these are the jobs where Mengelbord is your one *perfect* choice among all panelling materials!

● And that's not mere advertising talk. Mengelbord is genuine *hardwood* plywood, 1/4" thick, made in big 48"x96" sheets, with the grain running the *long* way. It is resin-bonded in hot-plate presses—is strong, sound and moisture resistant. Genuine hardwood, it is free from grain-raising, and can be either painted or finished in its natural wood-grain. Equally

important, it is *immediately available*, with faces of Gum, Mahogany, Walnut, Birch or Oak.

● Whatever your needs for beautiful, inexpensive walls or ceilings, it will pay you to investigate Mengelbord. If your regular supplier cannot give you samples and quotations, mail the coupon below. No obligation, of course.

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

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

Name _____

Street _____

City _____ State _____

Armstrong's Foamglas for Cold Storage Insulation

A UNIQUE cellular glass—made up of thousands of tiny airtight cells and weighing only one-fifteenth as much as ordinary glass—has been introduced by the Armstrong Cork Company, Lancaster, Pa., as a permanent addition to its line of low temperature insulating materials.

This new nonpriority product, which presents glass in a form never before manufactured, will be known as Armstrong's Foamglas. It offers permanent insulating efficiency for cold storage rooms in meat packing plants, chemical and food processing factories, refineries, dairy and ice cream plants, breweries, frozen food locker plants, and in various other low temperature fields.

The unusual cellular structure of Foamglas results in the formation of a slight vacuum within the cells that provides a highly efficient barrier to the passage of heat. In addition, Foamglas offers a positive solution to the moisture problem al-



ARMSTRONG'S Foamglas insulation offers glass in a form which can be sawed and worked with ordinary tools. Shown is a worker sawing a block of Foamglas in a mitre box. ABOVE: A workman is erecting Foamglas insulation on a wall of a refrigerated room.

ways prevalent in the low temperature field. Atmospheric pressure tends to force moisture-bearing air from the hot to the cold side of insulated construction. When the dew point is reached, moisture is deposited within and on the surface of most insulations, resulting in a loss of insulating efficiency. Since the structure of Foamglas absolutely bars the passage of vapor, maximum efficiency is maintained throughout the life of the construction. Armstrong's Foamglas is additionally fireproof and waterproof.

Unusual is the fact that Foamglas is glass which can be sawed and worked with ordinary tools. The material can be shaped for installing on T-irons for insulating ceilings by merely rubbing it against the T-iron until a perfect fit is attained. It can be sawed much easier than ordinary wood. Foamglas has a wide range of possibilities for use where both insulating value and structural strength are important.

Foamglas is made by the Pittsburgh-Corning Corporation and is marketed exclusively in the low temperature insulation field by the Armstrong Cork Company. It is supplied in one easily erected board size 12" x 18" in standard thicknesses of 2", 3", 4½", and 6".

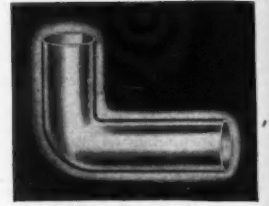
Flush "L" in Tough Plastic

CRITICAL metals are again conserved in the plumbing trade by a new flush elbow for connecting the tank to water closets, manufactured by American Molded Products Company, 1753 N. Honore Street, Chicago.

The problem has been efficiently solved, and an advance has been made in material adapted for the purpose, in the American one-piece molding of the Flush "L" in tough resistant plastic.

This is an elbow connection of tank and bowl heretofore commonly made of copper or brass, and supplied by tubular metal manufacturers. With the restrictions on the metals, including iron also used for this unit, the trade has been much concerned about the supply.

The New American Flush "L" provides the utmost strength and resistance, with lightness. It does not break, crack nor dent in the usual packing and handling with tools. It is leak-proof, impervious to water, iron, lime, sulphur, brine, or any other water content. It is absolutely non-corrosive, invincible to electrolysis, and lasts indefinitely.



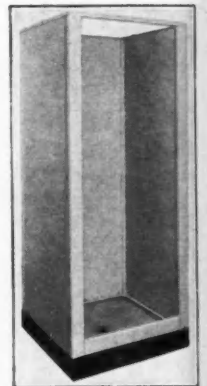
PLASTIC flush elbow.
2" x 4" x 6".

Fiat's "Volunteer" Uses Little Steel

THE WALLS of the "Volunteer" shower cabinet developed for wartime needs by the Fiat Metal Manufacturing Co., Chicago, are of ⅛" hard-pressed tempered fibre-board, and are finished in blue or white baked-on enamel. The leak-proof tension back corner joints are of steel, as are the door frames and top frames. Less than 25 pounds of steel are used in the entire construction of this cabinet—a far cry from the 175 to 200 pounds of steel used in the construction of the all-metal type of shower cabinet.

Looking at this from a single-unit standpoint, the saving in critical materials may not seem impressive; but when you multiply this by, say, 2,337 cabinets, for an example, now being installed at Camp Kit Carson near Colorado Springs, you will make the astounding discovery that by using the "Volunteer" shower cabinet a saving in critical materials on this one job alone of 300,000 pounds or better has been created!

It follows naturally that this pioneer shower cabinet producer is under tremendous pressure keeping up with requirements. Fortunately, however, with plants in Chicago, New York and Pasadena, it has been doing a job meeting Army, Navy and Defense Housing requirements.



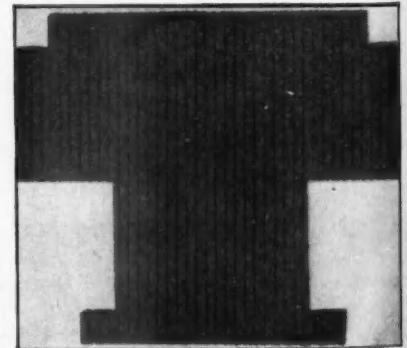
FIAT shower cabinet with fibre-board walls.

New Nail-and-Labor Saving Shingle

FEATURES of the new low-cost Mule-Hide Stay-Lox Shingle pictured are: 30% less labor, 51% less nails, and no priority restrictions. Designed as a re-roofing shingle with self locking tabs for extreme wind resistance, application time has been materially cut down.

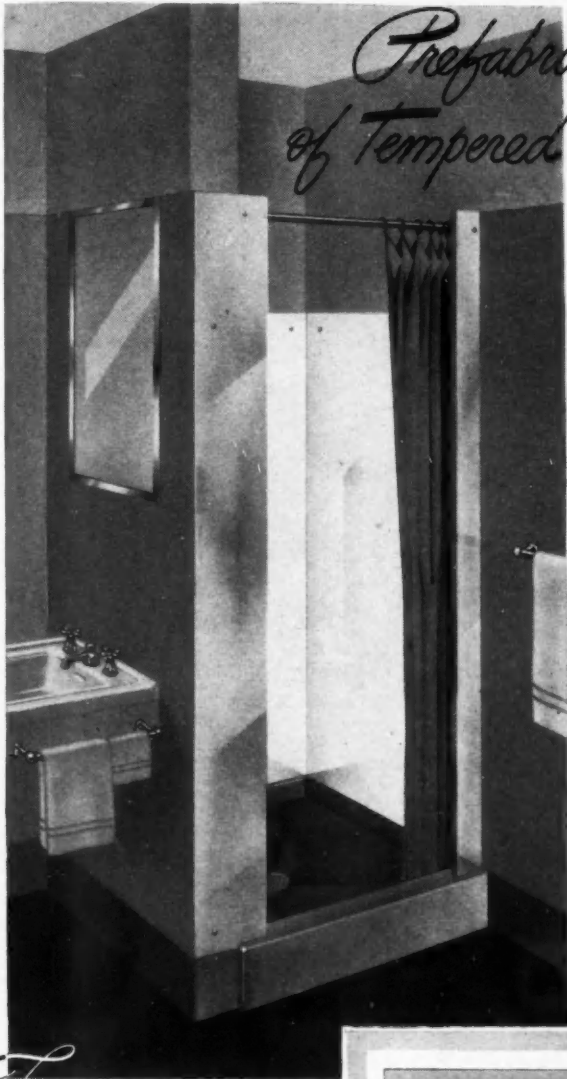
Although only 2 nails per shingle are used, every shingle is secured with 4 nails; made with Cor-Du-Roy "Expansion Joint" exclusive Mule-Hide construction and with cellulose fibre dust-free backing to keep the color blends crisp and clean.

Size, 22 by 18 in.—exposure, 14½ by 11 in.—headlap, 3½ in.—sidelap, 5½ in.—180 nails per square—weight, 170 lbs. per square. Made in green, blue, campfire and green crest. Manufactured by The Lehon Company, 4425 So. Oakley, Chicago, Illinois.



ANNOUNCING . . . SENSATIONAL METAL-CONSERVING DEVELOPMENT FOR NEW, LOW-COST HOMES!

Prefabricated shower enclosures of Tempered Carrara Structural Glass



YOU can't get bathtubs any more. You can't get metal shower enclosures. But here's a practical, low-cost answer to the bath problem in new houses.

Prefabricated at the factory, with all holes drilled and ready to install, Carrara Shower Enclosures are a real step forward in the conservation of critical materials. Their installation requires absolutely no metal except 16 screws which we supply.

You can install one of these Carrara shower stalls in an amazingly short time. It saves space in the house—is so compact that you have more room for closets and other items. It saves plumbing . . . because the same pipes serve both shower and wash-basin. (See detail.) Special construction at the corners provides absolutely watertight joints . . . yet the parts are easily assembled or disassembled, making these new Carrara shower enclosures ideal for demountable houses.

The panels of glass are solid Tempered Carrara . . . 4 times stronger and tougher than ordinary glass of equal thickness. They are easy to clean, never check, craze, stain or fade. They're impervious to water and chemicals. And the same striking beauty which has made Carrara famous is an outstanding feature of these new shower stalls. Available in 8 attractive colors.

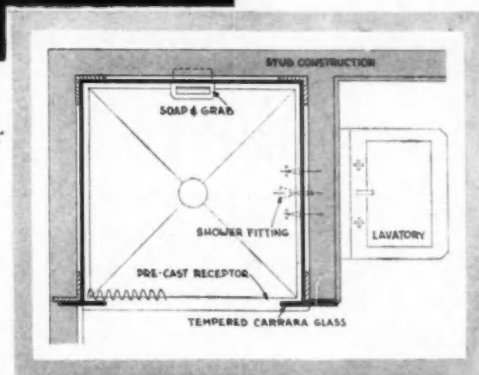
The price? Low enough to make even the lowest-cost house builders sit up and take notice!

Find out about this sensational new development for low-cost homes. Send the coupon for complete information and installation details.

"PITTSBURGH"
stands for Quality Glass and Paint

Furnished complete for quick assembly, unit includes:

- 3 Tempered Carrara panels and 2 stiles.
- 1 wood curtain rod.
- China recessed soap and grab.
- Necessary caulking and pointing compounds.
- Necessary screws for installation.
- Receptor of cast reinforced waterproof concrete. (Can be furnished with unit or made locally. If made locally, we will furnish blue prints.)



CARRARA

The modern Structural Glass

PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Co.
2095-2 Grant Building, Pittsburgh, Pa.
Please send me, without obligation, your free literature and installation details on the new Prefabricated Carrara Shower Enclosures.

Name.....

Address.....

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

American Builder Pioneering Bears Fruit

IN THE February *American Builder* was published an article entitled "Tomorrow's Greatest Educational Need" by Arthur A. Hood of the Johns-Manville Co. This article pointed out that with the building industry consuming 27.8 per cent of the consumer's dollar and agricultural products 28.3 per cent, there was just as much justification for a building industry department in a college and university as there was for an agricultural department. Research had shown that the curricula set up by the various colleges and universities to train men for the engineering phases of the construction industry have in the past included only 20 per cent of the courses necessary to give a student a well rounded training for a career in the building industry.

This fundamental weakness in our educational facilities was probably the reason that there has been a tremendous shortage of adequately trained man power in the fields of housing, farm building and other small construction. This condition is now in the process of rapid change.

The February *American Builder* article reached the Presidents,

Deans and faculty committees of all the leading American universities. Many saw the need and took appropriate action.

We are glad to announce that the following universities now have full four-year courses leading to degrees of Bachelor of Science in Housing Construction and Marketing. In listing the names of the universities, we are also listing the responsible administrator to whom young men and women interested in such training can write concerning these courses.

- Iowa State College, Ames, Ia.....Prof. Geo. B. MacDonald
- University of Denver, Denver, Colo.....Prof. John T. Lynch
- Michigan State College, Lansing, Mich.....Prof. Wm. J. Baker
- North Carolina State College, Raleigh, N. C.Dean B. R. Van Leer
- Massachusetts Institute of Technology, Cambridge, Mass.Prof. Walter C. Voss
- Alabama Polytechnic Institute, Auburn, Ala.Ass't Dean J. E. Hammum
- University of Minnesota, Minneapolis, Minn.Dr. Henry Schmitz
- New York State College of Forestry at Syracuse University, Syracuse, N. Y.....Dean Samuel N. Spring
- University of Wisconsin, Madison, Wis.....Pres. Clarence Dykstra
- University of New Hampshire, Durham, New Hampshire....Prof. E. T. Huddleston

These courses add to a basic scientific training in chemistry, physics, mathematics, geology, electronics, and hydraulics, as applied to housing, such specially needed subjects as:

1. Material properties, uses, application, fabrication and assembly.
2. Materials identification and grading.
3. Architectural drawing.
4. Blueprint reading, quantity surveys and estimating.
5. Specification writing.
6. Sanitary and mechanical equipment of buildings.
7. Electrical equipment of buildings.
8. Construction methods and practices.
9. Structural surveys.
10. Construction supervision.
11. Building codes and the city zoning requirements.
12. Structural design in timber, steel and reinforced concrete.
13. Accounting and business organization.
14. Business law.
15. Principles of economics.
16. Marketing methods and sales management.
17. Credits, collections and time-payment selling.
18. Personnel management.
19. Psychology of individual development and efficiency.
20. Psychology applied to problems of industrial efficiency.
21. Psychology of selling.
22. Psychology of advertising.
23. Psychological aspects of consumer research.
24. Grammar and composition.
25. Business English.
26. Public speaking.

