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AMERICAN BUILDER

TECHNOLOGY

AND
BUILDING
AGE

THE WORLD'S GREATEST BUILDING PAPER

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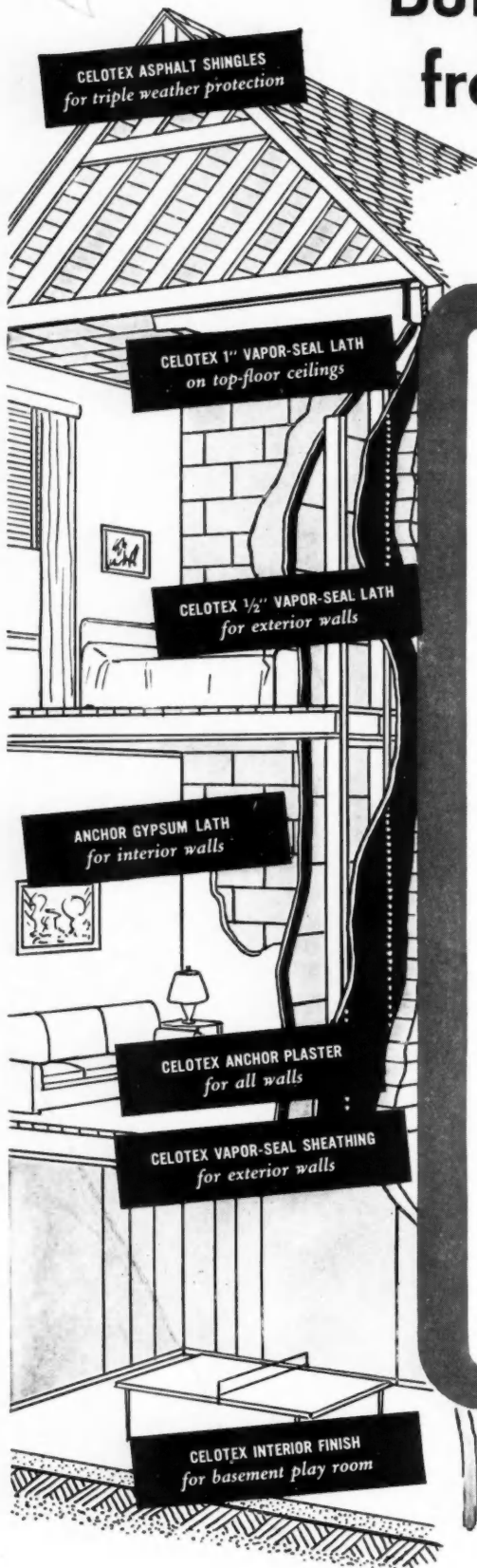
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Washington Report on Building "Priorities"

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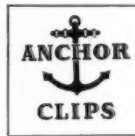
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AMERICAN BUILDER

and Building Age

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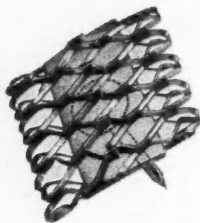
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PUBLISHER'S PAGE

Propaganda About "Shortages"

ONLY A FEW years ago critics of private enterprise were complaining that many industries had "over-expanded"—i. e., that these industries in the *prosperous* 20's had made investments in their plants exceeding the demand for their products in the *depressed* 30's.

Many of the same New Dealers who such a short time ago were criticizing this alleged physical and financial "over-expansion" are at present criticizing the *very same industries* for not having expanded enough to meet the suddenly and greatly increased demands now being made upon them for production and transportation for *defense* as well as for *commercial* purposes.

From what these critics of private industries are saying now you might infer that they had always advocated expansion; that there had been none; that numerous industries already are failing to provide increased products and services; that "shortages" and "bottlenecks" have developed or are going to develop all along the line; and that, consequently, the people will have to be deprived of more and better housing and many other things they want in order to make it possible to provide for defense.

WE BELIEVE everything else should be subordinated to defense. We wish the New Dealers really shared this view, and, consequently, would reduce the *civil* expenditures of the federal government from the 6,656 million dollars to which they had increased in 1940 down to somewhere near the 2,000 million to which they amounted in 1933. Abolition of *only one-half of this increase in civil expenditures* would save the government more money, labor and materials than *all* the money, labor and materials now being used in home building. How can some New Dealers talk of the "necessity" of reducing home building to aid defense when they are making virtually no reductions in these enormously inflated federal government *civil* expenditures?

However, much of the New Deal talk of "bottlenecks" and "shortages" is propaganda intended solely to create sentiment against *private industry*. Take, for example, the talk about danger of a "shortage" of transportation, especially by rail, which has been scaring many in the building industry. It is true the railways, owing largely to prolongation of the depression by the New Deal, have fewer locomotives and freight cars than formerly. But they are using those they have with much greater efficiency than ever before; are, without any shortage of cars anywhere, *actually rendering more freight service right now than in any previous summer in their entire history*; and evidently, *if government continues to give them a chance*, will handle satisfactorily all the freight offered them.

HOW ABOUT a shortage of cars for lumber, of which there has been some talk? Well, because of increased demand for lumber, and the removal from coastwise service of vessels that within recent years have been carrying a large part of it, the railways had to handle 26 per cent more carloads of lumber in the first half of 1941 than in the first half of 1940; but in the first half of 1929 they handled 64 per cent more carloads of lumber than in the first half of 1941. The only reason there is now for fearing a so-called "shortage of cars" for lumber or other freight is that propaganda intended to injure the railways *as a private industry* may scare business men into asking for more freight cars than necessary, or into trying unduly to increase their inventories.

Carefully analyze everything about business emanating from Washington for evidence as to whether its *real* purpose is to injure private enterprise; for a lot of fellows down there are quite as anxious to lick American private business as to lick Hitler.

Samuel O. Dunn,

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AMERICAN BUILDER

AND BUILDING AGE

Battle the Bottlenecks

THE SUREST and swiftest way to provide needed defense housing is for the federal government to encourage and stimulate the initiative and ingenuity of private builders.

There are thousands of residential builders, large and small, on the job and anxious to do this work. Give them a chance, encourage them and they will produce houses of the kind and price needed at the places needed and in numbers that will amaze defense housing officials.

No other industry in the country has such huge unused resources of men, materials and abilities. No vast governmental organization is required to get these thousands of experienced, capable home builders going. They have the organizations and the ability to produce. All they require is protection against bottlenecks and material shortages that may develop.

Builders Making Remarkable Showing

The greatest obstacle that might interfere with the prompt and efficient supply of the nation's housing needs would be some reckless action on the part of government officials that would needlessly restrict the initiative of private home building men and retard rather than aid housing for defense. *American Builder* is glad to report that nothing of this kind at present seems likely.

Private residential builders operating with private capital have been making a remarkable record in providing needed new low-cost homes. All recent figures show this. For example more than 100,000 small homes were started under FHA supervision in the first half of this year, of which 85 to 90 per cent were directly related to defense needs. The average value of the FHA mortgages, was \$4,494, showing that these were low-priced houses within reach of the average defense worker.

There are no important *natural* bottlenecks in the residential field. The hundreds of thousands of builders, realtors, lumber dealers, sub contractors and the workmen they employ represent a vast and flexible system of home production that can adapt itself to any situation, except a lack of buyers. Where there is a market, as there is today, with buyers wanting and desperately needing new homes, they will find a way to meet the demand.

Because of disturbing rumors that residential building might be curbed by some unexpected government action, the editors of this publication have checked thoroughly with Washington officials and policy makers. (A complete report on this subject is given on pages 50 and 51.) There

is absolutely no indication that anyone in Washington wants to curb or restrict private residential building. To the contrary, defense housing officials including both C. F. Palmer, Housing Coordinator, and John Carmody, Federal Works Agency Administrator, have repeatedly called on private builders to do their utmost, and have said they are relying on private builders and private financing to do the bulk of the defense housing work.

Priorities to Aid Builders

In order to make sure that a steady flow of necessary materials will reach defense areas, a priority assistance program has been announced in a joint statement by C. F. Palmer and E. R. Stettinius, Jr., Director of Priorities.

This system of priorities and ratings has been definitely called an *assistance* program and is intended to be used only to assist contractors in defense areas to get more rapid delivery of materials if or when a shortage occurs. The joint statement says that, "priority assistance may be given either to publicly financed defense housing or to private defense projects within a designated area."

It was also stated that this priority assistance may also be given to contractors engaged in modernizing or rehabilitating existing structures. A significant closing statement indicating that high defense officials are counting on the assistance of private building industry reads: "The present agreement will clarify the priorities situation—and, it is hoped, will remove any hesitancy on the part of builders . . . to undertake this type of construction.

American Builder is confident that the building industry can meet and solve the problems that will confront it in the days ahead. Basic supplies of building material such as lumber, brick, cement, roofing, plaster, etc., are ample. Dealer stocks are good, and there is a plentiful supply of labor which is *suited to this type of work only*. Both the materials and labor involved in home building are not, for the most part, of a type that could be used in armament or any direct defense work. Homes for industrial workers, for farmers and in fact for all the people are universally considered a prime defense factor—important to America's morale and efficiency.

The administration's consistent attitude of assistance and encouragement to private home building is resulting in a phenomenal increase in small homes where they are most needed. There is no reason to believe that there will be any change in this attitude that would adversely affect the continued production of much needed housing.

WASHINGTON REPORT—

on priorities, material shortages, labor, rumors

EDITOR'S NOTE—In view of rumors that have been coming out of Washington and appearing in news services and the daily press regarding restriction of residential construction, American Builder has sent members of its staff to the capitol to interview administration officials, and has made a thorough attempt to ascertain, as far as possible, the administration's intentions.

Intense competition for attention between various columnists and news commentators results in frequent use of one sentence from a speech to produce a "scare type" of news.

We are told that many rumors are deliberately started by persons with axes to grind. As an illustration, one manufacturer of a substitute item, having difficulty in securing a priority order for certain metal he required, told the OPACS (Leon Henderson's Office of Price Administration and Civilian Supply) that no lumber was available in a certain area in question and that therefore, the particular items in question must be con-

structed with his metal. He told many other people the same thing. Soon the story got around that lumber was out of the market in that area. Investigation proved there was an ample supply and that there was no real need for taking a highly important metal from defense work.

Defense officials, OPM and OPACS have an extraordinarily complicated and difficult job on their hands. Obviously many distorted and biased reports and rumors get started. Our readers are warned not to be misled or alarmed by unconfirmed news reports and particularly by unconfirmed reports appearing in newspaper columns.

American Builder representatives were received in Washington, as usual, with the utmost courtesy and frankness, experienced no difficulty in seeing those they wished to see. The balance of this report will be devoted to their findings. We are not permitted to quote the source of our information, but our readers may be assured that the information is unbiased and as of this time, absolutely accurate.

NO DRASTIC LIMITATION—There is no one in official Washington who wishes to restrict home building. No drastic limitation is expected at any time and certainly not for the balance of this year or the first half of next year. There may, however, be some restrictions on general building and the first steps likely to be taken will curtail nondefense, nonresidential structures, such as theatres, lodge buildings, amusement structures and other nonessential buildings. This may be effected by OPACS requesting building commissioners of all cities to issue no further permits for buildings of these types. If this voluntary method should not work, more drastic measures unquestionably would follow.

LUXURY HOMES FIRST—It is possible that steps may be taken before long to curb construction of more expensive houses. There is a wide difference of opinion as to what constitutes luxury homes. Some say that it applies to all costing above \$15,000, while others put the limit as low as \$8,000 or \$10,000. The probabilities are that the limit would be determined by the location, as it is a recognized fact that building costs in some communities are much higher than in others.

Cost limitation could be effected by credit restriction. Requests to Messrs. Ferguson of FHA, Fahey of Federal Home Loan Bank Board and Jesse Jones or McDonald of RFC would bring about the curtailment of any loans by agencies working with Federal agencies. The probabilities are that private lenders would also fall in line. The administration apparently feels that three \$5,000 homes or five \$3,000 homes are much more essential to the nation now than is one \$15,000 home. It is also pointed out that expensive homes are the larger consumers of metals, of which there are shortages, and also plumbing fixtures. The trend in the smaller houses favored may be toward one bathroom.

BUILDING LABOR SUPPLY—One reason advanced by some Washington officials for the possible curtailment of home building is that building labor should be diverted to ship building or other kinds of defense activity. In some quarters there is a strong sentiment to

this effect. The Bureau of Labor Statistics is now embarking on a thorough survey of labor requirements in the construction industry in which they will estimate the labor hours required for various classes of construction by regions for the coming year.

On this subject there is a difference of opinion, some contending that building labor and particularly the older men cannot be extensively used in other work. They claim a journeyman plumber could not be turned into a ship plumber—that it would be easier to train an entirely new man than it would be to *unlearn an old timer*. They also point out that carpenters and other residential workers live and have their families in many thousands of scattered small communities far from the industrial centers where labor shortages exist.

The average age of skilled carpenters is fifty-eight, and the average age of other residential construction workers is nearly as high. Short of drafting of labor and the involuntary transferring of workers from one community to another, it would appear that the shifting of building labor to other types of defense work could not be accomplished. So far no one has proposed that labor be drafted.

PRIORITIES—Priorities on essential materials will become increasingly severe and stringent and it will, in time, be difficult to get many of the types of building equipment to which the industry is accustomed. However, there will probably be no serious shortage of the basic structural materials for home building, such as lumber, cement and brick, although delivery may be slowed materially in some spots. But a pinch may come in metals—steel for heating plants, copper for wiring and metal for bathtubs. Manufacturers will have to exercise ingenuity in developing substitutes, and home builders, after the middle of next year, may have to learn to build houses without some items to which they have been accustomed.

The best estimates indicate that the present inventories of manufacturers, as well as the stocks that have been built up by dealers and by many builders, will carry through the balance of this year and probably the early part of next year. After that the pinch, particu-



DECENT HOMES FOR WORKERS, FARMERS AND THE AVERAGE CITIZEN ARE AN IMPORTANT PART OF NATIONAL SECURITY AND DEFENSE.

larly in metals, may become quite severe.

It is pointed out that there are some practical substitutes for almost any product. We can get along without copper, excepting in wiring, and in this item the amount can be reduced. Tile showers may replace some bathtubs temporarily. If, in some locality, lumber is hard to get, concrete or masonry will be used. There is no shortage present or indicated in gypsum products and in many composition materials.

It is important here to consider the ingenuity, both of builders and manufacturers, in any situation where there is an active market for their services and materials. It is our feeling the American business man may definitely be counted upon to develop new methods and materials to meet any situation.

FHA CREDIT—One of the most widely circulated rumors is to the effect that FHA may be drastically curtailed. Obviously if the defense officials wish to curtail home building they could go a long way by curtailing FHA and building and loan credits. That this is not at all likely is demonstrated by recent administration approval and congressional passage of additional legislation expanding FHA activities. Furthermore, FHA and the private building industry are depended upon to meet the housing shortage, not only in defense areas but elsewhere.

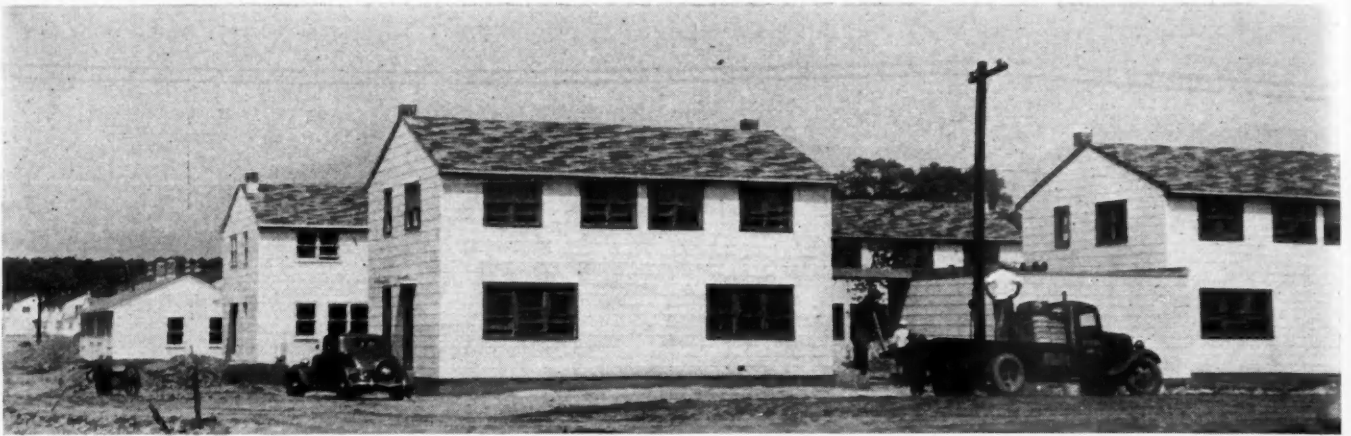
The present administration, with its socially conscious background, sincerely believes that good homes, particularly for farmers and workers, are important. As we have previously stated, FHA may be asked to restrict credit in the higher price brackets, but that is as far as it will go.

There are rumors that there may be complete curtailment of building in nondefense areas, but this is neither a likely nor probable prospect. Such a restriction would be considered by most citizens as unfair and rankly discriminatory and hence it would be highly unpopular politically. It would be like refusing people in some towns new overcoats while in adjacent towns new overcoats would be available to all comers. It would, of course, be foolish not to face the fact that in the event of full participation in the war, almost anything can happen and certainly no one knows precisely what changes may take place in the years ahead. For the present and the immediate future, however, such a drastic restriction does not seem likely.

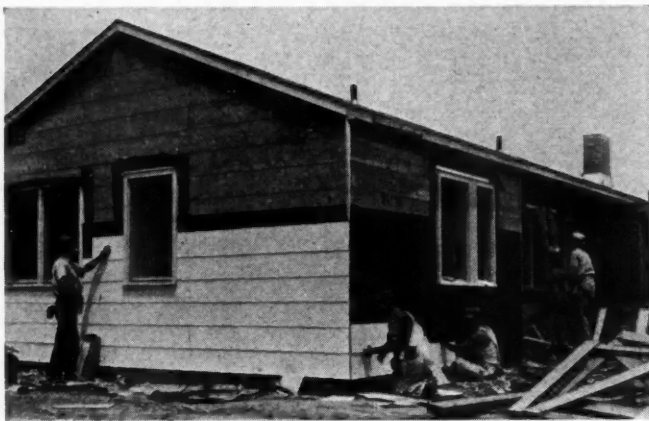
TRANSPORTATION—Opinions of several Washington officials differ as to whether the railroads can handle building-material shipments next year. OPACS, however, seems to feel that, granting some delays in some areas, there will be no serious difficulty and that with
(Continued to page 118)

PRIORITIES ASSISTANCE

Complete text of joint statement by Stettinius and Palmer on priorities assistance to builders in defense areas is given on pages 118 and 119.



TWO-, FOUR- AND SIX-FAMILY defense homes arranged in groups in Audubon Village, near Camden, N. J.



WHITE ASBESTOS SIDING being applied to defense house exteriors. Some 4,200 squares of asbestos siding were used.

500-House Experiment at Camden, N. J.

FWA defense housing project
tries mutual ownership plan, as
well as partial prefabrication

THE defense housing program is giving a chance to try out new ideas in housing to a lot of people, including builders of trailers, sectional homes, demountable homes and an extensive array of prefabrication systems.

Near Camden, N. J., the Federal Works Agency is going still further and trying out both an experimental construction method and an experimental mutual home ownership plan, which is coming to be known as "The Camden Plan." It's not exactly a *small* experiment either. For this Camden project, which has the alluring name of "Audubon Village," consists of 500 housing units arranged in two-, four- and six-family structures. The Camden Plan permits a defense worker to obtain a new home with no down payment at all. His monthly payments are large enough to build up an equity and also reserves for maintenance and administration, so that he can either rent or own the house, as he sees fit.



FIELD SUPERINTENDENT Lewis (left) and construction manager Weigel (right).

A nonprofit, mutual housing company is established to build, own and operate the project. At the start, the Federal Government owns all the stock. When a defense worker moves in, he purchases stock equal to the value of the dwelling he occupies. Eventually the home owners are expect-

ed to hold all the stock, and the government's investment will ultimately, it is expected, be paid back by the monthly amortization payments of the owners.

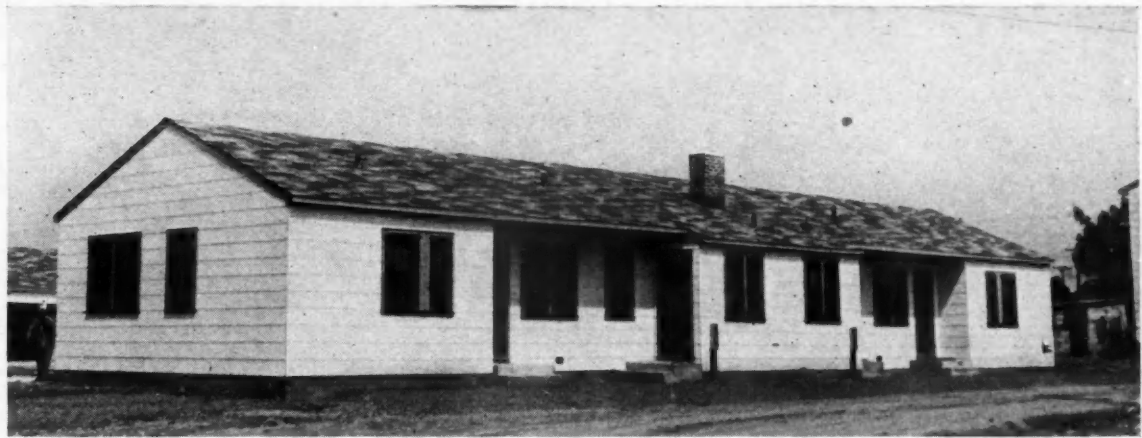
On a typical three-room house the following monthly financial setup is used:

Down payment	\$.00
Amortization	4.59
Interest	5.50
Insurance50
Maintenance	5.00
Vacancy Reserve	2.40
Administration	2.00
Taxes, @ 15%	3.30
General Reserve51
TOTAL PER MONTH.....	\$23.80

Since the occupant of a dwelling in this mutual housing plan is a stockholder, he is entitled to take a part in the management. The reserves he builds up under the various items listed above are credited to his account and, where the totals are greater than actual expenditures, they will be refunded.

Any resident stockholder who leaves his home in less than a year, however, forfeits his right to the reserves he has built up. He would, in effect, be merely paying rent for that period of time.

Persons who keep their homes for longer than a year will, if forced to break their contracts, be entitled to a credit of 50 per cent of the amount paid in on amortization, 50 per cent of the net amount of vacancy reserve



FOUR - FAMILY
Audubon Village
home with asbes-
tos siding exteri-
or, and asphalt
shingle roof.

after deducting vacancy losses, and the entire maintenance and repair reserve, less the actual cost of any renovation.

FWA housing officials feel that the Camden plan combines the flexibility of rental housing with the desirable features of home ownership housing, and they feel that the plan may be suitable for either public or privately financed housing ventures.

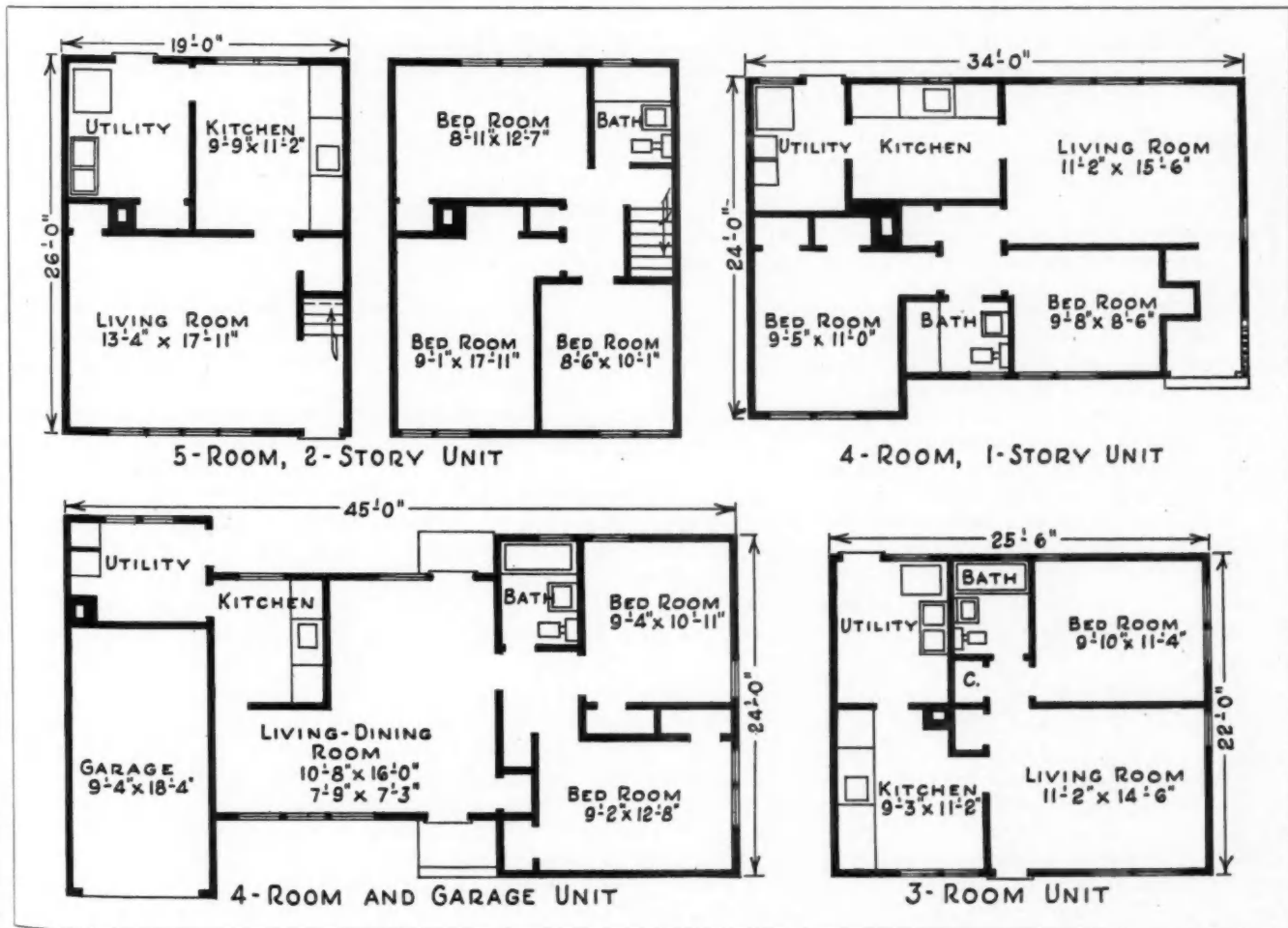
Shop Built Panels

In addition to experimenting with this mutual home ownership plan, FWA has engaged here in a life-size trial of prefabricated panel type construction. Wheeler Construction Company, which has the \$1,400,000 general

contract, sublet the work of building standardized wall and roof sections to the Day Housing Corporation, which built the sections in an abandoned factory nearby. Thus, while utilities were being installed and foundations laid, construction of the wall and floor sections was carried on inside. Lumber was brought direct from freight cars into the factory, cut to size on a battery of power saws and built into standardized 8 foot frames of 2 by 4's, to which was nailed ordinary sheathing.

Although striking claims have been made concerning the construction speed made possible by using this system, considerable doubt is expressed by many observers that the savings, either in time or money, were substantial. A

(Continued to page 116)



FOUR TYPICAL PLANS used at Audubon Village in various combinations of two-, four- and six-family defense housing structures.



ARMY MEN'S FAMILIES will live in this 6-family apartment under construction at Fort Devens, Mass.; C. J. Maney, Inc., builder.

Builders Rush Defense Housing to Meet Growing Shortage

RESIDENTIAL builders and contractors of the nation, operating on thousands of "home fronts," are engaged in a huge program of defense home building that as yet the public, and even members of the building industry themselves, do not fully appreciate.

By far the bulk of this building program is being done by small private operators privately financed with the aid of FHA, savings and loan associations, banks and other private lending institutions. Preliminary estimates indicate that the total home building program this year will exceed *American Builder's* earlier estimate of 650,000 family units and may reach 700,000 units. Of this number, less than 100,000 will be financed from public funds. As of July 5, the various defense housing agencies had allocated public money for construction of 107,383 dwelling units. Of this number, 70,146 were under construction contract and 18,947 had been completed (see table at right).

This represents a truly remarkable publicly financed defense housing achievement in view of the short space of time that has elapsed since Congress appropriated the money. The nation's home builders, like any other business men engaged in defense work, have been doing their bit by working under high pressure to get defense homes ready in areas where they are most greatly needed.

While the public spotlight naturally focuses on the larger defense housing projects financed by public money and built in hundred-lot batches, the fact should not be missed that the great bulk of the nation's home building is being done by many thousands of small operators, each

expanding his program to the limit and contributing to a tremendous national total. Government officials have been wise in encouraging private builders in this fashion, for they have the organization, capacity and the skill to turn out a huge national volume of needed homes.

Administrator Ferguson of FHA has estimated that more than 70 per cent of the new homes being built under FHA are located in the defense areas designated by President Roosevelt, and as high as 85 to 90 per cent of the houses are directly related to defense needs, both as to location and price. The President's list of defense areas "where acute housing shortage exists" has been expanded to 193 communities, which include practically all of the principal metropolitan areas of the country which would normally account for at least 60 per cent of the home building anyway.

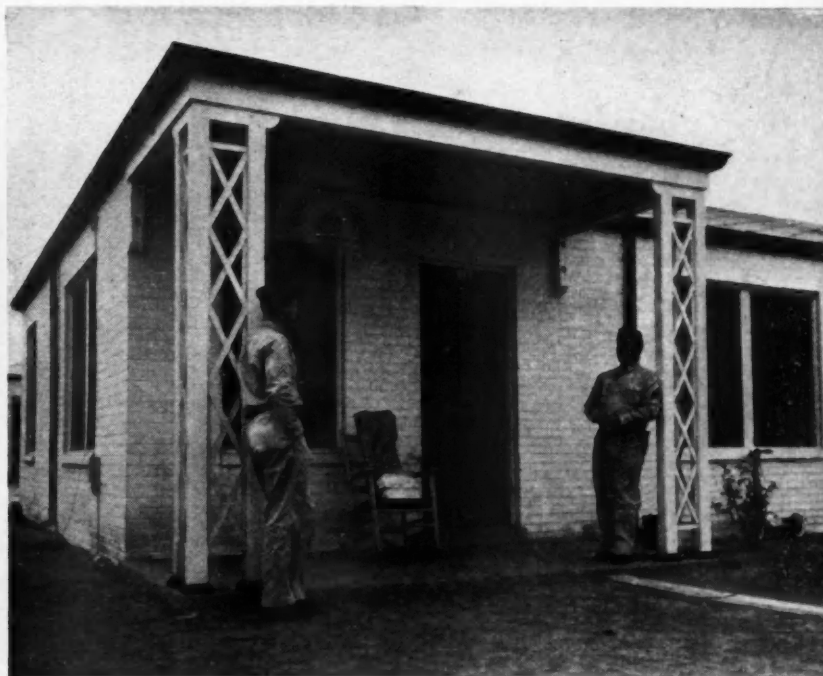
FWA, USHA, PBA, Etc.

The publicly financed defense housing of the government is being carried on through a complex group of agencies. The co-ordinating officer is Charles F. Palmer of the Office for Emergency Management, but the actual supervision of the various projects has largely been taken over by John M. Carmody, Administrator of the Federal Works Agency. While the Army and Navy have done some direct defense housing construction themselves, the FWA is administering the bulk of the work through its numerous subsidiary groups, including the U. S. Housing Authority, Public Buildings Administration, the Division



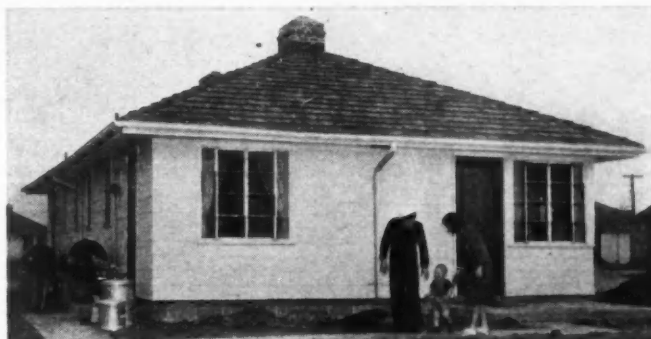
Federal Works Agency Photos

SAILOR Ballew helps Mrs. in new Pensacola defense home.



PRIVATE Browning and Sergeant Desenzio enjoy new Moreno Courts home.

Home total for year may reach
700,000, of which less than
100,000 are publicly financed.
Building active under Title VI



PETTY OFFICER CONGER shows the family new defense home.

of Defense Housing, Farm Security Administration and a few local public housing authorities. A birds-eye picture of how the publicly financed defense housing is divided among the various agencies is as follows:

Federal Agencies Handling Defense Housing	
	No. Units
Public Buildings Administration.....	32,511
U. S. Housing Authority and local authorities.....	29,859
Navy.....	19,152
Army.....	1,570

FWA Division of Defense Housing.....	13,775
FWA	4,800
Tennessee Valley Authority.....	350
Local Housing Authorities—Direct.....	1,200
Farm Security Administration.....	1,350
Defense Homes Corporation.....	2,816

TOTAL.....107,383

Under the direction of these government agencies defense housing is being rapidly constructed by a large number of con-
(Continued to page 121)

PROGRESS OF DEFENSE HOUSING FINANCED BY PUBLIC FUNDS—AS OF JULY 5, 1941

	Allocated	Under Construction	
		Contract	Completed
Number of family dwelling units TOTAL.....	107,383	70,146	18,947
Civilian industrial workers in private defense industry.....	47,455	24,440	3,245
Civilian industrial workers in Gov't plants.....	19,201	13,026	3,918
Other civilians, employed by the Army and Navy.....	10,642	6,509	2,656
Married enlisted personnel.....	30,085	24,171	9,128

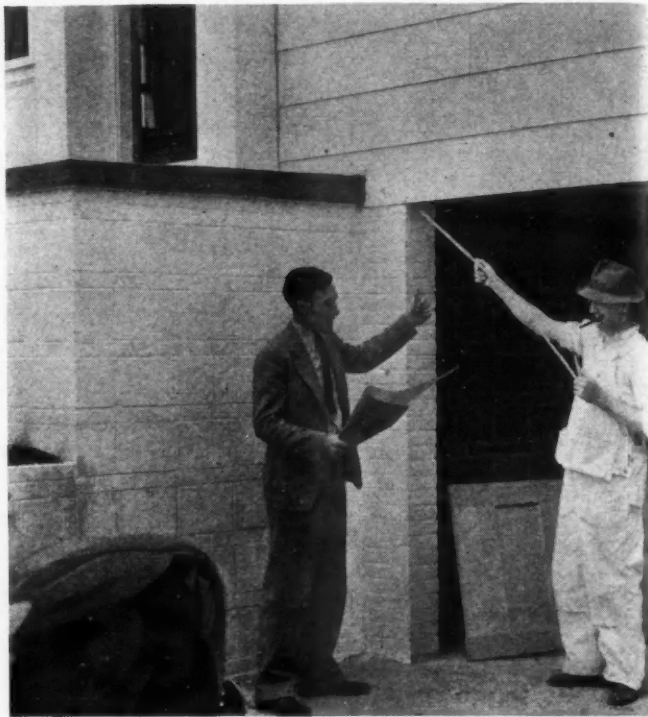
Enjoys 8% Advantage

By Making His Own Masonry Units

How W. A. (John) Sumpter, Operative Home Builder and Contractor, of Ashland, Ky., has put his business above competition

BRICK and BLOCK walls of quality appearance and superior dry-wall character at less than a third of the conventional masonry cost is the extremely favorable fact which John Sumpter is exploiting currently in his efforts to keep in step with the expanding housing needs of Ashland, Ky. Turning actively to home building about 7 years ago, Sumpter has an impressive record of attractively designed and well built houses in the medium price brackets in and around this industrial center on the Ohio River, "where coal and iron meet." These houses have been built both on contract for individual clients and speculatively for sale. But, either way, the finished jobs bear evidence of complete builder service and control and of complete buyer confidence; tell-tale signs of skimping and competition-inspired jerry-building are entirely absent.

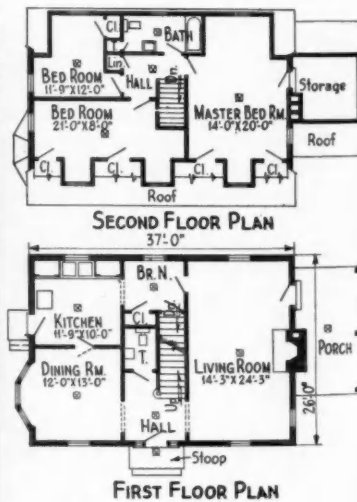
Ashland, like most Ohio River towns, is strongly brick-minded. Quantities of good clay face brick are produced locally all through this region. The price is rather uniform at around \$24 per thousand. However, concrete is well regarded, and good sand, screened steel-furnace slag, portland cement and other concreting materials are plentiful. In sizing up the situation, John Sumpter decided that he could give his houses a distinctive, quality appearance by using cement "Dunbrik" and that he could save himself and his clients some money, besides increasing his own



W. A. (JOHN) SUMPTER discusses the job with his carpenter-foreman, Hugh Ward. Notice Dunstone and Dunbrik for construction used in foundation and garage walls of this clever little house for Mr. and Mrs. Paul Duncan in an Ashland suburb.

independence, if he would set up a small plant and make his requirements of Dunbrik and "Dunstone" with a part of his own gang during "spare time."