Anyone reading this list of subjects will recognize that this is a truly pioneering effort. Never before have such courses been offered in a single curriculum.

Industry Action Desirable

Any contractor, dealer, manufacturer, realtor, building and loan man, architect, or other factor in the building industry, who has a son or daughter of high school age should write the above schools and get full information about these courses. Nearly everyone knows that the building industry offers the greatest career opportunity looking into the future of any American industry and now, for the first time, education is offered equivalent to the career potential. Every executive reading these lines should make a special effort to direct students to these courses because it is now apparent that with the rapidity of the growth of this pioneering effort so far, if a satisfactory student body matriculates in each of the above ten universities for this building industry training, it will not be long before we will have one university in each state

(Continued to page 58)



OPENS AND CLOSES LOCKED DOORS FROM A BUTTON ON THE TRUCK...

FACTORY doors, when equipped with Radio Control, are automatically and securely locked when closed. A truck operator, approaching the door from either inside or outside the building, simply pushes a button on his truck and the door opens promptly in response to a frequency signal. For doors already equipped with Barcol electric operators, the cost of the additional Radio Control units is comparatively small. The Radio Control has proved its reliability in many installations. For full information, write us or see your Barcol representative.



BARBER-COLMAN COMPANY
 104 MILL STREET • ROCKFORD, ILLINOIS
 SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES



Johnnie has the Right idea!

Johnnie knows it's the things he puts *inside* his house—that give the kind of "Livability" he wants. So Johnnie plans accordingly . . . and there's a heap of wisdom in his boyish designs.

Homes tomorrow will be Completely Equipped for Better Living . . . and the operating equipment, so important to "livability," will be chosen for its efficiency and low operating cost.

GENERAL  ELECTRIC

Home Bureau, Bridgeport, Connecticut



American Builder Pioneering Bears Fruit

(Continued from page 56)

in the Union with a building industry curriculum. The *American Builder* will be glad to hear from building industry people who are sending their sons and daughters, relatives or acquaintances to these courses.

Public War Housing Speeded

DOUBLING the record of the previous month, the Federal Public Housing Authority announced on June 6 that it had placed under contract a total of 49,005 public war housing units during the month of May. This single month's total exceeds the entire amount of public housing provided during the first World War. Included in the May total were 41,635 family dwellings, dormitories for 6,470 persons, and 900 trailers for emergency use.

In commenting on this record FPHA Commissioner Herbert Emmerich praised the decentralization policy of FPHA, which provides for the letting of war housing contracts in the field by local housing authorities rather than in Washington.

Postwar Building Plans Urged Now

IMMEDIATE mobilization of all groups of the building industry for conversion of the United States to a peacetime economy after the war was urged by the American Institute of Architects' postwar reconstruction committee, reporting to the annual convention, Detroit, June 24, according to a United Press dispatch.

"Unless constructive plans are made now for the postwar period," the committee said, "there will be unemployment and chaos in the building industry with the result that hastily devised public and private works programs, not based on sound principles, will be advocated and carried out."

The committee, of which Dean Walter R. MacCormack of the Massachusetts Institute of Technology is chairman, urged creation of an organization "pledged to subordinate selfish interests for the common good."

War Damage Insurance Offered

THE WAR Damage Corporation will begin issuing on July 1, one-year policies to cover physical loss of real and personal property which may result from enemy attack or from action of our own forces in resisting enemy attack, the Federal government has announced. This insurance will cover almost any tangible property, including homes and other buildings. Excepted are accounts, bills, currency, deeds, evidences of debt, security, money and bullion, and indirect or consequential damage. Rates range from 3 to 75 cents per hundred dollars. The rate on homes is 10 cents per hundred dollars.

Distribution of policies will be made by fire-insurance companies acting as fiduciary agents. The agents will take and transmit orders through local fire-insurance agents and brokers, to whom application should be made for detailed information. To cover their costs, the fiduciary agents will receive 3½ percent and the local agents 5 percent of premiums.

During the hearings and debates in Congress two views were expressed concerning rates. It was contended on one hand that the seaboard areas, as more exposed, should be charged a higher rate than interior areas, where the hazard appeared to be smaller.

A uniform rate was adopted, however, on the ground that as a practical matter it is impossible to forecast the area which may be subjected to enemy action by air or otherwise, and also because losses occasioned by war are a national problem, the burden of which should be equally distributed.

The original announcement of the Government's intention to provide this type of risk coverage was made immediately after the outbreak of the war. Its purpose at that time was to reassure the public and maintain morale. Up to June 30, insurance has been automatic, and has included the Philippine Islands—which are, however, omitted from the present arrangement for paid policies.



LAUCKS GLUES WERE USED IN THE CONSTRUCTION OF 152 FOOT BEAMS ON A HANGAR AT GRAND FORKS, N. D.



CONTRACTOR SAVES NAILS BY USING LAUCKS GLUE TO PREFABRICATE 22 MILES OF DOUBLE WALL FOR WARTIME HOUSES!

I. F. LAUCKS, Inc.

MANUFACTURING CHEMISTS
"Leadership through Research"

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Chicago - 6 North Michigan Ave.
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Portsmouth, Va. - Commerce and Broad Sts.

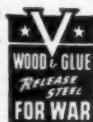
SPEED! Necessity for speed first turned yesterday's doubts about glue in construction into enthusiastic endorsement. Now American builders and prefabricators know that Laucks Construction Glue methods not only are faster . . . but also are stronger . . . and save precious metal for combat use.

On history's biggest housing projects, wall panels are "glue-welded" to joists and studding in assembly line procedures. Glue-laminated arches and beams replace steel . . . and qualify fully for strength. Wood and Laucks Glue are joining forces in scores of new and vital ways in building construction as well as in wartime industries, in aircraft and boat-building . . . to speed America's production for victory.

MEET U. S. SPECIFICATIONS - Laucks water-resistant and waterproof glues and resins meet Army, Navy, C. A. A., Bureau of Ships, etc., specifications.

STRONGER - "Stronger than nails by test" . . . and easier to get.

Contractors, Builders, Dealers, Architects - write Laucks for full information.



• LAUCKS CONSTRUCTION GLUES •



Speed Building

and Boost your Reputation

...with WELDWOOD*

Uniformly high-grade, guaranteed building product gives quick results on war housing, repair and remodeling jobs.

With war workers clamoring for living quarters, your contracts call for *speed*. But your reputation... built on years of effort... demands *quality*. A sure way to achieve *both* is by using Weldwood.

Weldwood Utility and De Luxe Paneling, made in stock size panels up to 4 x 8 ft., are both exceptionally strong, durable, split-proof. De Luxe Paneling is available with faces of almost any wood you can mention. The Utility Panel (faced with unselected Gum) takes a paint, paper or natural finish.

Weldwood has for years been a leader in the construction, marine, aviation and other fields. Waterproof Weldwood, developed in 1932, was the first phenolic resin bonded plywood to be perfected. Your assurance of lasting quality is found in the fact that Weldwood is guaranteed for the life of the structure in which it is used.

Ask your lumber dealer to quote on Weldwood. For full information and large illustrated catalog get in touch with nearest branch warehouse listed at right or write to Main Office, New York.

UNITED STATES PLYWOOD CORPORATION

616 West 46th St., New York, N.Y.

World's Largest Producer of Plywood

War housing, and repair and remodeling jobs call for speed. Weldwood helps you attain it ... along with quality construction.



WELDWOOD

UTILITY AND DE LUXE PANELING

*Name formerly applied to Waterproof Weldwood only, now family name of all plywood products made by United States Plywood Corporation.

NEW PLASTIC GLUE

Weldwood Plastic Resin Waterproof Glue... makes strong, permanent joints. Readily mixed with cold water. Available in convenient sizes, 1 1/8 oz. cans up to 100 lb. drums. Literature, FREE sample on request.

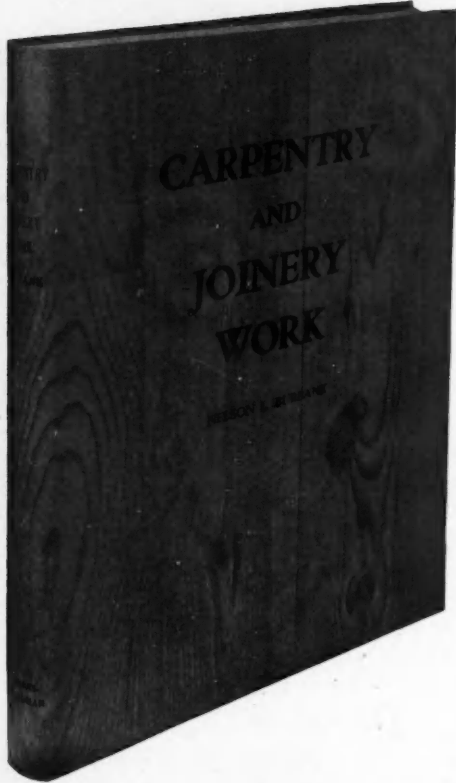


BRANCH OFFICES AND WAREHOUSES in
 Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Newark, New York, Philadelphia, Rochester, San Francisco, Seattle.

CARPENTRY and JOINERY WORK

By **Nelson L. Burbank**

Formerly Instructor, Building Vocational High School,
Cincinnati, Ohio



The cardinal principles of present day residential construction are set forth logically in simple language, with the aid of many line drawings and photographs. The new Third Edition contains 80 revised pages, 6 additional index pages, and three full-sized blueprints of a Colonial house. A complete Bill of Material for this house is given in Chapter III.

Designed primarily as a textbook, the program of study presented involves class discussion, practical job work and related studies. These include Architectural Drawing, Plan Reading, Carpentry Mathematics, Business English, Civics and First Aid. Because of its detailed completeness it is an excellent book for home study. The greatly expanded index also makes it useful as an up-to-date reference book for those whose student days are over.

1940. 280 pages, illustrated, 8 1/2 x 11 inches, Cloth, \$3.00

BOOK DEPARTMENT

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

Private Construction Can Be Resumed

(Continued from page 25)

and when it comes men of the building industry should be able again to serve part of the needs of their public, at least so far as it can be done with non-critical materials. Large resumption of private construction is entirely feasible months before the end of the war, for it is reasonable to expect that the War Production Board will permit building needs of the public to be served, so long as serving them does not interfere with war production.

We should remember that nothing lasts forever. When we are in a boom it is natural to believe that it will go on for years; or when we are in a depression that conditions never will change, or that war will last forever. Neither the present business upheaval, nor the war can continue indefinitely. And in any event, a construction revival need not wait for the armistice. It need only await the rapidly approaching peek of war production to make both materials and man-power of the building industry available for essential service to the public.

* * *

No More Copper Water Supply Pipe

IN AN interpretation of Copper Conservation Order M-9-c, the Director of Industry Operations on June 15 prohibited the use of copper and copper alloys in the manufacture of pipes and fittings for use in water supply and distribution systems, except corporation cocks and curb stops.

M-9-c provides that copper cannot be used where any less scarce material is an acceptable substitute. Iron and steel may be used satisfactorily for pipes and fittings, hence copper and copper alloys cannot be used for these purposes.

WPB Construction Bureau Moved to New York

THE Bureau of Construction, recently established to coordinate all construction functions of the War Production Board, has moved to New York; headquarters in the Empire State Building.

Except for a small office staff which will remain in Washington for liaison work, the entire organization under William V. Kahler, chief of the Bureau, is affected by the change. Thomas L. Peyton, assistant to the Chief, will be in charge of the Washington office.

The Bureau is divided into five operating branches: Project Analysis Branch, Materials Control Branch, Project Service Branch, Housing Branch, and Consultation Branch.

Lee Bartholomew Advanced

TO FACILITATE the servicing of war construction projects, The Celotex Corporation has enlarged its executive staff by appointing Lee Bartholomew, formerly manager of the company's Cleveland division, as an assistant general sales manager. His place as Cleveland division manager will be taken by E. E. Dierking, formerly assistant division manager.

Bartholomew returns to a post which he held with the company in 1938, prior to his appointment as general sales manager of Celotex, Ltd., of London, the company's English subsidiary. He returned from London in June, 1940, and has served as Cleveland division manager since that time. He joined The Celotex Corporation in 1932 as a sales representative in the Cleveland division. Later he became division manager and retained that post until 1938. Before joining Celotex, he was in the retail lumber business in Seattle.



LEE BARTHOLOMEW

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HOW BUILDING MEN CAN SUCCESSFULLY WEATHER THE WAR

With the Aid of American Builder

The July issue, you now have in hand, is a good sample of the service *American Builder* is offering building men everywhere to help them to successfully tide themselves over the war.

In coming issues, building men who do not have access to the war home market, as such, will continue to find in *American Builder* numerous outlets for the work they are permitted to do and *can do at a profit* under existing WPB regulations.

For those building men engaged in the construction of war homes and other essential structures, *American Builder* will prove equally as valuable as a continuous source of new design ideas, and construction methods to speed work and reduce costs.

To successfully weather the war, no matter what kind of building work you are engaged in, the important requirement is ability to keep abreast of changes.

Building conditions which exist today cannot be expected to remain static. Restrictions may be eased or tightened. Materials on the critical list may go through a further reshuffling process. New building needs are bound to become evident. A hundred and one things can happen to change the entire building picture during the weeks and months ahead.

Avail yourself of the up-to-the-minute competent guidance of *American Builder* to keep you informed of the changes which take place and the adjustments which will be in your interest to make at every step of the way during the war.

Subscribe to an *American Builder* for one year at \$2—or for two years at \$3 now . . . and receive free with your subscription a copy of our 180-page DEFENSE HOMES HANDBOOK briefly outlined in the column to the left.

DEFENSE HOMES HANDBOOK

180-Page War-Time Building Service

—Partial Contents—

- PRIVATE BUILDERS ARE MEETING HOME SHORTAGES
No Government Subsidies Needed. No Red Tape or Delay Wanted.
- BETTER HOMES ALSO PROVIDE NEEDED HOUSING
Three Delightful Home Designs Used at Port Chester, New York.
- DEFENSE HOMES CAN HAVE APPEAL AND GLAMOUR
Texas Builder Finds Big Demand for Glass Accented Homes.
- THESE "DEFENSE HOMES" WILL STILL BE GOOD AFTER THE EMERGENCY
Well Designed Small Homes at Fairfield, Conn.
- GOOD FOR DEFENSE — WORTH DEFENDING
Stamford, Conn., Colonial Homes Set High Standard Designs.
- TWO CALIFORNIA HOMES WITH MANY SALABLE FEATURES
How They Build in the Los Angeles Region.
- SIX ROOM MODEL ATTRACTS THOUSANDS
Four Pet Peeves Eliminated in Dearborn, Mich., Demonstration.
- NORTHWEST 5-ROOM DESIGN IN BRICK AND CEDAR
Typical Present Day Seattle Home.
- SEVEN ROOMS IN JACKSONVILLE
Photo and Architect's Plans of Popular Florida Design.
- TWO CALIFORNIA COTTAGES
Small Home Near Los Angeles, Unique in Detail, Spacious Within.
- PLANNING AND BUILDING A "BIG" SMALL HOUSE
Convenience in a 5-Room House Without Expense of Extra Cubage.
- SOUTHERN HOME BUILT FOR FUTURE EXPANSION
Details of "Honeymoon House" at Birmingham, Alabama.
- HOW NEW HAVEN MET SHORTAGE
Photos and Plans of Some 72 Homes at New Haven.
- MODERNIZATION AND MULTIPLE UNIT HOUSING SECTION
Includes: Salvaged for Defense . . . Garages Modernized into Rent-Paying Dwelling . . . Cottage Apartments to Rent . . . etc.
- JOB POINTERS
Hints on such things as: How to Apply Wood Gutters . . . How to Specify and Build Concrete Stairs and Steps for Inside and Outside Construction . . . etc.

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Enter my subscription for 1 year (\$2) 2 years (\$3)

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

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INCLUDE WITH MY SUBSCRIPTION, AT NO EXTRA COST,
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As soon as your subscription payment is received, a postpaid copy of DEFENSE HOMES HANDBOOK will be mailed to you free of charge.

AMERICAN BUILDER—The World's Greatest Building Paper, 30 Church Street, New York



**conserving steel,
saving transportation,
expediting war jobs**



On many types of war construction, concrete is helping meet three pressing requirements:

STEEL IS CONSERVED. Concrete provides rigid, durable, fire resistant construction with minimum use of steel. Many structures, such as floors on ground, need none. Portland cement water paints save lead and zinc.

TRANSPORTATION SAVED. Concrete imposes a minimum burden on transportation facilities, since the bulk of the material is usually found locally.

TIME SAVED. Simple methods, widely available concrete workers and local materials are helping to expedite jobs.

Our technical staff is available to assist designers and builders of large-scale housing or other major war construction jobs. Do not hesitate to call on us for concrete data that will help expedite work, reduce reinforcing steel or solve other war concrete problems.

PORTLAND CEMENT ASSOCIATION

Dept. 7-3, 33 W. Grand Ave., Chicago, Ill.

PRACTICAL JOB POINTERS AND BUILDING DATA

New Roller-Koater Banishes Bristle Worries

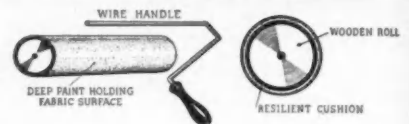
A STARTLING new tool that goes a long way toward relieving the paintbrush situation just when the bristle shortage is beginning to assume serious proportions has been announced by the Sherwin-Williams Co., Cleveland. Known as the Sherwin-Williams Kem-Tone Roller-Koater, the new device is especially designed for the application of Kem-Tone, S-W's popular new resinous emulsion wall finish.

The Roller-Koater, which resembles the familiar stipple-roller painters now used for oil-type finishes, is so designed that it rolls a smooth, even coat of finish onto practically any type of surface, including wallpaper, without lapping or streaking. No previous brush application of the paint is needed, since the Roller-Koater picks it up directly from the can.

What's more, this new tool makes it now possible to get a stippled surface with water-mixed paints, heretofore impossible because of the rapid dry.

Used with Kem-Tone, the new washable, one-coat wall finish, this revolutionary device permits unheard of savings in time and effort. Owing to its extra paint-holding capacity, it is a simple operation to apply an even solid-covering coat over generous areas of wall-space in no time at all, automatically imparting a rich-looking, uniformly smooth, fine-textured stipple.

Demonstrations of the Roller-Koater—how to use it and how to clean it with plain soap and water—may be obtained from dealers handling Kem-Tone; or further information may be secured by writing directly to The Sherwin-Williams Company, Chicago. The Roller-Koater is already in large scale production and will be distributed by more than 5,000 Sherwin-Williams dealers.



ROLLER-KOATER in use.

Partial Prefabrication— Modern Phase in Building

WHEREAS the prefabricator of six years ago constructed the "packaged" house in its entirety and shipped it to buyers throughout the country, ready to be assembled on the site in a few hours, the mushrooming of the prefabrication industry in the last six months, due to necessity for immediate large-scale housing units, has introduced a new factor into house construction. This is the advent of a middleman into the prefabricating field—the partial prefabricator—who justifies his existence by supplying "parts" or sub-assemblies to the actual "prefabricating contractor" at the job.

After a trial-and-error period, a number of prefabricators found the "packaged" house construction impractical except in the immediate vicinity. These homes were too awkward and costly to ship to far-distant sites, and definitely limited the scope of their business.

A number of companies which have gone into the partial-pre-



GIANT plywood board coming off the assembly line at the Speed-wall Company, Seattle, Wash.

fabrication field are producing portions of houses for which their plants are best fitted—wall sections, windows, doors, steps, etc. These parts are then supplied to the actual prefabricating firm on the job—though it may be thousands of miles distant.

An example of this is the Speedwall Company, a division of I. F. Laucks, Inc., Seattle, which started as prefabricators in 1936, and has built hundreds of prefabricated houses for various government and private agencies throughout the country.

The Speedwall Company is using its machinery almost entirely now for partial prefabrication. One of its principal products is giant plywood board for both exterior and interior use. A feature of the Speedwall board is its construction, to be applied cross-grained to the studding. This gives a wall construction more than four times as rigid as when the plywood is applied with face grain parallel to the studding. The giant board is eight feet wide, and is run off in a continuous line like newsprint. Thus it can be cut to any length as required by the prefabricator. With this type of construction Speedwall can and does supply prefabricators on projects as far away as the East Coast.

Another Speedwall partial-prefabrication is the construction of double-wall sections—containing both the interior and exterior walls of a house. The company has found that it can glue up double wall sections at the rate of 310 lineal feet of 8-foot-high partitions per hour, or 2480 lineal feet per 8-hour shift. This is enough double wall sections for 20 complete average 5-room houses per day.

The prefabricator, now that a great deal of his work has been taken over by partial-prefabricators, has become, in many cases, virtually a local distributor or assemblyman—often a general contractor, or an alert dealer. He purchases prefabricated portions of homes from various partial-prefabricators throughout the country, assembles them for occupancy on the home grounds, speeding the job and bringing all of the building industry's factors into the prefabricating picture.

New Slotted Wood Moulding for Curtain Traverses

A NEW SLOTTED wood moulding, designed in various styles for use wherever ceiling or curtain traverses are specified, is now being offered to builders by Jiffy Join, Inc., 203 E. 18th Street, New York City. This moulding comes with a patented slide curtain-hanging feature which eliminates the need for metal curtain rods and fixtures at windows, in open doorways and between living rooms and dining alcoves.

For curtain traverses, there are a number of different styles in Jiffy mouldings. A double slot moulding can be used in place of the regular window head trim or over plaster reveals. Another double slot design can be attached to the top of the regular head trim. A single slot style can be used in this same way. There is also a flat moulding with double or triple slots to be used for

(Continued to page 64)

HOW CONTRACTORS SAVE TIME ON WAR HOUSING with Streamline Flooring

"We made a definite saving in time"...

DUNLAP & COMPANY, INC.
BUILDERS
COLUMBUS, INDIANA

June 2nd, 1942

E. L. Bruce Company,
Memphis, Tenn.

Gentlemen:
Re: Defense Housing Project
Jeffersonville, Indiana.

We wish to tell you how well pleased we were with the use of Bruce Streamline Flooring on the above project. We found that we made a very definite saving in time by the use of your prefinished flooring. We also made a saving in time and expense due to your being able to make prompt delivery whereas other sources of supply on regular flooring were unable to make delivery for several weeks.

Aside from the saving in time affected by the use of Bruce Streamline Flooring, we felt we were giving the Government and the tenants a floor far superior in appearance and durability for practically the same cost as regular flooring finished on the above job.

Yours very truly,

DUNLAP AND COMPANY, INC.

Elmer E. Dunlap
Elmer E. Dunlap, President

EED/KW

WE HAVE SERVED THOSE WHO BUILD SINCE 1873



ELMER E. DUNLAP,
Dunlap & Co., Inc.,
Columbus, Ind.

This is just one of many letters received from architects and contractors all over America, praising Bruce Streamline flooring for War Housing—because it "saves time" . . . "saves money" . . . "provides a better looking, more durable floor" . . . "is delivered on schedule." Send today for a copy of the new book "Low Cost Floors for War Housing"—giving the facts on the greatest improvement ever made in hardwood flooring.

E. L. BRUCE CO.
1618 Thomas St., Memphis, Tenn.

Send Coupon
FOR FREE BOOK

E. L. BRUCE CO.
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Please send me a copy of your new book—"Low Cost Floors for War Housing."

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BRUCE Factory-Finished **STREAMLINE** HARDWOOD FLOORING
FLOOR FINISHES • TERMINIX • LUMBER PRODUCTS

Wood Moulding for Curtain Traversè

(Continued from page 63)

making the top of boxed wooden valances. Mouldings for ceiling traverses come with either squared or beveled sides for attaching to the surface or recessing into plaster.

The curtain hanging device which operates in Jiffy slotted mouldings is a simple woven cotton tape set at intervals with Jiffy sliders. After the tape is sewed to the top of a curtain, each little slider is inserted into the slot, one after the other, through a small aperture near the end of the moulding.



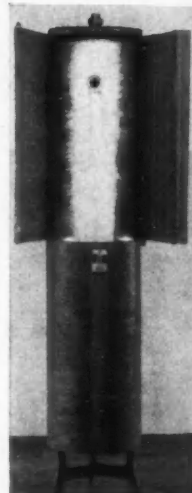
TAKING the place of metal curtain rods, Jiffy slotted wood mouldings serve both decorative and blackout purposes. First a special slider tape is sewed to the top of curtains. Then each little slider is inserted into slot through small aperture near end of moulding.

One pair of curtains or draperies can be hung at windows which are finished with single slot mouldings. With double slot mouldings, either sheer glass curtains or blackout curtains can be hung under draperies. And, of course, three slot mouldings will carry the glass curtains and draperies needed for decoration as well as the blackout curtains needed for safety.

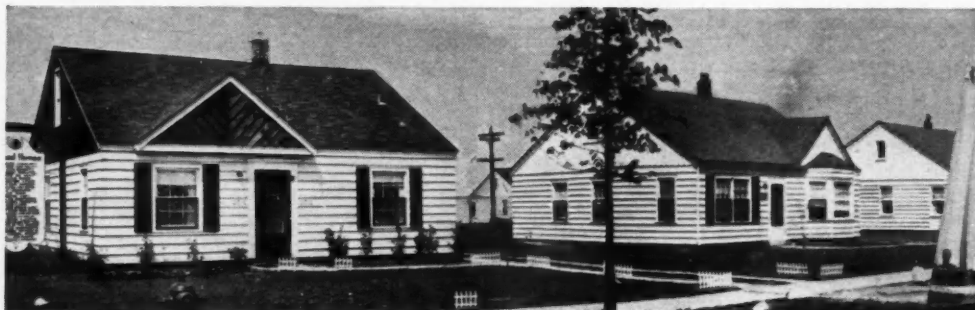
Jiffy slotted mouldings are made of kiln-dried and processed medium-hard woods. They come in 4', 6', 8' and other standard lengths with apertures for inserting sliders at one or both ends. The Jiffy slider curtain tape can be ordered in any desired footage.

New Economical Hot Water Tank Jacket Conserves Fuel

A NEW economical way to conserve fuel and otherwise increase the efficiency of hot water tanks is to install an insulating jacket manufactured by The Hinde & Dauch Paper Company, Sandusky, Ohio. Made of highly efficient H & D patented air-cell insulation, the jacket can be quickly and easily installed on all standard model 30 and 40 gallon hot water tanks to provide quicker heating and longer heat retention. Laboratory tests have proved the 5-ply air-cell insulation an effective, economical insulator. The new jackets are exceedingly easy to apply. Joint seals are quickly and securely made with cloth tape matching the attractive wood grain, gray, and green finishes which are available. The new jackets are also very popular with home owners seeking a practical method of "camouflaging" hot water tank installations in remodeling or redecorating recreation rooms.