Accordingly, he acquired a line-production Dunn machine which has a capacity of 15,000 brick per 8-hour day; he installed it, along with mixer, curing racks and color outfit, in an inexpensive shed near an old sand pit. It is a practical set-up—not fancy; and the investment is so small that it makes no difference that the machine is used only part of the time. A moderate supply of units is kept made up and current home building orders are put through as needed.



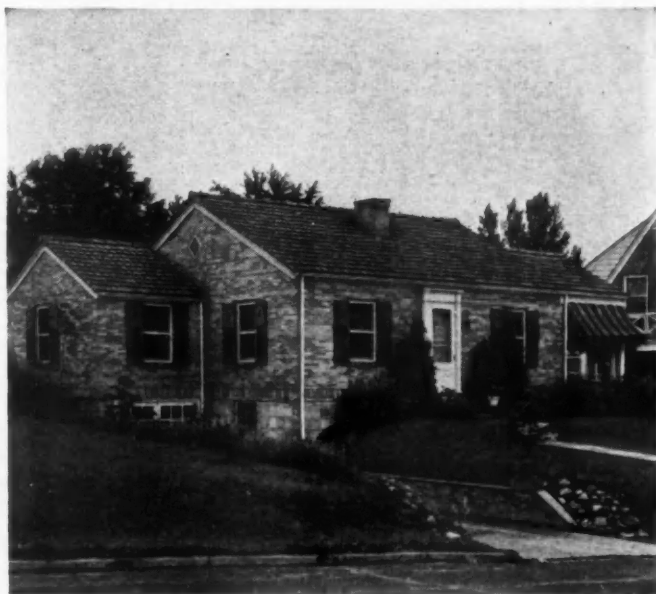
SEVEN room Colonial in white painted Dunstone in Graysonia subdivision of Ashland, Ky.

Sumpter's figures show that brick- and stone-size units, delivered on the job, cost him about one third the current face brick price; and, estimating that the masonry contract is about one quarter the total home cost, it is evident that on this one item he is enjoying an 8 per cent advantage over the other home builders in the Ashland market.

As an additional economy with no sacrifice of quality, many of his houses are built with the popular 8-inch "hollow walls," which is a combination of 8" x 8" x 2" Dunstone interlocked with 8" x 4" x 2" Dunbrik headers in a Flemish bond pattern, making a cavity wall, 2 inches stone, 4 inches air space and 2 inches stone. Such a wall, in the Ashland climate, can be safely plastered direct, without furring and lath, by first applying a waterproof bond coat and then the plaster.

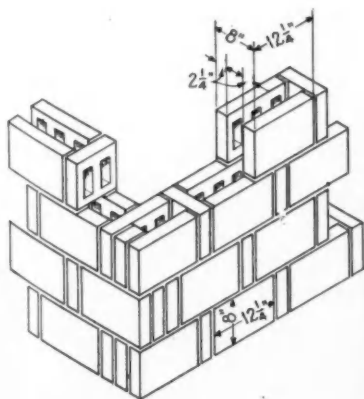
The Dunbrik walls are usually 8 inches thick of the cement brick face, in a variety of colors as desired, and cement-cinder triple brick. One of the most effective color schemes being used this season is steel grey, which comes in two shades, light and dark, and is produced by the natural color of the steel-furnace slag used as aggregate along with dark grey or light grey portland cement for the two shades as wanted.

The residential sections of Ashland are being developed on beautifully wooded hills back from the river. Streets are curving and much attractive styling in home designs is in evidence; this in spite of the fact that few if any 100 per cent architects have been called in; the home building contractors themselves have evidently realized their design obligations and have developed real competency in home planning and styling. John Sumpter has his own architectural draftsmen and has perfected a type of Cape Cod Colonial which is very attractive and well suited both to the environment and the pocket-books of Ashland home seekers.

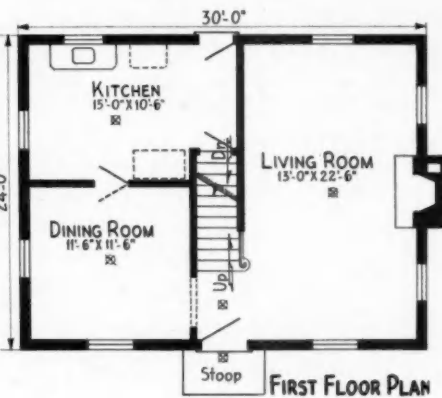
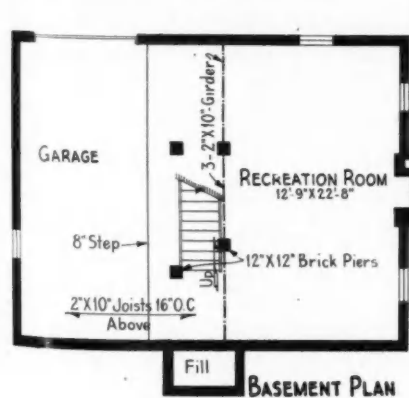


DUNBRIK home in variegated tones of natural grey; also Duntex tile roof; built by Sumpter on Algonquin Ave., Ashland, Ky.

With the present up-surge in home demand throughout the region due to expanding industrial activity and new population, Sumpter is now increasing his operative building program by opening up a beautiful 14½ acre tract on the city line at the Hillendale Country Club adjacent to the Old Orchard subdivision. His tract will appropriately be called "Valley View;" it will offer 60 home sites, each of 60 foot frontage, and will be improved with masonry houses in the \$5,000 class.



SUMPTER reports active demand for this size and style; right, 5 rooms as shown in plans below. Detail of Dunbrik and Dunstone hollow wall laid with these units shown above.



St. Petersburg Style

How F. J. Rowe, successful developer of Bethwood Terrace, has created a home community of Florida bungalows with Midwestern appeal



F J. ROWE, of St. Petersburg, Fla., is one of the smart builders there who is keeping right up at the front in his home planning and construction. His latest subdivision, Bethwood Terrace, features a type of modern bungalow that is attracting much attention.

It is interesting to note that most of Rowe's houses are designed in a way that would appeal to people from the Middle West, and yet they have many of the best features of modern Florida design. They were designed by William B. Harvard, prominent residential architect of St. Petersburg.

The long, low bungalow illustrated with this article has a white cement asbestos roof which gives it a distinctive appearance. It is also notable for the large but well handled steel casement windows. As shown in the detail drawing at right, the windows have weather-resisting tile sills.

Ventilated roof area is achieved in the Rowe house by placing screen-covered vents in the wide overhang of the cornice. This type of wide cornice which used to be so popular in the Midwest is now coming back. Builders feel it has much to recommend it because it throws rain

away from the house and also offers considerable protection from the direct rays of the sun. In some of the Rowe designs the overhang is more than two feet.

The decorative screen-door and porch supports are also interesting features of Rowe's houses.

In the above house he installed a gas-fired furnace in the center hall, with the face of the furnace opening into the living room. Very few St. Petersburg houses have basements.

Rowe's most popular type of bungalow, which is illustrated on page 60, is a 44' x 28' bungalow with attached garage and enclosed screened porch. This model also features the wide cornice overhang and the good cross ventilation important in any climate.

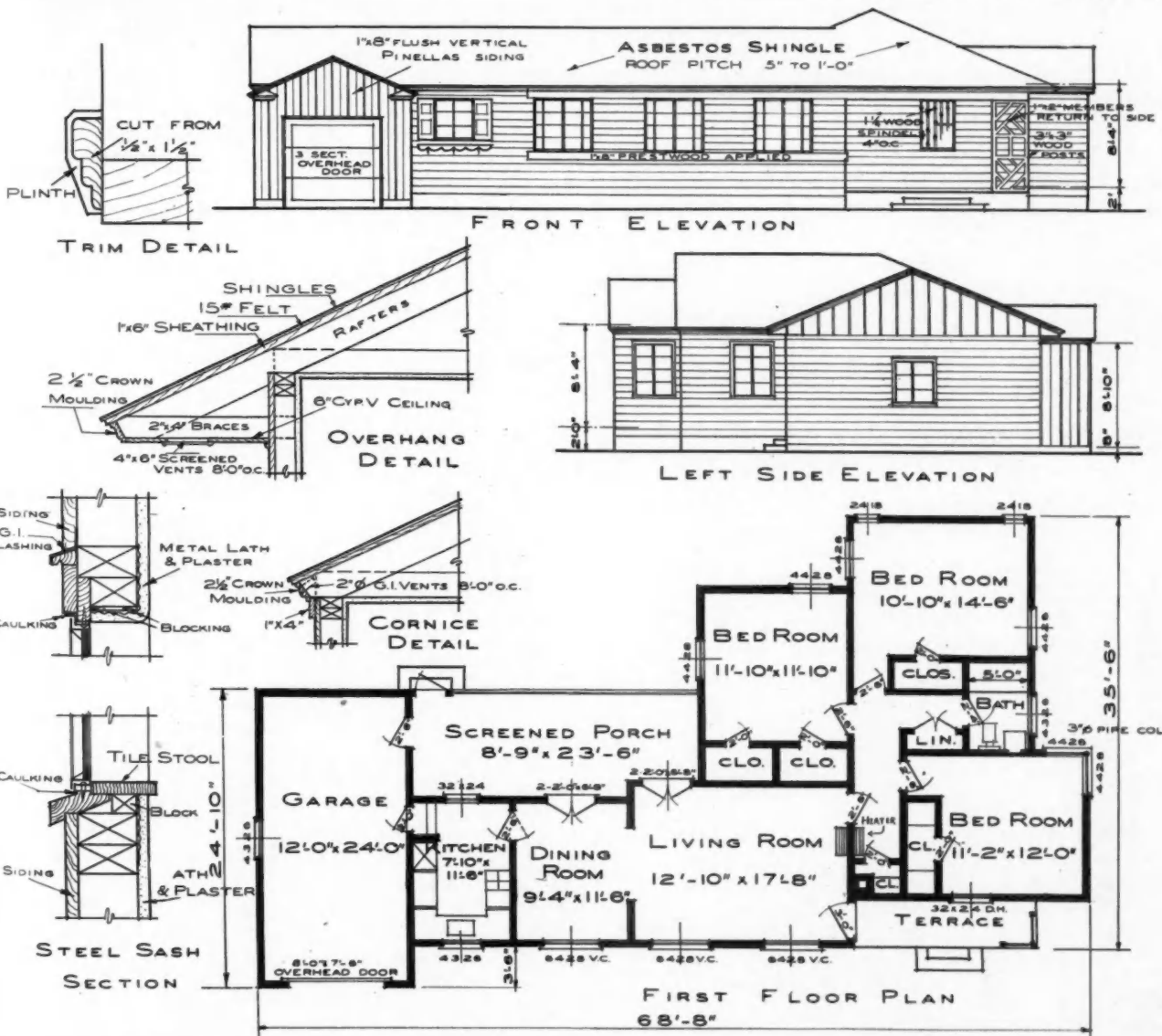
Rowe has organized his building operations in an efficient manner and makes extensive use of power equipment. He has a DeWalt table-type power saw set up on the job, and in addition uses several Skilsaw electric hand saws. In his regular construction practice he uses Hope steel windows, Johns-Manville white cement asbestos shingles, Kinnear one-piece overhead garage doors, Coraire gas furnaces, Miami medicine cabinets, U. S. Gyp-



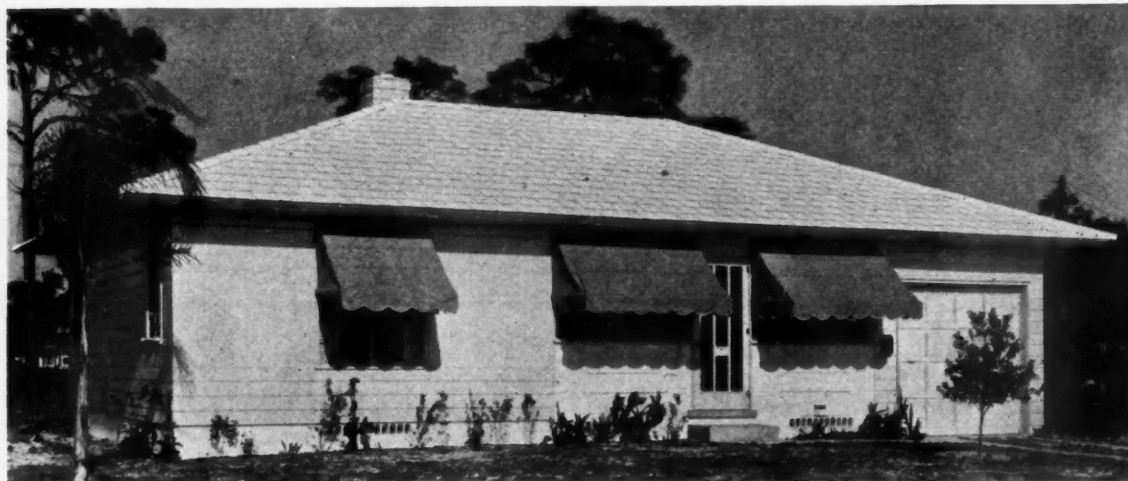
MODEL HOME living room, showing gas heater at left, decorative screen door, center, and large metal windows with tile sills. (See window drawing detail opposite.)



F. J. ROWE, St. Petersburg builder, as seen on the job above with one of his latest model homes (at left). This long, low design has splendid cross ventilation and a livable 6-room plan.



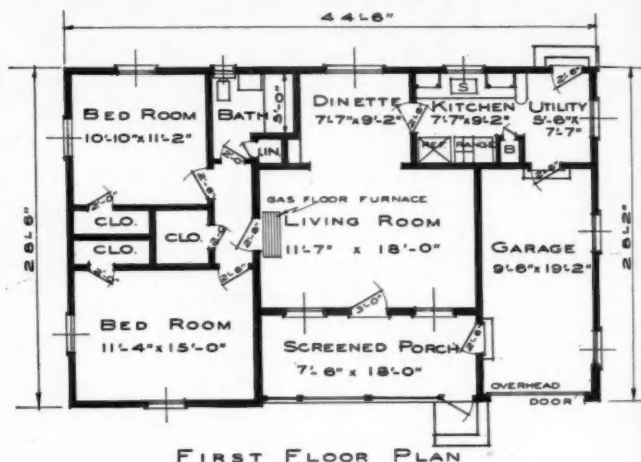
CAREFULLY DRAWN DETAILS of F. J. Rowe's Bethwood Terrace model home, by Architect William B. Harvard, of St. Petersburg. Note wide ventilated cornice overhang, tile window stool, spacious living-dining room arrangement with screened porch at rear. Gas-fired furnace is built into center hall wall.



ONE of F. J. Rowe's popular smaller bungalows with wide cornice, enclosed porch, white asbestos shingle roof. Floor plan shown below.

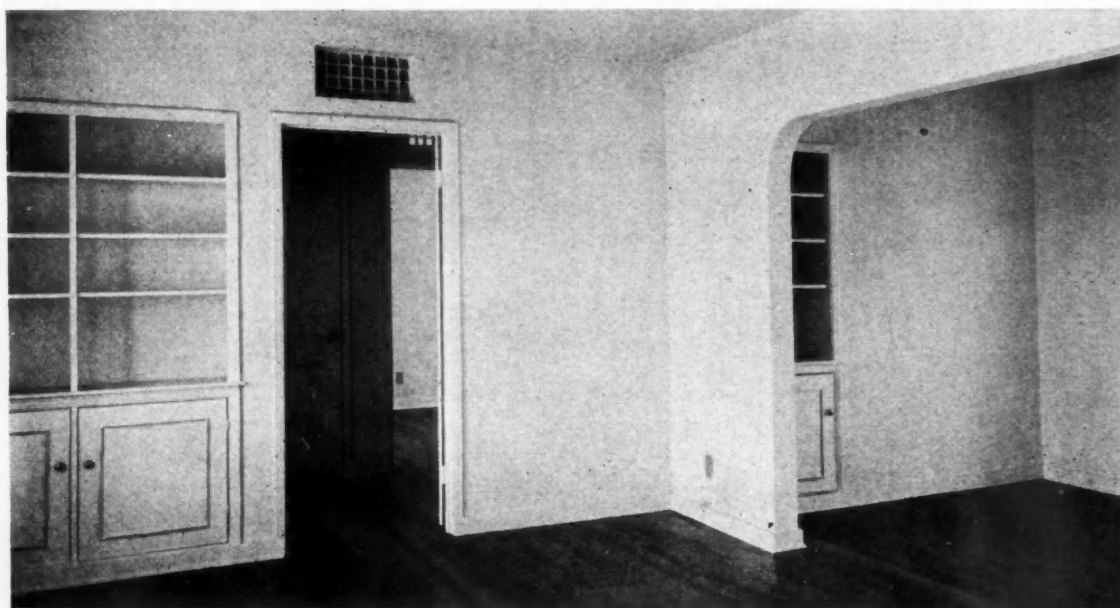


TWO VARIATIONS of bungalow plan as shown above. Garage attached at rear by open porch gives desirable added feature.

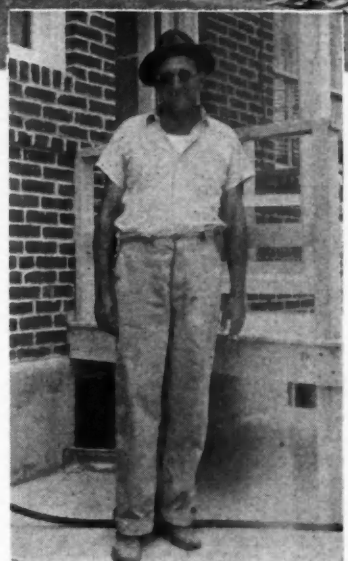


sum metalated Rocklath plaster base, 4 inches mineral wool insulation in attic floor. He makes extensive use of Miami type siding combined frequently with 1 x 8 flush vertical Pinellas siding, as supplied by the well known local Pinellas Lumber Co.

Because his houses are well designed, well built and placed on large plots in a well laid out development, Rowe has met with considerable success, and his Bethwood Terrace is an attractive addition to the residential communities in the North St. Petersburg area.



BUNGALOW interior, showing arched opening between living room and dining room, built-in cupboards and vent over the door.



How Grandpa Marling Builds Row Houses

FOR 34 years W. E. Marling, of Towson, Md., has been in the building business, and he still likes it. He says it keeps him young. To look at him, you wouldn't know he was a grandfather. He is, and he's proud of it, and also proud of the sound and shipshape job he does on the substantial row houses he builds.

Row houses are as popular in Towson as beans in Boston, and it is obvious that this type of construction produces important economies in cost. The Marling-built houses are of substantial brick with cinder block backup, have slate roofs, concrete porches, full finished basement with asphalt tile floor, automatic oil heat, 4 inches of mineral wool insulation. Yet Marling is able to sell them for only \$33.78 a month. Of this amount \$6 goes for taxes, \$7.50 for ground rent, leaving approximately \$20 to apply on the FHA interest, insurance and amortization.

"THIS BUSINESS keeps you young," says W. E. ("Grandpa") Marling. He's been at it 34 years. His latest row house project in Towson, Md., is shown above.



SIX FAST, POWERFUL ELECTRIC SAWS are kept in operation on the Marling job. These views were taken on the second floor of latest group of row houses. Note quick, exact cutting of diagonal flooring.

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TYPICAL GROUP of six houses as detailed on opposite page. Six-room unit sells for \$33.78 per month. Kenneth C. Miller, architect.

As a result of this attractive value, Marling is sold out far ahead of his present capacity. He has people clamoring to move in, and in one recent case a buyer lived in the basement of his new home for a week while the floors above were sanded and the painting completed.

With such a market, Marling is doing everything possible to speed up work, and power equipment plays an important part in getting the job done. Included in the equipment he is using are six Speedmatic electric power saws, several Carter electric door mortisers, an electric rabbeter and several floor sanders.

That power equipment more than pays for itself has been demonstrated on his jobs many times over, Marling says. One of his skilled workmen will mortise a surprising number of doors in a day.

Marling's technique is to build up a complete street

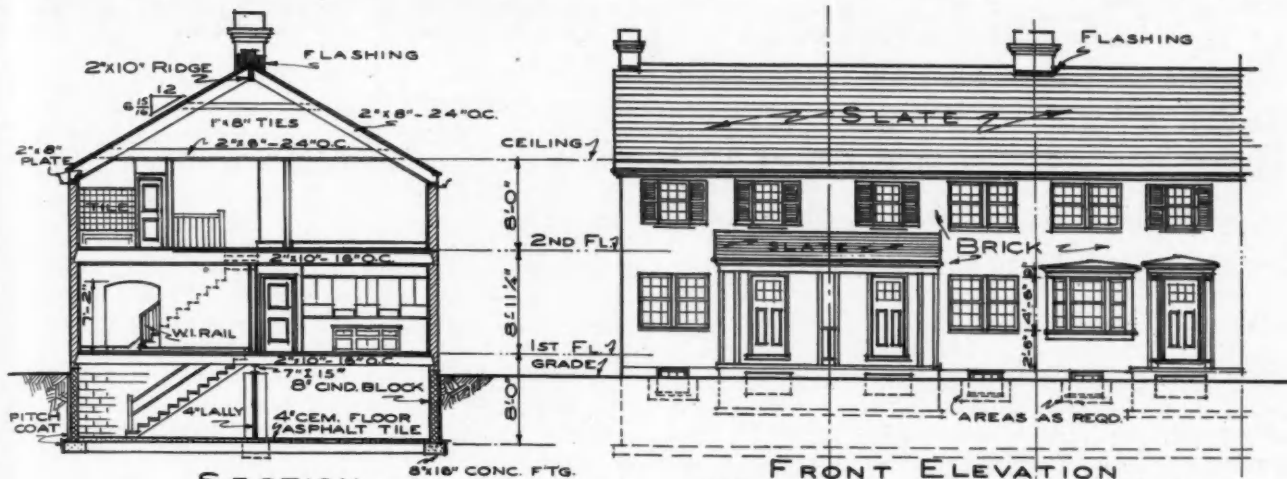
at a fast clip, putting on large crews and keeping the job moving fast. He does not sublet any work whatever. Experience has shown, he says, that he gets better work by employing his own carpenters, masons, plumbers, electricians, plasterers and all the other trades himself. He gives steady employment, pays good wages and is able to keep a closer control on quality, he claims, than if he turned part of the work over to subcontractors.

"One way to keep young," he says, "is to be on the job every morning at 6:15 and stay there all day. The work fascinates me and I like it," he says. "I don't want to do anything else." Marling comes from a family of builders; both his father and grandfather were in the business.

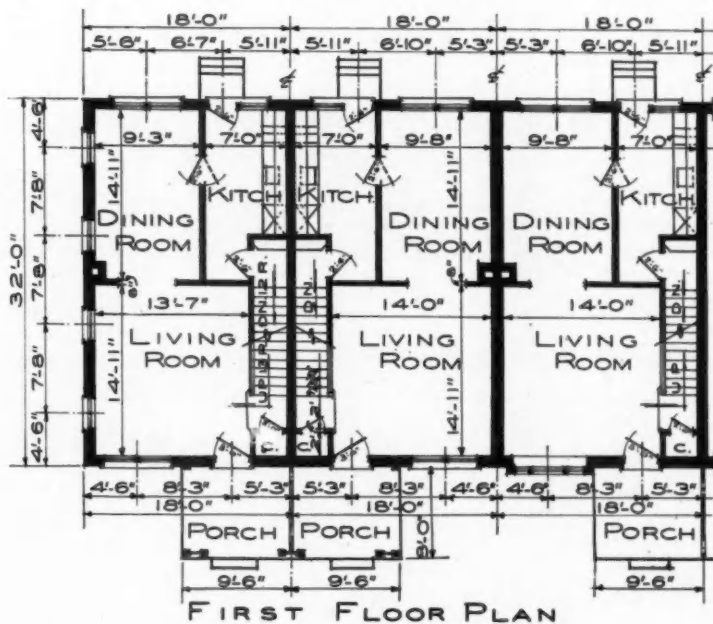
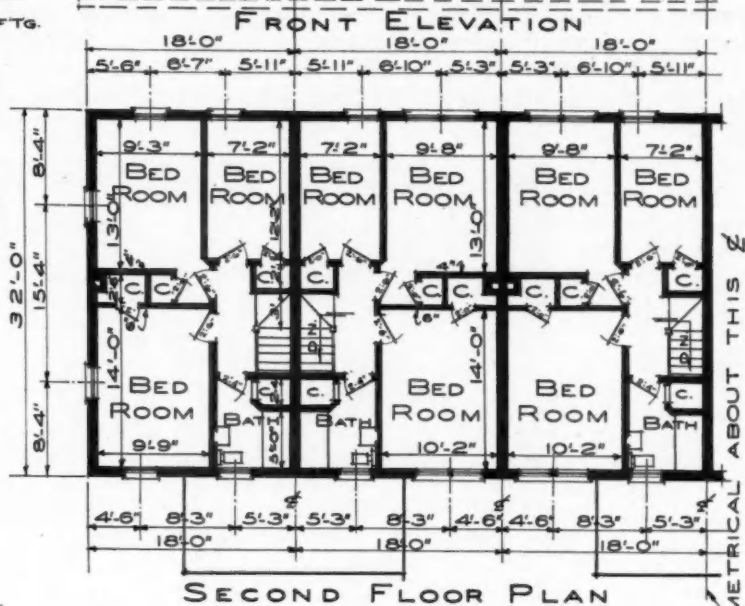
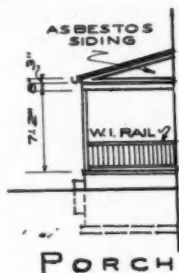
One of the recent innovations in the Marling con-
(Continued to page 117)



DOUBLE-HUNG STEEL WINDOWS set in place as masonry crew rushes Marling homes to meet demand. Note waterproof membrane strip which has been set in place below windows.



CROSS SECTION shows brick and cinder concrete walls, 2 x 10 joists, plaster arch opening at stairs. Roof pitch is 6 15/16 inches to the foot.



ONE-HALF of W. E. Marling's typical six-house group is fully detailed above, showing clever space planning which succeeded in getting six rooms and bath into each 18' x 32' unit. Basements are nicely decorated and have asphalt tile floors. Windows are unusually large, porch details are attractive. Kenneth C. Miller, architect.



Detail Drawings of a Six-Family Row House Group Each Unit 18' x 32'

Combination Apartment Building and Store

Structure designed to fit the needs of merchant owner in Park Ridge, Ill., to provide his living quarters, place of business and rental units

demand is found for rental units where prospective residents can live temporarily; such expansion obviously requires increased shopping facilities. The building illustrated on this page was erected as an income property for the proprietor of the store.

The exterior is particularly pleasing, with its simple lines and modern accents in the horizontal cut stone trim courses and horizontal mullions in the windows. The entrance canopy and store front are both of stainless steel.

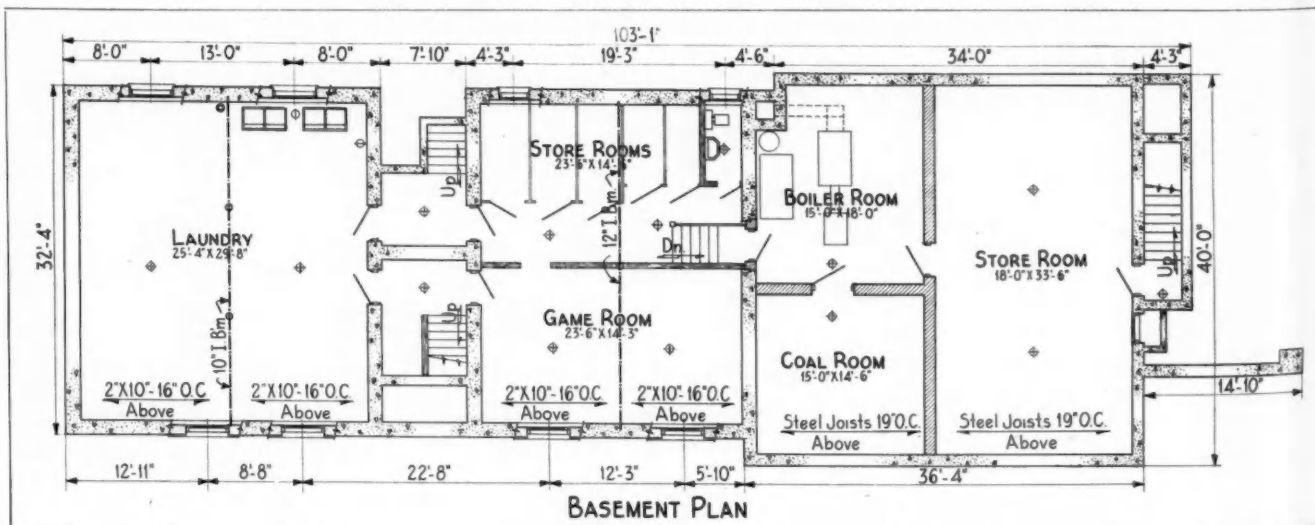
LOCATED on one of the important through streets in a Chicago suburban section, this project, planned by Architect Arthur P. Swanson, is typical of a class of combination commercial and apartment properties that fit the needs of many such smaller communities where there has been recent expansion. It is generally the case that as new single-family homes are built, an increasing

There are a number of unusual features in the plan. The basement layout, as shown below, provides ample laundry space which can be reached from either the front or rear stairs; a game room large enough for several recreational facilities or use as a children's playroom, storage lockers and lavatory—all below the apartment units. The boiler room, coal and store storage are

ATTRACTIVE modified Colonial six-unit apartment building and attached store built near Chicago.



BASEMENT plan, below, as designed by Architect Arthur P. Swanson of Des Plaines, Ill., with space for laundry, storage, game room, heating plant.



Store Makes Attractive Income Property

reached either by a short flight of stairs leading down into this deeper portion of the basement or by the side areaway.

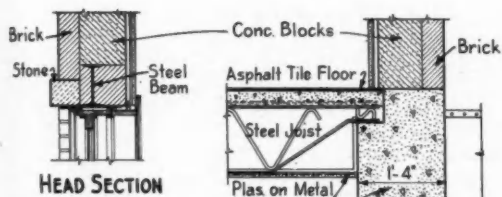
The six apartments are four rooms and bath, one tier having a separate larger dining room, the other tier, dinettes; the larger units have a built-in breakfast alcove in one corner of the kitchen. All have linen closets in the baths. Three other closets and plenty of kitchen storage space are provided for each apartment. Windows of all principal rooms are at least double, with an additional one making up the corner windows in the outside units, providing good light and ventilation. The kitchens are also equipped with an exhaust fan.

Construction materials and equipment include walls of 4-inch pressed brick facing, and 8-inch Waylite block back-up on the 12-inch concrete foundation. Walls are furred and plastered three coats on Rocklath, except

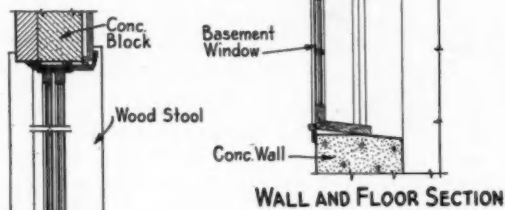
metal lath used in kitchens and baths. In the apartment portion of the building, all joists are wood with 1 x 6 sub-flooring, 1 x 2 floor strips, and clear red oak finish flooring. The ceiling insulation consists of 4-inch rock wool fill; roof is 4-ply built-up asphalt. Baths are equipped with Kohler fixtures and have 6-foot ceramic tile wainscots. The stock sash are fitted with interlocking weather-stripping.

The birch trim and cases have three-coat enamel finish. Walls throughout are painted and the ceilings calcimined.

The stoker-fired Kewanee boiler with a forced flow hot water system using Weil-McLain recessed radiators heats both apartments and store. This latter portion of the building has a reinforced concrete floor slab on steel joists set 19 inches o.c. Asphalt tile were selected as floor covering for the store where meats and groceries are handled.

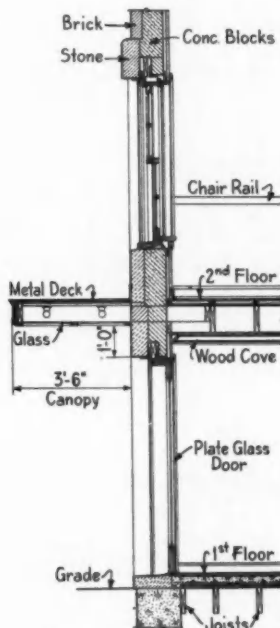


HEAD SECTION



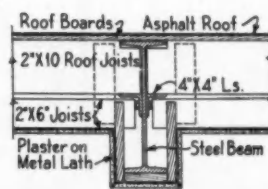
WALL AND FLOOR SECTION

PLAN OF CORNER WINDOWS

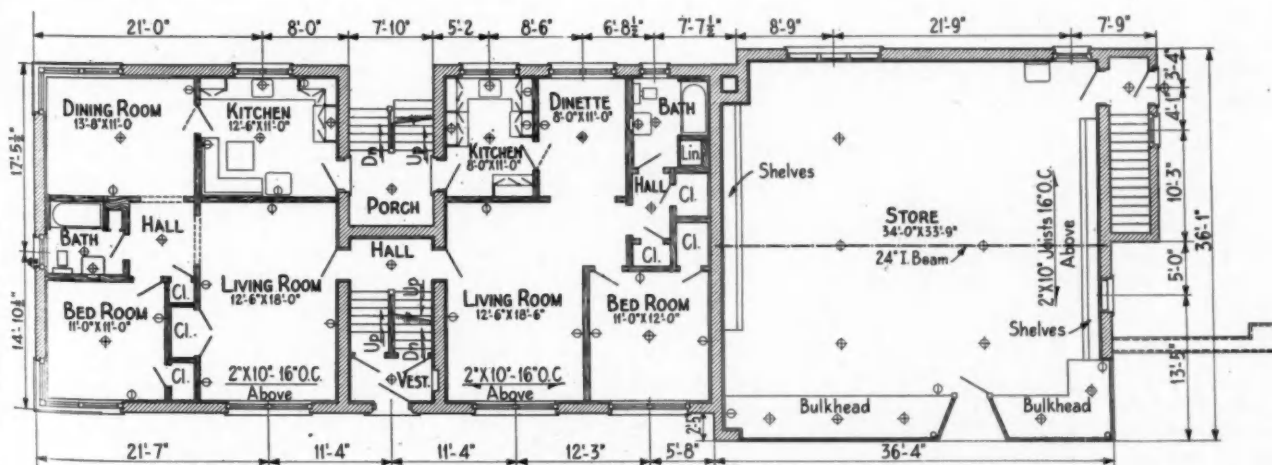


SECTION THRU ENTRANCE

INTERESTING details indicate corner window construction and sections through store, floor and wall, through apartment entrance and through store roof. The first floor plan shows typical apartments.



SECTION THRU BEAM-STORE ROOF



FIRST FLOOR PLAN

Designs Step-Saving 5-Room Home; Built for Expansion

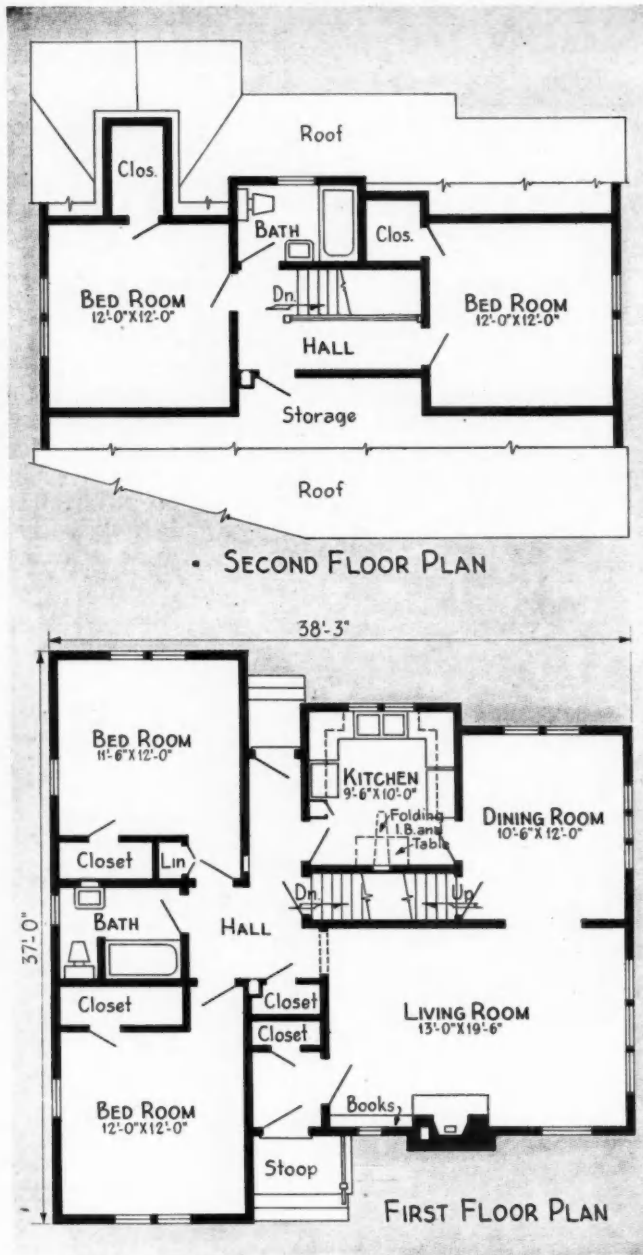
THE straightforward and attractive small home shown below was designed by Wilbur A. Messer and built in Beaver Dam, Wis. The first floor arrangement is most commendable, and has attracted a good deal of favorable comment from those who have inspected it, as it offers the possibilities of future expansion without sacrificing any of its convenience.