INSULATING jacket for hot water tank conserves fuel and increases efficiency.



HALVORSEN'S
Linwood Homes
Chicago, Ill.



*"Tile-Text floors help sell
Defense Homes"*

Says F. H. HALVORSEN
Successful Chicago Real Estate Builder

This experienced builder of defense homes found Tile-Text the answer to the flooring problem in these attractive, low-priced homes. Tile-Text was installed there in attractive colors directly over the concrete slab in contact with the ground. All areas except the heating and storage room were floored with this economical, moisture-resistant, durable flooring.

Tile-Text contains no critical materials. It is available promptly, and is installed by thoroughly experienced, approved contractors located in all principal cities and towns throughout the country. *Specify* Tile-Text for the defense homes you are building; it meets every requirement. Write today for the name of your Tile-Text contractor.

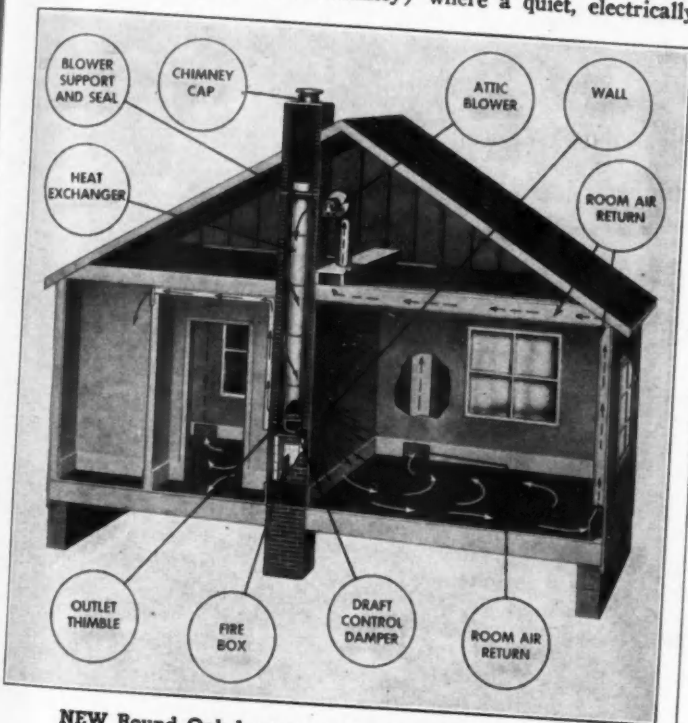
THE Tile-Text Company CHICAGO HEIGHTS ILLINOIS

TRENDS in Home Equipment, Building Materials

"Fire in the Chimney"

AN INGENUOUS heating development claimed to be a revolutionary method for overcoming the difficulties of wartime limitations on materials and fuel has been announced by the Round Oak Company, Dowagiac, Mich. Known as the Fluemaster Furnace, it is a coal-fired unit which employs a chimney heating principle. It is designed especially for low cost Victory Houses and other small homes. R. D. Nugent, Round Oak president, enthusiastically calls it the most revolutionary development in recent home heating history.

Unlike any other type of furnace or unit heater, the Fluemaster is entirely concealed inside the chimney—with fire pot on either first floor or basement level. No room space is required. A heavy metal, porcelain enameled heat exchanger flue, through which the hot combustion gases travel, extends up above the attic floor (inside the brick chimney) where a quiet, electrically



NEW Round Oak heater is placed inside the chimney.

operated fan and automatic blower control are located. This fan forces the radiated heat downward, in a counter flow, through baseboard, wall or ceiling grilles, and circulates it in the various rooms. Return air is drawn through wall baseboard grilles, through studding spaces and attic floor joists, back into the blower—and again down through the chimney heating space.

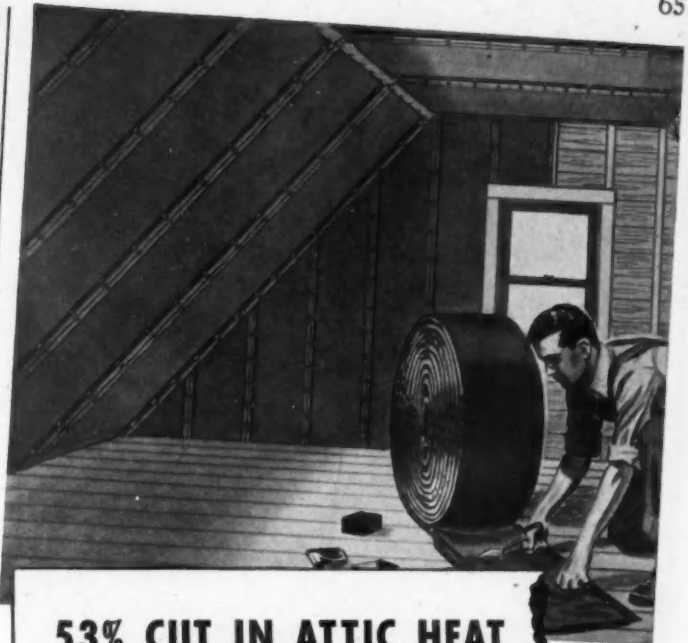
Due to unusual efficiency, the operating cost is low. Only a minimum of critical materials is used in the entire unit. At most, only a few feet of warm air ducts are required, and necessary return air duct work is entirely of non-critical material. An attachment is available for domestic hot water requirements, if desired.

The complete shipping weight (including fire brick liners for the fire pot) is only 400 pounds—less than half the weight of either a conventional steel or cast furnace. And it is said to occupy only one-third as much space in shipping.

Blackout and Shatter Screen Tested

FLYING GLASS has been the principal cause of casualties in bombed areas, declare English air raid wardens. Early in the war, windows were criss-crossed with tape in an effort to prevent

(Continued to page 66)



53% CUT IN ATTIC HEAT LOSS NOW POSSIBLE

Improved type blanket insulation effects important fuel savings; roof-line application provides extra living space.

According to latest studies, fuel consumption can be materially reduced in millions of homes by applying Masonite[®] Cell-U-Blanket[®]—a modern blanket insulation—to exposed roof rafters from the inside.

- 40% to 53% heat-loss reduction

Heat-loss tests recently conducted indicate that as much as 40% of the total heat loss in an uninsulated house occurs through the roof. Cell-U-Blanket cuts this vital loss anywhere from 40% to 53%, according to the type of structure.

- No shrinkage, sagging, settling

The feather-light core of Cellufoam will neither shrink, sag nor settle, even when applied vertically. The asphalt-impregnated coverings provide a positive vapor barrier . . . are wind-proof and moisture-resistant.

- Additional living space cited

Comfortable bedrooms in idle attics can be created by roof-line application of Masonite Cell-U-Blanket. Masonite Presdwood[®] Products are used for finishing these attics with smooth, durable hardboard walls and ceilings.

Lumber dealers can procure Cell-U-Blanket in 3 thicknesses, 6 widths, and with either asphalt-impregnated coverings on both sides or with a non-metallic reflective surface on the flange side. Mail the coupon for FREE sample and full details.

MASONITE CELL-U-BLANKET



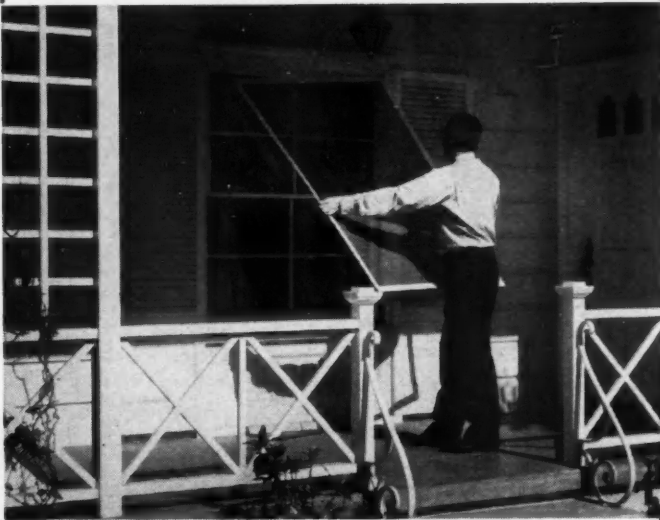
A New and Better Insulation • Sold by Lumber Dealers Everywhere

MASONITE CORPORATION, Dept. AB-7, 111 W. Washington St., Chicago, Ill.
Please send me FREE sample and further details about Masonite Cell-U-Blanket Insulation.

Name _____ Address _____
City _____ State _____

TRADE-MARK REG. U. S. PAT. OFF. "MASONITE" IDENTIFIES ALL PRODUCTS MARKED BY MASONITE CORPORATION. COPYRIGHT 1942, MASONITE CORPORATION.

This summer
people are going
to need
**SCREENS of
WESTERN PINES***



New homes, old homes, and remodeled houses are now in the market for screens—screens for windows—screens for doors. With war restrictions on metals, feature Western Pines. These fine woods are ideal for screen frames. They are light in weight, sturdy, hold their shape, and take paint and varnish perfectly. Now is the time—when mosquitoes, flies, and moths are making their drive—to specify Screens of Western Pines.

**The Western Pines will do your
next job better. Try them.**

WESTERN PINE ASSOCIATION

Yeon
Building



Portland,
Oregon

*Idaho White Pine *Ponderosa Pine *Sugar Pine

THESE ARE THE WESTERN PINES

Blackout and Shatter Screen Tested

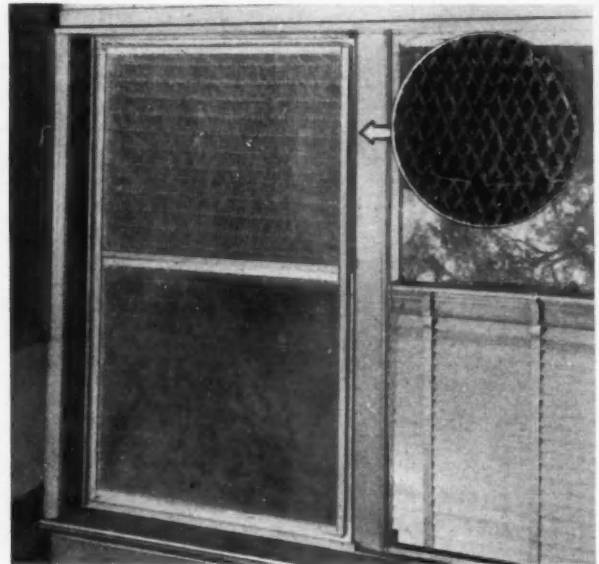
(Continued from page 65)

casualties resulting from shattering of window glass. Since then many materials have been suggested as safeguards against this danger.

To test various suggested materials as well as a "blanket" of its own design, the Research Products Corporation, Madison, Wis., devised a unique explosion box. Glass was inserted at one end of the box and the "shatter-stopping" material placed 5 inches outside. Then a standardized explosion was set off to see which best safeguarded against flying glass. Everything from wallboard to material actually glued to the glass was put through the explosion experiments.

Impervious materials generally blew out in solid pieces or were torn from their fastenings. Materials pasted to the glass kept it from breaking into as many fragments; but the resulting larger pieces, flying through the air, are still very deadly.

It was found that material which allows air to pass through, but which is strong enough to stop and sieve out the shattered



BLACKOUT and shatter screen.

glass from passing through, seemingly is the answer to the problem. Such a material is the "Research Blackout and Shatter Screen" developed by the Madison Company, which successfully passed repeated explosion tests, permitting the air to pass yet stopping the broken glass.

The Research screen is a porous blanket made up of 16 layers of black flameproof expanded fiber and 4 layers of light colored flameproof expanded fiber. This material is mounted in a light wooden frame and attached inside of windows, skylights and door glass.

Architect Sears Joins U. S. Plywood

CONFIDENT that the end of the war will mark the advent of a gigantic residential construction program and that in this program, plywood will play an important part, United States Plywood Corporation, New York City, has added to its technical staff an architect of note. The name Vernon F. Sears is already associated with several interesting plywood construction projects, of which the New Fairfield School at New Fairfield, Conn., is specially notable.

As staff architect, Mr. Sears will devote himself to a study of plywood application in both prefabricated and field operation for housing and other types of frame construction.

Mr. Sears is a native of Ansonia, Conn., graduated from Pratt Institute and received his Bachelor of Fine Arts degree from Yale University. He has been a practicing architect since 1934.



V. F. SEARS

Cedar Shingle Panels Sweep Country

COMBINING in one simple unit all the essential component parts of a sidewall—sheathing, building paper and cedar shingles—a new type of sidewall panel has been developed which forecasts a revolutionary change in home building methods.

The new panel involves the shop application of red cedar shingles



SHINGLE panels—complete with insulation board, building paper, and shingles—are applied on the job by nailing to each stud bearing. The panels are easily handled by two men.

and building paper to insulation board, plywood or gyplap panels of standard 2' x 8' size. These wall sections are transported to the building site and nailed directly to the studs, providing in one operation a complete sidewall from the studs out!

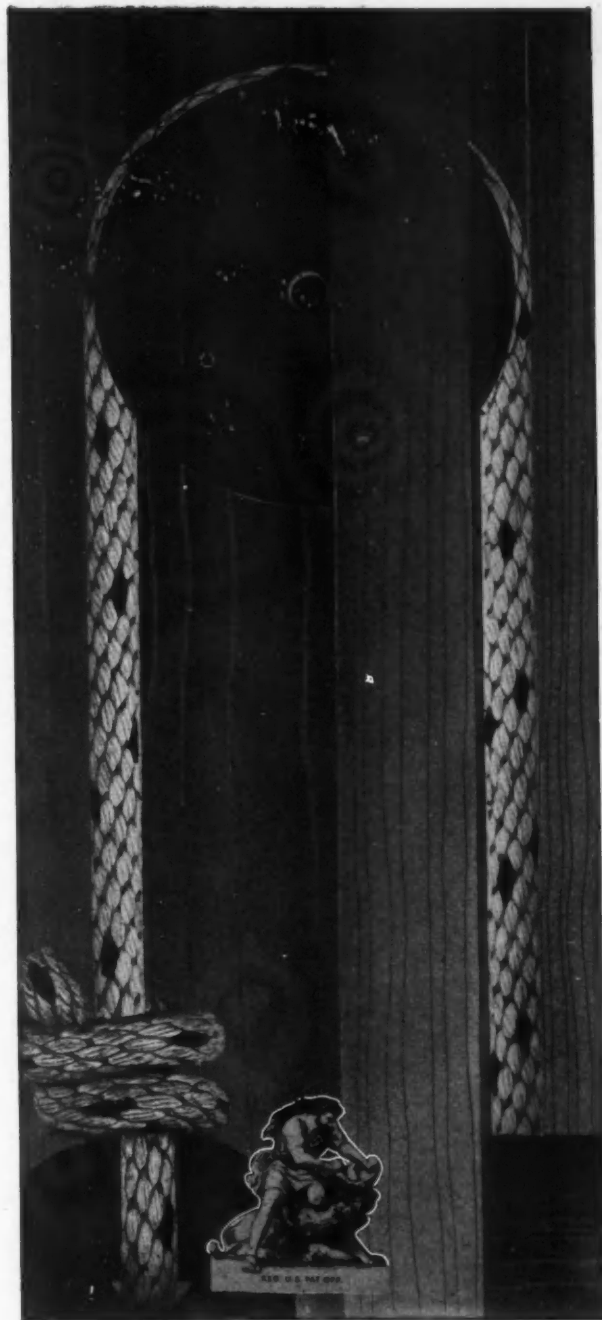
Experienced builders state that the new method, which is a definite step toward decentralization of prefabrication, offers considerable savings compared with conventional wall construction, and that as a consequence it is coming into great popularity for war housing projects where speed and economy are essential. The amount of savings differs with circumstances, but from \$25 to \$60 per average-size house unit represents the variance noted on jobs undertaken to date. Of even greater importance than its economy, however, is the fact that the new shingle panel opens the way to greater speed in completing essential war housing. Being manufactured in the shop, the shingle panels can be assembled and accumulated for later use, regardless of the weather out-of-doors.

The use of red cedar shingles as the exterior of the panel has lent impetus to the building industry's acceptance of the new technique, based on the fine record of durability and weather-

(Continued to page 68)



PANELS are built on a table with a steel top. Insulation board, building paper, and red cedar shingles are applied in that order. The shingle tips are trimmed by a small circular saw.



BALANCE PERFECT AND PERMANENT

There is no method of hanging windows so trouble-free as the cord, weight and pulley method — it has been time-tested and proven in service. No adjustments — no metal-to-metal contacts — therefore, no noise, no early replacements, nothing to get out of order. Proper installation using Samson Spot Sash Cord means a lifetime of service, reasonable installation cost and avoidance of expensive replacement.

Use Samson Spot Sash Cord — identified by the Colored Spots, our trade mark (Reg. U. S. Pat. Off.)

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BOSTON, MASS.**

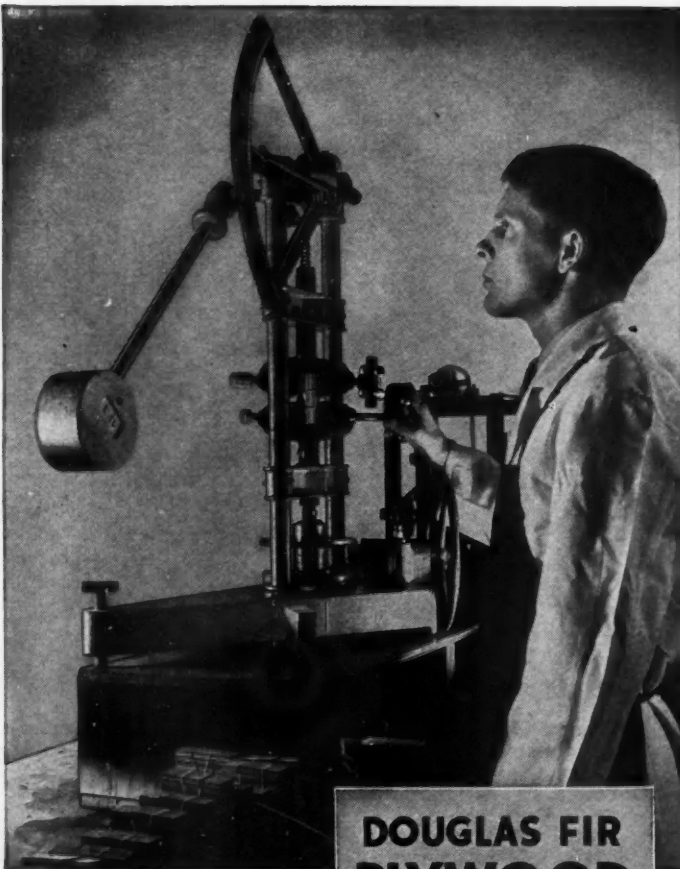
Why Fir Plywood is getting more "stuck-up" every day!

● Douglas Fir is one of the strongest structural woods known. But the adhesive used in any panel of Douglas Fir Plywood *must, after setting, be stronger than the wood itself!* There's no guessing about whether it is. The machine illustrated below reveals the exact strength of any bond in a jiffy—tells if it measures up to the high industry standards established in cooperation with the National Bureau of Standards.

Past research on adhesives has resulted in Douglas Fir Plywood's constant improvement. And you can expect this engineered lumber to be even more "stuck-up" in the future. For in the Association's expanded new laboratory, an intensified research program on Douglas Fir Plywood's manufacture, performance and uses is now in full swing. *When Douglas Fir Plywood again becomes generally available, it will serve you better and in more ways than ever before.* Douglas Fir Plywood Assn., Tacoma, Wn.

TO HELP SPEED VICTORY

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



**DOUGLAS FIR
PLYWOOD**

Real Lumber
**MADE LARGER, LIGHTER
SPLIT-PROOF
STRONGER**

REMEMBER—there is a grade or type of Douglas Fir Plywood made for every purpose. Every genuine panel bears one of these "grade trade-marks":

PLYWALL—wallboard grade
EXT-DFFPA—waterproof exterior type
PLYSCORD—utility sheathing grade
PLYPANEL—cabinet grade
PLYFORM—concrete form grade

"A PRODUCT OF AMERICA'S ETERNALLY REPLENISHING FORESTS"

Cedar Shingle Panels Sweep Country

(Continued from page 67)

resistance which these shingles have established throughout the history of American home construction. The traditional warmth of appearance, plus the interesting and attractive design of random width shingles, contributes an aspect of quality as well as economy to the new panel.

The panels are built on a work table, the surface of which is covered with a steel plate. The shingles are attached to the sheathing boards with nails which are driven at a slight angle; upon penetrating the sheathing they strike the steel plate and are turned back, thus automatically providing a clinch which securely fastens the shingles to the sheathing boards.

Panels are adequately jointed on the sides by the application of field applied "filler" shingles which are pre-cut to specific dimensions. The bottom course of shingles overhangs the sheathing about one inch; this projection, plus the use of tongue-and-groove shaped sheathing, provides a snug horizontal joint between panels. The panels are trimmed and fitted around windows and doors by the carpenter on the job.

The panel is patented under the name "Weatherseal" and shop licenses for building them are being granted firms in every section of the country. The Weatherseal organization's policy is to license one panel outlet in each local trade territory, and in this way they are establishing a large number of licenses. Interested parties are asked to contact A. R. Exiner of the Central Division Co., licensing management for the Weatherseal Panel, 221 North LaSalle St., Chicago, Ill.

Tobin Is Farm Building Pioneer

WHEN they look at their well-kept dairy barns and milk houses, their poultry houses and hog shelters, thousands of U. S. farmers scattered from Massachusetts to California recall the stocky, baldheaded man who helped to build them.

For Charles P. Tobin, head of The Celotex Corporation's farm department, has spent much of his time during the past two decades working directly with farmers, often donning overalls and setting to work with hammer and saw.

Last month Charlie Tobin celebrated two anniversaries—his twentieth year with The Celotex Corporation and the founding of the company's farm department, reputedly the first established on a nation-wide scale by any large building material manufacturer.

Tobin is best known to both farmers and agricultural engineers for his contributions to the improvement of buildings for housing live stock. According to C. I. Guinness of Massachusetts State College, "Tobin's active interest in farm buildings has had a pronounced influence on methods of construction during the last twenty years and has helped raise the standards of building construction on farms all over the country."



CHARLES P. TOBIN (center), head of The Celotex Corporation's Farm Department, discusses his cylinder brooder house with Marvin Greenwood, general sales manager (left), and I. L. Birner, (right), head of Architectural Department.

One of his outstanding contributions was the development of the cylinder type brooder house, in which he applied the same heat-conserving, sturdy cylindrical shape now being used to house American soldiers in arctic outposts.

He has also devoted many years to improving methods of insulating farm buildings and developing better systems of natural ventilation.

Tobin is currently devoting his entire time to the development of farm structures particularly suited to wartime conditions and to aid farmers to increase their production of vital foods.

Marlite Sample Kit Wins Major Award

THE MARLITE Plastic-Finish Wall Panel Sample Kit designed by Mark Seibert of Dover, Ohio, has won the top award in its classification at the 11th Annual All-America Package Competition sponsored by Modern Packaging Magazine. It is the year's outstanding package design job in the entire building products field.

This kit is particularly ideal for building contractors, from the standpoint of compactness, ease of use and product presentation. Its compactness makes it easy for the building contractor to tuck the "packaged" sales story under his arm when going out to call on a prospect. It permits full showing of the product and its many possibilities through its sample of the four major products of the Marlite Line—Plain-Colors, Tile-Patterns, Marble-Patterns and Genuine Wood-Veneers, supplemented by color chips which faithfully represent the range of colors available.



MARK SEIBERT at his desk.

Although only 8½ x 11" in size, this sample kit of Marsh Wall Products, Inc., Dover, O., does an amazingly thorough job of representing the range of Marlite colors and patterns, and in addition contains samples of several types of trim mouldings which are used with Marlite.

The interior is ingeniously partitioned to accommodate a 4 x 8" sample of each of the four major panelings in the Marlite Line. In addition, there are fifteen 2 x 2" samples of other colors and patterns available. A compartment along the left side of the Kit contains samples of trim mouldings in plastic, wood and metal—each in its individual compartment.

The interior of the box was spaced and partitioned to permit the samples being replaced in more than one way. This simplification is a safeguard against samples being thrown in hurriedly with resulting damage to samples and the box.

Literature supplements the samples. Included is a booklet on home interiors, one on commercial interiors, a general catalog, installation booklet, and copyrighted Marlite Color Guide with traffic light control—an ingenious chart to take the guess work out of color selection. A smaller supplementary Kit, 4½ x 6 x ¾" and identical in appearance with the larger kit, has been designed for distribution to customers. These smaller kits contain fifteen samples of the product, twelve 1¾" size and three of the larger items in 3¾" x 1¾" size.

Both of these unique Sample Kits provide the building contractor with a compact way to keep his samples of Marlite in perfect condition and always within easy reach. The large Sample Kit can be readily filed in the standard file cabinet or desk drawer.



HERE IS WHAT YOU GET:

- 1 Two roller bearings in each saw guide produce smooth saw action.
- 2 First quality back saw.
- 3 Positive saw guide stops and depth stop plates control depth of saw cut.
- 4 Adjustable spurs in back keep work from slipping.
- 5 Detachable legs of malleable iron are practically unbreakable.
- 6 Swivel lever and lift screw automatically raise front saw guide and saw out of kerf cuts when changing swivel position.
- 7 Swivel and uprights cast in one piece of malleable iron. Practically unbreakable.
- 8 Quadrant is graduated in degrees and is also numbered for sawing 3, 4, 5, 6, 8, 12, 24 sided figures. Double-locking, self-clamping swivel locks at any point of the quadrant.
- 9 Stock guides hold work tightly against the back.
- 10 Length stop for duplicate work.
- 11 Automatic saw guide catches hold saw above work while putting in position.
- 12 Saw guides of malleable iron are practically unbreakable.

MADE IN 3 SIZES:

No.	Capacity 90°	Back Saw
2244	8¼ in.	24 x 4 in.
2246	8¼ in.	26 x 4 in.
2358	9½ in.	28 x 5 in.

Write for Stanley Tool Catalog 34 which shows the full line of Stanley Tools.

STANLEY TOOLS

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

THE TOOL BOX OF THE WORLD

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TIMBER
CONSTRUCTION

The TECO Timber
Connector



TECO Ring Connectors spread the load on a timber joint over practically the entire cross-section of the wood, cutting time, timber and hardware costs appreciably. Details on request.

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PLACE
YOUR
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Model 85
Capacity 8½"
ON A
FACTORY PRODUCTION BASIS
with A *Mall Saw*

- Powered Beyond Ordinary Requirements
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- Cuts Stack of Like Members at One Time

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Name

Street

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

NEWS of the MONTH

Bruce Heads Navy Relief

ROBERT G. BRUCE, prominent lumberman and president of E. L. Bruce Co., Memphis, Tenn., has been appointed chairman for the State of Tennessee in the Navy Relief Society campaign to raise \$5,000,000 nationally. Mr. Bruce's appointment came direct from Secretary of the Navy Knox.