The extra space devoted to the rear hall allows exceptional circulation, and the stairways to the second floor and basement can both be reached directly from either the front or rear of the house.

Two first floor bedrooms have good sized closets, and there are two extra closets on the first floor. The linen closet has lower drawers which open into the bathroom, so that this storage space serves a double purpose.

The kitchen is efficiently arranged in a U-shaped plan, and has a folding ironing board and table built into the inside wall. Ample linoleum-covered work surfaces and cabinet space are provided. On the second floor the two bedrooms and bath require only one dormer, so that this expansion is relatively inexpensive. All necessary heating ducts, soil pipe connections and wiring were provided at the time the house was built. These rooms add 6500 cubic feet to the basement and first floor cubage of 20,500 cubic feet.

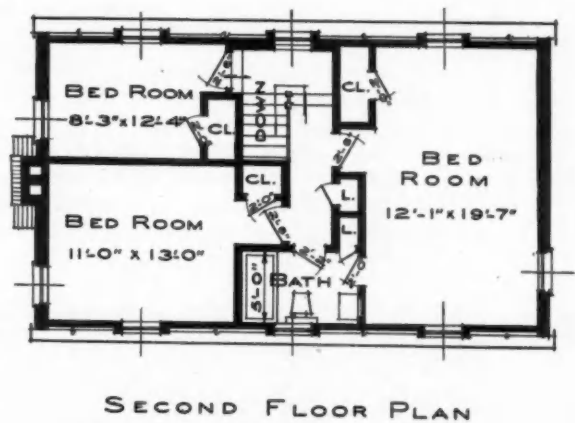
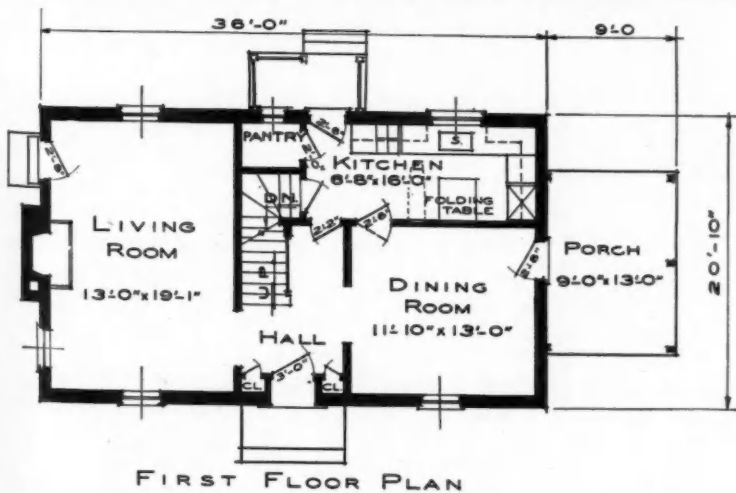
Construction materials and equipment include J-M asbestos siding shingles, 4" J-M rock wool bats in side-walls and ceilings, plaster on Rocklath, oak flooring throughout except Armstrong linoleum in kitchen, rear hall and bath. The house throughout is provided with adequate convenience outlets controlled by wall switches where needed. Fixtures are Kohler; winter air conditioning is by a Holland unit.



FLOOR plan, as shown above, offers a convenient arrangement for five rooms on the first floor, with two extra bedrooms and bath.

THE simple lines of the exterior disguise the true size of this house in Beaver Dam, Wis., by Wilbur A. Messer.





Fine Virginia Colonial 6 Rooms—36' x 20' 10"

THIS is one of the many successful moderate-priced homes built by Matt. P. Will, in his Glenburnie subdivision in Richmond, Va. It has a fine Williamsburg Colonial feeling and a floor plan with universal appeal. The whitewashed brick exterior is supposed to take on an antique look. With a cubage of only 20,300, Architect Andrew L. Kidwell, of Richmond, provided six well-

proportioned, livable rooms with a spacious center hall. The house has solid brick walls, a slate roof, an oil burning boiler. It is a typical Virginia Colonial of the gambrel roof type, with a wide front and narrow depth. The details of the house contribute much to its charm, such as the well designed shutters, the attractive dentil, the heavy slate pattern which gives character to the roof, and the brick steps. A door leading from the master bedroom to the bath adds greatly to its convenience and is a worthwhile added feature for a one-bathroom house of this type, since it gives the occupants of the master bedroom the equivalent of a private bath without reducing its availability to the rest of the household.

Planning Services Help Builders

Leading Industry Firms Offer Idea Suggestions and Individualized Sales Helps on Modernizing and Restyling

A FEW YEARS ago when building and modernization were at low ebb, there began an evolution which has naturally gained impetus with the revival of activity in every branch of the building industry.

From extensive study and research on the part of manufacturers of plumbing equipment, paint, household appliances, wall and ceiling panels, and other building materials, there have come a number of home planning services which are an invaluable aid to any one considering modernization of an old house or building a new one.

The planning services were designed primarily to furnish the consumer with information on building and remodeling which would allow him to visualize the finished job and also determine from his local contractor an accurate cost estimate for the work.

The fact that the services are available to the consumer either direct or through his contractor at no cost has been important in encouraging increased activity in the building field. It is undoubtedly true that much work of this nature is often postponed because of the reluctance of home owners to ask a contractor to figure on a comparatively small job.

Consumers may take advantage of these services at no cost. And in doing so, they know that the information they receive is based on careful research conducted by specialists in each field. Each plan embraces a thorough understanding of the necessities and comforts of modern living. The kitchen planning services conserve space, yet provide a maximum of usable space. Architectural plans for wall and ceiling treatments utilize materials with the greatest economy, yet create attractive rooms planned for complete enjoyment.

Contractors who do not have proper facilities for carrying on planning services of their own appreciate the fact that more and more consumers are taking advantage of the planning services maintained by the manu-



NOT AN ACTUAL KITCHEN, but a model setup photographed to show how General Electric would arrange equipment in a room of given size, shape and exposure. Photographs of model setups help home owners to picture the finished job.

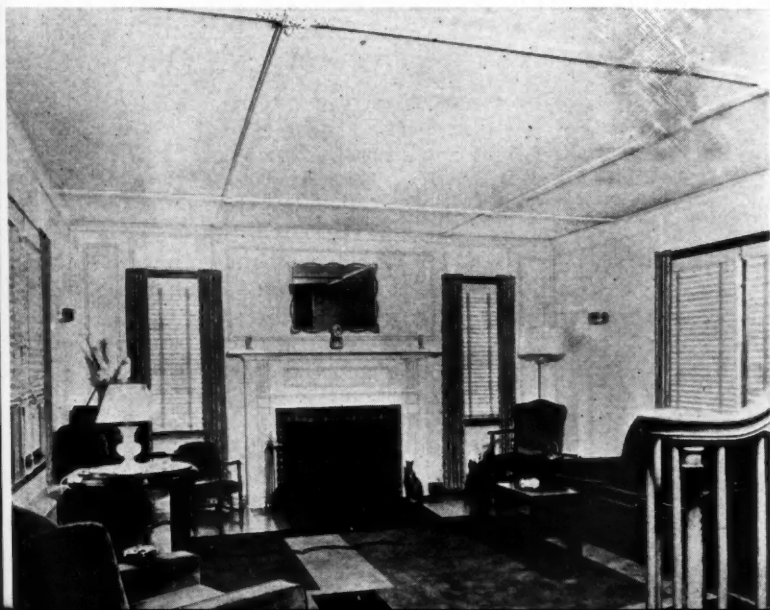
facturers. The information is so complete that it relieves the contractor of a mass of detail—which saves time on every job. For instance, complete working drawings and specifications for applying wall and ceiling panels save the contractor's time not only in planning the panel scheme but in estimating the amount of material required to do the work.

The general revival in building and modernization is acting as a spur to other branches of the building, equipping, decorating and furnishing fields so that more and more planning services are available to consumers. What is being done in the way of making the job of planning and cost finding as simple as possible is characteristic of the period of streamlined efficiency in which we are living.

Just to see how the planning services work, let's suppose that one of your customers is going to remodel his house. His General Electric dealer will take a set of plans or sketches and send them to the General Electric Home Bureau at Bridgeport. The Home Bureau will not only make suggestions on wiring, heating, laundries and kitchen layout, but if requested will go far beyond consideration of its own company equipment and get into the subject of room arrangement and color schemes. Greatest emphasis, however, is placed on the kitchen, because General Electric feels, too, that this is the most important room in the house. The service will lay out the kitchen and provide scale drawings and color schemes. In addition, by the use of models, it will take a photo-

SIZE AND TYPE of home are considered by the Upson Architectural Department in laying out panel schemes for walls and ceilings. Giant Strong-Bilt Panels are often the choice of home builders who prefer smooth, unbroken surfaces, while many owners of older homes choose paneled walls in remodeling, for their artistic value in wall decoration.

graph of the kitchen as it will look in the finished state. This part of the service is especially appreciated by the average home owner who finds it difficult to translate a blue print drawing into a three dimensional picture in his mind. When the plans come back, you can easily get the local price of any



of the General Electric equipment you expect to use.

The Kitchen Maid Corporation states that "today's kitchen is a scientific achievement," and this firm is doing its part to make it so. Its Planning Department will adapt Kitchen Maid units to rooms of any size or shape—for maximum convenience and beauty. If your customer sends a rough sketch of the kitchen with dimensions, ceiling height, position of doors and windows—to the factory, Kitchen Maid will work closely with you and with your customer in making recommendations.

If the home owner prefers to work out the kitchen plan himself, with suggestions from other members of the family and consultation with his dealer and builder, the Youngstown Pressed Steel Division of Mullins Manufacturing Corporation has an ideal kit that is as much fun as a toy to play with. For dealer's use in working with consumers, this firm has developed this unique "Min-A-Kitchen." It consists of several of each model of cabinet sink unit and accessory wall and base cabinet—cut to scale out of heavy cardboard, packed in a box with wall, floor, doors and windows. With the Min-A-Kitchen the home owner can plan her own kitchen in miniature and actually see it set up as it will be when it is installed.

The Crane Company has also gone into the matter of kitchen planning in a scientific way. One of its studies, for instance, shows that in making an apple pie, 105 steps were required in an inefficiently arranged kitchen because of the unnecessary retracing of steps from service door to refrigerator to sink to stove. In the same kitchen, rearranged for work-saving simplicity, the number of steps required in making an apple pie was cut to 22.

Division of the kitchen into three major areas—receiving, preparation and serving—indicates the thoroughness with which Crane has analyzed kitchen problems and developed solutions applicable to every type of room.

Baths also come in for their share of attention with Crane. Plan sheets can be obtained on which the owner sketches the room dimensions, location and size of doors and windows and any other structural features. Crane Company, after studying the problem presented by these sketches, will return a floor plan showing the most advantageous location of bathroom fixtures.

Crane states that its color recommendations are in fact only color indications. This is done because it is felt that the actual design, selection of material and color arrangement are the job of the architect, builder or interior decorator.

The Edison General Electric Appliance Company is also aware that the kitchen-consciousness of practically every thinking homemaker has been aroused to action. Its Kitchen Design Manual, including a KITchenKIT, has been designed for use in giving the consumer a personal planning service, together with readily available cost information on Hotpoint equipment.

One of the first of its kind in the field is the Home Planning Bureau of the People's Gas Light and Coke Company, Chicago. The success of this Bureau has led to the organization of similar services in connection with power and light companies in other cities. While the service is primarily designed for kitchens, the Bureau is equipped to handle many other questions related to the home. As with the other planning services, the customer is furnished with a work sheet on which he describes the present layout of his kitchen and other data which enables the Planning Bureau to design a new kitchen.

In connection with the Bureau there is an exhibit of twelve or more kitchens

ASIDE FROM suggestions as to placing of equipment and fixtures, the Crane Company also recommends utilization of space for useful cupboards and shelves—something that appeals to every home maker and prospect.



ONE OF THE MODEL kitchens on display at the Peoples Gas Light and Coke Company, Chicago, to demonstrate the advantage of scientific planning and use of various materials and equipment.

for the purpose of demonstrating the practices and theories of kitchen planning, layout, equipment and decoration. Samples of various materials are available, and in this way the Bureau functions as a liaison between customers and builders, contractors and dealers.

The scope of the planning services available to home owners as far as kitchens and baths are concerned therefore seems broad enough to satisfy the most discriminating. But the actual room arrangement is not the only place where the home owner feels the need of expert assistance. If he is building a new home, or remodeling an old one, he is perhaps at sea as to what materials to use, and unable to visualize each room by itself as related to the house as a whole—the walls and ceilings, for instance, which are the background of his home and which can make or break any room, no matter how beautifully furnished, how ingeniously arranged, or how attractively decorated.

Wall and ceiling materials have kept in step with the times just as has the equipment which goes into the most streamlined kitchen. Pioneers in the dry-wall construction field, The Upson Company also pioneered in maintaining an architectural department which furnishes consumers with layouts and specifications for the use of its panel materials for walls and ceilings. The home owner may either send blue prints or sketches showing room sizes, openings, position of lights, and other pertinent information, and the Upson draftsmen design

(Continued to page 120)



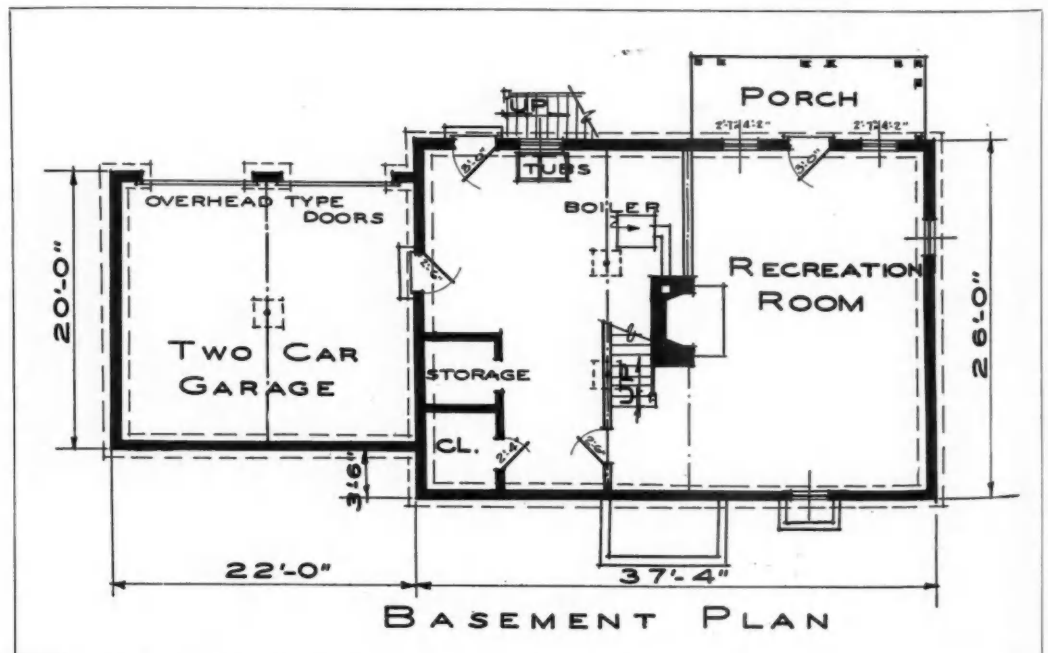


Photo by Peters & Pierce

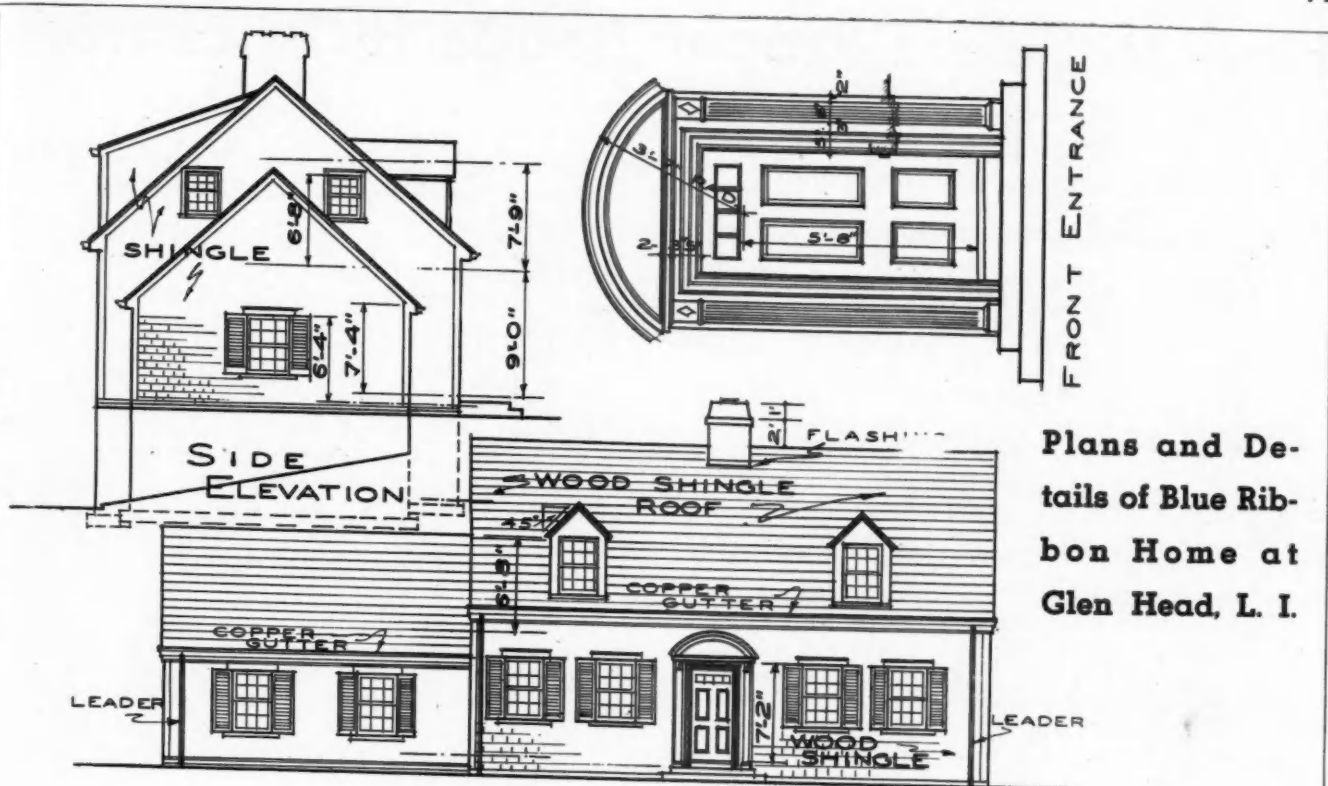
Blue Ribbon Home

Quality in design and construction makes North Shore Acres home a big winner. Joseph Watterson, architect

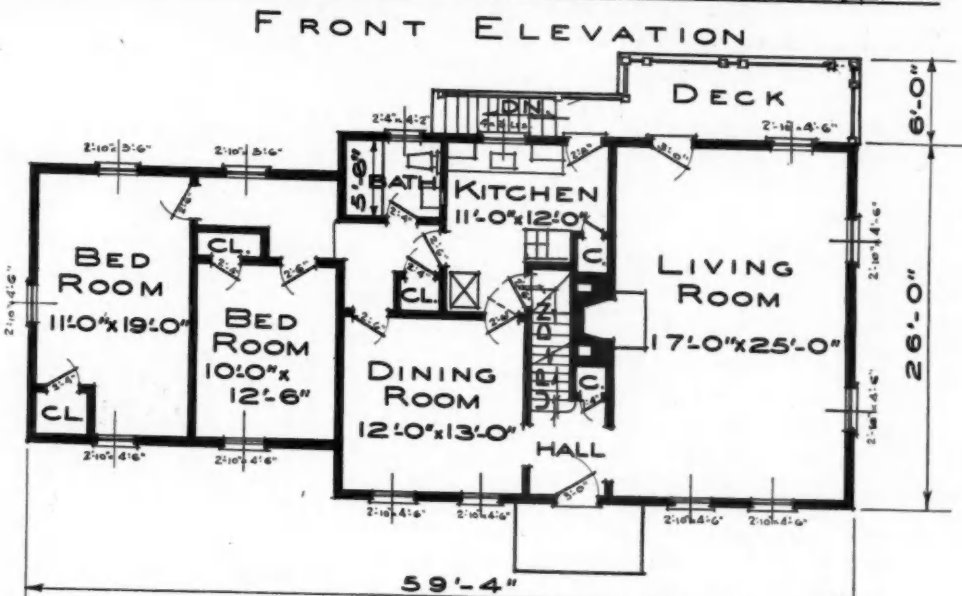
A BLUE RIBBON goes to this friendly, shingle-covered Colonial at Glen Head, Long Island. Built on a wide hill, it has a two-car garage and fine playroom in the basement, as well as an upper and lower porch at rear. Two bedrooms and bath downstairs are conveniently located, and there are two additional bedrooms upstairs. Main part of house is only 26 feet wide and the cubage is only 33,300. Specifications include Creo-Dipt wall and roof shingles, Johns-Manville insulating lath, mineral wool insulation in ceiling, Chase brass fixtures, A. G. P. gas fired winter air conditioning unit.



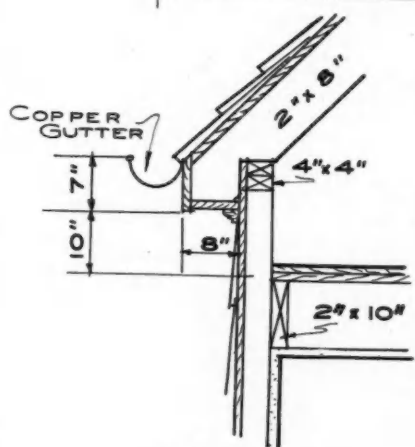
BASEMENT recreation room opens out on lower level porch. Two-car garage faces towards rear. Details shown opposite.



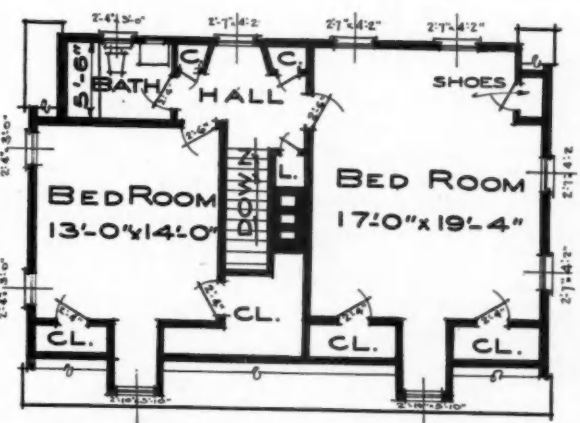
Plans and Details of Blue Ribbon Home at Glen Head, L. I.



FIRST FLOOR PLAN



CORNICE



SECOND FLOOR PLAN

ON THE first floor, five rooms and bath are presented in an unusual arrangement, with bedrooms in wing. Two additional bedrooms and bath are located on second floor. Joseph Watterson, architect.

How to Select Proper Bonds in Brickwork

Strength, appearance and cost of various brick bonds and identification of styles discussed

*By Guy B. Arthur**

WHILE the beginnings of the considered use of bonds in brickwork date back over the centuries, and the steps through which subsequent development progressed have all served specific purposes, today we judge bonds on three considerations, as follows:

STRENGTH. In general the strength of a brick wall is of little consequence today. The strength of brick alone is scarcely a factor. We have few bearing walls of any height, and walls which go above two or three floors are carried on steel. The determining factors in the strength of a brick wall are the quality of the mortar and the quality of the workmanship. So, if we make the wall stable by crossing the bricks in bonds, and thus add something to the beauty of the wall, there need be no concern about its strength.

Some old established notions about the effect of bonding on the strength of the wall are upset by conclusions reached in the U. S. Bureau of Standards. One of these is that compressive strength is highest when the percentage of headers in the wall is lowest. After having believed so long that strength depends upon careful crossing of the bricks in some bond pattern, it is not easy to accept this conclusion entirely. It will not affect the stability of the wall as much as it may affect the strength in compression.

APPEARANCE: We may say that bonding adds so much to the beauty of walls that brick would be at a serious disadvantage in competition with other materials if bonding were not practiced. The effect of bonding is in line with the principle in photography that masses of tones have much to do with the making of a good picture. So the eye is attracted to a wall by a pattern which stands out in the mass. A monotonous wall is quickly styled hideous by people who have to face it. But with a recognizable pattern of light and shade, changing with the shifting light, the wall is not tiring but pleasing.

Popular extravagances in rough brick, in irregular laying, in sloppy mortar, and in other devices tend to build up the notion that it is the brick which makes the pattern. Except for the joints the bricks could not make a pattern, and it is really the joint pattern, rather than the bricks which makes the wall pleasing or drab. The facility with which bricks can be laid in patterns has much to do with the persistent vogue of brickwork in England, Holland and America.

COST: Unfortunately, the cost of laying bricks in different bonds varies considerably, and this operates to hold brick patterns to more simple types than we should use. For example the beautiful English bond is said to be much more expensive to lay than common or American bond. This must be true for it is difficult to collect photographs of some bonds. Only the cheaply laid patterns are easily found. English bond is found only in

monumental structures or in restorations as a rule. Flemish bond is more common in apartment houses and residences. Garden wall bonds have to be hunted with enduring patience. American bond can be found anywhere; it might be called the standard.

Since one of the best arguments for brickwork is the comparative ease and speed with which small units can be handled, it is too bad that slight variations in the cost of laying should limit the designer's choice among good looking bonds.

Bonds are generally taken for granted until we have to use them. Then they are apt to become a mystery because of the confused way in which they are identified, with no hint of the natural relationships between types.

Analysis of Types

To get to the bottom of this mystery, consider that every course must have its identity, derived from the use of stretchers, bricks laid lengthwise in the wall, and headers, bricks laid crosswise in the wall. Their use alone or in combination makes up the identity of a course.

A basic classification of all bonds can be made on this means of identification, recognizing two groups, as follows:

1. Single-unit group: Each course is made up of one kind of unit only, either headers or stretchers.

2. Combination group: Each course is made up of headers and stretchers, laid in some designed order in the course.

Then these individual courses occur in the wall with certain designed frequency. This begins with the use of stretchers only, as in common bond, and runs through all the intervening combinations to the use of headers only, as in checkerboard bond.

ENGLISH bond has alternate courses of all headers and all stretchers.



AMERICAN or common bond with six courses of stretchers for each of headers.



*Supervisor of Job Training, C.C.C., National Park Service.

Another variant is that all the possible combinations of units and courses are affected by the arrangement of joints. We can bring many changes in a basic bond, such as Flemish, by moving the joints to the right or left of center. The spiral bonds are examples of such shifts.

Accepted Joints and Patterns

There are three characteristics in every bond, as follows:

1. The combination of stretchers and headers within a single course.
2. The order of occurrence of these courses in the wall.
3. The placing of joints in one course in relation to the joints in adjacent courses.

Seven distinct types of bonds, with 16 individual bonds in these types, are shown in the accompanying table. If all the other names of these individual bonds were counted there would be many more than 16, but we believe the first name given in each group is the more common and satisfactory.

This method of classifying reveals some surprising associations, which, when studied, become entirely natural. The best way to show some of these interesting likenesses is to describe each of the seven types briefly as an introduction to the use of the table.

(Continued on page 114)

RIGHT: Table analyzing brick bonds. Below: Upper view shows headers and stretchers alternating in each Flemish bond course; lower view, novel Rolok bond with all bricks laid on edge.



**BONDS IN BRICKWORK
SINGLE-UNIT GROUP**

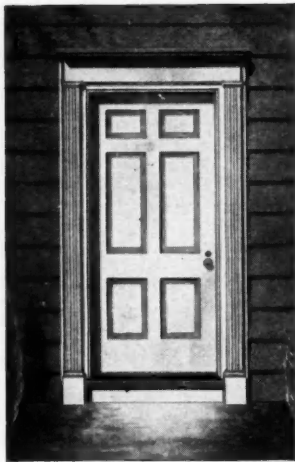
Names	First Course	Next Course or Courses	Followed By First Course	How Joints are Broken
All Stretchers in All Courses				
Common, Running Stretcher, or Stretching Bond	Stretchers	All Stretchers	Stretchers	On center of stretcher
Spiral Stretcher, or Spiral Common	Same as Common Bond in all courses			Break joints on 1/4 point of stretcher
All Headers in All Courses				
Checker Board	All Headers	All Headers	All Headers	On Joints. All joints in line.
Running Header, Header, or Heading Bond	All Headers	All Headers	All Headers	On center of Headers
One Course of Headers followed by One Course of Stretchers				
English Bond	All Headers	All Stretchers	All Headers	On center of Headers
English Cross Bond Five Courses make the Pattern. Stretchers not in vertical alignment.	All Headers	Start next course with header, follow with stretchers.	All Headers	On center of Headers
Dutch Bond, or Dutch Cross Bond	One course of headers, then one course of stretchers, then one course of stretchers with special jointing			Third course has joint centered on stretchers.
One Course of Headers followed by Two or More Courses of Stretchers				
English Garden Wall Bond, or Garden Wall Bond. Note likeness to Common Bond.	All Headers	Three Courses of Stretchers	All Headers	On center of headers, and on center of stretchers.
Facing Bond, or Garden Wall Cross Bond. Note likeness to English Wall Bond.	All Headers	Three Courses of Stretchers	All Headers	Same as English Garden Wall except that middle stretcher course breaks joint at 1/4 point of other stretcher courses.
American (also called common)	All Headers	Three to six Courses of Stretchers	All Headers	On center of headers and on center of stretchers.
COMBINATION GROUP				
One header and One Stretcher Alternately in each Course				
Flemish Bond	Alternate Headers & Stretchers	Alternate Headers & Stretchers	Alternate Headers & Stretchers	Headers centered on stretchers
Flemish Cross Bond	Three courses of normal Flemish bond, followed by one course of stretchers			All joints broken
Flemish Spiral Bond	All courses same as Flemish Bond			Both headers and stretchers break joint. Start with joint broken over center of header.
One Header and Three Stretchers Alternately in each Course				
Double Stretcher Garden Wall Bond. Note likeness to Flemish Garden Wall Bond.	Each course laid with one header and only two stretchers			Headers centered over stretchers.
One Header and Three Stretchers alternately in each Course				
Flemish Garden Wall Bond, or Sussex Bond.	Each course laid with one header and three stretchers			Headers centered over stretchers.
Monk Bond. Four courses make the pattern.	All courses same as Flemish Garden Wall Bond.			In first course header is centered over stretcher. In next course header is centered under next joint to left.

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EACH ITEM in this department is numbered for convenience of readers. Please use the coupon on page 80 for requesting further product information or new catalogs. Mail coupon to American Builder Reader Service, 105 W. Adams St., Chicago; or write direct to manufacturers at addresses given, mentioning your profession, occupation or business connection with building industry.

WHAT'S NEW IN BUILDING MATERIALS

AB636 Low cost Colonial entrances in three attractive standardized designs have been worked out by Farley & Loetscher Mfg. Co., Dubuque, Ia. The one illustrated has a straight head; the other two are respectively arched and



ONE of three low cost F & L entrances.

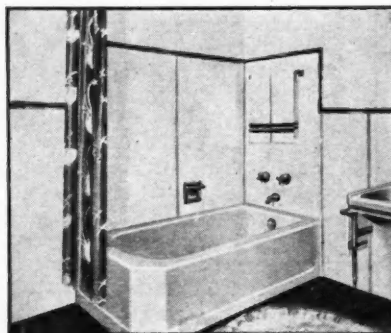
gabled. Heads are interchangeable. Pilasters are reversible, plain or fluted. These entrance frames are for doors 3 x 7 feet. They can be adjusted in the installation for smaller size doors. They are well constructed of clear, W-P pine, all parts accurately machined and treated with toxic rotproofing solution. They are packed in cartons with vertical parts in one bundle and horizontal parts in another bundle.

AB637 "Engineered Low-Cost Farm and Village Homes," a 24-page design portfolio in color, presents the eight model floor plans, each with five exteriors, developed by the National Homes Foundation, Union Trust Bldg., Washington, D. C. A companion piece is the "Housing Road Map" issued by the government housing agencies in cooperation with the Foundation as a financial guide for farm and village home seekers.

AB638 "Bildcost Home Plans for Distinctive Homes" is issued by the publishers of *Better Homes & Gardens*, Des Moines, Ia., and carries a price of 25 cents. It is a big-page portfolio of 68 pages and is very well illustrated. It presents a goodly selection of "gardened-home" plans and is edited by John Normile, architect-editor of *Better Homes & Gardens*. Many photographs are included of houses successfully built from these plans.

AB639 "Planning Your Farm Home" is another of the helpful building books developed this year by the United States Gypsum Co., Chicago, for the use of dealers, builders and property owners and which are available for local distribution in quantities at a nominal cost. This book contains 124 pages and not only covers the planning of farm houses with their construction and equipment but also devotes some space to such farm buildings as poultry houses, dairy buildings, hog houses, etc. A section on remodeling is of particular value. Numerous drawings and photographs illuminate the text.

AB640 Recently announced by Ingram-Richardson Mfg. Co., Beaver Falls, Pa., is "Porcelpanel," a new, easily installed porcelain enameled wall panel for wainscoting bathrooms, kitchens, shower rooms, public lavatories and many



BATHROOM with Porcelpanel walls.

similar uses. It is made of pre-formed steel sheets fully protected on all surfaces with fused porcelain enamel and finished in any one of six popular colors. Of special interest is the permanence value of this material which, due to its glass-like porcelain coating, is easily cleaned with a damp cloth the same as window glass. A special expansion type lap-joint between panels permits easy adjustment to slight framing inaccuracies and forms a watertight seal.

AB641 A new handbook of Barrett's building products is a comprehensive catalog, spirally bound, covering all the products of The Barrett Co., New York City. These include asphalt shingles and sidings, asbestos siding and roofing shingles, roll roofings, sheathings and building papers, protective paints and damp-proofings, waterproofing materials, flashing

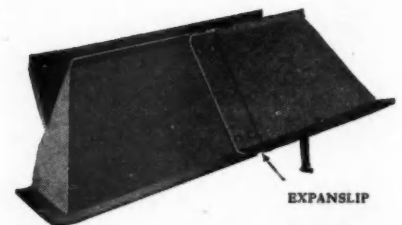
blocks, drain connections and rock wool insulation. "Between the World and the Weather Since 1854," these important Barrett materials are effectively presented.

AB642 "Stran-Steel on the Job" is a bright, new handbook of 24 pages from the Stran-Steel Div., Great Lakes Steel Corp., Detroit. It features the use of these light weight steel framing members with "the nailing groove," which solves the problem so easily of attaching lumber, insulation, plasterboard and other structural materials to steel frames.

AB643 A series of Redwood data sheets has been prepared by the California Redwood Assn., San Francisco, for the use of its sales and service staff and for retailers, builders, architects, etc. These data sheets cover a wide range of subjects from complete homes to garden furniture, interior paneling and commercial uses.

AB644 The Sisalkraft Co., Chicago, has prepared a heavy fiber filing case for a series of 14 data sheets on building details and the use of Sisalkraft in its several forms, including copper armored Sisalkraft. A convenient pocket holds samples of these materials.

AB645 The Bennett Expanslip Throat Damper is an improved model offered by the Bennett Fireplace Co., Norwich, N.Y. It has a simple, bolted slip-joint to take up lengthwise heat expansion. Without this feature the mason must leave space at each end of a throat damper or expansion will damage the damp-

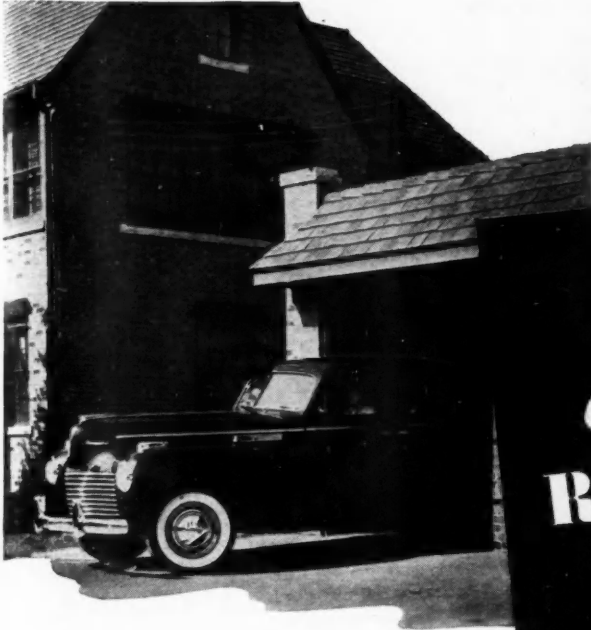


BENNETT Expanslip throat damper.

er itself or crack the masonry. These improved throat dampers come in several sizes for openings up to 31 inches high, 36 inches high, and 42 inches high, and widths ranging from 25 to 73 inches. These dampers are electrically welded and of steel plate construction and are made in large quantities, which means a low price to dealers and builders.

Readers Service Department Continued to Page 76

FOR QUICK, CONVENIENT SERVICE, USE COUPON, PAGE 80



Here's Why we Say -

It's "3 to 1"
Ro-Way OVERHEAD TYPE DOORS
will Save You Money!

Before you buy any Garage Door for Residential, Commercial or Industrial use, it will pay you to write for the Free Ro-Way Folders, because it's "3 to 1" that Ro-Way can save you money.