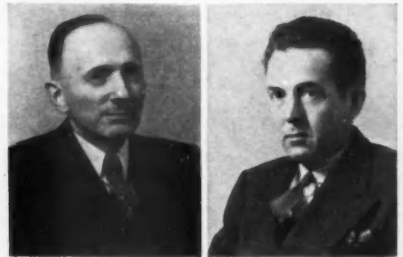
NAVY RELIEF LEADERS—Robert G. Bruce, Tennessee State Chairman, and Lt. Commander Leslie P. Jacobs, USN, Washington, D. C.

Mr. Bruce has been devoting much of his time during the past few weeks to the establishment of local campaign groups throughout the State. His organization is now complete and the drive has been successfully concluded in a number of localities, indicating that the state quota will be realized.

In addition to organization and administrative work in connection with the campaign Mr. Bruce has spoken at several important meetings and dinners, explaining the purpose and workings of the Navy Relief Society and soliciting support for the campaign.

Wunderlich Succeeds Morrill

APPOINTMENT of Milton S. Wunderlich of Minneapolis as general sales manager of the Insulite division and of Dr. John O. Burton of International Falls as chief of research for Minnesota and Ontario Paper Company was announced by R. H. M. Robinson, president. Mr. Wunderlich succeeds E. W. Morrill who died May 13 and Dr. Burton fills Mr. Wunderlich's previous position.



M. S. WUNDERLICH I. O. BURTON

Mr. Robinson said there would be no change in policy or personnel of the Insulite organization but that the program developed by the late Mr. Morrill would be continued.

Both men have served with the company in various capacities for many years. Mr. Wunderlich joined Insulite in 1932 as chief sales engineer. Dr. Burton, a native of Minnesota, returned in 1937 from Washington, D. C., where he had been associated with the Naval Research Laboratory and the National Bureau of Standards.

Mr. Wunderlich's career in the insulation field began when he was awarded a Fellowship upon receiving the degrees of Bachelor of Science and Master of Engineering from the University of Minnesota Engineering College in 1919.

From chief sales engineer he advanced to manager of the research department and later served as consultant engineer of the Finnish Insulite plant in England.

Upon his return in December, 1939, he was made assistant sales manager of the Insulite Company, later being promoted to chief of research for Minnesota and Ontario Paper Company.

Dr. Burton was born in Duluth and spent his early life at

Windom, Minn., receiving his Bachelor of Science degree from Hamline University in St. Paul in 1927, before joining the National Bureau of Standards in Washington.

While associated with the Bureau of Standards he received his Master of Science degree and his Doctor of Philosophy degree at the University of Maryland.

Dr. Burton's work with the Bureau of Standards consisted largely of research in paper, studying problems such as utilization of waste, aging qualities of various types of high grade paper and similar technical projects.

Dr. Burton joined Minnesota and Ontario Paper Company as a research engineer in 1938. His work has been largely with Insulite and he has been associated with the development of a number of new products such as smoothcote and fiberlite. He has been working on utilization of waste products and upon an alpha cellulose research project.

Libbey to Assist Northrup

THE NATIONAL Retail Lumber Dealers' Association announces that Edward H. ("Ed") Libbey of Washington, D.C., has joined the staff of its Washington office.



E. H. LIBBEY

Mr. Libbey brings to the Association a background of wide and varied Washington contacts, in addition to his legal training as a member of the Washington, D.C. Bar. Twenty years of sales promotional and managerial experience in the milling industry and experience in retail selling add to his qualifications, plus his long, active participation in Trade Association activities.

The National Association is fortunate in securing assistance of this caliber, and is, for this reason, anticipating rendering a more adequate service to the entire lumber industry.

"Lumber Headquarters" to New Address

GROWING National Lumber Manufacturers Association activities have caused Secy. Wilson Compton and staff to move to new quarters at 1319 Eighteenth Street, N.W., Washington, D.C., a building recently purchased by American Forest Products Industries, Inc. The Timber Engineering Company staff also moved to the new address on June 1.

The new building, known in Washington as the "Slater House,"
(Continued to page 72)

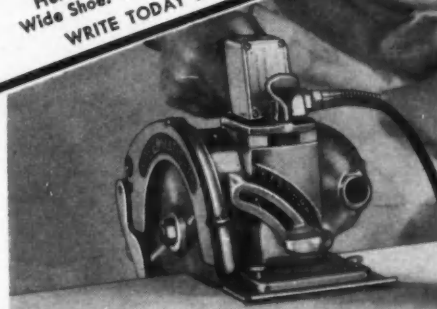


NEW home of National Lumber Mfrs. Assn. in Washington.



Speedmatic SAWS

for Continuous Top-Speed Sawing . . .
On cantonments, war factories, housing projects—wherever high-pressure top-speed sawing goes on day after day—you'll find SPEEDMATIC setting the pace and keeping it. They never cry quits. They are made for exactly that kind of all-day, all-out service, with their exclusive fast-cutting, easy-handling features such as:
Oversize Motor Protects Against Stalling
Helical Gear Drive Transmits 11% More Power
Wide Shoe. Accurate Balance for One-Hand Sawing
WRITE TODAY FOR COMPLETE DETAILS



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Sedgwick Dumb Waiters and Elevators

SAFE • DEPENDABLE • ECONOMICAL
Electric and Hand Power

For Non-Restricted Building Operations—

If you need a Dumb Waiter or Elevator for any building authorized for defense purposes—take a short cut to the best possible delivery of trouble-proof equipment. Write or phone Sedgwick for prices and installation data. Let us help you select the right lift for the job. Experienced builders will tell you—you can't go wrong if you put in a Sedgwick.

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Please send catalog. I am interested in:
 DUMB WAITERS
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ADVANTAGES
that help you
WIN WAR
CONTRACTS**

- ABILITY TO CUT ALL MATERIALS
- QUICK TOOL CHANGES
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- PATENTED GEARED MOTOR WITH MECHANICAL CUSHION
- MULTIPLIED MOTOR PERFORMANCE
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War sub-contracts go to the builder who is equipped to handle volume work, with speed and accuracy. Use a Walker-Turner Radial Saw for crosscutting, ripping, dadoing, shaping, routing and tenoning. Cuts wood, metals, transite, tile, plastics and many other materials. One Walker-Turner Radial Saw will keep an entire assembly crew busy and pay its way right from the start. Prompt delivery on priority orders. **price \$354.50**
Write for detailed literature.

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1072 Berckman St., Plainfield, N. J.



WALKER-TURNER RADIAL SAW

5 MACHINES IN 1 CROSSCUTS AND RIPS • DADOS SHAPES • ROUTS • TENONS



Announcing
**MULE-HIDE
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**COR-DU-ROY
SHINGLES**

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- Designed for TODAY'S strenuous conditions - and building limitations.
- Low cost (Hex price range) and extra fast application.
- 43% less nails* to buy and apply - but every shingle secured with 4 NAILS.
*less than Thick Butts or Hexes.
- Equipped with the famous Mule-Hide Cor-Du-Roy Expansion Joint and cellulose fibre backing for cleanliness and speedy application.
- Harmonious color blends.
- It's ready to start making money for YOU, NOW!

Write for Samples

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ASPHALT SHINGLES • ROLL ROOFING • WATERPROOFING SPECIALTIES • ROOF COATINGS • BUILT UP ROOFS

"Lumber Headquarters" to New Address

(Continued from page 71)

is a stone's throw from the old headquarters on Connecticut Ave. Although built as a residence, the floor plan is well adapted to office use. Four stories and a large basement offer over 18,000 square feet, about twice the usable space of the old building.

Bought from the original owner, who built it the year the association was organized at the turn of the century, the house is considered architecturally one of the best of its period. The wood floors are in perfect condition after more than four decades of service. The walls are all furred with 3x4s and the floor joists are 3x12 or larger. Eventually many of the rooms will probably be paneled in wood, and the building may include exhibits of the most modern uses of lumber and timber products.

The building will be designated the American Forest Products Industries Building.

Mullenix to be Mortgage Bankers President

CHARLES A. MULLENIX of Cleveland will be the next president of the Mortgage Bankers Association of America succeeding Frederick P. Champ of Logan, Utah, it was announced on June 20 by Dean R. Hill, chairman of the organization's nominating committee, at the regular spring meeting of the MBA board of governors. Nomination, through official channels, is tantamount to election at the Association's 29th annual convention in Chicago, September 30 and October 1 and 2.



C. A. MULLENIX

Mr. Mullenix is president of The Cuyahoga Estates Company, was the first president of the Mortgage Bankers Association of Cleveland and is a former president of the National Association of Apartment House Owners. He is a member of the Cleveland Real Estate Board, Appraisal Institute of the National Association of Real Estate Boards, a trustee and former president of the Apartment House Owners Association of Cleveland and was a governor of the Ohio Real Estate Association for three years.

Yale Delivers World's Longest Hand Lift Truck

THE YALE & Towne Manufacturing Company has just delivered to Johns-Manville what is thought to be the world's longest hand lift truck. This truck is 168" long and is a special adaptation of the standard Yale "Load King" hydraulic lift truck. It was specially designed to cope with problems arising in the handling of wall board and roofing.



Lift truck 14 feet long specially designed for J.M.

On & Off the Record

(Continued from page 12)

other products, mean something. The government can't afford to let the builder down after getting him into such a situation. The houses are needed; they have been expressly approved by WPB, FHA and Blandford's office; and a way must be found to get at least enough materials to finish them. Furthermore, private builders in their right minds will not start any new projects unless some guarantee is forthcoming that they will be able to finish them.

MONUMENTAL METAL—In all the talk about current metal shortages I have not heard any government official suggest removing the hundreds of thousands of pounds of copper, bronze, aluminum and stainless steel from some of the monumental structures in Washington. How about it, F. D. R.? Those bronze gates, doors, balustrades would build a lot of war machines. There's also tons of trim on the Empire State Building, the Chrysler Tower and other big city jobs, not to mention post offices, theatres, banks and the fashionable shops on New York's Fifth Avenue.

Rip it off, I say. Put it to work now. Then after the war some of the firms that will be very much in need of business will have a ready market.

All of the scrap collection efforts thus far would be piddling stuff compared to a really effective job of reclaiming the metals in these monumental structures.

DEPT. OF SUFFERING—A WPB order stopping all construction costing over \$5,000 "primarily for the amusement of the public" went into effect June 6. Another WPB official announced that steps were to be taken to force people to be "more neighborly." Men's trouser cuffs are snipped off, women's puffed sleeves are out. Air conditioning is curbed. Luxury travel in Pullman cars is threatened. Prohibitionists want whiskey eliminated, and gin is getting scarce. Gas may be rationed even where there is plenty of it. Looks as though the American public is going to be made war conscious by suffering, whether it's necessary or not. Next we'll probably have a new government agency—"Department of Suffering," with Mahatma Gandhi as chief.

REAL ESTATE "APPEASERS"—The National Public Housing Conference, which acts as a sounding board for many of the nation's most publicity-minded public housing advocates, recently coined a new phrase for those of us who advocate building houses through the traditional American enterprise methods. We are called "real estate appeasers." *At a recent meeting the N.P.H.C. called for a billion-dollar expenditure for public housing for war workers.* One of the speakers was R. L. G. Deverall, international education director of the United Auto Workers, C. I. O. He charged that former Housing Coordinator Palmer had been primarily interested in preserving the privileges and rights of "real estate interests."

Another speaker at the conference was Harry C. Bates, chairman of the Housing Committee of the American Federation of Labor and president of the International Union of Bricklayers. Strangely enough, while he favored public housing, he was very critical of the widespread use of prefabricated demountable houses by government agencies, which use no bricklayers.

Wants Electric Handsaws Kept Light

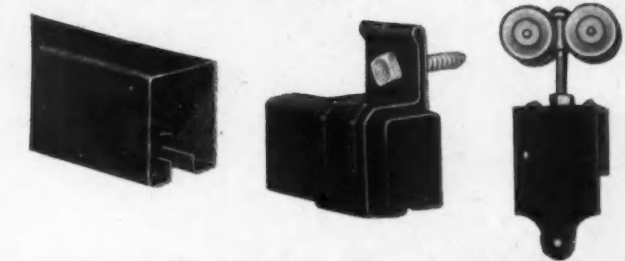
Pittsburgh, Pa.

To the Editor:

WPB is asking all tool manufacturers to substitute malleable or ordinary cast iron for aluminum castings and we think perhaps this would work out all right in electric drills since, except for the real small high speed drills, you use two hands anyway when you operate one. However, for portable electric handsaws, if they increase the weight above what it is now, they defeat the purpose for which the tool is intended, and that is one-hand operation.

Since all Government construction work such as barracks, air bases, etc., must be put up in the shortest possible time, it seems to me that the War Production Board should not force electric handsaw manufacturers to use such materials as will slow down production when the saws are used.—FRED W. WAPPAT.

STANLEY HARDWARE for Rolling and Sliding Doors FOR DOORS weighing up to 350 pounds



FOR DOORS weighing up to 1000 pounds



Stanley Hardware Catalog No. 61 describes the full line. Send for a copy. The Stanley Works, New Britain, Connecticut.

STANLEY

TRADE MARK

HARDWARE FOR CAREFREE DOORS

"TROUBLE SAVERS"

OFFER YOU
3 Brackets

WITH
3 Advantages

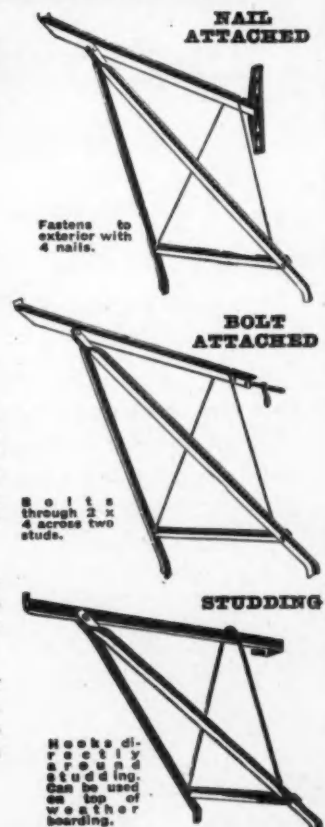
★**SIMPLE!**—Any one of them can be attached to structures in a jiffy—removed without delay—and folded compactly for easy transportation.

★**SAFE!**—Once up they're absolutely rigid, secure and solidly braced by two legs.

★**SAVING!**—No waste of material, time or labor. "Trouble Savers" can be used over and over on every job.

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402 MISSOURI ST., EVANSVILLE, IND.



YOU NEED SKILSAW SPEED THESE DAYS!



... TO BUILD SMALL DEFENSE HOMES



... OR BIGGEST WAR PLANTS!



Big jobs, small jobs, ALL jobs are finished faster with SKILSAW to speed up every sawing cut in wood, metals, tile and compositions. That's why you need SKILSAW more than ever now... to rush essential Defense Homes... to complete vital War Plants sooner!

SKILSAW cuts faster because it is more powerful... yet lighter, more compact, easier to handle. Even inexperienced users start saving time and speeding work at once with SKILSAW. 9 POWERFUL MODELS. Ask your distributor for a demonstration.

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EDWARDS
Sheet Steel
Building Materials
FOR
"ESSENTIAL" PROJECTS

Our stocks of sheet steel roofings, shingles, tile, ceilings, sidings and corrugated sheets have all been taken. Government regulations will prevent their replacement until the war is over.

But we are still manufacturing and shipping sheet steel building materials for defense housing and other essential projects, on orders that are accompanied by priorities.

We solicit your inquiries

THE EDWARDS MANUFACTURING CO.
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Letters from Readers

(Continued from page 14)

patch plastering, for use in lime-cement mortar, watertightening and lubricating concrete, etc. Our demand for this product has been increasing in relation to total shipments of other building lime products. This autoclaved lime will answer the demand for speed in construction where speed is an essential factor.

THE OHIO HYDRATE & SUPPLY CO.
By Fred Witmer, President

Two Men and a Machine—3000 Pieces

Lancaster, Pa.

To the Editor:

Here is a rather unusual operation that we think has real news interest. It is a DeWalt machine equipped with a dado head with the motor in vertical position and the dado head in the horizontal position. The two operators are tenoning screens and both of them are using the machine at the same time.

You will notice that the DeWalt machine has a special table top with slide block on each side, together with a material stop in the middle and a stationary metal guard above the dado head to protect the operator. Both operators feed the material forward through the dado head and it comes out tenoned on the other side.



This performance is being carried out in the shops of the Orange Screen Co. at Maplewood, N.J., and these two men are tenoning an average of 3000 pieces every eight hours.

Rarely do you find such a unique application of two men being able to use the same machine at the same time.

DEWALT PRODUCTS CORPORATION,
By H. W. Fortey.

Lumber Use Properly Channeled

Minneapolis, Minn.

To the Editor:

You are thoroughly familiar with various orders issued by the War Production Board freezing a major portion of our lumber production for Army, Navy and Maritime Commission use. We feel that this is a constructive move to force lumber into channels where it is felt it is most urgently needed at the present time.

The lumber industry in all its branches, in my opinion, has every reason to feel proud of the record it has made to date in the war movement, and while there is a temporary period in which the demand appears to be in excess of the supply, this, I believe, will not last for many months. The abnormal demand for camp construction lumber has thrown a burden on the manufacturers in all sections of the country. It is working a temporary hardship on the retail lumber dealers located in sections of the country where there are no defense industries or camp construction projects. However, I feel that these yards located principally in agricultural areas will very soon be the favored customers and that some new orders will be issued to force the lumber into those channels.

Numerous housing projects are also suffering temporarily, but these also in time will secure relief.

SHEVLIN PINE SALES COMPANY
By L. O. Taylor, General Manager

New Driveways, Aprons, Walks

(Continued from page 46)

crushed stone or gravel on subgrade and compact by tamping or rolling to a firm, uniform bearing in. below finish grade. Fill shall be not less than 4 in. thick.

2. Forms for sidewalk, driveway and/or apron shall be set to line and elevation shown on plans and rigidly held in place by stakes or braces. Forms shall be of lumber not less than 2 in. thick



PORCH floor of concrete flagstone in attractive pattern.

or of steel of at least equal strength. Flexible strips of plywood or sheet steel shall be used for curves. Contractor shall furnish and install non-extruding type expansion joints at points indicated on the plans. Expansion joint material shall extend through entire thickness of the slab, and shall be secured in such a manner as to prevent its displacement during concreting operations.

(NOTE: It is desirable to place an expansion joint where sidewalk or driveway abuts garage, apron, walls or other structures. It is sometimes considered good practice to place expansion joints in driveways and sidewalks at intervals not to exceed 30 ft.)

3. Contractor shall place concrete for sidewalk, driveway and/or apron to the thickness and elevation shown on the plans. Reinforcement (if used) of size and spacing shown on the plans shall be placed in its proper position during concreting operations. Concrete shall be struck off to the elevation and profile detailed on the plans and given a wood float finish. Wood floating shall be discontinued as soon as water appears on the surface.

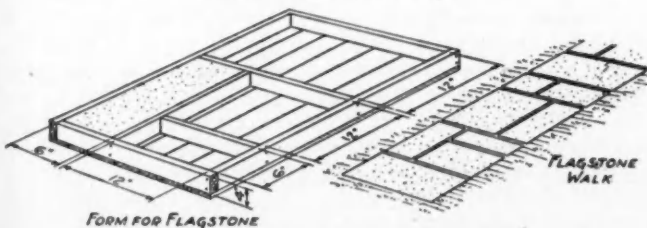
ALTERNATE WHERE COLORED CONCRETE TOPPING IS SPECIFIED:

B. Contractor shall place concrete for sidewalk, driveway and/or apron to a thickness 1 in. less than that shown on the plans. Reinforcement (if used) of size and spacing shown on the plans shall be placed in its proper position during concreting operations. Concrete shall be struck off 1 in. below grade and to the profile details on the plans. Surface of concrete shall be left rough to provide good bond for topping.

C. Colored concrete topping shall be applied not later than 1 hour after base slab is laid. It shall be struck off to profile and elevation shown on plans and given a wood float finish. Floating shall be discontinued as soon as water appears on the surface. After the water sheen produced by floating has practically disappeared the concrete surface shall be finished smooth by steel troweling.

(NOTE: The most important operation in finishing concrete is the production of a satisfactory wearing surface. By deferring troweling until water sheen is disappearing, the topping will have

(Continued to page 76)



A COMMON method of building forms for concrete flagstone.

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WRITE FOR BULLETIN NP — AB

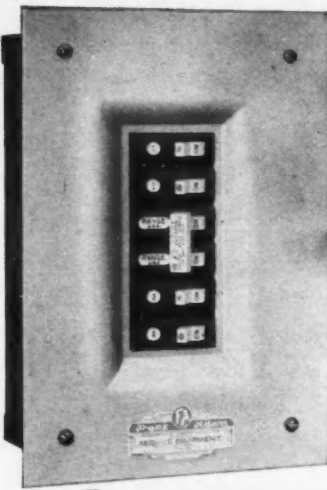
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WRITE FOR BULLETIN SD — AB

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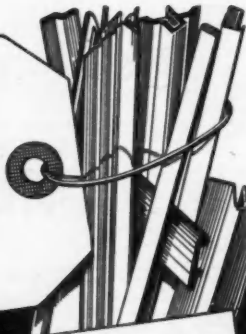


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231 West Ohio St., Chicago, Ill.
Gentlemen: Please send me your catalog of available weatherstrip equipment and supplies with prices.

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ADDRESS _____

New Driveways, Aprons, Walks

(Continued from page 75)

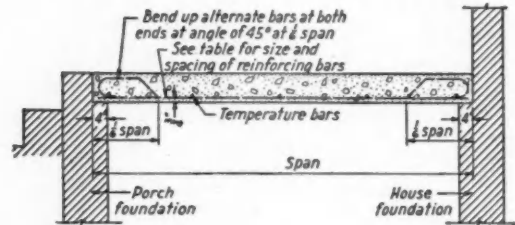
hardened sufficiently to prevent fine particles from being brought to the surface. Steel troweling at this time forces the coarse particles of aggregate into the mass, producing a dense, durable finish.)

ALTERNATE WHERE DUST-ON COLORED TOPPING IS SPECIFIED:

D. After the concrete has been screeded and all surface water removed, the dust-on mixture shall be distributed uniformly over the surface, applying not less than 125 lb. for each 100 sq. ft. of floor area. The dust-on mixture shall be floated and worked into the concrete surface. Floating shall be discontinued when surface becomes wet and shall not be resumed until water sheen has disappeared. After the water sheen produced by floating has practically disappeared, the surface shall be steel troweled to a smooth finish of uniform color.

(NOTE: The dust-on method of coloring concrete surfaces is not to be confused with the practice of drying wet spots on concrete surfaces by dusting on dry cement, either with or without sand. The latter practice should never be permitted as it leads to crazing and dusting of the concrete. Where applied to a fairly stiff concrete, the dust-on color method has proved to be a satisfactory method of providing color.)

4. Concrete for sidewalk, driveway and/or apron shall be scored to pattern detailed on drawings by working with a grooving tool



Span	Thickness	Size of Bars	Spacing of Bars
4 ft.	4 1/2 in.	1/4 in.	8 in.
5 ft.	4 1/2 in.	1/4 in.	6 in.
6 ft.	4 1/2 in.	3/8 in.	9 in.
8 ft.	5 in.	3/8 in.	6 in.
10 ft.	5 in.	3/8 in.	4 in.

A COMMON METHOD of building concrete porch floors supported on bearing walls. Table shows suggested reinforcement and slab thickness for various spans.

just before final troweling. Where special pattern is not detailed concrete shall be marked into a rectangular pattern having sides not longer than 6 ft. Edges of concrete sidewalk, driveway and/or apron shall be rounded to a 1/4-in. radius with an edging tool. Score marks shall be smoothed out with a trowel and the joints brushed out to present a smooth workmanlike job. At contractor's option, scoring may be done after the concrete has hardened with a power-driven carborundum disc.

Protection and Curing of Walks, Driveways, Aprons, etc.

1. Concrete for sidewalk, driveway, apron, porch and/or terrace shall be kept damp for a period of at least 5 days when normal Portland cement is used or for at least 2 days when high early strength Portland cement is used. Curing shall be by any of the standard methods subject to the approval of the architect.

V. Concrete Porch Floors

Concrete Porch Floor to be Built on Existing Walls

1. Concrete contractor shall build forms for concrete porch floor on existing porch foundation walls. Forms shall conform to shape, lines and dimensions of the porch as shown on the plans. Forms shall be sufficiently tight to prevent leakage of mortar and shall be properly placed or tied together so as to maintain position and shape and insure safety to workmen. Forms shall be assembled in such manner as to facilitate their removal without damage to the concrete.

2. Contractor shall furnish and install reinforcement of size and spacing shown on plans. The reinforcement shall be securely wired in position and care taken to prevent its displacement during construction operations.

3. The concrete shall be deposited in the forms to the full thickness of the slab and shall be carefully tamped or vibrated. Concrete shall be carefully spaded along the face of the form to eliminate honeycombing. Concrete shall be brought to the proper elevation and excess water and laitance removed.

(NOTE: Well designed concrete mixtures of proper consistency should show a minimum of free water on the surface. Where such excess water is found, however, it should be worked to a low point without actually causing a flow and removed. Failure to do this may result in dusting of the surface or improper bond in the case of a topping applied to a structural base slab.)

4. Porch Floor Finish. (NOTE TO ARCHITECT: Plain troweled, integrally colored topping, dust-on colors, and scoring are applied in the same manner as described for Walks, Driveways and Aprons in Section IV above.)

ALTERNATE FOR CONCRETE TILE, CERAMIC TILE, SLATE, FLAGSTONE AND SIMILAR FINISHES SET IN MORTAR:

A. Concrete base slab shall be finished level to proper elevation below final grade (finish grade less thickness of floor covering and setting bed) and given a rough finish or a coarse broomed texture. All plaster, oil, paint and other foreign material shall be removed from the slab prior to application of floor finish.

B. Where shown on plans contractor shall furnish and install (state kind of material, color and finish) as manufactured by and according to pattern detailed on plans. Sample shall be submitted to and approved by the architect.

C. A slush coat of neat Portland cement grout shall be broomed into the surface of the hardened concrete base slab. Before this grout coat hardens, the base slab shall be covered with a mortar setting bed at least 3/4 in. thick consisting of 1 volume of Portland cement and 3 to 4 volumes of sand mixed with sufficient water to obtain a good working consistency. It shall be spread on the slab and screeded until the surface is true and even. Only as much mortar shall be spread at one time as can be covered with the flooring material before the mortar attains its initial set. A light coating of Portland cement shall be uniformly hand dusted over the surface of the mortar setting bed immediately preceding the placing of the The setting bed shall be sufficiently plastic to wet the cement dust but free water shall be avoided. Mortar shall not be retempered by addition of water. The shall be placed and tapped into the setting mortar until true and even with the finish grade.

D. All surfaces not intended to be level shall be sloped as detailed or indicated on the plans.

E. Nosing, coves, curbs, gutters or other molded specials shall be thoroughly backed up with mortar. They shall be reinforced or otherwise made firm and secure.