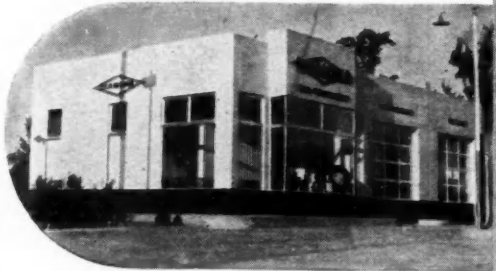


Attractive bungalow with attached garage equipped with Ro-Way Doors. Paul Brim, Toledo, Ohio, Architect and Builder.

1st All Ro-Way Models are priced to give you added value, without extra cost, in advanced engineering and design.

2nd Some of these improvements lower installation costs, and cut future service calls to a minimum.

3rd Because the Ro-Way Line is so complete, the Ro-Way Dealer often can, and does, recommend the use of a less expensive model of door than has been considered.

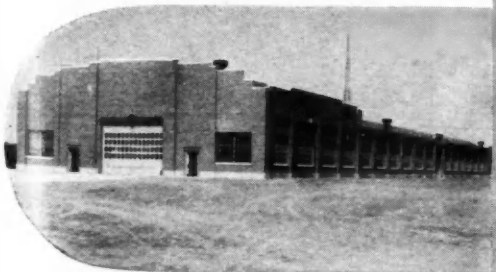


Ro-Way Garage Doors especially designed for use in Modernistic Service Station.

CONVENIENT NATIONWIDE SERVICE

Ro-Way Distributors are located in principal cities, where competent installation engineers assure prompt service, and the satisfactory operation of any Ro-Way Door you select for Residential, Commercial or Industrial use.

Write for Free Ro-Way Door Folders, Prices and complete information.



Dane County, Wisconsin, Highway Shops, equipped with Ro-Way Doors. Contractor, J. H. Findorff & Son, Madison, Wisconsin.

ROWE MANUFACTURING CO.

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ROWE MANUFACTURING CO.
731 Holton Street, Galesburg, Ill.

Gentlemen: Please send me Free Descriptive Folder and Price List on Ro-Way Overhead Type Doors.

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

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WHAT'S NEW IN BUILDING MATERIALS

AB646 Pittsburgh Steeltex for plaster, known as Type "A", is a plaster base which reinforces plaster just like concrete by actual embedment of its network of welded steel wires in the plaster. It is composed of a 2" x 2" mesh, 16 gauge, electrically welded, self-



STEELTEX means reinforced plastering.

furring, galvanized, copper-bearing steel wire fabric to which a specially made fibrous absorbent paper backing is secured by 17 gauge stitch wires on 2" centers. Advantages of Steeltex such as: floating walls, elimination of lath and stud marks, cracking control, saving of labor and materials, additional structural strength, curing of plaster and protection against air infiltration, are fully described in circular No. 120, "The Modern Plaster Base," issued by Pittsburgh Steel Co., Pittsburgh.

AB647 "Designing Timber Connector Structures" is a new handbook of 24 pages from the Timber Engineering Co., Washington, D. C. It was prepared by J. E. Myer, research engineer. It presents information on the types and uses of timber connectors, conditions affecting connector loads and joint details, methods of computing sizes of structural members and formulas for determining stresses. Recommended procedure for designing timber connector structures is given in detail and examples illustrating the necessary steps are included.

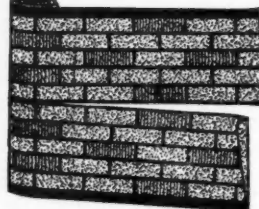
AB648 A new edition of the Southern Pine "Buyer's Guide" has been issued by the Southern Pine Assn.,

New Orleans. It lists all association members, arranged both alphabetically and geographically, and details of the types of lumber produced by each, including long leaf and short leaf Southern pine and hardwoods.

AB649 An attractive illustrated leaflet on solid Philippine mahogany panelling has been prepared by Cadwallader-Gibson Co., Inc., Los Angeles. It features "Cadwall-Philippanel" which is offered as a "luxurious hardwood panelling at a softwood price." Many beautiful interior effects are illustrated.

AB650 "Casco Gluing Guide for Building, Repairing, Patching in Home, School and Workshop" has been prepared by Casein Co. of America, New York City. It is a neat little handbook of 36 pages, very practical and helpful in its contents.

AB651 The Barber "Phoenix" brick-like siding in rolls is an economy siding; offered by Barber Asphalt Corp., Barber, N. J., and geared to fast application. It is readily adaptable for old



BARBER "Phoenix" brick-like siding comes in rolls.

and new construction and provides additional insulation properties to any home. The permanent style colors are eye-appealing and there are a minimum number of joints and edges to contend with. The blending belt courses and individual corner section assist in giving the entire residing job a "custom tailored" appearance.

AB652 Lux-Right steel areawalls for basement window wells are attractively presented in a 4-page data sheet from the Saint Paul Corrugating Co., St. Paul, Minn. The bright, mirror-like finish of these galvanized metal areawalls is emphasized throughout this circular by the use of silver metallic ink contrasting with the black photographs.

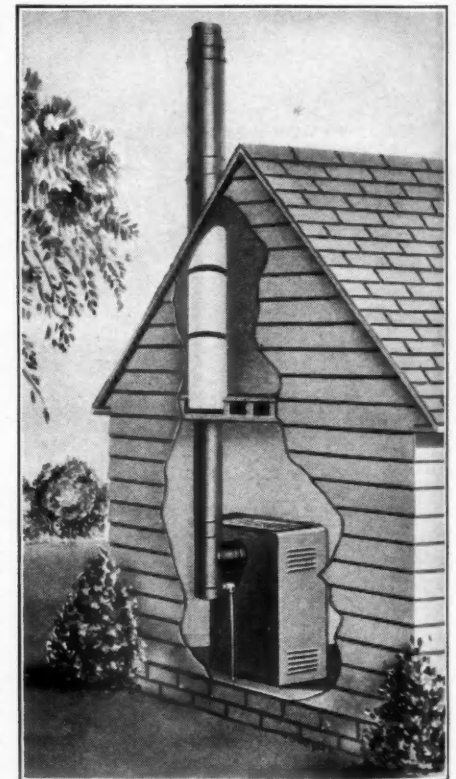
AB653 Copper-bound roofs are featured by the Ford Roofing Products Co., Chicago, in a series of attractive folders in color. By the method

of application recommended, the Ford Asphalt Super-Hex shingles are locked on to the roof with strong copper ties, easily applied by means of the ingenious Ford's stapling machine. The exposed corners of the Ford square type shingles are also locked with these copper grips.

AB654 "Softone" acoustical tile with the travertine finish is the subject of a new 4-page data sheet from Industrials, Inc., Philadelphia. "Softone" is a custom made tile in 1/2, 3/4, 1 1/4" thicknesses and in sizes 6 x 12, 12 x 12 and 12 x 24 inches. It is used on interiors where acoustical correction is needed.

AB655 "Wire with Confidence Porcelain Protected Way" is the title of a neat little 12-page handbook from Porcelain Products, Inc., Findlay, O. It is calculated to show home builders the advantages of porcelain protected wiring systems and presents an interesting line of porcelain outlet boxes, porcelain covers and supports.

AB656 The "Durastac" vitreous enamel lined chimney for gas burning installations has been developed by the Skuttle Sales Co., Detroit, Mich. It gives builders and heating contractors a practical and low cost lined chimney that is easily and quickly installed,



"DURASTAC" non-rusting chimney for gas burners.

yet for gas burning is superior to the ordinary masonry chimney. "Durastac" is a non-corrosive chimney and is easily insulated. Sections are offered in stock sizes from 3" to 10" diameter and lengths of 6, 12 and 24 inches.

Readers Service Department Continued to Page 78

FOR QUICK, CONVENIENT SERVICE, USE COUPON, PAGE 80



START AT THE TOP AND WORK DOWN!

TODAY you've got to "have something" outside, as well as inside, the homes you build. It's the *outside* that first attracts attention. And where's a better starting point than right at the top—with a colorful Barber Roof?

Barber has gone into this matter of roof color . . . studied it . . . experimented with dozens of different hues and shades. Now you get the advantages of this extensive research. The new Barber colors are really new and truly unusual in eye-appeal.

And for quality—Barber Genasco Roofings are right out front! The only roofings you can buy, in fact, with the tough, added durability of age-old, time-tempered Trinidad Native Lake Asphalt. When you're talking quality construction, you can't find a better starting point than a Barber Roof.

If you build homes to sell . . . if you remodel and modernize old homes . . . remember the advantages of fine-quality Barber Genasco Roofings. "Fire-safe," easy and inexpensive to apply, available in a wide variety of sizes and shapes to suit every need. And there's a special Barber Roof for F. H. A.-financed homes.

BARBER ASPHALT CORPORATION
BARBER NEW JERSEY



BARBER
MEANS A GOOD ROOF!

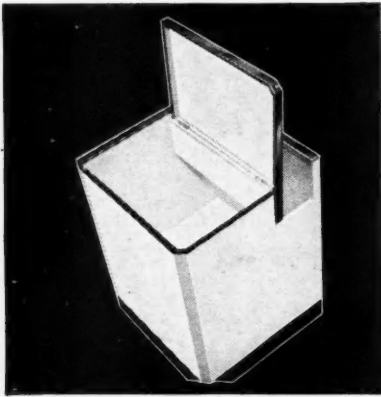
SHINGLES • SIDINGS • ROLL ROOFINGS

SERVICE TO READERS

EACH ITEM in this department is numbered for convenience of readers. Please use coupon on page 80 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.

EQUIPMENT ITEMS FOR MODERN BUILDINGS

AB657 The YPS tilt-top corner base cabinet has been developed by the Youngstown Pressed Steel Div., Warren, O., to fill in the corner space usefully in kitchen-unit assemblies. The cabinet top is hinged and has a small knob at the outside corner to make lifting easy. The tilt-top is covered with black linoleum bound with stainless metal and matches the other YPS base cabinets. The interior, free from shelving, provides storage space for items which cannot be accommodated in an ordinary cabinet. It is of heavy metal construction, electrically welded throughout and finished white in Hi-Bake enamel.

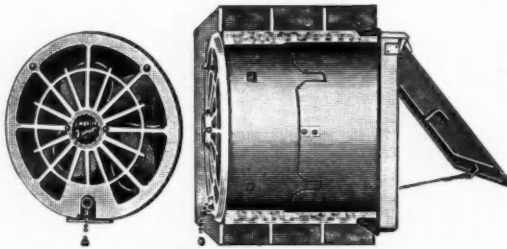


YPS Tilt-Top corner base cabinet

AB658 "ReadyBuilt Fireplaces" is the title of a neat little 32-page vestpocket size handbook distributed by The ReadyBuilt Products Co., Baltimore, Md. These ReadyBuilt fireplaces have a real decorative value in the home. They are furnished complete of a special cast composition, steel reinforced. They are shipped, carefully crated and packed, to insure safe delivery anywhere and can be erected in about one hour's time. This catalog illustrates 28 different designs.

AB659 Dayton water systems and water softeners are fully presented in catalog No. 40, an impressive handbook of 48 pages and covers, and also in "Condensed Catalog No. 40," a pocket size book of 28 pages. These catalogs, along with price lists, cover shallow well pumps and systems, deep well pumps, pressure tanks, accessories, water softeners, cellar drainers and septic tanks, together with much useful information for architects, builders and engineers on specifying and installing such equipment.—The Dayton Pump and Mfg. Co., Dayton, O.

AB660 This new Emerson junior kitchen ventilator, by the Emerson Electric Mfg. Co., St. Louis, Mo., with built-in wall box, is suited to mass housing and speculative home building projects. Features are: square outside



LOW cost 10" built-in Emerson ventilator.

frame, easy to frame or brick around; telescoping, round sleeve, adjustable to wall thicknesses, 5¼" to 13", fan and grille one unit, weather tight outer door, chain operation releases switch and opens door, 10" quiet-type fan blades, move 570 c.f.m. in free air, easily serviced, inner grille finished in white enamel.

AB661 Pella casement window units, as offered by Rolscreen Co., Pella, Ia., are equipped with built-in Rolscreens—the original inside screens that roll up and down like a window shade. Other features include single panel dual-glazing, pressure sealed weatherstripping and special frame construction that combines steel for strength and wood for beauty. Frames are faced with ¾" clear white pine.

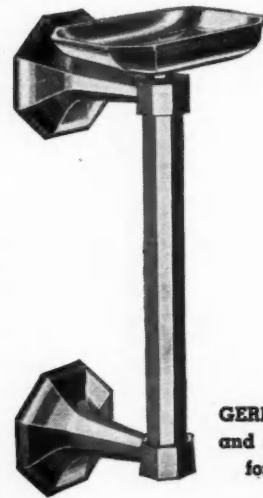


PELLA casements feature built-in Rolscreens.

AB662 Josam non-clog triple drainage floor drains are presented in a 6-page data sheet from Josam Mfg. Co., Cleveland, O. "Unobstructed Drainage" is the title of this circular and it illustrates effectively how the triple drainage feature takes care of storm water, even when heavily laden with debris. Six different types are illustrated in this folder out of the numerous types and sizes for every drainage requirement included in the complete Josam catalog "H."

AB663 Tuttle & Bailey, Inc., New Britain, Conn., has issued an 8-page data file on the Aerofuse outlet which is a truly flush type ceiling diffuser for ventilating purposes. These come in sizes ranging from 4½" to 54". One model provides for both supply and return in one unit.

AB664 Gerity's new vertical soap and grab rail for stall and tub showers is one of the safest and most convenient innovations in the bathroom accessory line. This item comes in 8", 12", 24" and 30" lengths, which makes it adaptable for any size shower. Many accidents occur every year in the tub and shower which can be prevented by using the soap and grab rail. This new item is a product of Gerity-Adrian Corp., Adrian, Mich.



GERITY'S vertical soap and grab rail designed for shower baths.

AB665 Putnam & Co., Inc., 32 Howard St., New York City, offers the "Putnam perfect balanced stairway" based on the firm's long experience manufacturing the well known Putnam rolling ladders. An interesting 6-page folder carries full details of this new folding stairway.

AB666 The Anchor Post Fence Co., Baltimore, Md., well known for its line of protective fences of chain link types, also specializes in fences of quite a different type—rustic wood fences. "The Charm of Rustic Wood" is the title of a new 6-page illustrated brochure on fences of chestnut and cedar in many attractive types, including hurdles, post-rail, paling, picket, lattice, stockade.

Readers Service Department Continued to Page 80

FOR QUICK, CONVENIENT SERVICE, USE COUPON, PAGE 80

GOLD BOND *Streamlined* JOINT SYSTEM CUTS WALLBOARD COSTS ONE-THIRD!

Now it's easy to build modern, attractive wallboard walls for as little as two-thirds their former cost. The new Gold Bond Streamlined Joint System cuts wallboard application costs as much as 33 1/3%—entirely eliminates the need for tape or moulding strips—and any carpenter can do the erection quickly and easily without training or extra tools of any kind.

The new Gold Bond Streamlined Joint System is one big reason why 10,000 Gold Bond lumber dealers are enjoying a bigger share of the wallboard business today. And it's another example of getting the best things first from Gold Bond. Consistent, specialized research, plus the finest known sources of raw materials and the most up-to-date production methods, have made National Gypsum Company the pace-setter for the industry. Gold

Bond has established new quality standards for more than 150 wall and ceiling products—including plaster, wall paint, lime, metal lath, wallboard, insulation and sound control materials. 21 model plants and more than 300 trained Gold Bond representatives are ready and able to help you select the materials that will assure the best results on your particular job.

There's a Gold Bond representative in your community ready to serve you. Call him today. Let him show you how the new Gold Bond Streamlined Joint System saves money on wallboard application—and increases wallboard sales. Meantime, write for new FREE 1941 Gold Bond Handbook—giving 93 illustrated pages of specifications and details on Gold Bond complete wall systems. NATIONAL GYPSUM COMPANY, BUFFALO, NEW YORK.



NEW BEAUTY AT ONLY TWO-THIRDS THE COST OF ORDINARY WALLBOARD!
The Gold Bond Streamlined Joint System was installed in this smart living room by regular carpenters—without special equipment or tools—at a saving of 33 1/3% over usual wallboard application methods.

BUILD BETTER WITH
Gold Bond
Everything for walls & ceilings

Producing units at:

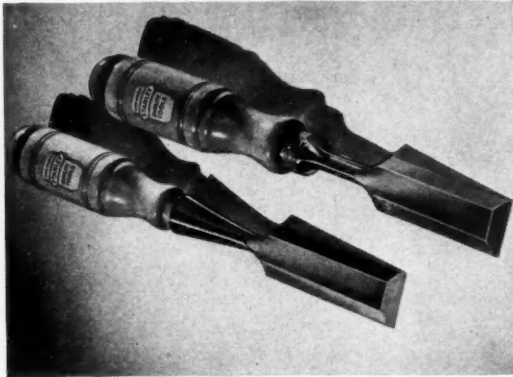
NEW YORK, N. Y. . . . CLARENCE CENTER, N. Y. . . . AKRON, N. Y. . . . PORTSMOUTH, N. H. . . . NATIONAL CITY, MICH. . . . FORT DODGE, IA
MEDICINE LODGE, KAN. . . . ROTAN, TEX. . . . SAVANNAH, GA. . . . LUCKEY, O. . . . BELLEFONTE, PA. . . . YORK, PA. . . . ORANDA, VA.
SALTVILLE, VA. . . . NILES, O. .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

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 MODELS, POWER EQUIPMENT & TOOLS

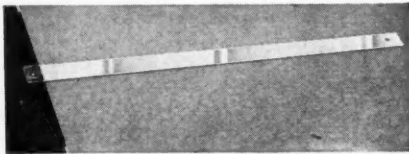
AB667 Two new, thin blade, butt paring chisels are offered by Stanley Works, New Britain, Conn. They are high quality tools for carpenters, cabinet makers and skilled workmen. They



NEW Stanley chisels, Nos. 160 and 161.

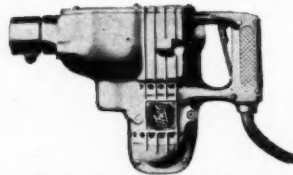
come in 11 sizes, 1/4" to 2". Blades are forged in one piece from best tool steel.

AB668 A new plastic T-square with full transparent blade is offered by the Engineering Sales Co., Sheboygan, Wis. The head is black.



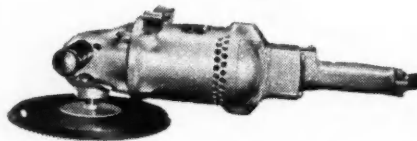
NEW transparent T-square.

AB669 The Thor-Nado, an electric hammer featuring the "Sling-Shot" drive which delivers a blow unparalleled for power in a tool of its size and capacity, has been developed by Inde-

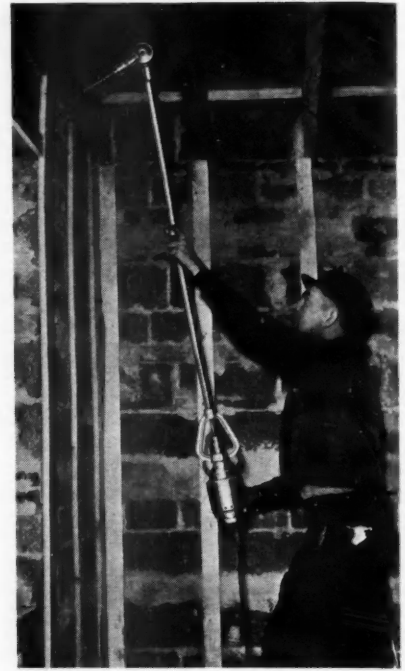


ELECTRIC hammer, light but powerful.

pendent Pneumatic Tool Co., Chicago. Although it measures only 13 1/2" long and weighs but 14 pounds, this powerful hammer is adapted to a wide variety of heavy duty applications. The hammer has 1 inch capacity in concrete, limestone and brick.

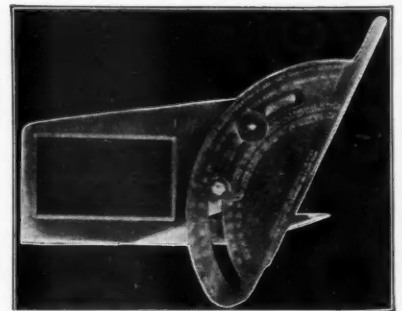


AB670 Black & Decker, Towson, Md., has developed a real 9" heavy-duty production sander to meet demands for faster schedules. It has discs, and will cover more area and turn out more work than any production sander previously offered in the B & D line. Every feature will help do a faster, better metal surfacing job at less cost.



AB671 The Kett Universal, developed by The Kett Appliance Co., Cincinnati, O., is an electric drill with a long, adjustable handle for getting into awkward places. It saves time and money for plumbers, electricians and other building contractors. Boring holes in joists in 10 foot ceilings while standing on the floor is just one of its many labor-saving uses.

AB672 The Skilsaw roof framing protractor developed by Skilsaw, Inc., Chicago, for use with its electric hand saws, is now coming into general use. It is a portable unit, easily handled. Can be used right at the rafter pile where the cutting is done. It quickly and



SKILSAW'S handy protraction.

accurately lays out all rafter cuts. A detailed explanation of its use comes with the tool. The protractor is calibrated in inches rise per foot of common rafter run. Scales are provided for common and jack rafters, hip and valley rafters and a rafter length table is included.

AB673 "Pick Up Extra Profits in Your Yard with Standard Gravity Conveyors" and "Fast, Cost-Cutting Methods of Material Handling with Conveyors by Standard" are two important equipment booklets by the Standard Conveyor Co., St. Paul, Minn. Brick conveyors, lumber unloaders and other labor-saving equipment are illustrated.

CLIP AND MAIL TO CHICAGO

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

(Aug., 1941)

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

Numbers.....

Name.....

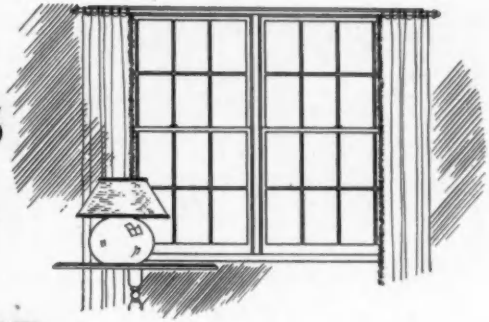
Street.....

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

OCCUPATION*.....

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

EVERY HOUSE BUILT WITH *PULLMAN* BALANCES SAVES 334 POUNDS OF IRON AND STEEL FOR DEFENSE



It's the patriotic duty of everybody in the building industry to help the United States save iron and steel for defense. How important are windows? An estimated 600,000 dwelling units will be built within a year. Figuring 15 openings per house, 225,000,000 pounds of iron and steel would be re-

quired for weights, chains and pulleys, if that construction were used. Pullman Balances for the same houses would weigh 24,600,000 pounds. That shows an obvious way to save 200,000,000 pounds, as well as the men, machines, and transportation facilities required to fabricate and ship it. Enough for three first line battleships—or 2,500 40-ton tanks. Just from windows!

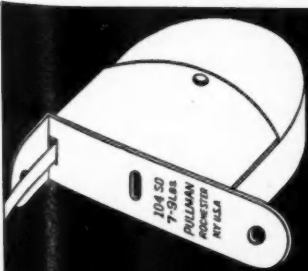


PULLMAN BALANCES MEAN *BETTER* CONSTRUCTION AT LESS COST, TOO

When you offer homes with double-hung wood windows, Pullman-balanced, you save steel for America, and you offer the modern, better construction. With Pullman Balances, you use the wanted narrow trim. You get smooth counterbalanced action, quick, easy installation, simpler plank construction, guaranteed performance.



Take your customers to the nearest dealer who features a demonstration unit of a Pullman-balanced window. You see and show the advantages of this modern low cost window construction.



Specify Window Units with **PULLMAN** *Sash Balances*

Long Term LOANS Demand Long Life WINDOWS



Ponderosa Pine WINDOWS GUARANTEED FOR 25 YEARS AGAINST ROT AND DECAY!

The above trade mark electrically branded on each sash identifies the genuine—see that you get it.



Have you Read "Open House"

... the 32-page book of ideas that tells all about Ponderosa Pine Woodwork?

These Huttig long-life windows give added protection for long-term loans. Try them!

See Your Dealer or
Write Us Today for
FREE LITERATURE!



HUTTIG MFG. COMPANY

Muscatine Iowa

ON & OFF the RECORD

Views and Comments

by *Structor*

FHA VALUATIONS UP 1.9 PER CENT—Figures prove what builders know painfully well—that FHA has not been recognizing the current increase in building cost. On the 100,000 homes started under FHA inspection in the first six months of 1941 the average mortgage was \$4,494. That's an increase of just 1.9 per cent over the same period in 1940!

In other words, while building labor, material costs and all the other items involved in home construction advanced sharply, FHA mortgage commitments were allowed to expand only 1.9 per cent. Someone got squeezed, and builders know who.

FHA officials point to this record with pride, saying they have "exerted an effective influence against inflated costs." As far as I can see FHA won't change its policy until they see signs that it is seriously retarding private small home building in defense areas where needed.

BOMBS AND SKYSCRAPERS—What would happen to U. S. skyscrapers in case of a bombing attack? Would injuries to occupants be greater than in lower structures? We HOPE we won't have a final answer for a while yet, but on the basis of British experience and our own engineers' findings, the guesses are that skyscrapers would be pretty safe and interesting spots from which to see a raid. High pointed roofs like the Chrysler Tower would generally divert a bomb. The steel skeleton skyscraper frames are resilient and hard to damage. Sections can be knocked out or burnt out without damage to adjacent sections. In fact, it appears that low-lying buildings adjacent to skyscrapers would suffer most because deflected bombs would land on them, and damaged walls, cornices or other portions of the skyscraper would land with "considerable" force.

Principal danger in a skyscraper would probably be the panic of thousands of inhabitants trying to get out quickly. That may call for some special skyscraper evacuation drills.

OPTIMIST AND FUTURE—After talking to officials of OPM, OPACS, FWA, FHA, USHA, PBA, HOLC, and a few others in an attempt to get a picture of the future outlook for home building, the best report I can make is to repeat that current story about the definition of an optimist. An optimist is someone who thinks the future of home building is uncertain.

KEY MAN—An important official in OPACS (Leon Henderson's Office of Price Administration and Civilian Supply) is Peter A. Stone, a former building paper editor and now price executive of the lumber and building materials section. He is better informed on the whys and wherefores of the building industry than most people in important Washington jobs. In fact, following the exhaustive studies of the TNEC (Monopoly Committee), he was the one selected to gather together the voluminous testimony and prepare the report on the construction industry.

In a recent talk, Stone pointed out that in a war emergency the common concept of price as a factor in supply and demand must be discarded because of the effect of unlimited government buying. "No matter how much higher you raise the price of aluminum today, you would not produce one pound more than is being produced," he said.

A pointed illustration he gave is the fashion in which OPACS prevented the few West Coast ships still carrying Douglas Fir from raising their shipping charges. An increased rate of \$5 per 1,000 would not have added a single ship to the service, he said, because there were none available.

OPACS has joined West Coast lumber producers in a petition to the railroads for a lower rate on green lumber, in order to get the large stocks from the West Coast out to the North Atlantic territory where they are needed.

MUCH MORE OF SUCH "HELP" WILL BE FATAL—

I have before me a publicity release from the U. S. Housing Authority with the fetching title, "Low Rent Projects Increase Private Construction." The lead paragraph states boldly: "How private construction is stimulated by low rent housing projects is revealed in a recent report to Nathan Straus, Administrator of the United States Housing Authority." But following this brilliant start the figures quoted *prove exactly the opposite*. This is such a remarkable example of statistical perspicacity that I am going to give the balance of this USHA public release word for word as sent out to newspapers all over the country:

"The survey shows that during the period of construction of two USHA projects in Phoenix, Arizona, private building activities for the city as a whole decreased 40 percent but rose 800 percent in the vicinity of the low-rent projects.

"The total value of building permits in Phoenix for the first six months of 1939 was \$2,581,705. In the same period of 1940 the value of permits, reported by the Bureau of Labor Statistics, declined to \$1,545,779—exclusive of the value of the USHA project placed under construction at that time.

"Field investigators reported that for the same periods there was a substantial increase in building activities in the vicinity of the housing projects. The increase was from \$4,350 in the first six months of 1939 to \$38,885 in the first six months of 1940, or approximately 800 per cent."

In other words the USHA low-rent project caused a \$34,535 increase in private construction in the vicinity of the job but a \$1,035,926 LOSS for the city of Phoenix as a whole—and the latter figure probably does not show the adverse effect upon surrounding suburbs and areas not covered by the city building permits! Truly the USHA publicity experts have well stated how USHA "helps private construction."

NO LIMIT TO LABOR DEMANDS—Trying to appease some labor groups by giving them everything they want is a lot like trying to appease Hitler. There is apparently no limit to their demands. Strongly unionized New York City is a good example; which city, by the way, led all others in the country in the number of strikes and man-days lost in 1940. For some time the plasterers there have been getting \$2 an hour for a six-hour day and 30-hour week with \$4 an hour for overtime. The union has the right to designate 50 per cent of the men by name on the job.

But the plasterers were not satisfied. They demanded that the union's Executive Committee have the sole authority to decide whether the men are fully qualified for the work. Thus, they were insisting that a contractor although running a 100 per cent union job and accepting 50 per cent of his men direct from the union by name, should in addition, lose the right to discharge any of them if the union's Executive Committee holds they were competent for that particular work.

Furthermore, the plasterers maintained that the union's Executive Committee should have the right of penalizing the employer for discharging men considered incompetent or refusing to accept the union's choice.

It would seem to most reasonable men that the Plasterer's Union already had wages and job control far beyond most industries and far in excess of the good of any industry. But they wanted still more and engaged in a bitter strike which ran for more than a month. The strike ultimately failed, with the contractors refusing to give in on this point.

Building labor has been organized in large cities for many years and should be "grown up"; yet the U. S. Labor Bureau's report on 1940 strikes shows that there were more strikes and more man-days of idleness in building and construction than in any other industry. The total was 310 strikes with 492,901 man-days of idleness. The entire automobile industry had only 29 strikes and 104,377 man-days idle and the iron and steel industry had 121 strikes with 402,905 man-days idle.

WHAT'S A DEFENSE HOME?—One of the most vociferously argued points these days is what constitutes defense housing? Some say it's any house in one of the 193 defense areas listed by the President. But there are lots of defense workers who don't live in these areas who are working on vital materials and equipment. A worker in Lone Oak, Tex., might be far from any accepted defense area, but at the same time be engaged in producing a part for an airplane instrument that is highly important. Can anyone say he is not as entitled to have a new home as the worker living in San Diego or Camden?

SEEKING SPECIAL WALLS AND CEILINGS?



Try
Temlok
De Luxe

A CEILING STEALS THE SHOW in the Orleans Theatre Lobby, Orleans, Mass. This stylish effect was created by combining 12" x 12" panels of Temlok De Luxe in two colors. Walls are 12" x 12" White Temlok Panels. Architect: Herman L. Feer, Boston. General Contractor: Samuel W. Poorru, Boston.

MANY offices, theatres, and other buildings have special requirements for walls and ceilings. Some, for example, need unusual decoration combined with acoustical correction. Others need insulation and decoration, but can't work both into the building budget. Whenever your clients have special needs like this, here's the inexpensive way to meet them—try Temlok De Luxe!

Armstrong's Temlok De Luxe is a truly modern interior finish which provides efficient insulation. It is made in several attractive, fadeproof shades and in panels, planks, and boards which may be combined into unusually effective wall and ceiling patterns. The fibrous composition of Temlok De Luxe gives valuable sound-absorbing qualities; the light pastel colors give it high light-reflection value.

Time and money saved on the job is another important Temlok "plus." In new construction, this easily applied insulating board replaces plaster and paint or wallpaper—thus eliminating expensive delays while plaster dries! In remodeling, Temlok De Luxe can be quickly installed right over old plaster.

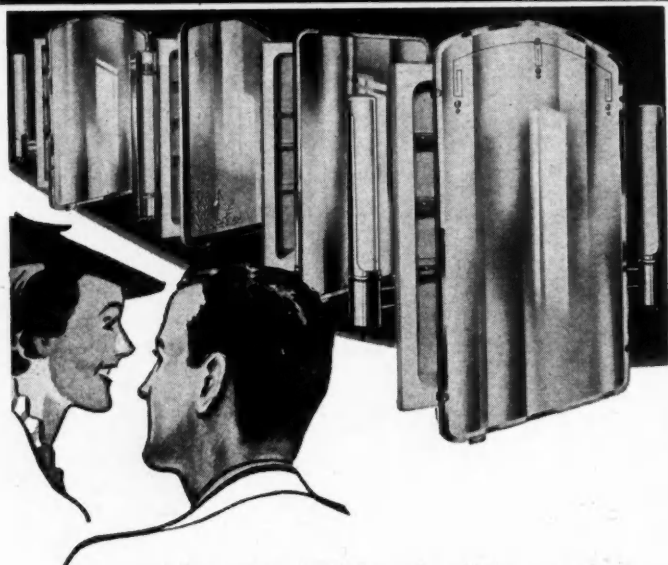
On your next "special" job, include all these features of Armstrong's Temlok De Luxe . . . at one reasonable cost! For full descriptive and installation details, see "Sweet's," or write today to Armstrong Cork Company, Building Materials Division, 979 Concord Street, Lancaster, Pa.



ARMSTRONG'S TEMLOK INSULATION

De Luxe Interior Finishes • Lath • Sheathing • Hardboards • Monowall

A FULL LINE OF CABINETS FROM WHICH TO CHOOSE



You who build and sell houses know the importance of the "little things"—the things that attract the woman's eye and clinch the sale.

One sure sales clincher is a high quality bathroom cabinet appropriately styled for each bathroom in the house. And *that's* where Lawson Cabinets help you sell!

No matter what type of home you build or in what price range, there is a handsomely styled Lawson Cabinet that will harmonize with the architecture and general decorative scheme. From the highest quality "Time Proof" Vitreous Porcelain-finished Cabinets to the popular low-priced baked enamel cabinets, the *complete* Lawson line supplies the builder's every need. All Lawson Cabinets are available with or without modern, attractive side lights.

Lawson also offers a complete line of modern chromium plated accessories in all price ranges—backed, like Lawson Cabinets, with the prestige of 125 Years of Quality.



The F. H. Lawson Co.,
Bathroom Cabinet
Division
Cincinnati,
Ohio

SOLD EXCLUSIVELY THROUGH WHOLESALE OUTLETS

ERSATZ HOUSES—The current rash of rumors about how home building may be curtailed by lack of essential materials has started a lot of stories. To me the important thing they illustrate is that manufacturers and builders will find a way to continue building even if they have to take to Ersatz products. There probably won't be a shortage of iron that will restrict bathtubs; but if there should be, builders could easily install tile showers and leave out the tubs temporarily. Where lumber runs short there are plenty of substitutes ready to step in, and when the substitutes run out (as in the case of wallboard right now), perhaps lumber will substitute for the substitute.

AMORTIZED TAXES—A smart home buyer I talked to the other day pointed out that \$75 a year in real estate taxes was the equivalent of an added \$1,000 on the cost of a house when paid for on a 20-year amortized basis. "I'd a damn sight rather put my money into brick and stone than in taxes," he said, in telling why he decided to buy a new house rather than an old one he could have purchased at a sacrifice but which was loaded with a big tax assessment. There are plenty of fine old homes available at bargain prices that can't be sold for this very reason.

PRICE PROBLEMS—Fixing prices by government order is, putting it mildly, a ticklish thing. If the price is set too high an inflationary movement is aided. If it is set too low it discourages production. A price on which some of the large and most efficient producers can make money will frequently mean a loss to the smaller, less efficient producers. One case in point is copper, which can be produced by some of the large western mines profitably at the original price set. But that price was not high enough to permit some of the marginal producers to come back into the market.

* * *

"Back to the Dining Room" Movement Launched

WITH the slogan, "Wake up the Heart of the Home," the "Ladies' Home Journal" advises this publication that it will go "all out" for the dining room in the September issue. This editorial theme will be used in succeeding months also, according to the plan.

The dining room is "the Heart of the Home"—the room that brings and holds the family together—the "Journal" believes, and too frequently in recent years, it has fallen into disuse. Snack-and-run eating in the kitchen and careless, quick, crowded habits of the breakfast nook have brought this about. The editors base these observations on their past two years' coast to coast visits to average American homes during work on the current Journal article series, "How America Lives."

Spotting the modern problem of family meals and family disunity throughout the country, the editors believe that the relegation of the dining room to occasional use in many homes has seriously undermined parents' relations with children.

Snack-and-run eating in kitchens may be easy—two jumps from the table to stove—but only one more jump and the youngsters are out the door. Then parents wonder why children are never home for meals. Families who have dropped the pleasant dining room habit in favor of the dining nook may well wonder why the children prefer hamburgers at the juke joint to entertaining at home, the way their parents did when young. The answer is simple—there isn't room—and the youngsters haven't been trained to think about social dining room habits.

The "Journal" believes that surroundings play an important role in family relations and contentment, particularly at mealtime. It proposes to crystallize a new wave of family sentiment, recently detected, and to direct it into channels of accomplishment by encouraging the trend to dining room living.

The crying need of today's children is a sense of family security, according to child psychologists. In the dining room, the place where the recurrent ritual of good food and family association tightens family bonds, the child can feel himself a part of the family group. The Journal will stress the importance of the parent-child relationship at the dinner table—its function in teaching fundamentals of reverence and manners.

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REVIEW of the NEWS

Statistics, Associations, Agencies

Defense Construction Booms Building Total; June Residential Volume Maintains High Level

FOR the month of June, residential construction as reported for 37 eastern states by F. W. Dodge Corporation, amounted to \$205,634,000, an increase over June of last year of more than 50 per cent. This total also continues the upward trend beyond the \$200,000,000 mark.