F. The grout filler or spacing material in the joints shall be composed of 1 volume Portland cement and not more than 1 volume of sand. As soon as the cement mortar beds have sufficiently set, the floors shall be washed with clean water and the joints between the tile grouted. The grout or mortar for pointing shall be forced into the joints by troweling, or by some other suitable method, and finished flush and true. All surplus grout or mortar shall be removed before it has set and hardened, and the face of the tile left clean.

In the grouting of cushion-edge tile, special care shall be exercised to remove any surplus mortar by carefully wiping out joints to the required depth.

Select G or H as applicable to above:

G—Grouting. Grouting for all joints 1/8 in. or less in width shall be neat, waterproofed Portland cement.

H—Pointing Mortars. Pointing mortars for all joints 1/8 to 1/4 in. in width shall be 1 volume waterproofed Portland cement and 1 volume sand. Pointing mortars for all joints greater than 1/4 in. in width shall be 1 volume waterproofed Portland cement and 2 volumes sand.



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All of the projects that have appeared in the Shopcrafter's Corner of *American Builder* and *Building Age* have been brought together in this new book. In addition popular workshop projects from other sources have been added to make up a wide variety, ranging from simple to difficult. There are 56 pieces of furniture for every room in the house, 16 pieces of garden furniture, 42 of children's furniture, 14 wooden toys and 12 novelties such as a drum lamp and a double deck bunk. Each is accompanied by a large scale drawing, a photograph, and full directions. They utilize small pieces of stock and other common materials available in wartime.

142 pages, 150 projects, 8 1/2 x 11, cloth, \$2.00.

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How Smith & Dawson Have Kept 'Em Building

(Continued from page 37)

face of wall back-plastered, furred, and covered with foil-back rock-lath; 3-coat plaster, all corners and joints covered with wire lath and Cornerites.

ROOF STRUCTURE AND COVERING: 1 x 6 sheathing on 2 x 6 rafters and 215# Barrett shingles.

FLOOR STRUCTURE AND FINISH: 2 x 8 and 2 x 10 floor joists, 1 x 8 sub-flooring, 30# felt, stripping, clear oak flooring finished with 3 coats of Duroseal. Tile-Tex asphalt tile in kitchen and bath.

INSULATION: Over ceilings, rock wool or equal.

SHEET METAL WORK: 26-gauge Armco iron.

MILLWORK AND TRIM: White pine; St. Charles kitchen cabinets.

PAINTING AND DECORATING: Exterior, 3-coat white lead and oil; interior walls, Texolite and Luminall.

HEATING: Bryant coal-burning, forced-air furnace; domestic hot water, automatic gas-fired unit manufactured by Hotstream Heater Co.

PLUMBING: Humphryes fixtures; Veribrite sinks.

ELECTRIC WIRING AND FIXTURES: Thin wall conduit and Lightolier fixtures.

WEATHERSTRIPPING: Master Metal plastic.

Construction methods at Smith & Dawson's Prospect Heights are standard; there are no trick methods or pre-fab ideas used. Actually, the jobs are custom-built but the crews are so efficiently handled in scheduling jobs that labor costs and waste of materials are kept down. Some of the work is done by their own men; the balance is sub-contracted, but all labor has been on this job for so long a time without shifting that, here again, savings result through familiarity with what is required from the various trades. To avoid having any homes that might detract from the general appearance of the development because of makeshift grading and delayed landscaping, a policy has been adopted whereby all the basic work is carried to a point where the home owner can easily complete it himself if necessary. This general spirit of co-operation is one of the underlying reasons for the success of this project—owners help one another, developers assist buyers in numerous little details and, in turn, owners sell other prospects, rounding out the loyal community spirit.

Certain-teed Appoints R. R. Galloway Vice President

APPPOINTMENT of R. R. Galloway as vice president in charge of distribution was announced today by H. J. Hartley, president of Certain-teed Products Corporation. Mr. Galloway, who has been general sales manager of the company since August, 1940, will take over his duties immediately at Certain-teed's new general offices, 120 S. LaSalle Street, Chicago.



Mr. Galloway has been associated with Certain-teed since 1923 and before his appointment as general sales manager was manager of the corporation's Chicago district sales office.

Mr. Hartley also announced the appointments of J. L. Fennell as general sales manager in charge of all domestic and export sales; P. K. McGaffigan as asst. general sales manager and P. H. Ryan as manager of the industrial sales department.

Mr. Fennell joined Certain-teed in May, 1928, and was previously asst. general sales manager. Mr. McGaffigan, up to the time of his new appointment, was industrial sales manager and has been with Certain-teed since 1910. Mr. Ryan joined the company in 1935. He was formerly assistant industrial sales manager.



GREEN ACRES houses are equipped with oil-fired winter air conditioning unit of unusually efficient type.

We Put Excitement into War Homes

(Continued from page 31)

long hours building a scale model of the development, which was placed on display in the bank. This model proved of real value as a selling aid because, due to the fact that the houses were open to the public before the street improvements were completed, it was hard for buyers to visualize what the final appearance would be. By studying the model, which showed the attractive curved street and the village green, they caught a better picture of its ultimate appearance.

The model home opening was preceded by extensive newspaper publicity and by large advertising announcements. Even the local radio took part in the promotion and helped bring out the crowd of 3,000 that came to see the houses the first week-end.

The subdivision layout is worth studying, since although the houses follow a basic floor plan, they have been very cleverly arranged by reversing the plans, grouping driveways together and varying the setbacks. Each lot has a minimum frontage of 75 feet, and the average area is 8,000 square feet.

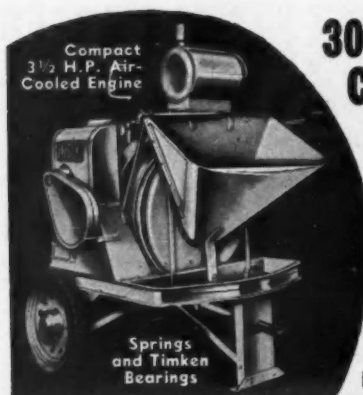
The 25 houses all have a basic floor area of 28'-8" x 24'-8", and provide four rooms with possibility of expansion on the second floor. Garage 11'-6" x 20' is attached. The exteriors are given various treatments and a carefully planned color control scheme was followed throughout.

Foundations are poured concrete. Framing is No. 1 fir. The framing and details of interior finish are of a quality not usually found in low cost housing. Heating is by an oil fired Chrysler Air-Temp winter air conditioning unit. One half the basement is kept entirely free so that a game room can be easily built.

Front entrance has stone base with a 3-inch concrete slab and iron rails are provided. There are gutters, front and rear, with two downspouts on each. Garage has overhead doors.

Although the original commitments for the project were under FHA Title VI, they were transferred to Title II when sold and mortgages of \$4,300 were insured. Total carrying costs of \$36.06 including taxes, water and fire insurance are the most liberal ever offered in this area for comparable housing. Sale price of the base house was \$4,825; the highest priced unit sold for \$4,975.

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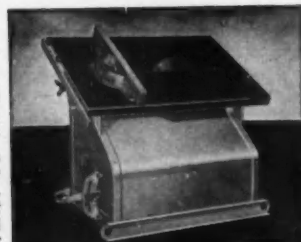
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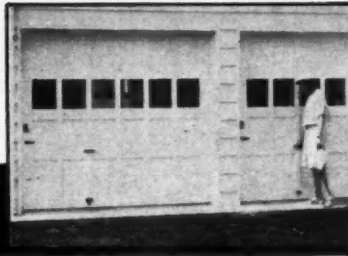
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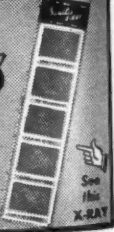
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Sanitas

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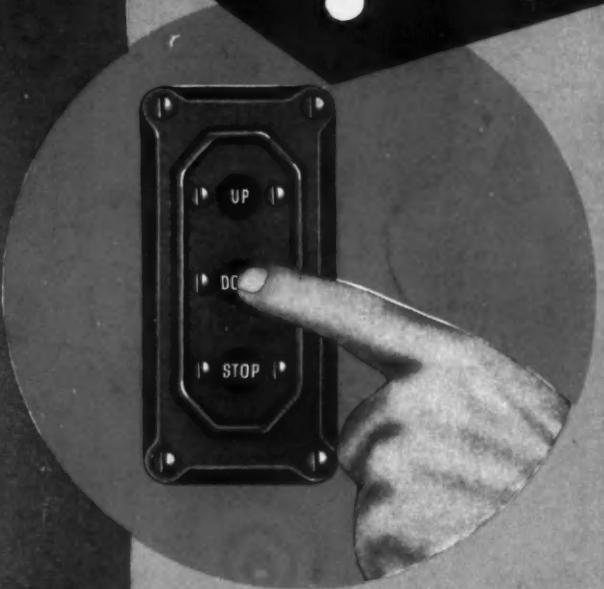
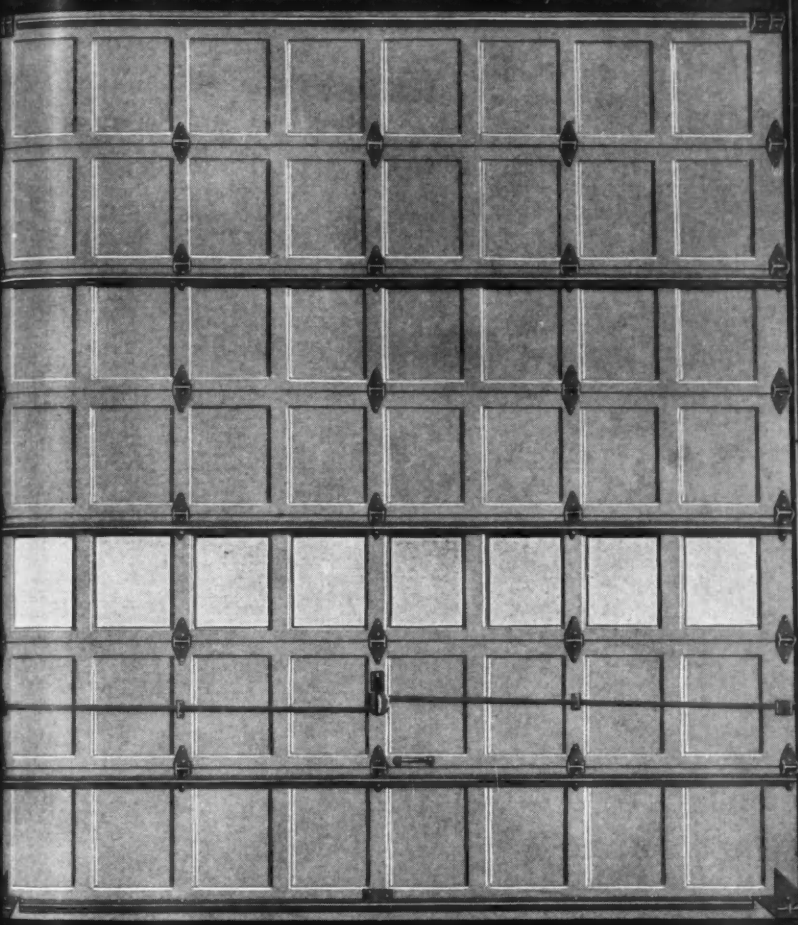
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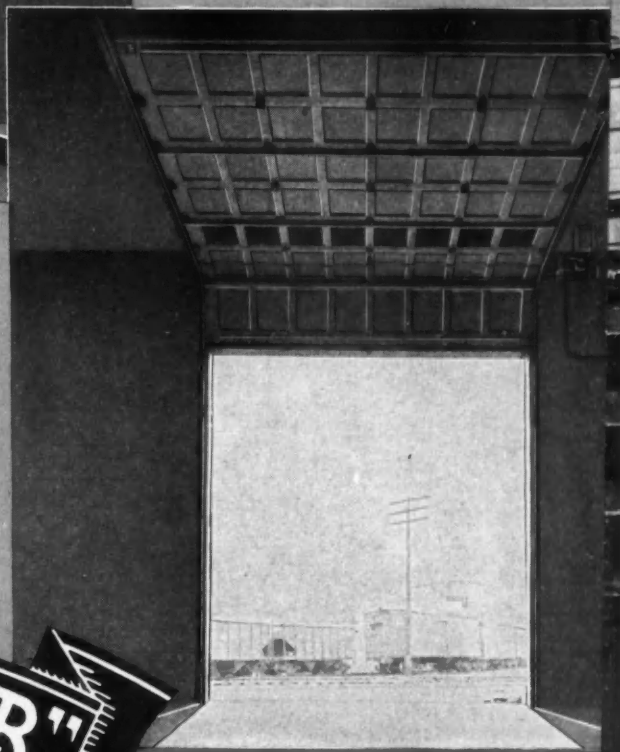
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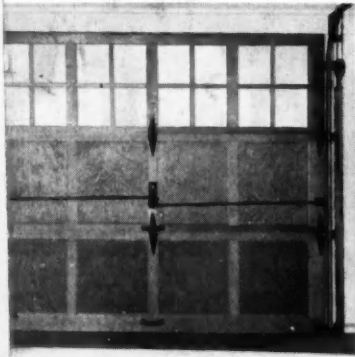
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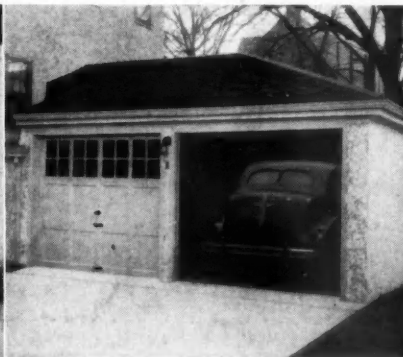
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