Total building construction reported for the month of June showed an even greater percentage of increase due to a larger defense construction volume than May.

Statistics for the four classes of construction are as follows:

	June, 1941	June, 1940	May, 1941
Residential	\$205,634,000	\$135,274,000	\$201,274,000
Non-Residential	200,456,000	91,995,000	202,492,000
Public Works.....	99,631,000	74,433,000	96,501,000
Utilities	33,385,000	23,024,000	48,433,000

Total\$539,106,000* \$324,726,000 \$548,700,000†

*June, 1941, includes \$162,000,000 of defense construction.

†May, 1941, includes \$141,200,000 of defense construction.

Defense Housing Areas Designated by Housing Co-Ordinator up to June 23, 1941

THE LOCALITIES of special housing need for defense purposes—where priority assistance on an area basis may be used, and where Title VI under FHA can operate to permit home buying with no down payment—have been specified as listed below.

ALABAMA Anniston Birmingham Florence-Sheffield-Tuscumbia Gadsden Mobile Montgomery Selma	DISTRICT OF COLUMBIA District of Columbia Locality Alexandria Arlington Washington
ARIZONA Fl. Huachuca Tucson	FLORIDA Jacksonville Key West Miami Orlando Pensacola Tallahassee Tampa West Palm Beach
CALIFORNIA Fresno Los Angeles Locality Fort Ord Los Angeles Marine Island Riverside San Diego San Francisco & East Bay Cities San Francisco Locality Alameda Benecia Richmond San Rafael Sunnyvale Stockton Vallejo	GEORGIA Albany Augusta Columbus Macon Rossville Savannah Hinesville
COLORADO Denver Denver Locality Fort Logan Lowry Field	IDAHO Boise
CONNECTICUT Bridgeport Bristol Hartford Meriden New Britain New Haven-Ansonia New London-Groton-Norwich Waterbury	ILLINOIS Alton-East Alton Belleville Chicago Chicago Locality Great Lakes Naval Training Station Joliet Quad City Locality Rock Island Moline East Moline Davenport, Iowa
DELAWARE Delaware City Wilmington	INDIANA Rantoul Rockford Savanna Waukegan
	INDIANA Anderson Connersville Fort Wayne Gary-Hammond-East Chicago Indianapolis Kingsbury-LaPorte Lafayette South Bend

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● NOW . . . to save your time on flooring problems, Bruce has assembled a complete new file on Streamline, Block, Plank, and Strip floorings, and Floor Finishing. This new data file gives you stimulating ideas plus helpful information on all types of hardwood floors. Includes comprehensive book on floors published by the Department of Commerce. Hundreds of colorful illustrations show a wide variety of flooring effects . . . in homes, offices, stores, schools, etc. It explains how various types of floors are laid . . . gives complete information on various finishing methods. Get your copy of this helpful new file while our supply lasts. It's FREE! Just mail the coupon!

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1423 Thomas Street
Memphis, Tenn.
HARDWOOD FLOORINGS—
FLOOR FINISHES—TERMINIX

E. L. BRUCE CO., 1423 Thomas Street, Memphis, Tenn.

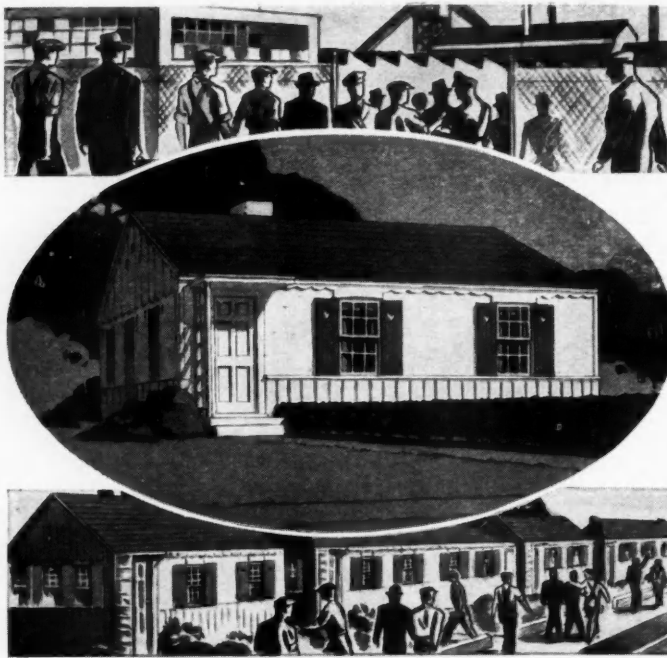
Gentlemen: Please send me free copy of new Bruce Data File on hardwood floorings and floor finishing.

Name.....

Street.....

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





DEFENSE HOUSING *is selling America on* PREFABRICATION

By the end of the present national emergency, people all over the country will be familiar with prefabricated housing. They will recognize it as the ideal building method. They will see it wherever Defense Housing, military or civilian, has become necessary—near shipyards, airplane plants, munitions plants and Army camps.

Precision-Built Construction, made possible by Homasote weatherproof insulation, leads the prefabricated housing field—in speed... quality... economy... permanence. Precision-Built Homes are built by a method of construction proved by more than \$6,000,000 of architect-designed private homes already erected. Complete flexibility of design has made Precision-Built Construction popular with builders and architects all over the country. Known costs and assured profits mean new profitable operations, even in the small homes field.

Although now taxed to capacity by

the demands for Defense Housing, Homasote Company, originator of Precision-Built Construction, looks forward to a return to normalcy... 67 fabricating plants throughout the country will be placed completely at the disposal of builders for private homes. New methods... improvements resulting from the building of 1000 houses in 81 working days... and other benefits, will all be passed on to builders. Then, more than ever before, Precision-Built Construction will represent increased earnings, with lower costs, servicing an ever broadening market.

Today, Homasote wholesalers and retailers are cheerfully cooperating with the Defense Program—at personal sacrifice. We are operating on a 24-hour, 6½ day week, and are increasing our production facilities as rapidly as possible in order to do our part in the Defense Program. HOMASOTE COMPANY, Trenton, New Jersey.

Weatherproof
HOMASOTE
Insulating and Building Board

Defense Housing Areas—

(Continued from page 85)

IOWA

Burlington
Council Bluffs
Corydon-Leon Locality
Corydon
Leon
Davenport

KANSAS

Ft. Riley
Junction City
Kansas City
Wichita

KENTUCKY

Ft. Knox
Louisville

LOUISIANA

Alexandria
Leesville-DeRidder
New Orleans

MAINE

Bangor
Bath-Brunswick
Kittery
Portland

MARYLAND

Aberdeen
Annapolis
Baltimore
Elkton
Hagerstown
Laurel
Cheltenham
Indian Head
Odenton-Piney Point

MASSACHUSETTS

Boston
Chelsea
Greenfield
Fort Devens
Ayer
Quincy
Squantum
Springfield Locality
Chicopee
Worcester

MICHIGAN

Battle Creek
Bay City
Detroit
Fort Clemens
Midland
Muskegon
Pontiac
Saginaw
Ypsilanti

MISSISSIPPI

Biloxi
Jackson
Meridian
Pascagoula

MISSOURI

Kansas City
Lebanon
Rollo

NEBRASKA

Omaha

NEVADA

Hawthorne
Las Vegas

NEW HAMPSHIRE

Manchester
Portsmouth

NEW JERSEY

Camden
Fort Dix
Lakehurst
Long Branch
Metropolitan Dist. of N.Y. in N.J.
Phillipsburg
Trenton

NEW MEXICO

Albuquerque

NEW YORK

Albany-Troy
Bethpage-Farmingdale
Buffalo-Niagara Falls
Elmira
Fisher's Island Village
Ilion
Greenport, L. I.
Massena
New York City Locality
Hempstead

Brooklyn

Rochester
Schenectady
Staten Island
Sidney
Syracuse
Rome
Utica
Watertown

NORTH CAROLINA

Fayetteville
Jacksonville
Morehead City
New Bern
Wilmington

OHIO

Akron
Canton
Cincinnati
Cleveland
Columbus
Dayton
Hamilton
Lorain-Elyria
Mansfield
Middletown
Sandusky
Steubenville
Warren
Youngstown

OKLAHOMA

Lawton
Tulsa
Ft. Sill

OREGON

Pendleton
Portland-Vancouver, Wash.

PENNSYLVANIA

Allentown-Bethlehem
Erie
Ellwood City
Johnstown
Harrisburg
Monessen
Philadelphia
Chester
Philadelphia Locality,
Camden, N. J.
Williamsport
Beaver County Locality
Beaver Falls
Rocheater
Ambridge
Pittsburgh

RHODE ISLAND

Newport
Quonset Point
Warwick

SOUTH CAROLINA

Charleston
Columbia
Parris Island
Spartanburg

SOUTH DAKOTA

Ft. Meade

TENNESSEE

Knoxville-Alcoa
Nashville

TEXAS

Beaumont-Port Arthur
Corpus Christi
Dallas-Grand Prairie
El Paso
Fort Worth
Fort Clark
Goose Creek-Baytown-Pelly
Galveston
Harlingen
Houston
Mineral Wells
Orange
San Angelo
San Antonio
Wichita Falls
Brady

UTAH

Ogden

VERMONT

Springfield
Chester

VIRGINIA

Alexandria
Arlington
Dahlgren
Newport News
Newport News Locality

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| Langley Field
Phoebus
Yorktown
Norfolk Locality
Virginia Beach
Norfolk
Portsmouth
St. Juliens Creek
Quantico
Radford | Morgantown
Weirton |
| WASHINGTON
Bremerton
Longview-Kelso
Tacoma
Tacoma Locality
South Tacoma
Seattle
Seattle Locality
Sand Point
Spokane
Vancouver | WISCONSIN
Beloit
Green Bay
Madison
Manitowoc-Two Rivers
Milwaukee
Oshkosh
Racine-Kenosha |
| WEST VIRGINIA
Charleston
Charleston Locality
South Charleston | ALASKA
Anchorage
Ketchikan
Kodiak
Sitka |
| | HAWAII
Honolulu |
| | PUERTO RICO
Aguadilla
San Juan |
| | VIRGIN ISLANDS
Charlotte Amalie, St. Thomas |

Government's Defense Housing Program

PRESIDENT Roosevelt on July 3 found a need for the immediate construction with public funds of an additional 10,070 homes for the families of industrial workers and the enlisted personnel in 34 localities of the country, upon the recommendation of C. F. Palmer, Coordinator of Defense Housing.

The localities and the number of homes in each for which public funds have been allocated are as follows:

Childersburg, Ala.	400	Baltimore, Md.	1,000
Litchfield Park, Ariz.	100	Springfield, Mass.	300
Bakersfield, Calif.	85	Biloxi, Miss.	175
Richmond, Calif.	450	Meridian, Miss.	100
Bristol, Conn.	200	Charlotte, N. C.	85
Washington, D. C.	1,000	Jacksonville, N. C.	700
Banana River, Fla.	50	Cape May, N. J.	50
Jacksonville, Fla.	400	Northern N. J.	250
Pensacola, Fla.	200	Canton, O.	300
Savannah, Ga.	150	Cleveland, O.	500
Connersville, Ind.	300	Port Clinton, O.	100
Fort Wayne, Ind.	75	Knoxville-Alcoa, Tenn.	250
Kingsbury-LaPorte, Ind.	400	Victoria, Tex.	100
Madison, Ind.	100	Wichita Falls, Tex.	175
Burlington, Ia.	200	Dahlgren, Va.	50
Wichita, Kans.	600	Seattle, Wash.	500
New Orleans, La.	325	Charleston, W. Va.	400

In his letter to the President, Palmer pointed out that in most of the communities the coordinated defense housing programs provided for a substantial contribution to the defense housing need by private enterprise.

"The reasons upon which the recommended government programs are based vary to some extent in each case," he wrote. "They are stated in detail in each case and can generally be summarized as follows: national defense activities in the locality have caused a sudden and immediate need for the number of dwelling units indicated for occupancy by persons of limited income engaged in national defense activity. Such need cannot be provided for by private capital, either because the extent thereof is beyond the capacity of normal building in the area, or the continuance of need is so uncertain, or the rentals so limited, that private capital cannot afford to take the risks involved."

At the same time Palmer requested that the President reduce previous findings of defense housing need for 22 localities due to the fact that it was found subsequent to original findings that such defense housing was not needed to the extent anticipated.

The localities and the number of homes originally found necessary, together with the number now programmed are as follows:

Locality	Date of Original Finding	Approximate Number of Family Dwelling Units	
		Original Finding	Reduced to
Tucson, Ariz.	Oct. 29, 1940	150	135
Stockton, Calif.	Oct. 29, 1940	150	100
Delaware City, Del.	Oct. 29, 1940	40	20
West Palm Beach, Fla.	Oct. 29, 1940	300	150
Augusta, Ga.	Oct. 29, 1940	125	75
Savannah, Ga.	Oct. 29, 1940	325	250
Corydon, Ia.	Oct. 29, 1940	250	0
Leon, Ia.	Oct. 29, 1940	250	0
Baltimore, Md.	Oct. 29, 1940	100	85
Long Branch, N. J.	Oct. 29, 1940	525	245
Pt. Meade, S. Dak.	Oct. 29, 1940	50	35
Lee Hall, Va.	Oct. 29, 1940	25	0
South Tacoma, Wash.	Oct. 29, 1940	150	100
Spokane, Wash.	Oct. 29, 1940	200	160
Canal Zone	Dec. 31, 1940	2200	200
Pt. Knox, Ky.	Dec. 31, 1940	219	0
Yorktown, Va.	Dec. 31, 1940	80	0
San Antonio, Tex.	Jan. 16, 1941	17	0
Rolla-Waynesville, Mo.	Apr. 21, 1941	600	500
Great Bend, N. Y.	May 26, 1941	125	50
San Juan, P. R.	May 26, 1941	450	50
District of Columbia	May 2, 1941	70	0

ONE HAND WITH SKILSAW DOES THE WORK OF TEN!

MEET today's shortage of manpower with SKILSAW's extra sawing speed that frees men sooner for other work. SKILSAW rips TEN planks while a handsaw rips one . . . SKILSAW cuts every sawing cost, helps you get more jobs at a decent profit!

SKILSAW quickly pays for itself from its savings on wood sawing alone . . . but SKILSAW also cuts stone, metal, tile and compositions. 9 POWERFUL MODELS . . . each one light, fast, easy to handle. Ask your distributor for a demonstration today.

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SKILSAW SPEEDS UP ALL SAWING!

"Yardstick" for Forced Air Heating

FOR ANYONE building a house which is to have a forced warm air heating system, or planning to install such a system, a 28-page handbook just compiled under the direction of Prof. Seichi Konzo of the University of Illinois Engineering Experiment station should be a "must read" item.

In simple language it answers such questions as: What control devices are recommended? What kinds of registers are best, and where should they be installed? How should take-off ducts join the main duct? How should a duct pass through a masonry wall?

Sixty-six such questions are answered, with the excellent, good, and poor installation methods stated, most of them illustrated with sketches. The bulletin is titled "Yardstick for the Evaluation of a Forced Warm Air Heating System" and is being distributed by the National Warm Air Heating and Air Conditioning Association, Cleveland, O., which for the past 22 years has co-operated in a study of home heating carried on at the university.

More than 55,000 copies of the first printing have been sent out from the Association's office, it is stated. The pamphlet has been adopted by the Federal Housing Administration, and is available through its offices and through local heating contractors throughout the nation.

Professor Konzo headed a committee of seven men, who worked on the "Yardstick" over a period of two years. The U. S. Bureau of Standards and the FHA also aided in the compilation, and the FHA has adopted it as standard in specifications for forced-air heating systems.

Factory Building Costs Up

FACTORY building costs increased approximately 10 per cent during the second quarter of 1941, according to the quarterly index compiled by The Austin Company, engineers and builders, Cleveland, O. This index, which advanced 10 points to 109 in the spring quarter, has chartered labor and material costs in construction of a typical one-story steel frame, monitor type plant since 1913.

"This latest advance reflects record-breaking activity for the

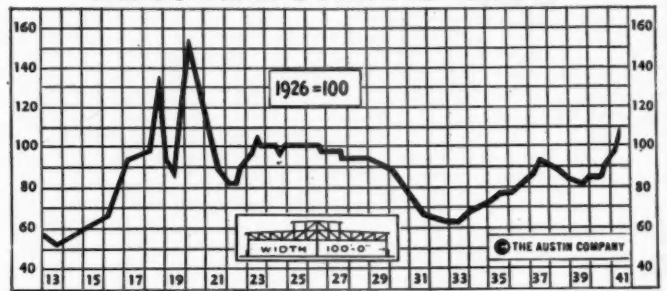
national defense program and unprecedented pressure for construction labor and material in certain areas which have felt the full impact of the defense building boom," George A. Bryant, Austin president, explained. "There are now so many special factors in almost every building project that average costs are significant only insofar as they indicate the general price trend.

"The whole material situation has changed completely and is still changing with each succeeding month. Fabricated steel for one project in the Southwest, for instance, costs almost 50 per cent more now than when we started our first work in the same locality a year ago. In the same period the cost of lumber in that area has doubled. Such advances reflect premiums paid for early delivery, in which wages for overtime in the steel plant, fabricating shop or lumber mill are but one of the factors which tend to increase costs.

"The unparalleled need for speed in the completion of defense plants has likewise led to more overtime for engineers and field labor, all of which has increased costs proportionately. With construction workers getting time and a half and double time for overtime, and working six or seven days a week, the average hourly cost of labor in the building trades advances from one-sixth to one-third more than the established hourly rates.

"No one wants to see the defense building program cost any more than necessary; but if it is to serve its purpose certain work must be done quickly, whatever it costs," Mr. Bryant added.

INDUSTRIAL BUILDING COSTS

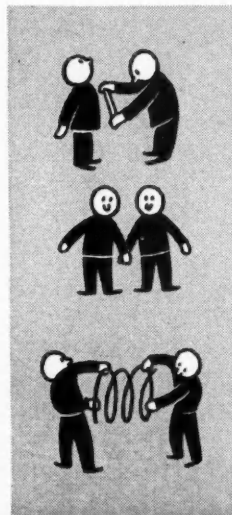


WEATHERTIGHT... EASY-WORKING...

THE BARCOL OVERDOOR

FEATURING...

Tailored Twin Torsion
COUNTERBALANCING SPRINGS



TAILORED

for Accurate Counterbalancing and Easy Operation . . .

TWIN

for Equalized Pull on Both Sides of the Door . . .

TORSION

for Safety — core through center
for Quiet Operation — no loose parts to bang or rattle
for Neat, Compact appearance

LOOK FOR THIS MARK OF QUALITY



REPRESENTED IN PRINCIPAL CITIES

BARBER-COLMAN COMPANY
104 MILL ST., ROCKFORD, ILLINOIS

IN CANADA
A. B. Ormsby Co.
Toronto

"Site Assembly" Method Used

DUE TO URGINGS for greater speed in the construction of homes for defense workers, contractors in many sections of the country, working with the United States Housing Authority, have developed fast construction methods unique in residential building. Most promising development is what builders call "site assembly," a process by which factory production methods are instituted right on the ground.

The site assembly technique has been so developed in the building of a 538 home project at Newport, R. I., that whole roofs, complete with shingles, are built on the ground and swung into place by cranes.

The system, as used at Newport, revolves around a long platform equipped with "jigs" and other devices for laying out frames of whole walls, the lumber having been previously cut to exact size in a plant near one end of the platform.

The patterns on the platform are designed to provide openings for doors and windows, thus eliminating the necessity for cutting and fitting after the wall frames are erected as is done under conventional methods.

After the wall frames leave the platform they are taken by truck to the site of a house and laid out on the floor. Sidings are nailed on and windows installed before the walls are raised into place. A feature of the plan includes the use of large hinges, fastened to the flooring and the walls to permit easy hoisting of the wall and at the same time keeping it securely in position. The wall is then nailed in place and the hinges removed to be used elsewhere.

Similar methods are used in the preparation and installation of smaller items that go into the structure as well as in the finishing of interiors.

Other projects, including one at Charleston, S. C., and another at Pensacola, Fla., have been built by contractors using a like technique.

Frederick P. Champ New President Mortgage Bankers Ass'n.

FREDERICK P. CHAMP, of Logan, Utah, will be the next president of the Mortgage Bankers Association of America, succeeding Dean R. Hill of Buffalo. He is a banker and a mortgage lender on farm, city and residential real estate in Utah and Idaho and will be the first "farm man" to head the Mortgage Bankers Association in nearly two decades. He is president of the Utah Mortgage Loan Corporation and the Cache Valley Banking Company; director of the Salt Lake City Branch of the San Francisco Federal Reserve Bank; president of the board of trustees of the Utah State Agricultural College; a member of the Utah Centennial Commission; and vice president of the American Forestry Association. He is a native of Utah and studied at schools there and in Colorado Springs before entering Harvard in 1915.



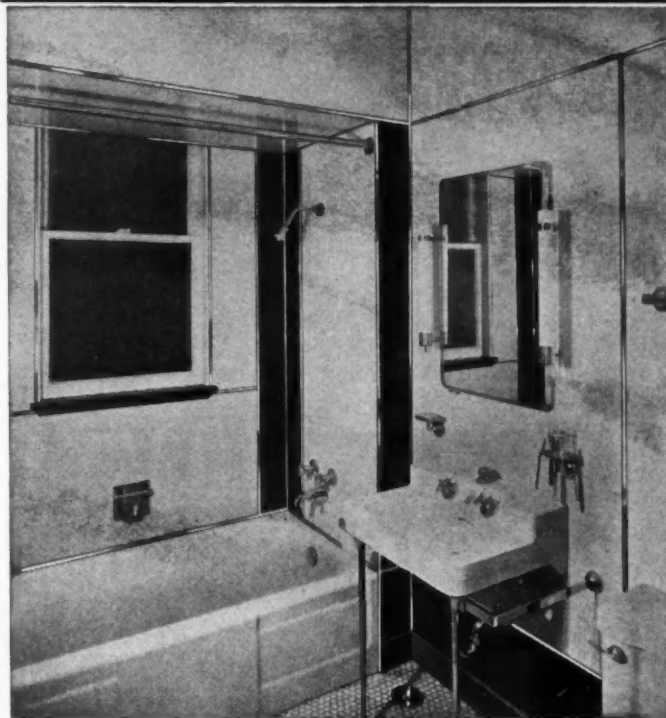
FREDERICK P. CHAMP

Shingle Bureau Adds to Field Staff

TWO native sons of the Pacific Northwest, Lee G. Vocker and R. C. Peach, have been appointed to the staff of traveling field representatives of the Red Cedar Shingle Bureau, Seattle, Wash. Each is trained and experienced in architecture and construction. Vocker's work will center mainly in New York state and New England, and Peach will carry out his red cedar shingle promotion in the northern Middle West. Vocker was graduated from Washington University and Peach from Washington State College. Vocker's experience ranges from work in lumber dealer and contractor fields to lumber association promotion and FHA activities. Peach has worked both as a government architect and in the private architectural field.

The duties of these two men will follow closely those of the other members of the Bureau's well-known field staff, which consist largely of educational contacts with lumber dealers, architects, contractors, carpenters and others in the construction business. It is expected that with their architectural backgrounds they will be of very tangible service to lumbermen as regards shingle applications and specifications.

Extra luxury FOR YOUR HOMES
 DESPITE RISING COSTS—
 USE  FOR BATHROOMS



For low cost luxury and distinction that lifts your homes out of the "just another house" class—use Marlite generously in bathroom and kitchen. If you and your prospect are sticklers for quality . . . so much the better. For Marlite, by every test we know, is the finest pre-finished wall paneling you can get. Its glass-smooth surface is tougher; more resistant to scratches and stains; more durable; easier to keep clean and sparkling. Over 100 popular colors and patterns to work with. A carpenter can apply Marlite to old walls or new—and once it's on, your decorating job is done. For more Marlite information see your lumber dealer, write us, or see Sweet's 11/39.



MARSH WALL PRODUCTS, INC.
 83 MARSH PLACE • DOVER, OHIO



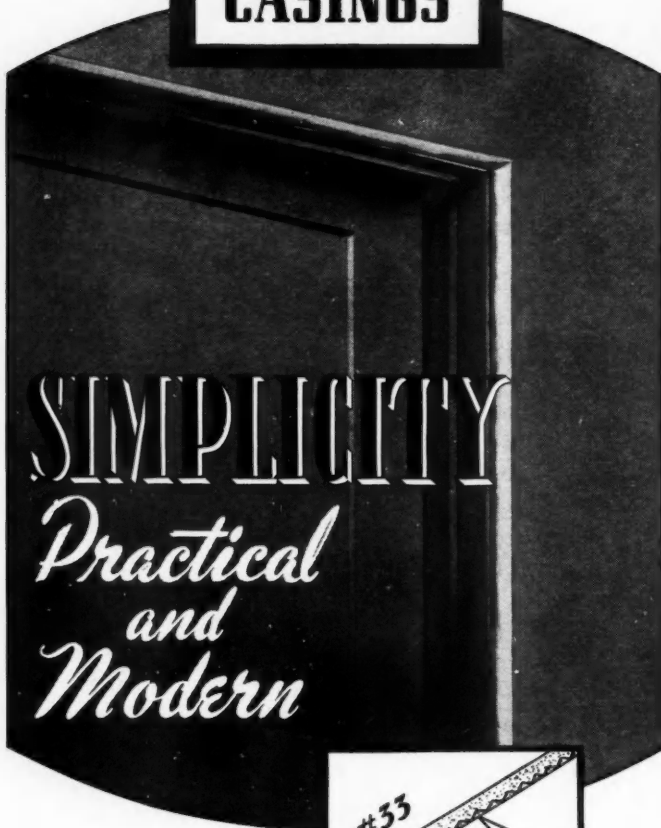
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Pre-finished WALL PANELS

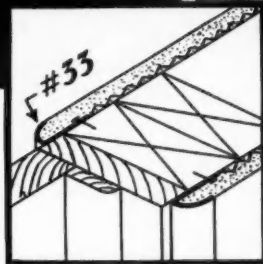
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PLAIN-COLORS HORIZONTALINE WOOD-VENEERS • HEATEX •
 TILE-PATTERNS MARBLE-PATTERNS • CARSTENITE • MARSH-MOULDINGS

**KNAPP
METAL
CASINGS**



SIMPLICITY
*Practical
and
Modern*



Detail shows No. 33 casing in an interior door application.

HERE'S a casing that meets all requirements for beauty, economy and ease of application. Simple modern lines blend perfectly with today's designs providing a smooth, flush-fitting, anti-dust-catching construction that's easy to clean and stays clean longer!

Knapp Metal Casings are quickly applied with a minimum of effort. They conform with the most rigid architectural specifications. Knapp Metal Casings are truly the modern casings for modern construction.

Knapp Metal Casings are made by the manufacturers of Knapp Corner Beads.

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

**Government Positions in
Housing Field Open**

AN examination under the title of "Housing Management Supervisor" has been announced by the Civil Service Commission to fill housing management and housing manager positions. Appointments will be made in several Government agencies, both in Washington, D.C., and in the field, including the Defense Housing Division of the U. S. Housing Authority, the Farm Security Administration of the Department of Agriculture, and the Office for Emergency Management. Salaries will range from \$2,600 to \$6,500 a year.

Persons appointed as *housing management supervisors* will be responsible for the various phases of management in a large number of public housing projects. This will include production according to schedule, determination of priority in work, and recommendations on staff and budgetary requirements. Integrating recommendations of technicians and specialists, studying and reporting on housing management policy, and supervising the more vital phases of the management program will also be a part of the work. *Housing managers* will take charge of the management of a public housing project. This will include over-all responsibility for such functions as: Tenant selection, rental management, public relations, operation and maintenance.

To qualify for these positions, a part of the prescribed experience must have been in the field of housing. This experience may have been gained as manager in connection with a housing project or public housing agency. A supervisory employee in the field of real property management or in a comprehensive program of public welfare requiring considerable knowledge of housing conditions and problems may also qualify; as may a city, town, or county manager. To complete the experience requirement applicants may use professional experience in these housing fields, or in law, engineering, architecture, public or business administration, educational administration, accounting, or social service. For some of this experience appropriate college study may be substituted.

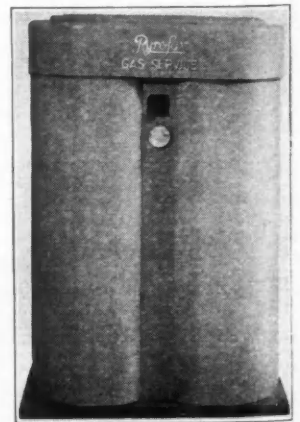
Applications must be filed with the Commission's Washington office not later than August 14, 1941. Further information and application forms may be obtained from any first- or second-class post office or from the Civil Service Commission in Washington.

"Pyrofax" Gas Service

"PYROFAX" gas offers all the conveniences of city gas for homes beyond the mains. It is ideal for cooking, water heating, refrigeration and room heating, as it is real gas, not a liquid fuel.

De luxe type "H" "Pyrofax" gas cabinet equipment, as illustrated, is now available to meet the requirements of certain homes and special installations where complete housing is desired or where customer wishes to paint equipment to harmonize with surroundings.

This equipment consists of shields, regulating equipment and connections for two cylinders of "Pyrofax" gas. An automatic device, with changeover signal, which turns on the supply of gas in the reserve cylinder when the one in use becomes exhausted, is available. Over-all size of equipment is 37 1/4 in. wide, 18 in. deep, 54 1/2 in. high when closed and 69 in. high when open. It is placed on a weather-proofed wood base which comes with the equipment.



"PYROFAX" gas supply for rural homes.

"Pyrofax" gas equipment is listed as standard by Underwriters' Laboratories, Inc. This means that a "Pyrofax" gas installation, when made in accordance with regulations of the National Board of Fire Underwriters, should not increase the insurance rate to the householder. It is suggested that readers interested should write to the "Pyrofax" Gas Division, Carbide and Carbon Chemicals Corporation, 30 East 42nd Street, New York, N. Y., for the name of the nearest distributor.

Roosevelt Signs Bill Extending FHA Two Years

THE Senate completed congressional action on June 27 on legislation extending the life of the Federal Housing Administration and increasing its limit on mortgage insurance from 4 billion to 5 billion dollars.

The measure then went to President Roosevelt for his approval. It extends for two years numerous FHA activities that were scheduled to expire July 1.

J. M. Bowlby New Eagle-Picher Chief

THE EAGLE-PICHER Lead Company, Cincinnati, O., announces the election on July 15 of J. M. Bowlby as its new president, to succeed Joseph Hummel, Jr. Mr. Hummel, who has been associated with Eagle-Picher for 50 years, had asked to be relieved of his active duties, and was elected chairman of the board.



J. M. BOWLBY

The new Eagle-Picher head is a native of Litchfield, Ill. He began his career with Railway Steel-Spring Company, now a division of American Locomotive Company. Following a varied experience in commercial and investment banking fields, he served in the United States military forces, both at home and abroad, rising to the rank of Major.

In 1921 he became associated with Barrow, Wade, Guthrie & Co., accountants and auditors, and has been a general partner of that firm since 1928. During the last 8 years Bowlby's activities have been largely directed to problems of industrial management. He will assume his new position at Eagle-Picher on September 1.

Glass Campaign Broadened

THE announcement by Libbey-Owens-Ford Glass Co., Toledo, O., that it is broadening its Glass Designed for Happiness program is cheering news to retailers of lumber and building materials.

This program, which was developed to stimulate the greater use of glass in residences, lends itself directly to the selling problems of dealers, and coincides with the plan encouraged by government agencies to provide more comfortable, convenient and cheerful housing conditions for people building homes.

For more than a year, the idea that the installation of larger window areas and use of interior glass features would increase the appeal and salability of houses in lower price classes has been proved. In subdivisions in every section of the country, homes Designed with Glass have met instant acceptance from Mr. and Mrs. America who had been wanting for years a place within their means that wasn't of the "shack-garage" type. Right now, hundreds of these better houses are bringing daily joy into the lives of families, and thousands more are being erected.

With its case proved, Libbey-Owens-Ford is now extending the range of this successful program by putting it to work in all price classes of new construction and remodeling. National advertising will send prospects to lumber dealers who are handling modern glass features Designed for Happiness.

The new and broadened scope of the Glass Designed for Happiness program offers dealers an opportunity for closer contact and larger sales to architects, contractors and home owners. Standard glass items are offered at a cost to suit all priced houses, and most of the features can be sold through any recognized finance plan. A qualified lumber or glass dealer now becomes the authorized sales representative in his territory for these happiness features.

Huggett Joins Pittsburgh Agency

APPOINTMENT of John M. Huggett as account executive of Ketchum, MacLeod and Grove, Inc., Pittsburgh advertising agency, has been announced by George Ketchum, president of the agency. Mr. Huggett came to Pittsburgh from New York, where he was advertising and sales promotion manager of Certain-teed Products Corporation.

Prior to going to Certain-teed, he was with the John H. Dunham Company, Chicago advertising agency, and was division sales manager of Silvercote Products Corporation, a building materials company.



SISALKRAFT... Built to Give Protection for the Life of the Building!

Miles of wire-tough sisal fibres reenforce this unusual paper — give it the strength needed for rapid installation — guard against tears, punctures or cracks that would defeat the very purpose of building paper. These fibres are embedded in two layers of plastic asphalt, protected by two sheets of strong kraft—treated to resist shrinkage and dry rot. Years of experiment and research have gone into the development of SISALKRAFT. It's "engineered" to do its job well—recognized as the BEST to be had.

LOW Applied COST

SISALKRAFT goes on fast, with little patching or piecing, with fewer nails and no battens. Saves labor and material—gives you better construction at no greater applied cost than light, flimsy building papers.

Write for samples — and complete data.

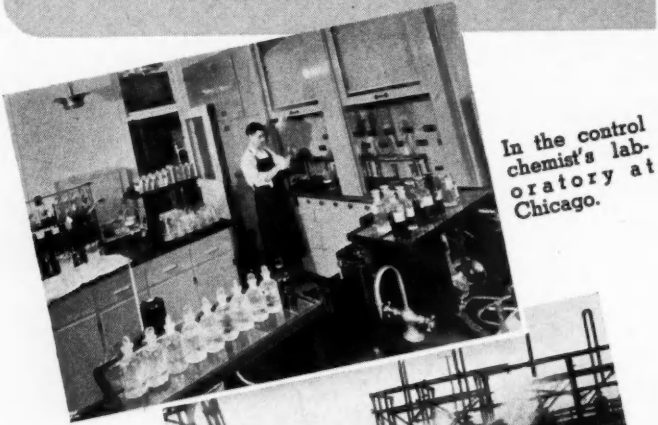
The SISALKRAFT Co.

205 W. WACKER DRIVE
NEW YORK

CHICAGO, ILLINOIS
SAN FRANCISCO



TO KEEP WOLMANIZED LUMBER* ON THE *Plus* SIDE



In the control chemist's laboratory at Chicago.

Freshly impregnated lumber being taken from a vacuum-pressure treating cylinder.



The nineteen Wolmanizing plants operating throughout the country employ treating methods which have been proved most effective in giving Wolmanized Lumber its plus—ability to withstand decay and termite attack. One central laboratory checks their operation, assuring uniformity of product.

"Wolmanized" applies to any lumber which has been impregnated with Wolman Salts* preservative by the vacuum-pressure process. Washing-out or leaching of the preservative is prevented by "fibre fixation." After treatment, the wood is clean and odorless, and it can be painted. It is easy to handle and erect.

Wolmanized Lumber is distributed from coast to coast through retail lumber dealers, under this one trade name. AMERICAN LUMBER & TREATING COMPANY, 1645 McCormick Bldg., Chicago, Ill.

*Registered Trade-Mark

Wolmanized

LUMBER



Wage-Hour Committee Recommends Five Cent Increase in Minimum for Forest Industries

AFTER three days of testimony, Industry Committee No. 30, representing the *Lumber and Forest Products Industries* as defined by the Wage-Hour Division, recommended to the Administrator that the prevailing minimum wage for all industries under the Wage-Hour definition be raised from 30c to 35c.

The Committee, composed of eight lumbermen, eight representatives of the public and five representatives of labor, further recommended that Administrator Fleming seek an amendment to the Fair Labor Standards Act, which would bring intra-state industry under the law and make it subject to the same requirements as forest industries doing business inter-state.

This action was in line with the testimony of most of the witnesses who stressed the competitive inequalities created by the exemption of intra-state industries, and emphasized the difficulty of fairly enforcing the exemption.

According to the Wage-Hour law, the Administrator may accept or reject the wage recommendation of the Industry Committee, but prior to such action public hearings must be held, at which anyone with an interest must be given the right to be heard.

Verbal assurances have been given by the Wage-Hour Administrator that, if issued, a ruling establishing the new 35c minimum will not be effective before September 30.

National Survey Retail Lumber Stocks and Sales

RETAIL lumber stocks for the country remained practically the same on May 31 as on April 30. Decreases in five regions, mostly in the Midwest and Eastern part of the country, were of some magnitude, and overbalanced the substantial increases in stocks in the Southwest, Mountain and Pacific regions. Total stocks on May 31 are estimated at 7,048 million feet, or 0.1 per cent below the estimated stocks of 7,054 million feet on April 30, 1941. May was the first month stocks have decreased since November of last year.

Lumber sales continued their spring gains. A substantial gain was made in the West North Central Region. The East South Central Region reported a slight decrease in sales during May. All other regions had increased from one to thirteen per cent. Retail sales for the country in May were about ten per cent higher than in April.

Marriage of Fred C. Andersen

ANNOUNCEMENT has been made of the marriage of Katharine Dyer to Fred Cummings Andersen, head of the Andersen Corp., Bayport, Minn. The wedding occurred in Brooklyn, N. Y., on June 24. The bride is the daughter of Irving Blount. Mr. and Mrs. Andersen will be at home after the first of August at Bayport.

U. E. Brock Now Sales Manager

THE ADVANCEMENT of U. E. Brock to the position of sales manager of the Kinzua Pine Mills Co., Kinzua, Ore., has been announced. He was formerly in charge of advertising promotion for this company. He is well known to lumber and millwork buyers. The Kinzua organization, owning its own extensive stand of high grade upland ponderosa pine, carries through a complete manufacturing operation from logging to final production of many manufactured items of millwork, frames and furniture parts.



U. E. BROCK

Adams Elected President

FRANK H. ADAMS, for 15 years vice president and general manager of Surface Combustion Corporation, Toledo, Ohio, has been elected president succeeding Henry L. Doherty, deceased.

New Light Fixtures Exhibited

EXHIBITED for the first time at the Annual Sales Conference of the Edison Electric Institute held in Chicago last spring, the new ALEA certified residential lighting fixtures drew high commendation from the conferees for their illumination performance and attractive design. Here we see J. H. Blitzer, member of the ALEA Board of Governors, of the American Lighting Equipment Association, pointing out the contrast between one of the new certified units and one of the obsolete "Rip Van Winkle" type, which is still in general use throughout the country, to Harry Restofski, (left) Chairman of the Home Lighting Equipment Sales Committee of the E.E.I., and Glenn Trumbull, Manager of the National Better Light—Better Sight Bureau. The new ALEA certified fixtures, now ready for the market after a year of design and engineering study, will carry the ALEA identification tag which certifies that they conform to the ALEA Specifications which incorporate the "Recommended Practice for the Illumination Performance of Residential Ceiling Luminaires" formulated by the Illuminating Engineering Society, and meet with the design approval of the ALEA Advisory Board of Design, headed by William A. Kimbel, eminent designer.



LIGHTING equipment leaders compare old with new.

Youngstown Streamlines Sink Line

PRODUCTION of a new and simplified cabinet sink line is announced by Youngstown Pressed Steel Division, Mullins Manufacturing Corp., Warren, O., for immediate shipment to distributors and dealers. In consolidating the line to seven models, officers of the company see the chance to make faster deliveries in the field and concentrate factory resources on the most popular units.

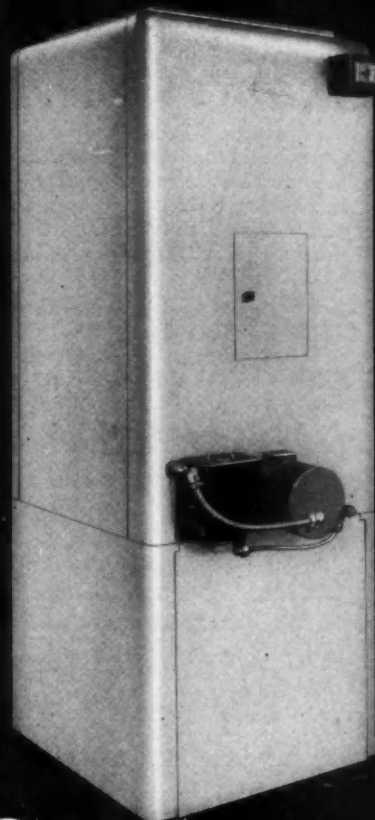
In bringing the line down to seven models the buying public indirectly benefits. It is pointed out that the most desirable features of the entire line are to be incorporated in the seven cabinet sinks which have been restyled. Actually, then, the buyer will get a bigger dollar's worth of kitchen convenience.

New Rubber-Base Steel Paint

TRUSCON Laboratories, Inc., Detroit, announces a new rubber base metal coating especially adapted to all types of exposed iron and steel. The name is "Paratex" metal coating. It promises to replace conventional type metal paints because of its exceptional durability and resistance to rusting and corrosion.

New NORGE

ESPECIALLY DESIGNED
AND PRICED FOR
DEFENSE HOUSING



*Immediate
Delivery!*

Here's a brand-new low-cost Norge oil-fired unit that will meet your heating "specs." Model OD-70 is only 26" square and 67" high; is quickly and easily installed in basement or utility room. Ideal size for \$3000 to \$6000 homes. All controls fully automatic. Two-stage Pressure Vaporizing burner fully approved for all U. S. insured loans including CS-75-39. Beautiful pearl gray baked enamel finish on streamlined cabinet. Backed by two of the greatest names in American industry—Norge—Borg-Warner. Write or wire.

NORGE HEATING & CONDITIONING DIVISION

BORG-WARNER CORPORATION

12345 Kercheval Ave., Detroit

A MODEL FOR EVERY HOME

See **NORGE** before you buy!

Direct Reduction Home Loans Popular

GROWING popularity of the "direct reduction loan," which simplifies home mortgage financing and lowers the cost, has been an important influence in creating an army of new home owners this year, according to T. D. Webb, Vice Chairman of the Federal Home Loan Bank Board.

"One of the compelling inducements which will put many a rent payer into his own home before 1942 is the wide opportunity to obtain this comparatively new type of loan," he said in a statement comparing the cost of various loan plans. "It is an easily understood method of home buying, which is now a requisite with most of the member savings and loan institutions of the Federal Home Loan Bank System. Among financial institutions throughout the country there is a general impetus toward its adoption. It is required in all FHA insured mortgage loans.

"Although, because of the cooperation of financial institutions and Government, the risky, high-cost straight mortgage loan has practically disappeared from the scene, a still wider use of the direct reduction plan would benefit thousands of new home seekers.

"Under the direct reduction plan of home financing, which was originated by savings and loan associations many years ago, the borrower pays a stipulated amount monthly, divided between principal and interest. Progressively each month, a larger share of his payment goes to principal and less to interest. Thus the rate of debt reduction, as well as his equity in the home, grows constantly.

"The plan's advantages can be listed as (1) the safest, least expensive method of paying off a home loan; (2) ends all future commission and renewal expense; (3) has a fixed payment each month, for which the borrower can plan in advance."

Effect of Window Shades on Room Temperatures Reported by Scientists

A NEW WAY to keep homes cooler in summer and warmer in winter has been discovered by scientists at the Armour Research Foundation, according to an announcement from the

Window Shade Institute, 60 East 42nd Street, New York City. Their discovery is the result of a study of the effect of window shades in excluding heat from the sun during the summer time and in retaining indoor heat during the winter time.

It was found that a single cloth shade, fully drawn over each window of a room during the hours that it is exposed to the summer sun, will reduce heat intake by an average of about 45 per cent, but that a pair of cloth shades of the same type drawn over each window will reduce the heat intake by about 65 per cent. In other words, the temperature of a room which might otherwise reach 100 degrees Fahrenheit during the heat of the day will be kept down to about 80 degrees, if two cloth shades are kept fully drawn when the sun is shining in the windows.

On the other hand, under winter conditions, a single shade fully drawn reduced the heat loss through the windows by an average of about 40 per cent, whereas a pair of cloth shades of the same type diminished the heat loss by approximately 54 per cent. The Armour Institute scientists conclude, therefore, that two cloth window shades pulled down over each window during the hours of darkness, in winter, may save about 10 per cent of the fuel bill.

It was found that the efficiency of the shades in keeping out the heat of the summer sun depends chiefly on color and finish, light colors being more effective than dark ones, with white generally most effective.

Keeping heat in, under winter conditions, appears to be affected by the thermal resistance (i.e., resistance to the transmission of heat) of the cloth itself rather than by its color. Also, because of the air space between the shade and window, good fit of the shades is important in preventing loss of heat.

Servel Acquires Bosch Water Heater Division

SERVEL, INC., Evansville, Ind., has purchased the Gas Appliance Division of the American Bosch Corporation, according to an announcement by Louis Ruthenburg, president of Servel, Inc.

The purchase includes all of the facilities now located at Springfield, Mass., for the manufacture of gas water heaters. These facilities are being moved to Evansville.

Beauty more than Skin Deep



Architects, Eley & Lyman, Buffalo -- General Contractors, Swartout & Rowley, Rochester -- Plastering Contractors, Henderson & Johnson, Syracuse.

Buildings designed for permanence as well as utility, for beauty that's more than skin deep, require materials of proven worth. That's why the walls and ceilings of this school in Interlaken, N. Y. were plastered and finished with *original* Ohio White and Ohio Sanlime Finish. The architects responsible for the job, the plastering contractors who applied the materials and the dealer who supplied them, know there is no substitute for quality—that the Zig Zag stripes on every bag helped insure their reputations.

The Ohio Hydrate & Supply Co., Woodville, Ohio

Always packed in Red Zig Zag Bags

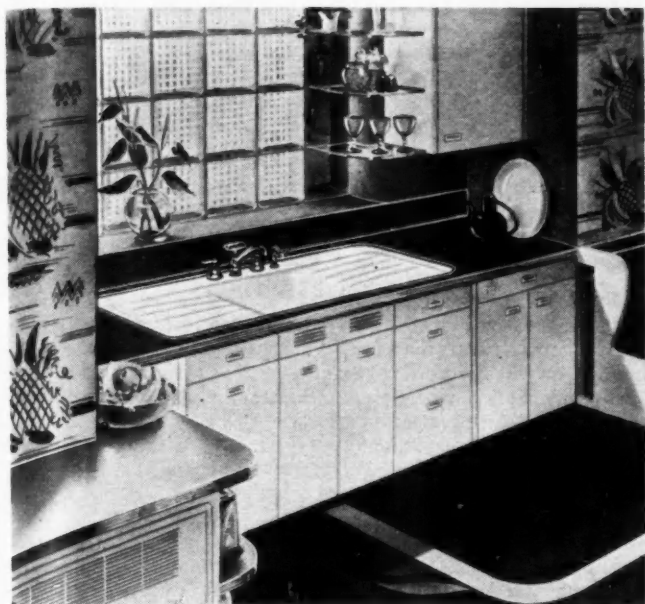
PRODUCERS TELL US—

About Products, Personnel, Plants

"Standard" Adds Two New Custom-Line Sinks

TWO new "Standard" Custom-Line Sinks are offered by American Radiator & Standard Sanitary Corporation, Pittsburgh, for use with custom built kitchen cabinets. "Standard" Custom-Line Sinks are designed especially to provide an ideal unit where continuous counter tops are desired, and two new models give wider selection in this popular line.

Custom-Line P-7002-S double drain board model measures 4½' in length, 21" in width, and length of each drain board exclusive of the rim is 16½". The 8" deep sink well is 18½ x 15½".



"STANDARD" custom-line sink P-7002-S

Dimensions of the single drain board model, P-7004-S with sink on right and P-7008-S with sink on left are, 3½' in length, 21" in width, and length of drain board exclusive of the rim is 20". The 8" deep sink well is 19½" x 15½".

Both models are cast iron, acid-resisting enameled flat rim sinks with back ledge and center outlet, and are supplied with Auto-Unit Re-Nu Combination swinging spout faucet with soap dish and rubber hose and spray. In addition to this convenient and modern faucet, the sinks also have the popular Chromard crumb cup strainer and stopper as regular equipment.

All "Standard" Custom-Line Sinks are available in white and 11 beautiful colors.

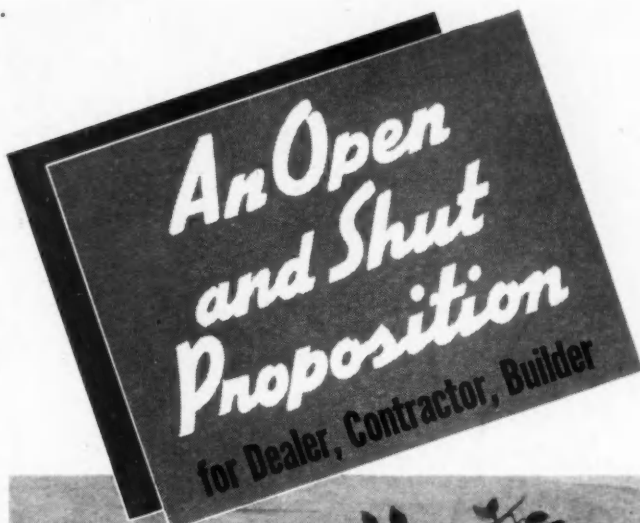
Plywood Details for National Home Foundation Designs

AS THEIR contribution to the current joint industry-government effort to better housing conditions on farms and in villages, plywood manufacturers have issued key plans to their plywood adaptations of each of the eight basic designs prepared by the National Homes Foundation.

While the floor plans drawn by NHF architects were prepared to embody modern principles of house construction with emphasis on the important needs of rural and small town dwellers, the plywood versions are offered to show what the finished houses can be like when that material is used.

These condensed specifications give floor plans, elevations and details for constructing walls of plywood. They show drawings of proper joint treatments, tell the thicknesses of plywood to use and list procedures for painting, papering and staining interior walls of plywood and for painting outside surfaces.

(Continued to page 96)



BILT-WELL "SUPERIOR" UNIT WOOD WINDOWS

... have proved their "Superior" ity — overcome all difficulties. Designed to cut building costs — put together, windows fitted and efficient weatherstrip applied at the factory. Easy-sliding, weather-tight fit is assured regardless of swelling or shrinking.

CARR, ADAMS & COLLIER CO.

DUBUQUE, IOWA



BILT-WELL WOODWORK Products have been outstanding for 75 years

Carr, Adams & Collier Co., Dept. AB-8, Dubuque, Iowa
Please send without cost or obligation, illustrated literature on Bilt-Well "Superior" Windows.

I am a Dealer Contractor Builder

Name _____

Address _____

City _____ State _____



Wood Bits FOLLOW TRUE When You Work with the WESTERN PINES*

There's little or no resistance to the bit-worm in the soft texture and even grain of these readily workable woods. And that's one reason brace-and-bit jobs go faster—and more accurately—when it's the Western Pines that you're boring! This is only one of many ways these famous woods save time which turns into money for you . . . while your jobs turn out as a credit to you!

Ask for and get Western Pines from Association mills. They're thoroughly seasoned . . . skillfully milled . . . carefully graded for your protection!

WESTERN PINE ASSOCIATION

YEON BUILDING

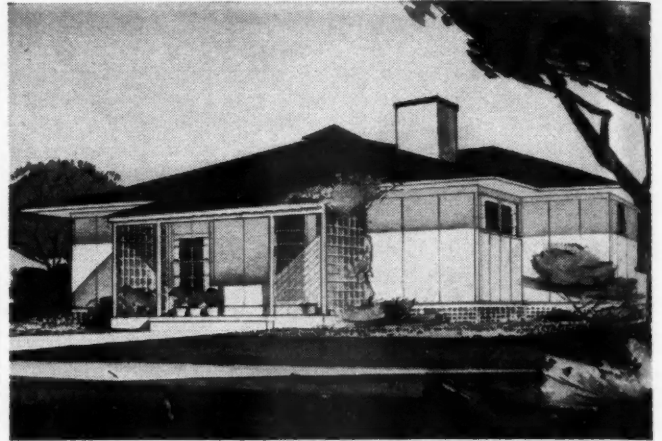
PORTLAND, OREGON



*IDAHO WHITE PINE *PONDEROSA PINE
*SUGAR PINE

— *These Are The Western Pines —

There is a 12-page key plan for the plywood version of each of the four different southern and four northern houses offered by the National Homes Foundation to show rural and town residents what constitute convenient, livable homes. These abbreviated specifications do NOT represent working drawings; complete specifications and material lists for the NHF houses are obtained through lumber dealers.



HERE is the plywood version of a southern farm house of five rooms from the basic National Homes Foundation design. Plywood siding is applied vertically with vee joints at panel edges affording a smart effect. Structure features a low-pitch roof for horizontal lines.

The leaflets embodying the plywood adaptations are available to individuals or lumber dealers who write to Douglas Fir Plywood Association at Tacoma, Wash.

The campaign to bolster rural re-housing activities, undertaken this spring after a year's preparation by building material manufacturers and government agencies, now is under full steam. The National Homes Foundation, Washington, D. C., representing the manufacturers has issued a booklet embodying floor plans of the eight designs with half of the houses for farmers and half for village residents.

At the same time the United States Information Service is distributing two folders as part of the program. One folder is a "Housing Road Map" telling how governmental agencies can help farmers and others to obtain a new home or modernize present buildings. The second folder lists services offered by bureaus concerned with better housing.

Iron Tanks Are Porcelain Lined

A NEW MODEL, one-piece, all porcelain enamel hot water tank is being manufactured by Porcelain Steels, Inc., Cleveland, Ohio. It is said to be as impervious to corrosion as a china cup, combining beauty with durability. In the new tank's manufacture, all parts are enameled before being welded into position. Welding makes top and bottom integral parts of the tank. Electric resistance welding is used throughout. Strength of the welds is equal to the tensile strength of the base metal, "Armco Ingot Iron." Inside and outside of the one-piece tank are covered with royal blue porcelain enamel, fused on the underlying iron.

Each tank is guaranteed by the manufacturer, who says the unit will not rust but will deliver the water as clean and pure as it enters the tank. These "Porcel-Clad" tanks are manufactured in various sizes for range boilers, as well as for gas and electric storage water heaters.

New Type of "Gun" for National Defense

NOT BULLETS but glue is the ammunition used in a "gun" recently put on the market by I. F. Laucks, Inc., Seattle, to take the mess and waste out of glue application in the field.

A boon to artisans on the job and endorsed by more than 50 leading prefabrication contractors, this handy tool has become standard equipment for many defense housing jobs all over the United States.

Sturdy but light in weight and easy to propel, this novel device holds 2 quarts of wet glue—enough for 408 lineal feet of studding

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—and dispenses a 1-inch glue line of unusual evenness. The narrow ribbon, if self-bonding water-resistant glue is used, is sufficient on the slightest even pressure to provide permanent bondage between 2x4's and wall boards. This pressure is usually obtained on the job where press equipment is not available by using double-headed nails which can be extracted after the glue has set.

Developed especially as an aid in prefabrication, this versatile gun marches up studs in place and leaves its trail of glue as easily as it does across flat pieces. The flow of glue is adjusted to give a continuous line whether applied vertically or horizontally. A carefully regulated doctor bar in combination with a corrugated roll at the nose of the gun assures this uniform flow whether the gun is tipped one way or another and whether it is full or near empty.

Of interest to the workman on the job is the ease of cleaning the Laux gun. Stoppers at either end facilitate removal of all traces of glue after an operation by simple washing of the gun in hot water. The use of stoppers also assures easy filling with glue. To guard against corrosion, the gun is oxosealed. If desired, it can be had in larger sizes with special flow adjustments for particular requirements.

In their development of self-bonding glues requiring a minimum of pressure for proper setting, Laucks chemists experimented for many years with various types of glue applicators for field use. The object was to get equal results on a variety of surfaces. For example, plywood, insulation board, and other dry-wall materials each presented different problems of porosity, glue affinity, etc. The present gun, which is equally efficient on all types of wall gluing jobs, is the result of this long research.

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This new gun "shoots" glue.

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Gordon C. Estes Joins Certain-teed

CERTAIN-TEED Products Corp. has announced the appointment of Gordon C. Estes as assistant to C. E. Stedman, vice president in charge of sales, with headquarters at 100 E. 42nd St., New York City. The appointment took effect June 16, 1941.

Mr. Estes comes to Certain-teed from Chicago where for more than 20 years he was associated with The Lehon Co. as general sales manager and was an important factor in the growth, sales and distribution policies of that company during the past two decades.

The
MERIT-METER proves
MESKER STEEL SASH
gives you at least
35% MORE
QUALITY
for your money!

★ STEEL SASH "MERIT-METER" ★

POINT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
SWORN BASIC FACTS USED ARE FROM 1940 SWEETS CATALOG																					
MESKER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	85%
SASH-A	YES	YES	YES	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO	NO	50%
SASH-B	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	30%
SASH-C	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	25%
SASH-D	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	30%
SASH-E	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	35%

Make The VISUAL-TEST

SEE the difference
FEEL the difference
KNOW the difference

★ **The MERIT-METER**
Sworn facts taken largely from 1940 edition of Sweet's Architectural Catalog File. A point-by-point comparison of steel window quality features. Very enlightening.

★ **The VISUAL-TEST**
A handy kit that compares the gauge of metal used in MESKER weathering bars with ordinary steel sash.

Thousands of MESKER Steel Windows installed all over the continent . . . in good condition even after years of service . . . are the best proof of quality workmanship and materials. But the MESKER "Merit Meter" and "Visual Test" explain the reasons why . . . simply, truthfully, understandably. Mail the coupon today . . . we'll send you both . . . free!

SINCE 1879

Mesker BROTHERS
424 SOUTH 7th STREET
ST. LOUIS, MO.

CASEMENT WINDOWS
•
MONUMENTAL WINDOWS
•
INDUSTRIAL WINDOWS

INDUSTRIAL DOORS
•
METAL SCREENS
•
DETENTION WINDOWS

Send for yours Today!

MESKER BROS. 424 SO. 7th ST., ST. LOUIS, MO.

Without obligation send us: Ready Reference Steel Sash Merit Meter
 Visual Test Kit Fileworthy Literature on Mesker Steel Sash
 Illustrated Steel Sash Price Book Mesker Dealer Plan

Firm Name _____
 ARCHITECT BUILDER DEALER

Address _____
(GIVE STREET ADDRESS OR P. O. BOX NO.)

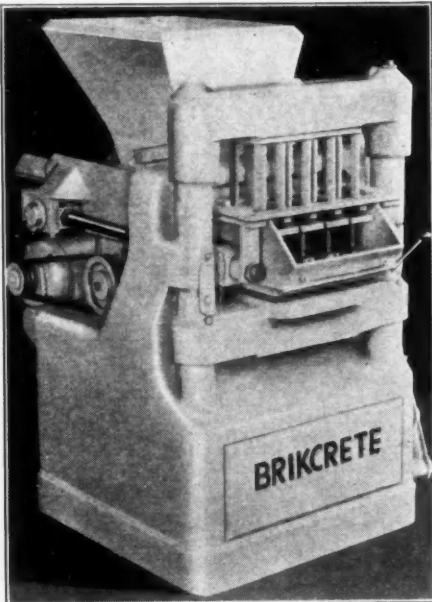
City _____ State _____

U-AB-81

New Brikcrete Densifying Machine

DESCRIPTIONS have been received of the new Brikcrete densifying machine, and a brief resume should have interest for those interested in the manufacture of masonry building materials.

According to its sponsors, Brikcrete Associates, Inc., 4673 Division Avenue, S., Grand Rapids, Mich., this machine inaugurates the principle of high-speed core oscillation, the value of which is the providing of "multi-directional packing" to the walls of the units being manufactured, thereby securing the maximum of density and compressive strength. It is explained this method is more efficient than either the conventional tamping or any form of vibration.



CEMENT brick compacted by oscillation

For the benefit of those not familiar with Brikcrete, it may be explained that this product is a cellular unit, with a large percentage of void for insulation value, and with extra wall strength to compensate for a large reduction of weight. Regular sizes (laid up) are 12 x 3½ x 3¾ and 12 x 3½ x 7¾ inches, thereby qualifying for both 4" and 8" walls. It is claimed that the combination of light

weight and ample strength is possible only through the special method of densifying the materials, and because of this the principle employed is all-important. While the same proportion as ordinary brick, Brikcrete is actually twice the size, thereby reducing the number of mortar joints in the wall and presenting a clean, symmetrical appearance.

New Cutler-Hammer Multi-Breaker

A NEW 230 volt industrial Multi-Breaker—at little more than the cost of a type A switch—is announced by Cutler-Hammer, Inc., Milwaukee.

This new breaker affords exceptionally economical application as a motor circuit switch or service disconnect switch. It is fuseless, with bi-metallic strip actuation, visible trip indication, and trip free lever. It is quick make and quick break, with a rated capacity of 230 volts from 15 to 100 amperes, available in 3 pole, 3 pole solid neutral or 4 pole solid neutral types. Calibration is set at the factory and cannot be tampered with. The breaker is completely enclosed and semi-dust-tight. Front access and operation make this breaker convenient, compact and economical of space.



C-H Multi-breaker

New Vitrolite Has Nailing Mount

DUE TO A NEW revolutionary manufacturing process which makes it possible to nail structural flat glass to studding, lumber dealers are in an excellent position to make the bathrooms and kitchens in all houses they sell more beautiful, sanitary and convenient.

The product, a prefabricated form of Vitrolite structural glass manufactured by Libbey-Owens-Ford Glass Company, Toledo,

BUILT-IN telephone outlets are effective sales points with today's critical home buyers. They're visible evidence of quality construction. Connected by conduit, they eliminate the necessity of exposed wiring. They add much to living comfort. When installed while the house is being built, telephone outlets—like electric outlets—cost little.

• You'll find the "Architects' and Builders' Service" of your local telephone company glad to help in planning efficient telephone arrangements. Call your nearest Bell Telephone Business Office and use this time-saving service.



speeds up installation and, accordingly, lowers the over-all cost to a point where small homes can have the advantage of lustrous color that remains gleamingly beautiful through the years. Easy-to-clean glass walls around a bathtub, above a kitchen sink, or behind a lavatory are now available to millions of home owners who previously could not have had them.

The prefabricated panels consist of slabs of sparkling Vitrolite cemented, at the factory, to a plasterboard in such manner that a flange is left around the edges of the glass. Nails driven through the extended backing directly into studs securely anchor the Vitrolite units into place. Dry wall construction or lath and plaster work proceeds as usual with the prefabricated glass panels fitting flush with the rest of the wall surfaces. No moulding is needed around the edges of the Vitrolite following installation. The units are furnished any height up to 48 inches.



PREFABRICATED Vitrolite structural glass units are nailed to studding in this manner, making installation by a carpenter possible. The edges of Vitrolite resting on the tub are buttered with pointing compound before sections are nailed.



SPARKLING Vitrolite wall glass for bathrooms and kitchens can now be a feature of any home no matter its cost, thanks to the introduction of the material in prefabricated units. Impervious to water, Vitrolite will never swell, warp nor craze, and is kept permanently new looking by wiping with a damp cloth.

Note.

- (1) Bowline Knot for tying weights on Samson Spot cord is stronger, safer, just as easy if not quicker to tie, and causes weight to hang dead center.
- (2) Half hitches and other types of slip knots sometimes used are not nearly as secure.
- (3) It is possible to tie 20 windows, 4 weights to a window, in less than an hour.

The above is just a suggestion — just one builder's idea. Tie the knot as you think best but be sure to use Samson Spot Sash Cord — it gives dependable satisfaction. There is no more economical, more permanently trouble-free method of hanging double hung sash than with cord, weight and pulley. Samson Spot Sash Cord is generally specified by architects, recommended by dealers and preferred by builders. Identified by the Colored Spots, our trade-mark (Reg. U. S. Pat. Off.)

SAMSON CORDAGE WORKS · BOSTON



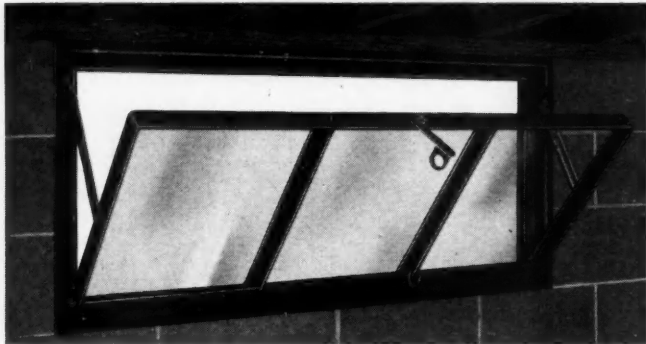
**SAMSON
SPOT**

SASH CORD



VENTO CHAMPION

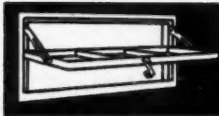
The ONE Basement Window that STANDS OUT head and shoulders above all the others



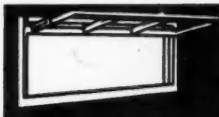
Normal indirect ventilation provided by simply unlocking and pulling forward.



Any degree of ventilation may be obtained by slight downward pull on ventilator.



Ventilator is perfectly balanced and always works easily.



Window opens from either top or bottom. Ventilator may also be quickly and easily removed.

Heavy double channel, pressed steel frame. All welded construction. Furnished for either putty or puttyless glazing.

The VENTO CHAMPION with its two-way operation, perfectly balanced, always easy to operate ventilator and all around quality construction is just as superior today as its long line of predecessors were when they pioneered and introduced puttyless glazing, versalator operation and many other of the leading developments in basement window construction.

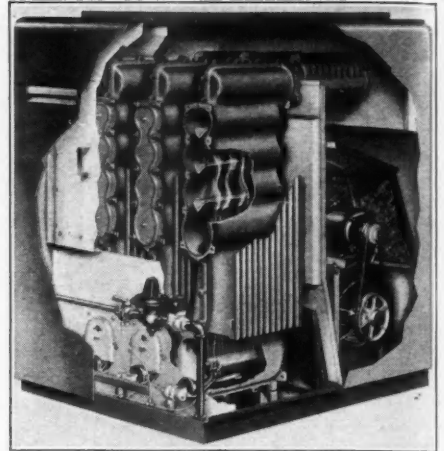
It always pays to use the BEST. And that's particularly true in the case of basement windows, for VENTO CHAMPIONS will add sales punch to your basements without adding one cent to costs. They cost no more than any other first line windows. Ask your dealer to show them to you or write for descriptive literature.

VENTO manufactures a complete line of steel sash to ideally suit every building requirement and enjoys an enviable reputation for dealer cooperation.

VENTO STEEL PRODUCTS COMPANY
MUSKEGON MICHIGAN

New Sunbeam Gas-Fired Air Conditioner

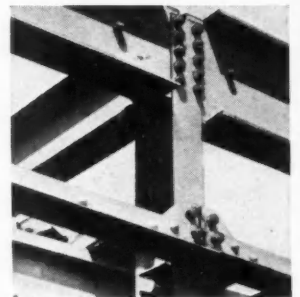
WHEN you see the New Mohawk Gas-Fired Winter Air Conditioner, newest member of the American Radiator's "Sunbeam" family, you'll say: "This is my idea of a truly modern heating plant!" It is streamlined and finished in two-tone blue. It has no protruding pipe, controls or gadgets. The Mohawk is a completely automatic unit; comes in nine sizes with inputs ranging from 60,000 to 300,000 Btu per hour. The burner is made of cast iron with high temperature alloy, corrugated ribbons. Burns natural, manufactured, mixed or bottled gas.



CUTAWAY view of the Mohawk showing the compact construction and sound engineering of the newest member of the "Sunbeam" family.

Elastic Stop Nut Plant Enlarged

TO meet the increased demand for its line of self-locking nuts, the Elastic Stop Nut Corporation has doubled the floor space of its plant at Union, New Jersey. The original building was erected in 1940 by The Austin Company, and has attracted considerable attention by virtue of the fact that all of its steel construction is fastened with bolts and Elastic Stop Nuts, instead of rivets.



BOLTS with stop nuts used instead of rivets.

New Louden Ventilating Window Has "Wavy Wings"

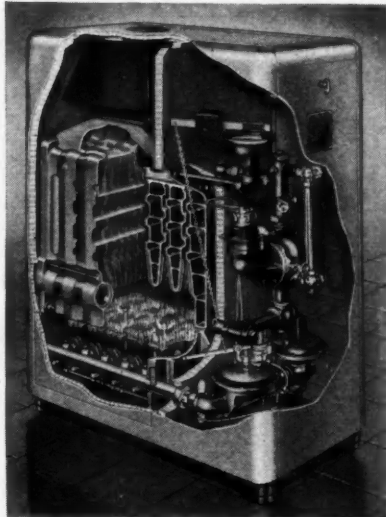
A BRAND new principle of construction, for which patents have been applied, called "Wavy Wings" gives this new Louden ventilating window, developed by the Louden Machinery Co., Fairfield, Ia., many advantages, such as absolute one-hand operation, quicker opening and closing, no draft ventilation, simple construction, and also allows eight different positions for the window. The steel part of the window has been bonderized to eliminate peeling, chipping, spread of rust, and does not warp the windows. It's the latest addition to the complete line of Louden steel windows, wings and frames.



"WAVY WINGS" hold window in several positions.

New Feature in Gas Boilers

STYLING a complete line of gas-fired boilers without any external accessories or draft stabilizer offers a new eye appeal sales aid and is introduced by The National Radiator Company, Johnstown, Pa. Now a complete line of gas heating units can be obtained with the draft stabilizer concealed under the top of the boiler jacket. The special design permits styling the complete unit with compact proportions. The jacket is finished in a soft crinkled French gray color.



NEW "National" gas boiler

Additional features include: "National" designed gas actuated fuel and boiler controls, tapered flue-ways with staggered ribs projecting into the path of the gases. Scrubbing contact with the entire heating surface is assured by the use of vertical ribs at the bottom of each section which spread the gases upward and outward over the section.

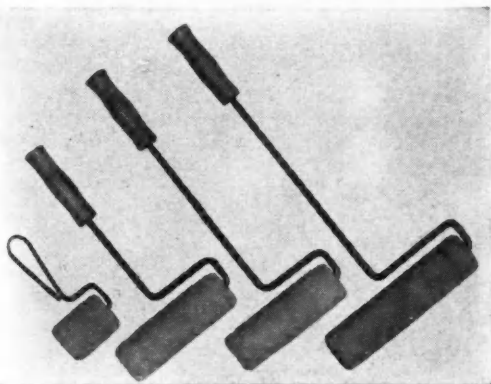
Internal baffles pitched at an angle increase water circulation. Anti-surge baffles in steam boilers prevent priming and also knock out entrained moisture for dry steam at the outlet.

Recessed burners and mixing tubes have gas-tight joints and prevent "popping" noises when burners light.

Red Devil Buys Chicago Roller Stippler Co.

LANDON P. Smith, Inc., Irvington, N. J., manufacturer of "Red Devil" Roller Stipplers and other painters' and glaziers' tools, has purchased the entire stippler business of the Chicago Roller Stippler Co., Chicago. All tools, dies and machinery are being moved to Irvington, N. J., and the entire line will be available, in both standard and deluxe models, along with other Red Devil tools for combination shipments from the Irvington plant.

The Chicago Roller Stippler Co., was the originator and pioneer in the roller stippler business, one of the fastest growing painters'



"Red Devil" roller stipplers.

equipment lines during the past five years. This tool, which has a replaceable cover, has made it easy by a simple light, rolling action to do work formerly requiring utmost skill and tedious effort. More beautiful painted walls and ceilings are assured because the stippling created by this method is always perfectly uniform and works equally well with flat or gloss paint.

Cash for Champion Truck Drivers

WHEN the nation's top flight truck drivers converge on New York's famous Madison Square Garden next October to take part in the fifth annual truck driving championship contests or
(Continued to page 102)



HEAT FOR THE HOMES YOU BUILD!

YOU NAME IT- WE'LL SUPPLY IT

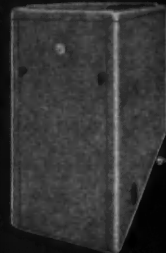
COAL FURNACES

BLENDED-IRON and steel gravity units; hand-fired forced air unit; stoker furnace and air conditioner; perfected stokers.



OIL FURNACES

COMPACT oil-burning air conditioners; vertical units for small homes without basements; oil burners for any type furnace.



GAS FURNACES

AUTOMATIC gas-burning winter air conditioners for homes of every size; vertical models for utility room installation.



Rely On Your Round Oak Dealer!



ROUND OAK

of Dowagiac, Mich.

STOVES • RANGES • FURNACES • OIL BURNERS • AIR CONDITIONERS • STOKERS

CLIP AND MAIL TODAY!

Round Oak Company, Dowagiac, Mich. — Dept. AB-8

Send literature and complete information on Round Oak Coal Furnaces Oil Furnaces Gas Furnaces

Name _____

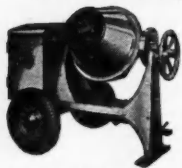
Street _____

City _____ State _____



30% to 40% MORE CONCRETE with this Latest Jaeger 3 1/2 S

• Load Measuring Batch Hopper (12" lower) while you mix and discharge — fast as a power loader.



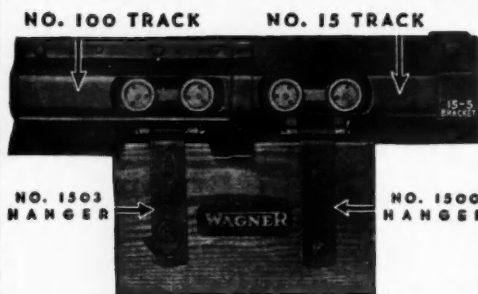
3 1/2 S HIGH SPEED FILTER TRAILER
Also 5S, 7S, 10S, 14S
Power Loader Non-Tilts
with Automotive-Type
Transmission, Machined
Steel Drum Tracks.

- Criss-Cross "Re" - Mix Drum gives more thoro mix, faster discharge.
- Accurate Measuring Water Tank is fast, syphon type.
- 3 3/4 H.P. Air-Cooled Wisconsin Engine — lightweight, compact.
- End Discharge Design — handy to pour, fast to trail on Timken Bearings, Springs, Pneumatic Tires.
- Most advanced mixer on market. Get new Catalog and prices.

THE JAEGER MACHINE CO.
521 Dublin Ave. Columbus, Ohio

JAEGER 1940 SPEEDLINE

WAGNER TRACKS AND HANGERS



A complete modern line for every purpose. No. 1500 series Roller Bearing Hangers operate in both No. 100 and No. 15 Track. One Hanger — two tracks. Simplifies installation. Assures satisfaction. Write for literature.

NEW FOLDING ALL-METAL SAW HORSE LEGS!

One of the most USEFUL items ever developed for the building industry. These all-metal legs fold for easy transportation—never wear out—set up in seconds with any 2x4 or 2x6. Save material—save time. Alligator grip holds legs securely. 2 heights—24" and 30". Ideal for temporary tables, stands, counters, etc. Hundreds of uses.



WAGNER MANUFACTURING COMPANY
DEPT. AB-841, CEDAR FALLS, IOWA

(Continued from page 101)

"rodeos" of the American Trucking Associations, they will compete against the largest field in the history of the event.

This year's competition will be stiffer than last year because 31 states—eight more than last year—have already announced their intention of conducting state championship contests, the winners of which will be sent to New York to compete in the national finals. The stakes will be higher, too.

As evidence of its appreciation of the driving efficiency, courtesy and safety practices of the nation's truck drivers, the International Harvester Company has announced cash awards to be distributed to 1941 state champions.

Conference Booth Shuts Out Noise

THE BURGESS Model 501 Conference Acousti-Booth, for use in noisy plants where a quiet conference place is necessary, has just been announced by the Burgess Battery Company, Acoustic Division, 530 West Huron Street, Chicago. Similar in construction to the Burgess Telephone Acousti-Booth, this new conference booth has walls of sound-absorbent construction to soak up factory noise.



Quiet booth for noisy plants

It is designed to meet the need for a large "zone of quiet" for conferences in noisy factories, for use where several telephones may be installed in one location, and for testing operations such as listening for noise in electric motors. It may even be used as a temporary miniature office in new or remodeled factories where construction is not complete.

Sound absorbing walls in the conference booth blot up extraneous noise and allow persons within to carry on work without noise interference. The doorless entrance at each end permits ready access to the booth and provides ample natural ventilation. Acoustic construction of the booth makes doors unnecessary. A folding table—23 1/2" x 24"—and overhead electric light fixture add to its convenience. It is easily portable and can be assembled and ready for use in a few minutes time; constructed of heavy gauge steel and finished in black wrinkle finish on the exterior, with gray interior. Outside dimensions are 56 1/2 in. long, 54 1/2 in. wide, and 79 1/2 in. high. Shipping weight 1000 lbs.

"Good-Bye to Fuses"

"GOOD-BYE to Fuses" is a booklet recently published by Cutler-Hammer, Inc., Milwaukee, to acquaint home builders and remodelers with Multi-Breakers, the recent development in home electrical protection. Brief, non-technical stories such as the Lesson of the Electric Toaster, The Frayed Lamp Cord, and the Case of the Additional Waffle Iron, unfold the miracle of electric service to the layman and explain what goes on in the network of electrical wiring that lines the walls of his home.

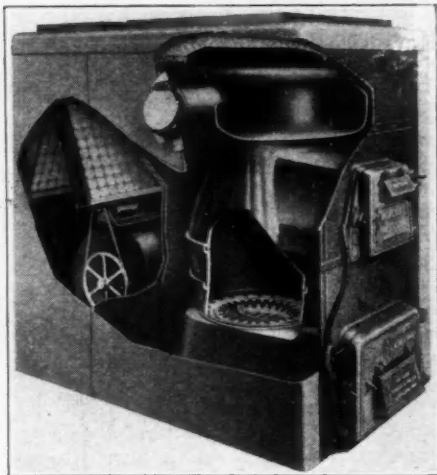


It is claimed that this new device banishes forever the nuisance of blown fuses; eliminates that exasperating trip to the neighborhood store when no fuses are to be found in the house; ends the annoyance of long delays in household operations.

NEW information on fuseless circuit breakers.

New "Aristocrat" Conditioner

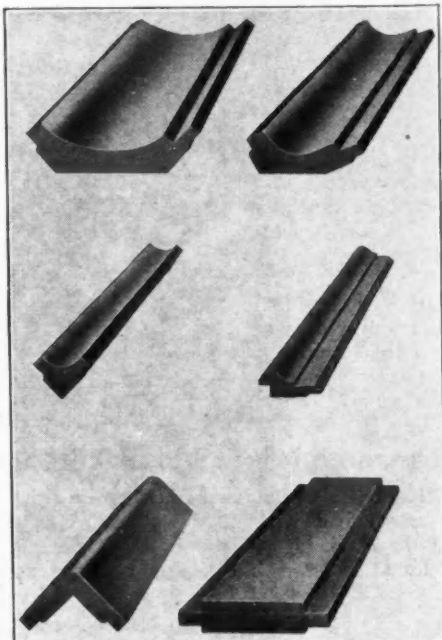
THE HENRY Furnace and Foundry Co., Cleveland, has recently placed on the market a newly designed "Aristocrat" coal-fired winter air conditioner with cast heating element. Improved features include the large heating capacity in a more compact unit and modernly styled cabinet with metal floor which makes it an airtight, dust-proof heating chamber. Quiet running blower available in extra large area to circulating air; thermo-drip or automatic June humidifiers. Extra heavy heating element eliminates all but four joints inside cabinet. Automatic controls govern all operations.



"ARISTOCRAT" conditioner as seen in cut-away view

Upson Decorative Mouldings Complete Upson Board Finish

THE UPSON CO., Lockport, N. Y., has developed a special line of decorative mouldings for use with Upson Fibre-Tile and Upson Strong-Bilt panels. They harmonize with these materials, assuring a high grade finish for walls and ceilings, either panelled or plain. These mouldings, as illustrated, include crown and cove moulds, picture moulds, panel markers and joint covers, inside corners and outside corners, caps, edgings, etc.



UPSON decorative mouldings harmonize with panels

Another specialty which Upson has developed to solve certain panelling problems is the Upson floating fasteners (not illustrated). This patented fastener entirely eliminates surface nailing. It securely anchors the panels from the back—no nail heads on the surface to mar the smooth beauty.

Expects Too Much Expansion

Louisville, Ky.

To the Editor:

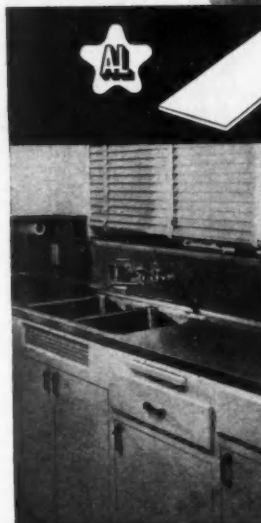
I think your advance proof of August editorial on housing priority rumors is a very excellent job of debunking a lot of the bunk that is now going around about material scarcity.

You might be interested to know that I have talked recently with several large lumber producers, who say they fully expect the market to be flooded soon with such cheap lumber that no large operator can expect a profit. That doesn't sound exactly like a shortage, does it?

WARWICK ANDERSON
Doe-Anderson Adv. Agency.

It's Allegheny Stainless!
FOR COUNTER TOP AND BACK SPLASH

LUDLITE BORD

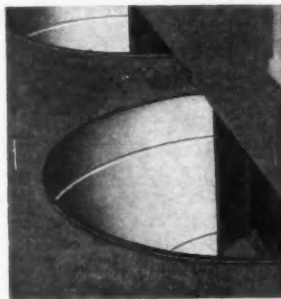


Genuine Allegheny Stainless Steel on Minimum Fiber Backing.

● In a recent development of 130 homes, 117 of the buyers chose Ludlite Bord for their kitchens. Use this economical form of genuine Allegheny Stainless on your jobs—clients like it! Ludlite gives the permanent surface of solid stainless without metallic ring. In the pebbled finish, it's neat, lasting, non-scratching. For data on this Allegheny Stainless building material, write Department S-136.

ALLEGHENY LUDLUM STEEL CORP.
LUDLITE DIVISION · WATERVLIET, N.Y.

Faster Construction at LOWER COST with DONLEY AREA WALLS



Quickly installed by inexpensive labor, these substantial, low cost metal Area Walls are saving money and time for builders all over the country. Users report savings of up to 50%.

Designed to offer least surface to frost action—do not crack and disintegrate like masonry. Arch-formed and ribbed for strength. 16 ga. copper bearing steel, protected by two weather and corrosion-resisting coatings, carefully crated.

and DONLEY ATTIC LOUVERS



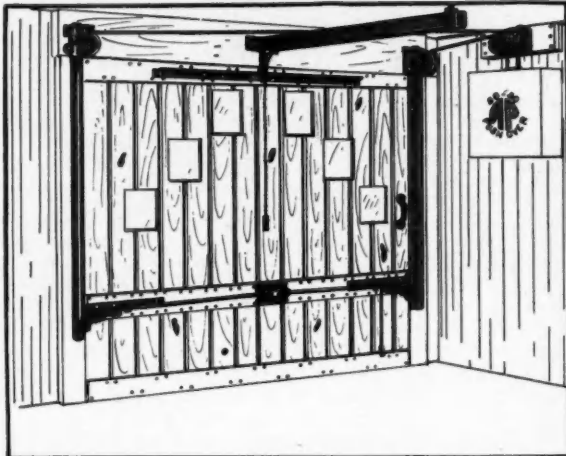
Substantial, well-made, these steel attic louver ventilators are low in first cost and easy to install. In frame construction, all that is necessary is to cut an opening in the sheathing, nail flashing flange to sheathing, butt shingles or siding against ventilator body and that's all—no wood trim needed (installation in brick is just as easy).

Complete with bronze fly screen fastened to inside, made of 20 ga. steel electrically welded, finished with two coats of special paint for double protection. Rectangular shape in 10 sizes up to 18" x 36", also made in half-circle and quarter-circle shapes.

The DONLEY BROS. Co.
13910 Miles Avenue • Cleveland, Ohio

ALLITH

PUSH-OVER Garage Door Hardware



One of the many designs of doors on which the 50-50 Pushover is ideal

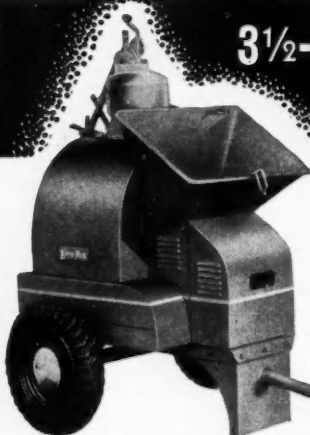
PROFITABLE TO YOU BECAUSE . . .

- . . . Every installation means another booster for you and Allith PUSH-OVER DOORS.
 - . . . Your customers' neighbors will become immediate prospects.
 - . . . They're quickly and easily installed.
- The PUSH-OVER Stock Set fits all openings up to 8' 11" wide by 8' 0" high and takes only 5½" headroom. Larger sets available up to 16' x 8'.

Write us for prices and descriptive folder.

ALLITH-PROUTY, INC.
DANVILLE, ILLINOIS

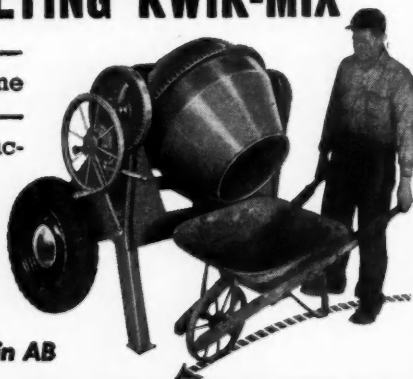
3½-S NON-TILTING KWIK-MIX



- Modern rubber tired roller drum drive—No ring gear—No countershaft—Less wear—Smooth running—Load while mixing—Increased production—End discharge.

3½-S TILTING KWIK-MIX

- End discharge—Air-cooled engine—Light weight—Welded construction—Anti-friction bearings—Spring mounting—High speed trailing.



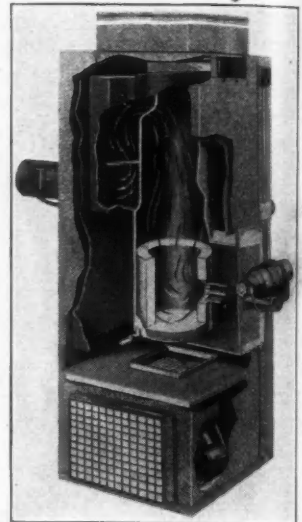
Write for Bulletin AB

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

Small "Round Oak" Conditioner

LATEST addition to the line of heating equipment manufactured by the Round Oak Company, Dowagiac, Mich., is the 60-BD Automatic Oil Heat Winter Air Conditioner—designed and built especially for the small, moderate-price homes where minimum space is available for heating units. Cabinet is 26" x 26" and 70½" high.

Illustration shows pre-cast combustion chamber combined with pressure-atomizing oil burner; also compact assembly of jointless steel drum and radiator. Baffled radiator is used to extract heat from combustion gases. Centrifugal type blower is located at bottom of unit. New type Round Oak Humidifier is automatically controlled by Snap-Action Valve. Filters have large cleaning surfaces and can be installed at back and left or right—or on both sides—to suit the return air system layout. Complete unit is cased in blue Hammerloid cabinet.

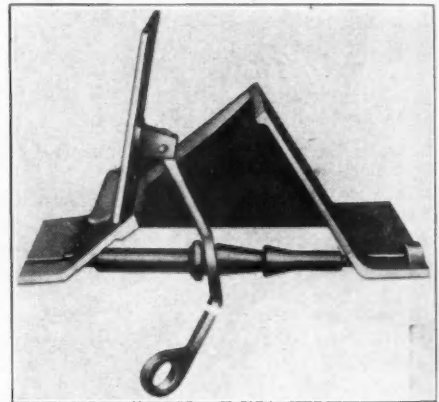


NEW small "Round Oak"

New Damper Control

AN IMPROVEMENT in fireplace damper construction has been made by the Majestic Company, Huntington, Ind. The key feature is an ingeniously designed poker control mechanism.

The operating lever of this control has a circular opening which enables it to move freely over a thick horizontal bar designed with two offsets or stops. An easy movement slides the operating lever over the stop bar to the first offset, at which point the damper valve is maintained in a half open position. Similarly, the valve is fully open when the lever is moved to second offset.



POKER-controlled fireplace damper

Ransome Mixer Mounted on Mack Chassis

PICTURED here is an efficient new truck serving the builders' supply field. The unit, a model EQ Mack, is owned and operated by the H. S. Mensing Co. of Somerville, N. J., and is fitted with a Ransome 3-yard hi-discharge type mixer.



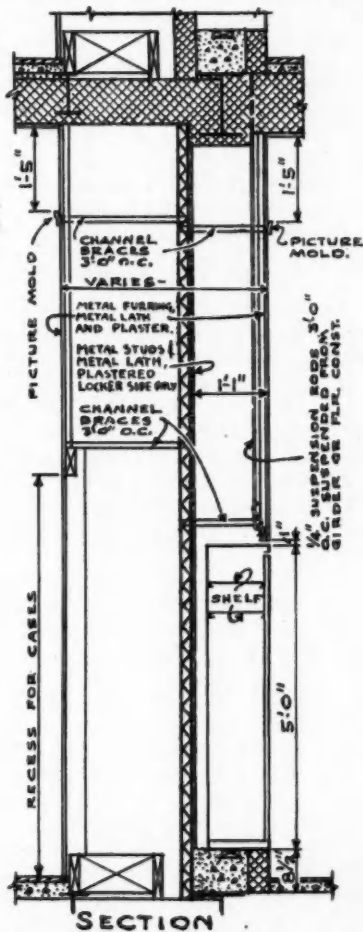
The new type of mixer installed on this Mack truck permits longer and steeper chutes to put the concrete directly into high forms or buckets and eliminates waiting at the job.

PRACTICAL JOB POINTERS AND BUILDING DATA

AN EXCHANGE of ideas and methods in building practice. For individual contributions, two dollars or a year's subscription to American Builder is paid when published; state occupation.

How to Install Suspended Furring for Partitions Over Cabinets and Cases

THERE are a number of instances when it will be found most practical to use metal lath and plaster partitions suspended from ceiling or roof structural members—it might be impractical to stand a partition on the floor over lockers above which the partition bottom ends; sometimes furring is so high that it is more economical to suspend it from members overhead than to try to stand it on the floor; sometimes a floor has not sufficient strength to carry the weight of a partition in cases of alterations, etc.



DETAIL of suspended furring over cases.

In all those cases the metal lath and plaster partitions can be suspended from ceiling or roof structural members above, economically and satisfactorily.

Suspended furring is commonly used in school buildings over lockers in which there is no way to rest a partition on the floor. It is also in common use in store buildings and other buildings that have cabinets or show cases over which a partition is required.

The sectional detail shown here illustrates one of the accepted practices for the installation of suspended furring. Lockers and cases are arranged on both sides of a metal stud partition; the intervening space between the tops and the ceiling line is carried flush with the faces with plaster on metal lath. Cross bracing is indicated.

Do More Work in Less Time...



with a
HOMELITE
Portable
Generator

Operate time-saving electric tools with a Homelite Gasoline-Engine-Driven Generator. Eliminates costs, delays and red tape of power installations. Furnishes plenty of power—1800 watts 110 volts—enough to operate several tools at top capacity. Easy to set-up by one man—weighs only 83 pounds complete. Easy to operate. Practically automatic. Requires no long cables. Very economical on gas. Weather proof, foolproof and built for rugged service.

Send for complete bulletin

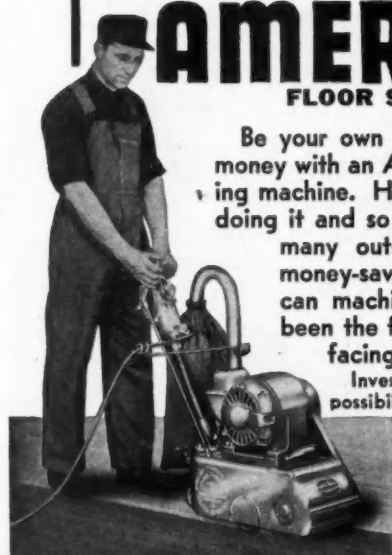
HOMELITE CORPORATION

1908 Riverdale Ave., Port Chester, N. Y.

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AMERICAN

FLOOR SANDER



Be your own boss and make big money with an American floor sanding machine. Hundreds of men are doing it and so can you. With the many outstanding, time and money-saving features, American machines for years have been the favorite of floor surfacing men.

Investigate the wonderful possibilities of this work today. Be sure to sign and send in the coupon below for complete details and prices—no cost or obligation to you.

AMERICAN FLOOR SURFACING MACHINE COMPANY

511 SO. ST. CLAIR ST.

TOLEDO, OHIO

Gentlemen:

- Send complete details and prices without cost.
 I want to go into floor surfacing business.
 I would use sander in my contracting business.

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Street _____

City _____

State _____

YOU WILL FIND
PECORA CALKING COMPOUND
CHEAPEST IN THE END

IT costs less in the end to use Pecora Calking Compound because Pecora will thoroughly seal all joints, is always uniform in performance, and will outlast by many years materials of lesser quality. For Pecora will not crack, chip or dry out when properly applied. Used by leading builders since 1908. Available in bulk, also in non-refillable metal cartridges for the handy time-saving Pecora High Pressure Calking Gun illustrated. It will pay you to try Pecora the next time you have a calking job.



Use This Gun
 With 3 Nozzles and 4 Cartridges of approx. 1 qt. each
 Shipped Express \$7.00 Collect for
 2% disc. net cash with order.
 To approve credits 2% 10 days. 80 days net. F. O. B. Philadelphia, Pa.

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 PECOMASTICS FOR STRUCTURAL GLASS INSTALLATION

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The Time-Saving, Money-Saving, Work-Saving, SEALER and PRIMER



For better, easier, quicker, more economical wood finishing — use REZ, synthetic resin sealer. Ideal for doors, floors, plywood, mill-work, sash, trim — REZ is approved on government projects. Use REZ on your next job!

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Home Insulation, an Effective Conservation and National-Defense Measure¹

By PAUL M. TYLER²

Portions of a new government bulletin issued as part of Secretary Ickes' campaign to conserve fuel oil

LOW-COST housing, like automobiles, should be appraised in the light of not merely first cost but of upkeep as well. Even more important than the number of miles the family car will go on a gallon of gasoline is the number of days the family home can be kept comfortable on a ton of fuel. A furnace tender who tossed every third shovelful of coal into the ashcan would lose his job promptly, but the effect is the same when homes continue year after year to pour out heat through uninsulated roofs and walls. Greater economy in household heating means even more to the national economy than to the individual, especially now that we are preparing for defense. Our fuel resources, although large, should be conserved. If less fuel is used for civilian needs, augmented requirements for defense can be met without unduly increasing the number of men needed at the coal mines and oil wells or adding new producing units that might complicate ultimate readjustment to peacetime conditions when the emergency is past and over-expansion of many industries brings new problems. If unnecessary demands for transportation facilities are reduced, public carriers will be able to haul more munitions, and manpower needed for national defense will be released; and by protecting workers from health hazards in their homes additional man-hours of productive effort will be gained. Moreover, reducing the running expenses of houses by proper heat insulation helps home owners to maintain payments on property, and by minimizing foreclosures helps to stabilize the financial structure of the country. In short, here is a situation where the interests of the individual and the Nation are identical and the greatest good for the greatest number is obtained without sacrifice to anyone.

Possible Savings

Ours is a lavish land. In contrast with the poverty general in other parts of the world, the life in any large American city seems wasteful in the extreme—the blaze of lights, the profligate consumption of gasoline in driving half-empty cars, the abundance of food, the extravagant clothing, and the overheated homes and offices. Much of this waste, however, is merely on the surface. The real enemy of abundant living is not so much visible as invisible waste. Because our homes are better-heated than foreign homes it does not mean that Americans are extravagant. In fact, a single central-heating unit may keep a whole house warm with less coal, or its equivalent in oil or gas, than our grandfathers burned in scattered fires in open grates that left chilly corners in every room.

Fuel saving naturally begins at the source, and to produce heat efficiently for a given dwelling means selecting the proper fuel and burning it in a furnace designed to release as much as possible of the full heating value of the fuel where it will do the most good. This process is complicated and involves not only proper burning of fuel but also capture of the heat in a suitable transmitting medium—steam, water, or air. Efficient production of heat, therefore, is still a fruitful field for research in fuel saving. Studies of the efficient use of heat cover another vast technologic field and have proved invaluable to the commercial success of many process industries. True heat economy in the home, however, has never commanded the attention that it deserves.

The United States today contains some 37,000,000 dwelling units, and during the next few years fully half a million more should be added annually, in addition to replacements. Defense housing alone is scheduled to provide 160,000 to 200,000 units, mostly frame structures costing an average of \$3,500 each.

Supplies of fuel for domestic purposes, chiefly heating, are drawn from various sources. In 1939, for example, sales of fuel for domestic heating or for heating offices, apartments, hotels, schools, hospitals, and other buildings in which people must be warm in the United States, as estimated by the Bureau of Mines, included approximately 35,000,000 tons of anthracite, 55,000,000 to 75,000,000 tons of bituminous and other classes of coal, 9,000,000 tons of coke,

¹Reprinted from Bureau of Mines Information Circular 7166.
²Chief Engineer, Nonmetal Economics Division, Bureau of Mines.

175,000,000 barrels of oil, and 760 billion cubic feet of gas. The total value of these fuels as reported by producers was more than \$670,000,000. Including transportation charges and retailers' expenses and profits, the American people pay over \$1,500,000,000 a year to keep themselves warm in their homes. Moreover, this figure does not cover the large quantities of wood used in fireplaces and stoves, much of which is cut and chopped by boys on the farm and thus escapes statistical analysis in dollar values. On the basis of the foregoing quantities, the average family uses nearly 5 tons of coal or equivalent fuel a year, and this estimate is low.

Average savings in coal-using efficiency in industry range from 20 percent in steel making to 56 percent in electric public-utility plants since 1918. Similar savings can be made in domestic heating. It has been estimated conservatively that fuel to heat the average American home in accordance with modern standards of comfort would cost about \$75 a year without insulation and only about \$40 a year with insulation. On the basis of an average saving of even \$25 a year with insulation, 200,000 defense houses would save the Nation well over \$5,000,000 a year if insulated. This saving is equivalent to 12,000 carloads of coal or 8,400 tank cars of oil. Additional savings might result from insulating cantonment buildings and other structures required to help make this country the "arsenal for democracy."

Most of the 500,000 new houses to be added annually will be financed by Government-insured loans. On the basis of \$25 a unit as the possible saving due to insulation, the potential wastage, if the houses were not insulated, would be \$12,500,000 in 1941, \$25,000,000 in 1942, \$37,500,000 in 1943, and so on until by the end of the tenth year it would amount to \$125,000,000 annually. As the capital cost of insulation now can be repaid by the savings on fuel each year, no good reason is apparent for tolerating such waste in new construction. If similar savings could be applied to the 37,000,000 existing dwelling units in the United States, potential savings would be approximately \$1,000,000,000 a year.

Years ago, the National Bureau of Standards (T. I. B. M. 15, May 18, 1936) showed that frame construction, with wood shingles over building paper and 3/4-inch wood sheathing outside and 3/4-inch plaster and metal lath or 1/2-inch plasterboard or wallboard alone) inside, had an insulating value⁹ of 4.6, when the 3 3/8-inch air space was unfilled. When this space was filled with mineral wool the value rose to 16.0. Corresponding figures for a 4-inch brick-veneer wall over the same paper and sheathing and the same interior wall finish were 3.7 when the air space was unfilled and 15.1 when it was filled (T. I. B. M. 14).

Another interesting Bureau of Standards tabulation (T. I. B. M. 3, March 4, 1936) shows estimated fuel savings up to 40 percent due to the application of simple heat-loss preventives to walls and roof of an unprotected house, and with suitable weather-stripping and storm sash applied to doors and windows the total savings were boosted to 60 percent.

Service Tests

Laboratory tests can be conducted under ideal circumstances, but many field tests have been made to prove the resistance of walls and roofs to passage of heat in houses of different types, subject to variable wind velocity and sharp changes in temperature and humidity. One of the first series of practical field tests on house insulation ever conducted by the Federal Government is reported in an official bulletin of the Tennessee Valley Authority, entitled "Studies in the Heating of Small Houses," published in June 1939. These tests revealed that complete wall, floor, and roof insulation may cut the fuel bill of a typical house in a relatively moderate climate as much as 44.75 percent. They further indicate that the saving might be increased to 50 percent. The tests were conducted in two adjoining basementless houses in the Hiawasee Dam community of North Carolina with occupants actually living in the house.

In these small houses the extra cost of insulation was only \$113, about one-half of which might be saved under normal circumstances in a newly built house because of the smaller heating plant that would be required. In a hypothetical northern locality with what is technically known as a 6,000-degree-day heating season, yearly dividends would be \$45.50 heating with electricity at 1 cent a kilowatt-hour, \$13.20 using oil at 8 1/2 cents a gallon, and \$11.93 for coal at \$12 a ton.

(Continued to page 108)

⁹The unit in these tests was the number of hours required for passage of 1 B. t. u. of heat through 1 sq. ft. of wall area per 1° F. temperature difference between air on one side to air on other side.

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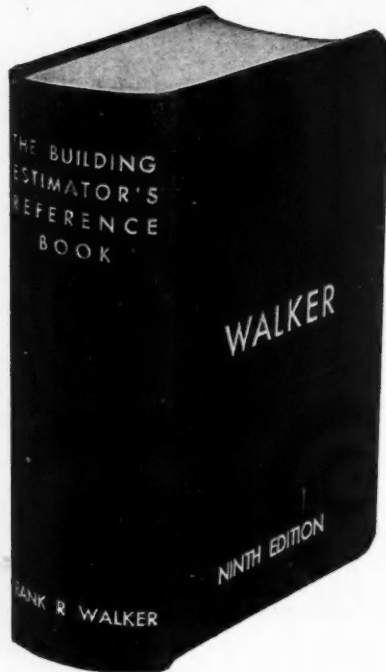
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(Continued from page 107)

Even in the mild climate of Hiawasee, N. C., the savings in dollars and cents were worthwhile. The tests proved that insulation, in this case mineral wool, does not cost the house owner a cent. It begins to pay for itself the day it is installed and continues to do so as long as the house is occupied. John B. Rodee, of the Pierce Laboratory of Hygiene, New Haven, Conn., addressing architects and builders (Architectural Forum, March 1940), points out that if someone broke a window the owner of the house would replace it as quickly as possible, as the heat that would escape through the broken pane would soon cost more than replacing the glass. Although the heat that escapes through an uninsulated wall is not so obvious, the principle is the same. Rodee then shows that the cost of insulation, divided over the period of an ordinary loan, is much less than the saving in fuel. For example, it will cost \$75 to heat a small, uninsulated house in Milwaukee, Wis., but heat plus deferred payments on insulation with full-thick mineral wool will cost only \$42 annually for the same house, when paid for like the rest of the house over a 20-year period, including interest. This means a saving of \$33 a year until the loan is paid off, after which the saving goes up to \$42.

Vouched for by vermiculite producers is a test conducted in twin houses on Pennington Drive, Detroit. One house, uninsulated, was sheltered on both sides by other houses. The other house, a few doors away, was exposed on three sides but was insulated. Throughout the winter of 1935 and 1936 an attempt was made to keep both houses at a constant temperature of 74° F. During October 1935 the insulated home burned only 98 gallons of oil compared with 168 gallons burned in the uninsulated home, and for the entire heating season the average monthly saving on fuel bills was 38 percent. As a further "dividend," temperatures in the insulated home never fluctuated more than 2° F., whereas in the other home they varied as much as 18° F. in a 24-hour period.

"Extra Dividends" to Home Owners

Modern transportation enables the wealthy and many of the poor to migrate with the birds south in winter and north in summer, but for middle-class folks who have regular jobs and must "stay put," insulation is a thrifty means of maintaining homes at comfortable temperatures both summer and winter. Combined with automatic heating in cold weather, insulation does away with early-morning shivers, eliminates chilly drafts along the floors, and cuts down on house cleaning due to dirt and dust from overworked furnaces. In summer it may make the difference in an upstairs bedroom between temperatures insufferable for sleeping and reasonable comfort. Uninsulated houses frequently are hotter than outdoors, as they trap the heat on long sunny days.

Extra sleeping hours may be gained through another means—sound absorption. Street noises, unfortunately, come in principally through the windows but other disturbing sounds transmitted through walls are deadened by the materials used to bar heat.

Each year, according to the National Fire Protection Association, fires occur in nearly 400,000 places where people live and cause the death of 7,500 persons, mostly women and children. Incombustible heat-insulating barriers in roofs and walls make even frame buildings slow burning. In earlier years, when insulation cost more, salesmen stressed its fire-resistance more than its comfort and fuel-saving properties. The George Washington shrine at Mount Vernon was insulated on the recommendation of the National Bureau of Standards because mineral wool installed between rafters and in the walls around dormer windows would inhibit the spread of fire. Recent tests at the National Bureau of Standards show that a wood-lath partition filled with mineral wool will stop the passage of fire for 1 hour. After this long period of exposure the studs were still able to carry their load.

Still another "extra dividend," seldom stressed but well-recognized by mortgage lenders, is the fact that insulation in side walls and ceilings reduces the number of times that the interior of a house must be redecorated during the lifetime of a loan. With wall paper and paint in better condition the house is not only a better place in which to live but a better mortgage risk; it is easier to rent or sell, and as redecorating costs as well as fuel costs come out of the borrower's income the chances of delinquent payments are reduced. Dust patterns and alternate light and dark strips along lath and beam locations are less likely to occur in well-insulated homes. In the first place there is less movement of air to carry particles of dust along unevenly heated surfaces and in the second place there is less condensed moisture on the surfaces to catch the dust and possibly cause discoloration.

LETTERS from Readers on All Subjects

Facts, Opinion and Advice Welcomed Here

Patriotism

Chicago, Ill.

To the Editor:

I was very much interested in your editorial published in the June issue of the *American Builder* in which you say, "Patriotism does not require support by the citizen of all policies of the administration."

The thoughts which you expressed in this editorial parallel very closely the position taken by Edward Monteath of St. Louis, president of the National Association of Master Plumbers, in his report made at the recent 59th annual convention of the association in St. Louis.

Incidentally, I should like to take this opportunity to say that I have read your editorials for a number of years and I am in entire agreement with your position.

PLUMBING AND HEATING INDUSTRIES BUREAU
By Norman J. Radder, Secretary

Wants More Modernism

Palisades Park, N.J.

To the Editor:

I have been a subscriber to your magazine, *American Builder*, now for almost a year. I have even received your recommended homes number, which was even worse than the paper normally is, and in all this time I have failed to see anything like some progressive or modern buildings. You have never shown any homes styled in the modernistic manner—homes built of stone, steel and glass. Rather you have dealt with the humdrum run of the mill type of homes exclusively. These homes are all unimaginative in nature, and for the most part merely reproductions of past styles—Colonial, Cape Cod, Georgian, etc.

I have seen nothing in your magazine which would indicate that you are in any way leading or showing the way to better living by modern homes for modern families. The homes are no more modern than those of grandfather's day, and they more often are merely replicas.

Do you intend to sit idly by and let the rest of the world go by? or are you going to get some modern stuff in your paper? If not, you can cancel my subscription. If I want history, I'll go to the history books. But that is not what I want when I subscribe to a building magazine such as this one is. I want to see something more than the tried and true speculation houses which you feature month after month. They are the houses which we see turn into shacks and slums sooner than most honest builders, even, will admit.

I do not happen to be alone in my feelings on the subject. My copy alone is seen by four others. And only one does not feel the way I do about it. This may be a straw in the wind. Use it accordingly.

PASQUALE J. CELANI

Many Architects Feel the Same

Overland Park, Kansas (Greater Kansas City)

To the Editor:

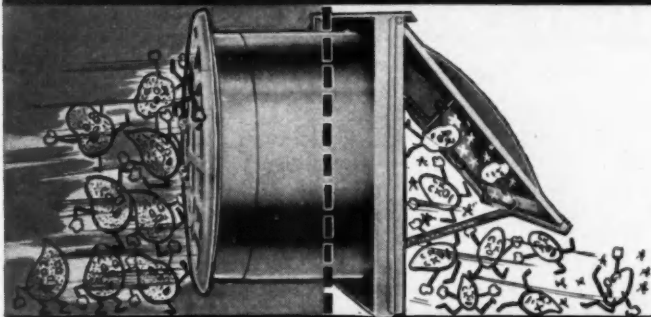
Enclosed find my check in the amount of \$3.00, for a two-year's subscription to *American Builder*. Please mail me the copy of "Security Homes" so kindly offered as a bonus.

For years, I have watched your magazine progress from the cheaper pulp type magazine, up to its present high standard book. I have never before been on your mailing list, although I have been identified with residential building in this section for fifteen years or better. I believe there is a reason why at this late date I become a subscriber.

I have, from time to time, purchased *American Builder* on the newsstands, simply because some one thing caught my eye or fancy. But my regular professional magazine sufficed for design or trade news. But that has all changed; no longer do the regular

(Continued to page 110)

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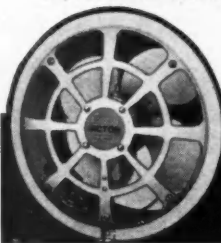


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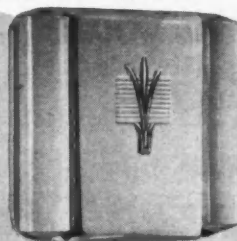


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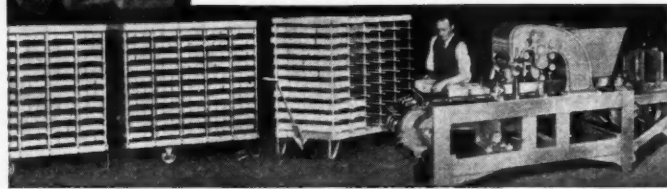
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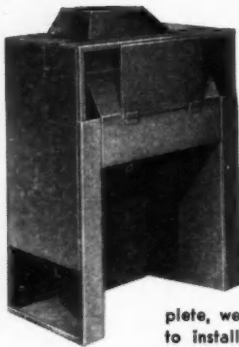
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Extensive Line of Quality Building Necessities

(Continued from page 109)

Architectural books seem to care about the "little fellow" who is seriously engaged in higher costs, yet is producing lower net costs to the buying public. So, with some deliberation on my part, I've looked over all the published organs, and have decided that I need books like you publish: that gives new ideas, materials, methods and costs. I do not need modernistic skyscraper designs, nor the latest dope on governmental post-offices and details: what I do need, as does every other low-cost housing builder and designer, are trends in organized building methods, modulation and fabrication techniques; and I find them—not in my Architectural books—but in the field trade publications, of which *American Builder* stands high.

My sincere congratulations on a fine publication that came up the hard way. Start my subscription, if you please, with the current issue.

HAL STONEBRAKER,
Architect.

Contractor's Office and Home

Sheridan, Wyo.

To the Editor:

We are enclosing pictures of the new residence of N. A. Nelson and family, and the new office of the N. A. Nelson Construction Co., at 731-737 N. Main St., Sheridan, Wyo. The office occupies the first floor of this new building and the residence the second floor.

This building was started in Jan., 1941, and completed May 1. The walls are 8" hollow tile with brick trim. There is 1 x 2 furring and insulation lath on the inside of the outside walls. It has a full basement and a garage in connection with the office. The size is 33' x 28'6". It has 6" concrete coping. It is heated with an automatic gas furnace with forced air.



OFFICE and home of N. A. Nelson, Sheridan, Wyo.

Regarding the interior decoration, the walls are texture plastered and painted dark near the floor and gradually lighter towards the ceiling. The kitchen has one wall and the ceiling of one color and the other three walls of another color.

This building was constructed at a cost of \$11,000.

N. A. NELSON CONSTRUCTION CO.

Building Restrictions Not Expected

Nashville, Tenn.

To the Editor:

I have read with interest the articles in the July issue of *American Builder* about the prospects of private building continuing. But, will the armament program, when it gets into full swing, adversely affect the home builders' chances of obtaining materials, particularly metal items, and will the lack of transportation facilities jeopardize their chances of obtaining materials that are plentiful in the location where produced?

I am told by the builders in my community who were in business during the first World War, that the system of priorities then in effect practically stopped private building except for war needs. Is the same thing likely to recur?

I appreciate the fight that you are making in the interest of the home building industry. I can understand that any published report that might be pessimistic along these lines would have an upsetting effect on the industry. I would appreciate your private opinion as to what prospects seem to be of home builders being able to continue to obtain needed materials next year.

C. B. KELLEY
C. B. Kelley & Co.

ANSWER:

We are interested in your letter in reference to the outlook for home building in view of possible shortages and priorities arising from defense and, possibly, war demands. In answer to your request for further information, we are enclosing a copy of our current Building Outlook Letter which we have just sent out to building material manufacturers giving them some advance information that will be circulated to our subscribers and the building field in general through our August issue. (See page 50.) This, I believe, will clear up in your mind some of the doubts and questions.

In regard to building restrictions during the first World War, these were occasioned not so much by priority orders as by the administration's rule that to put up any structure of any type, or for any purpose, costing \$500 or more, a permit from the War Department had to be secured. This order went into effect early in the fall of 1918 and carried through until the signing of the Armistice in November of that year. Afterwards, it was universally agreed that that particular order was a mistake and would not be repeated again. We are hoping that official Washington will bear this in mind in the current emergency.—EDITOR.

From An Open-Shop Mill-Man

Detroit, Mich.

To the Editor:

I pride myself on being a "lumberman." For almost six years now I have worked for Currier Lumber Co. in Detroit. I started as a car unloader, worked in the mill tailing a saw for several months, handled other mill jobs and finally learned to run a sticker. Now I am a sticker-man.

I'd like a chance to tell my story. I'd like to tell other people what the lumber business has done for me and how I feel about this business which means a living to me and my family.

Of course, I can only speak for the one company which I know. Whatever I saw about policies and ideas are only the result of my experience with one firm—but I think they are just about average experiences and may prove helpful.

To begin with I came into this business unskilled. I was so green I hardly knew two-by-fours from shiplap. During my six years I have become a skilled mechanic. I now have a store of knowledge which will always be useful and valuable.

During the time I was acquiring this knowledge I didn't have to serve a formal "apprenticeship" period with very low wages. I was given a chance to produce whatever value I could.

I think every American working man welcomes that chance—the chance to earn what he is worth, without being herded into any "class" or special group of workers where his pay is controlled by the least valuable of the lot.

Within a year the lumber industry showed it could use me. I was soon earning 70 cents an hour—remember this was back in 1935 when 70 cents an hour was really something.

At the time, I was not much of a philosopher about the whole thing. Like most people I worked my full day's work and went home planning a fishing trip, or a new garden patch or some other amusement. It didn't occur to me then that maybe I was blessed more than my neighbors. But since then some things have happened to make me think and I've been taking stock of my position.

For nearly four years I worked hard. I enjoyed my work and was getting ahead, gaining new knowledge of a fascinating field. My company was "hitting hard" on the sales end and we were growing. When I started there were about 300 employees, today there is a payroll of nearly 1,000, I understand.

Two years ago—on a gray afternoon in late winter—I came out of the plant and there were a lot of fellows passing out literature. I took a copy. I was surprised to read it. It said, "You are Being Oppressed. Your Bosses are Getting Rich Off Your Work. Join the Union."

Then I began to remember stories I had heard in the neighborhood—stories of strikes, headlines in the papers of sitdowns, riots and injuries. I remembered that through all that period I had worked steadily, 52 weeks a year, drawn my pay every Friday and never once had been forced to pay a cent in "dues," "special assessments," or any other kind of rake-off.

These men kept pecking away at us for months. Finally, when we all thought it was over, we found 200 pickets in front of the mill one morning—every one of them from one of the auto plants. I doubt if a man among them had ever seen the inside of a lumber yard or mill!

(Continued to page 112)

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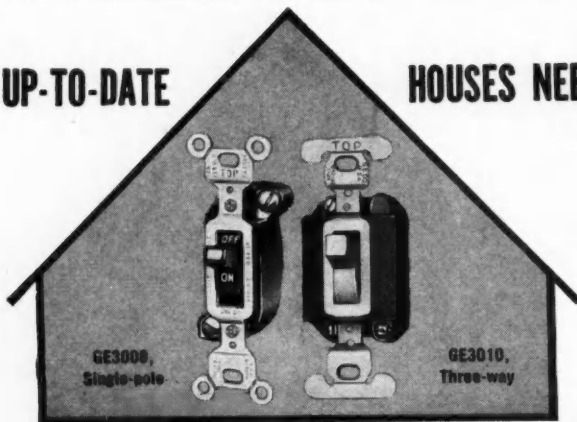
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For further information see the nearest G-E Merchandise Distributor or write to Section D-1808, Appliance and Merchandise Department, General Electric Company, Bridgeport, Connecticut.

GENERAL ELECTRIC

LETTERS—

(Continued from page 111)

But that was silly and the workers soon knew it. It stopped. Another year of work went by—business had been better, we all drew more money. I was now getting 95 cents an hour for 40 hours, time-and-a-half for overtime and working never less than 50 hours every week of the year.

A fellow next door to me, call him Joe, was making \$1.50 an hour. Joe argued with me a few times, in fact several times, until once he was laid off. For more than three months he laid around the house. He changed his mind!

Then this spring, it started again—outside agitators showed up and picketed. Our trucks were stopped in the streets, our drivers were slugged and stoned. One of them was in a hospital two weeks with a fractured skull. None of our workers was on strike. None of us joined any union.

Now where do we stand?

I want to know for my own good. After all, I've got two kids and a wife who need my pay checks. I've thought it all over in the light of what's happened and I think I'm probably one of the luckiest working men in America.

In six years I have never missed a day's work. I've had raises right along; I've been in an industry which is doing an important job of building America and it is rewarding me well.

I'm afraid that if we let outsiders start running the show, we'll find ourselves in a serious mess.

I, for one, favor the American way of doing business—which means to me that each of us has a right to work and to decide for himself whether he will join any kind of an organization. I personally feel we can solve our own problems. People call me "too independent." I hope I always am.

JOHN GORDON,
"Sticker-Man," Currier Lumber Co.

Grain Storage To Be Built on Farms

Washington, D. C.

To the Editor:

The Department of Agriculture has been seriously worried in regard to the ability of farmers to get materials to construct grain storage facilities for the surplus crops of this year. The situation seems to be that most elevator storage is full, and there is a great need for grain storage facilities on farms in the grain belt.

For the past month, there has been considerable agitation in Washington in regard to the ability of the lumber industry, namely the retail merchants and the manufacturers, to supply adequate materials for the necessary grain bins that must be erected this year.

There have been insistent demands on the Office of Production Management to grant steel priorities in order to enable steel grain bin manufacturers to step up their production on the basis that the retail lumber industry in certain localities was not able to supply the necessary materials.

This office has consistently taken issue with this philosophy, and has supplied OPM and Agriculture with information and statistics indicating the dealers' ability to do the job. In one area where stock shortages have been reported to us, we have attempted to secure the cooperation of the manufacturers in supplying dealers the needed materials.

It is expected that there will be large surpluses of the winter wheat crop in the Southwest, and large surpluses also of the spring wheat crop in the West North Central area. In view of the fact that in previous years the Federal Government has purchased grain storage facilities for the farmers, and that this year the farmers themselves must provide such facilities, this seems to present an opportunity to the dealers in grain producing areas.

The Office of Production Management has so far taken the position that in only one area will they grant a steel priority in order to help facilitate the erection of grain storage structures.

We understand that farmers in some areas are slow in providing storage facilities. This is understandable, since "Santa Claus" has previously supplied a large proportion of the necessary storage space. The AAA is now interested in getting lumber merchants and farmers together. The AAA proposes to make certain "grants" to farmers agreeing to store grains that will assist the farmer in paying for the storage facilities.

H. R. NORTHUP, Secretary-Manager,
National Retail Lumber Dealers Association.

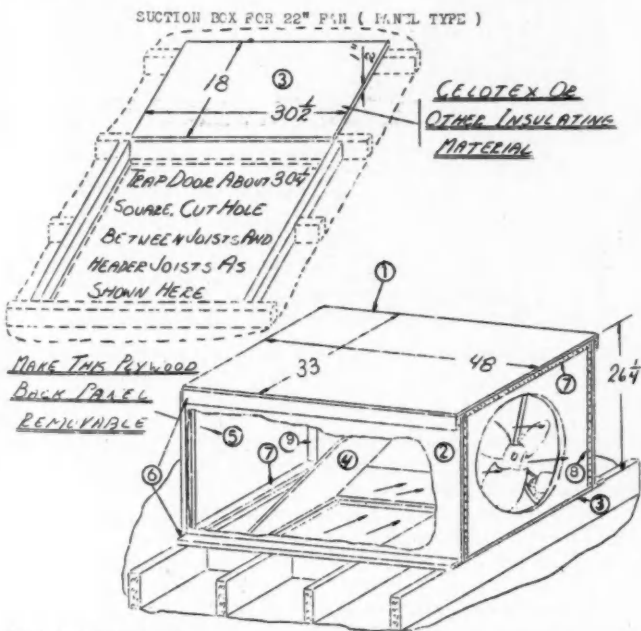
Home Cooling With Attic Fan Unit

THE Lau Blower Company, manufacturers of air handling equipment, Dayton, Ohio, is experiencing an increasing demand for a low cost limited capacity attic fan for use in bungalow and defense housing.

In order to meet this demand, this firm has worked out an adaptation of its standard 22" panel unit and is finding that it gives satisfactory results and at a remarkably low cost.

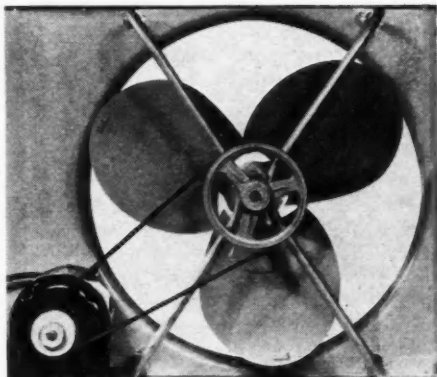
Briefly, the method of installation is this: A 30" scuttle is built or cut in the central portion of the house and the fan unit is then placed one foot from edge of this scuttle hole. A simple wood frame is placed around the unit and a frame of the same size is placed at the opposite end of scuttle. Insulation board is nailed on side and top. If this scuttle is to be used as an access through the attic, the end panel opposite the fan should fasten with hooks on inside of the vent box instead of nailing. The 30" square plywood panel or composition panel as used in the scuttle should be framed with a moulding overlapping the opening by 1/2" all the way around, leaving the end opening of the scuttle hole 29" square. The upper panel rests on the moulding and then should be finished the same manner as the ceiling. In order to operate the fan, the scuttle panel is tipped back against the end of the ventbox or removed. The attached cord which has been placed on the shelf between the opening and the unit is taken down and plugged in.

On a number of test installations the costs were averaged and \$12.00 is a conservatively high cost for the material and labor of making this. Installation may be elaborated upon in a number of ways. For example, the switch and permanent wiring may be substituted for the cord. The pulley and cable arrangement installed may operate the trap door, or a grille may be placed in the opening. It is just as essential with this unit as on larger units to provide ample free area to permit the air drawn in by the fan to get out of the attic space. And for a perfect installation this should not be less than 8 sq. ft. net free area.



LIST OF MATERIALS

- 1. Top—1 Pc.—33 x 48;
- 2. Sides—2 Pcs.—25 3/4 x 48;
- 3. Under Fan—1 Pc.—18 x 30 x 1/2;
- 4. Trap door—1 Pc.—30 1/4 square;
- 5. Back panel—1 Pc.—28 3/8 x 24 1/8;
- 6. Top and Bottom, Outside Braces—4 Pcs.—7/8 x 3 x 48;
- 7. Top and Bottom, Inside frame—3 Pcs.—7/8 x 3 x 30 1/2;
- 8. Front side frame—2 Pcs.—7/8 x 3 x 24 1/2;
- 9. Rear Side frame—2 Pcs.—7/8 x 3 x 24 1/4.



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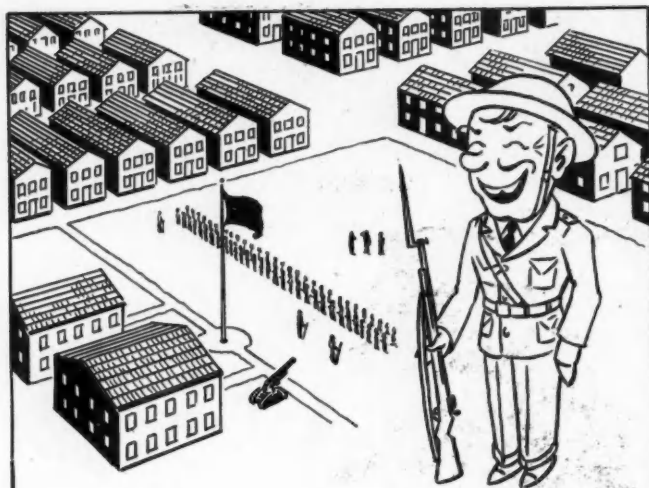
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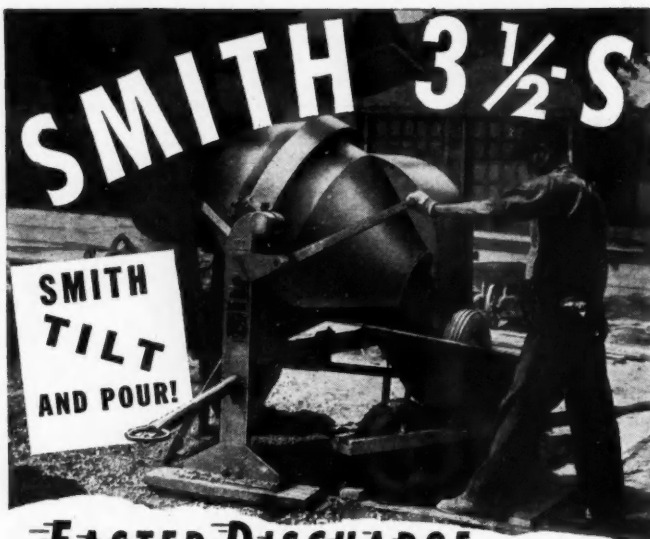
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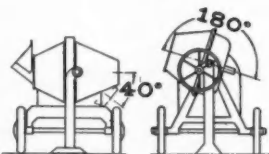
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How to Select Bonds in Brickwork

(Continued from page 73)

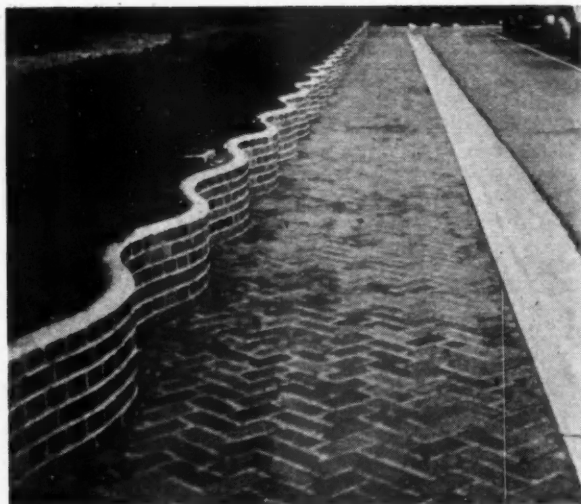
Single-Unit Group; Each Course Made up of All Headers or All Stretchers

Type 1. All stretchers in all courses. This is the genuine common or running bond, called stretcher or stretching bond in the oldest English books on the subject. The spiral stretcher bond is exactly the same in the use of stretchers, but by breaking joints at the quarter point this pattern seems to spiral up and down the wall in a pleasing variation.

It may be noted here that American bond, often mistakenly called common bond, introduces a header course at certain intervals, usually every fifth or sixth course, and that this American bond immediately draws more confidence because we persist in believing, and rightly, that this cross-tying adds stability.

Type 2. All headers in all courses. Going from all-stretcher courses to all-header courses is to take in a lot of ground, for we no sooner begin to pick out the relationships between these two types than we uncover many possibilities in design.

First and simplest of the bonds in this type is the checkerboard, in which all the joints are open, in straight lines up and down and across the wall. We distrust this bond, and use it only for panelling. But it is actually used in load-bearing walls. The use



NOVEL serpentine wall and herringbone walk pattern.

of headers only gains our full respect when the jointing is changed to the center of headers in adjacent courses, in the running header, header, or heading bonds.

Type 3. One course of headers followed by one course of stretchers. It is interesting to find that this simple combination is the beautiful English bond, one of the oldest and best known. By varying the starting of the second course we get the English Cross bond, somewhat like the spiral bonds. Then if we introduce an extra course of stretchers, with all joints broken, we get the Dutch bond, or Dutch Cross bond. It takes five courses to make the pattern.

Type 4. One course of headers followed by two or more courses of stretchers. It is only one step more to three other well known bonds, joined here in a clear relationship. By laying three courses of stretchers after each course of headers, with normal jointing, we get the English Garden Wall Bond. By merely moving the joints to one side in the middle course, so that the joint falls on the quarter point of the adjacent stretcher courses, we make the Garden Wall Cross bond, called here by its English name, Facing bond.

As previewed in discussing Type 1, American bond is the same as these other header course-stretcher course types, except that the number of stretcher courses is usually five or six.

The last two types in this group are made by setting up header courses, and then spreading them apart with from one to six stretcher courses. Then the range of designs is expanded by shifting the joints sidewise.

Combination Group: Each Course Is a Combination of Headers and Stretchers

Type 5. One header and one stretcher alternately in each course. This is the Flemish series. First there is the common Flemish pattern with alternate headers and stretchers in each course, with each header centered over a stretcher in the adjacent courses. It makes a diamond pattern spanning three courses.

The Flemish Cross bond is made by introducing a third course which is all stretchers, requiring five courses to make the complete pattern.

Skullduggery or sleight of hand seem necessary to make the Flemish Spiral, but the result is achieved by breaking all joints. The pattern is started by breaking a joint over the center of a header.

Type 6. One header and two stretchers alternately in each course. This is still in the Flemish style, though called by other names such as Double Stretcher Garden Wall bond. Each course has two stretchers laid together instead of one, for each header. The effect requires that headers shall be centered over stretchers.

Type 7. One header and three stretchers alternately in each course. This is also in the Flemish family, except that now three stretchers are used together for each header. The Flemish Garden Wall bond ought better to be called Sussex. It is exactly like Type 6 in laying, with the headers centered over stretchers.



SUGGESTION: Standard bond instead of this random pattern.

In the Monk bond four courses are required to make the pattern. The effect is obtained by the jointing. In the first course a header is centered over a stretcher. In the next course a header is centered over the next joint to the left.

Flexibility

In practice all of these regularized groups, types, and individual bonds are only guides to a variety of results. This is not apparent until the bonds we know are set down side by side to reveal their resemblances.

For example, running bond is not a true bond because it does not tie transversely, and has, therefore, no wall stability. So we add a course of headers to tie the wall together at every sixth course and call the new bond, American

Now there is nothing to prevent us from running two stretchers together with no mortar joint between the ends, making what we call a blind joint, and this starts us off on numberless variations. We may note here that if the inside corners at the blind joint are clipped off at 45 degrees, and a header with a pointed end is laid in this open angle, we have the Clip bond which has some vogue. But why anybody should try so hard to keep the running bond with its monotonous surface is an arresting question.

The garden wall bonds are all simple in composition once the elements of the type are known. They are all of the multiple stretcher variety, and may have from two to five stretchers for

(Continued to page 116)



**It's warm now—
but chilly days
are coming!**

In early Fall it will be too cool for comfort—and not cold enough to start the furnace. For such weather, and as an auxiliary heater during extreme cold spells, bathrooms, children's playrooms and bedrooms should be made comfortable with the . . .

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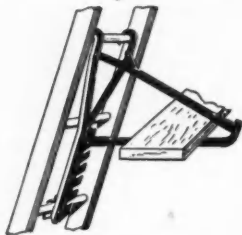
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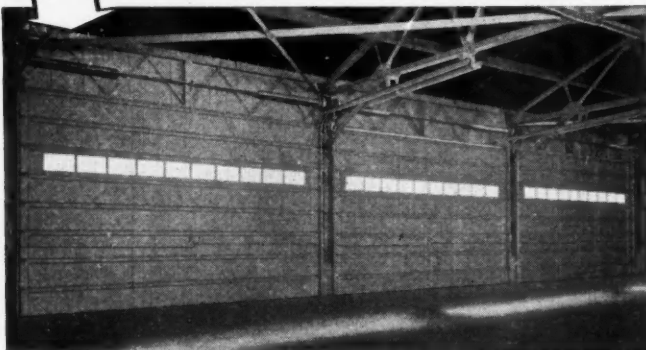
Save time and labor on every job! These handy ladder jacks can be put in place and shifted up or down—without removing the board—by ONE MAN! "Trouble Saver" Ladder Jacks are made of rail carbon steel! They hook firmly in place and support the weight on three rungs! Write for descriptive literature and prices today!

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SAVING WAYS IN DOORWAYS

KINNEAR
ROLLING DOORS

How to Select Bonds in Brickwork

(Continued from page 115)

each header. It would seem that a little imagination could make an endless number of bonds of this type. The occasional headers provide enough transverse bonding, and the only consideration is a pleasing pattern in the wall.

Then there are corners. Many a variation in bonds is worked out with different methods of starting corners. The English corner always has a "closer" next to the corner header, in each header course. In the Dutch corner stretchers are laid continuously from the corner, but with a three-quarter brick at the corner to start each stretcher.

If so much can be done with these two corners, what possibilities there might be in corners of other nationalities! The field is open for a Scandinavian exhibit, and we might invite the Mexicans, Chinese, Icelanders and Sioux Indians,—with what results!!

No one has done as much with soldier courses as they would yield. We use them in arches, and frequently in panel designs, but there are other interesting combinations which might be worked out with soldier courses interspersed with others.

An analysis such as this leads far afield, and it might appear that such stirrings would leave the searcher with the notion that fixed patterns are only to be used as landmarks for excursions into unknown and untried fields. But this is not the way it works. When all these possibilities are reviewed there comes the feeling that these groups and types have come up through many such trials as we might encourage in the search for supposedly new patterns. There is something settled and established about these bonds. When we say "English bond" we know instantly what the wall is to look like, especially if we know what kind of brick and joints are to be used.

We could not feel as securely based if someone were to say that his house was to be laid in Hungarian bond. We recoil from the danger of having a multiplicity of bonds. It is much better to be able to talk collectedly about American bond and know that it is so closely related to English, Dutch Cross, or Garden Wall bonds, by the methods of jointing and the frequency of courses.

Familiarity with established patterns stimulates a new and different feeling toward the design of walls, for if the designer can learn to distinguish and harmonize the three characteristics of any bond the whole field is open to him. A knowledge of brick colors and textures, together with a knowledge of joints, will be securely grounded in a thorough knowledge of good bonds.

500-House Experiment

(Continued from page 53)

100-day objective had been established for the job but the time required was much greater. Grading and utility installation was started January 6, and foundation excavation work started February 17. Despite the "improved" prefabrication methods, the first 200 houses were not completed until the end of June.

As a matter of fact, the prefabrication of the wall and roof panels constituted a very small part of the construction job—probably less than 10 per cent in cost. The balance of the work was done with standard construction methods, including a two-coat plaster job over rocklath applied to the interior after the wall sections were erected.

Exterior of the houses was covered with white asbestos cement siding, which was selected as an aid to lower maintenance costs. Some 4,200 squares of asbestos siding were involved in the project.

The houses do not have basements and are provided with utility rooms which include laundry and heating equipment. Heating is supplied by oil-burning Duo-Therm and Coleman units.

Labor aspects of the job were rather interesting inasmuch as the houses were built for CIO ship workers by AFL building trade unioners. Considerable opposition to the prefabrication methods developed, so that although 500 houses were built, only 444 were prefabricated. The balance were constructed by AFL workers in the customary manner. Similar prefabrication methods had been considered for another FWA defense housing project—700 units—at nearby Linden, N. J., but the system has since been discarded in favor of standard methods.



OPEN AND COVERED porches with wrought-iron railings contribute to appeal of W. E. Marling's row houses in Towson, Md.

Marling's Row Houses

(Continued from page 62)

struction methods was the adoption of Truscon double-hung metal windows. He also recently started installing an improved hot water heating system, consisting of a National boiler with oil burner, Thrush circulator and Trane convector radiators.

The houses are insulated with four inches of mineral wool installed by the Chamberlin Metal Weatherstrip Co., which also installed the weatherstripping. He also uses Pittsburgh paint and prefers Armstrong asphalt tile for the basement floor.

Plans for these row houses were drawn by Architect Kenneth C. Miller, well known residential architect of Baltimore. Each residential unit is 18' x 32' in size, has six rooms and bath. Considering the small amount of floor area involved, the architect has done a remarkable job in providing a livable six-room house that meets FHA requirements. A typical group of houses consists of six units, and the fashion in which these are placed together is shown in the accompanying drawings.

The houses are provided with a full basement which, because it is thoroughly waterproofed, is dry and comfortable. The walls are attractively painted and the floor covered with asphalt tile providing a light, cheerful room that is much appreciated by the home owners.

Marling uses well seasoned 2 x 10 fir joists and a post and girder construction calculated to eliminate shrinkage. He waterproofs the exterior of the basement walls with a 1/4-inch thick layer of roofing tar mixed with asbestos. Another factor of good construction is the use of a continuous strip of waterproofing membrane along the entire length of wall under the windows.



NO TIME WASTED on Marling job as modern type double-hung steel windows are set into masonry walls.

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KIMBERLY-CLARK CORPORATION
(Building Insulation Division)
Established 1872 Neenah, Wisconsin

Washington Report—

(Continued from page 51)

the completion of more than 125,000 new freight cars being built the load can be handled.

Railroad men, who are in a position to know, insist that the railroads will be able to meet all requirements. We are advised by *Railway Age* that the only possibility of serious transportation problems may come this fall, and this authority is confident that the railways will do their job in a most satisfactory way, then and subsequently.

SUMMARY—It would be foolish to ignore the difficult time ahead in which there undoubtedly will be shortages of certain materials and probable curtailment of some higher priced home building.

It would be even more foolish to be unduly alarmed by unfounded rumors. For the balance of 1941 and well into 1942 there will be very little interference with normal private home building, and estimates are that the total will easily reach the 650,000 units *American Builder* predicted last December—perhaps 700,000.

While shortages of some metals will become apparent next year, there should be no serious interference with private building volume in the first half of 1942. That is about as far ahead as any one can see right now.

When restrictions are placed they are more likely to consist of drastic priorities on metals and other strategic materials. There may also be restrictions placed on nondefense, nonresidential construction and limitations on the building of higher priced homes.

Everyone connected with the building industry should keep foremost in mind that there is an immense and pressing need for new homes and for the modernizing of old homes to increase their capacity, especially in providing housing for low- and medium-income workers. The President has recently added thirty new localities to the list of defense areas in which "an acute shortage of housing exists," bringing the total to 193 and including practically all metropolitan areas, excepting Manhattan.

Home ownership and good housing are so important that drastic blanket restrictions are most unlikely. It can hardly be presumed that this administration will place itself in the position of depriving the farmer, the worker and the small business man of a decent place to live—not at least, excepting as a last resort, and that seems a long way off.

Priorities Statement By Stettinius and Palmer

Office of Emergency Management—Washington, D. C.—A broad program providing priority aid for defense housing projects, designed to assure the completion of such projects as promptly as possible, was announced jointly here by E. R. Stettinius, Jr., Director of Priorities and Charles F. Palmer, Coordinator of Defense Housing.

This program puts defense housing ahead of civilian and non-defense housing projects and will assure a steady flow of necessary building materials to the projects deemed essential to the national defense program.

Under the terms of the agreement, no priority aid will be granted for defense housing, whether publicly or privately financed, until these requests have been cleared through the Coordinator or his field representatives in accordance with the procedures being developed.

The Division of Defense Housing Coordination is to supply the Priorities Division of the Office of Production Management with:

- (1) A complete list of all publicly financed defense housing projects for which priority assistance is recommended.
- (2) A list of areas in which an acute shortage of housing either exists or impends, thereby threatening to impede or interfere with national defense activities, together with figures on each area indicating how much defense housing is needed.
- (3) A formal definition of what shall constitute defense housing.

Under this new program, priority assistance may be given either to a publicly financed defense housing project or to pri-

vate defense projects within a designated area.

With the concurrence of the Army and Navy Munitions Board, the Priorities Division will be prepared to give each publicly-financed defense housing project, or any area named by the Defense Housing Coordinator, a preference rating considered appropriate in the light of the national defense activity to be served.

Plans are being worked out under which these projects or area ratings may be extended to applicants by local representatives of the government to be designated by the Coordinator with the approval of the Priorities Division.

The ratings to be assigned will aid contractors engaged in defense housing work to speed up delivery of materials to be specifically named on a Defense Housing Critical List, now being prepared.

The ratings may be used only for orders or contracts for these critical list items.

This critical list will contain only those items on which, in the opinion of the Priorities Division, preference ratings are necessary to obtain the quantities and delivery dates required. The list will exclude items of a vital defense nature—such as aluminum, copper, nickel, bronze, zinc, etc.—except when the Defense Housing Coordinator demonstrates that these items or products containing these items are absolutely essential and that adequate substitutes cannot be used.

The Defense Housing Critical List will be subject to revision when necessary. When items needed are not on the list, but priority aid is still considered necessary, applications will be made to the Priorities Division on its form PD-1 through the designated local representative of the Coordinator.

Representatives who are designated to handle applications for priorities for privately financed defense construction may only extend an area rating when they are satisfied that the housing will be suitable for, and reasonable preference in occupancy will be given to, workers engaged in the designated defense industries; that the intended sales price is \$6,000 or less or the intended shelter rental is \$50 per month or less, and that the housing is, in general, necessary in connection with defense housing needs.

It was pointed out, however, that exceptions may be made for such other proposed residential construction as may, in particular cases, be necessary to meet defense needs. In such cases, the necessity must be demonstrated to the Coordinator through his designated local representative and the Coordinator will make appropriate recommendations to the Priorities Division.

It was stated that the procedures being developed will apply to rehabilitation of existing structures, as well as new construction, where a dwelling unit not otherwise habitable would thereby be made available.

The Division of Defense Housing Coordination has for the past few months given aid for defense housing, both publicly and privately financed, and the new agreement has been developed in order to establish regular procedure.

The present agreement will clarify the priorities situation with relation to residential defense construction and, it is hoped, will remove any hesitancy on the part of builders, lenders, and others to undertake this type of construction.

* * *

H. J. Watt Promoted

HERBERT J. WATT is the new manager of sales for the western area, Carnegie-Illinois Steel Corp., Chicago. He will coordinate sales activities of Carnegie-Illinois offices at Chicago, Denver, Detroit, Indianapolis, Milwaukee, St. Louis and St. Paul. His headquarters will be established at the Corporation's Chicago office.

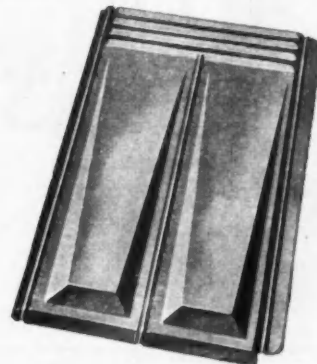


HERBERT J. WATT

Mr. Watt began his steel industry experience at the Philadelphia office of the Carnegie Steel Company in 1912. In December, 1939, he was appointed manager of sales for the central area of Carnegie-Illinois Steel Corporation, the position he has held until the present time.

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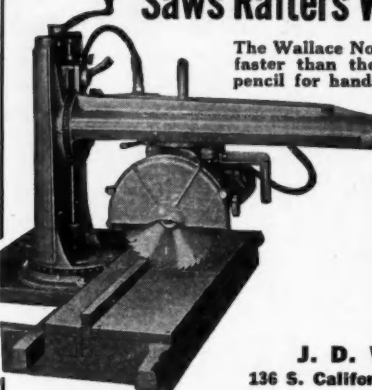


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Planning Services— (Continued from page 69)

panel schemes which utilize the various standard panel sizes to the best advantage.

The specifications which the Upson estimators furnish with the room layouts show the exact number of panels required to do the work, the lineal feet of mouldings and the number of floating fasteners needed in application. Cost information may then be secured from the Upson dealer in any locality.

During the lifetime of the Architectural Department at The Upson Company, it has seen the development of an interesting trend. In the last year, in fact, there has been a marked increase in the number of requests for plans and specifications on entire houses and for groups of houses in various building projects.

After the selection of wall materials, the next step is the decision on color schemes for the room or the house. This is where the paint companies step in and take a hand in making home planning easier and more scientific. The Studio of Creative Design at the Pittsburgh Plate Glass Company believes that there is not a man, woman or child capable of imagining how a speck of color will look magnified into a wall twenty feet long and eight feet high. Consequently, now facilities are offered for home owners to secure color service of individual rooms, built to harmonize with available furnishings, showing exactly how rooms will look after they have been styled with paint.

This is how the Paint Styling Service works. The customer submits the basic color scheme of the present rooms. The Studio, using a relative weight of 50 per cent for the rug color, 35 per cent for the drapery color, and 15 per cent for the color of the largest article of furniture, "scrambles" these into a composite color against which can be selected either complementary or contrasting colors to indicate the color of paint to be used on the walls and ceilings. When this is determined, the Studio supplies the customer, through the painting contractor, with a color suggestion which shows a scientific color scheme for the room before any paint is applied.

The Sherwin-Williams Decorative Studios are another outstanding department of color service. In returning color specifications to the consumer, Sherwin-Williams provides full-color elevations which show the suggestions for walls, ceilings, woodwork, floors, and any special designs or decorative treatments for interiors. A complete color picture of the home includes suggestions for exterior paint styling, including body, trim and roof.

It is easy to see that the manufacturers' service to the contractor is two-fold. It creates acceptance for nationally known quality product as opposed to makeshifts or imitations. This means profit to the contractor both on individual sales and in lasting satisfaction on the part of the home owner.

Secondly, the publicity given to the planning services through advertising media and through dealers and distributors develops prospects for building and remodeling which the contractor cannot always unearth himself. The sales help given the contractor definitely relieves him of a large share of the burden of promoting sales.

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See this X-RAY

Builders Rush Defense Housing

(Continued from page 55)

tracting and home building firms. Many residential builders who have always specialized in private residential work have taken on these government jobs, and others are planning to go after additional work of this type as jobs are allocated. Government officials have intimated that the number of defense housing units financed by public funds will have to be increased still further in the near future.

Speaking on this subject recently, Housing Co-ordinator Palmer made it clear that defense housing jobs—that is, houses in defense areas priced under \$6,000, or a rental of \$50 a month or less—would be given the benefit of priorities on materials if shortages threatened to hold up the job.

Practically all of the publicly financed defense houses being built are in the \$3,000 to \$3,500 price class. Materials of construction vary with the locality as well as the type of houses. These consist of one- and two-family detached homes as well as row-houses, four- and six-family apartments and larger multi-family dwellings. In order to try out some of the widely publicized prefabrication methods, trial orders were given to a number of such firms: The most striking experiment of this type is at Indian Head, Md., where ten different prefabricators are building a total of more than 600 prefabricated demountable houses.

A considerable number of the defense houses in areas which are not considered permanent communities are of a demountable nature so that they can be taken apart and stored after the emergency or moved to other sites. Another striking feature of the defense housing program has been the purchase of 8,891 trailers, which are rapidly being dispatched to provide temporary housing in defense areas.

How private builders operating with private funds are also contributing to the defense program is shown by FHA Administrator Ferguson's report of July 5 that new homes under FHA supervision are now being built at the rate of 1,000 a day. A weekly average of 5,094 new homes was started during the month of June. In the first six months of the year more than 100,000 homes were started under FHA supervision, most of which are in defense areas.

Defense housing under the new Title VI of FHA has skyrocketed; and, as of June 30, applications from builders under this section had totaled 20,318 for a dollar value of \$74,422,100. Since FHA is authorized to insure only \$100,000,000 worth of mortgages under this Defense Housing Section of the Act, it is clear that Title VI volume will shortly be exhausted unless the amount is increased by Congress.

Another phase of defense housing not generally associated with it, but nevertheless highly important, is modernizing and improvement of old homes. Conversion of old dwellings into smaller, more modern units has taken place at an unprecedented rate, particularly in the most crowded defense areas. The recent liberalization of FHA modernizing loans under Title I has resulted in a great increase in such improvements. Under the new provisions of Title I as amended by Congress, FHA loans are available up to \$2,500, repayable in three years, for repair and improvement of single-family homes and commercial properties. For structures housing more than one family the loan may amount to as much as \$5,000 and may run for five years.

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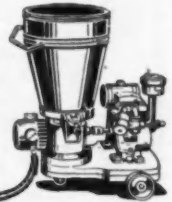


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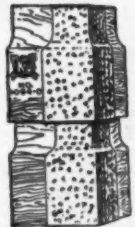
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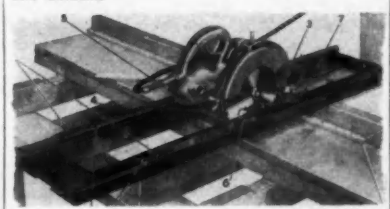
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