

AMERICAN BUILDER

AND BUILDING AGE

THE WORLD'S GREATEST BUILDING PAPER

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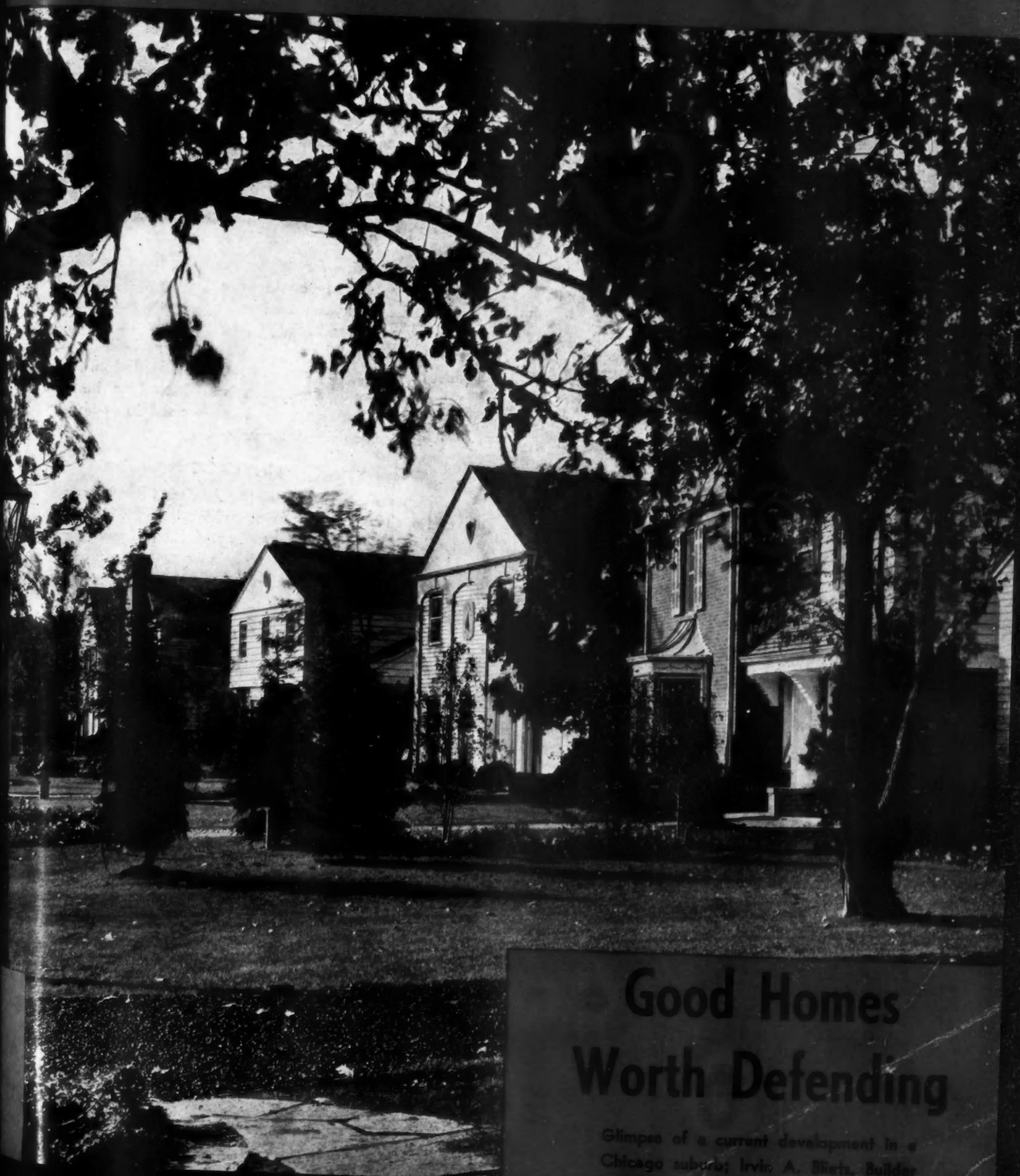
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Good Homes Worth Defending

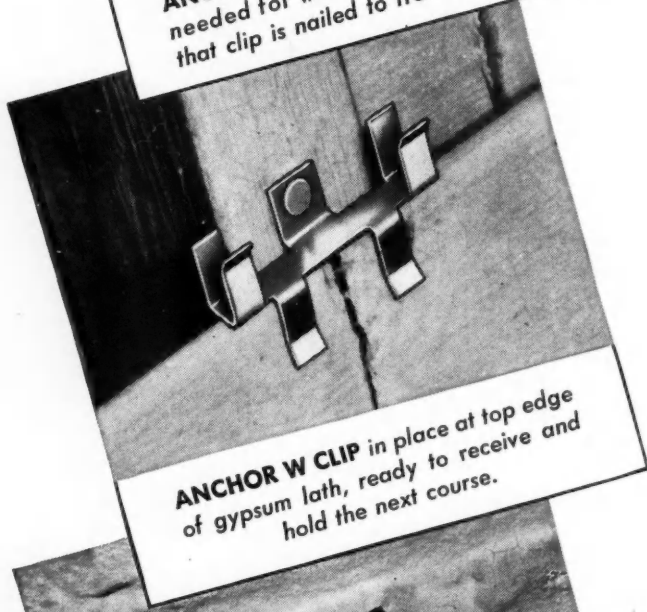
Glimpse of a current development in a Chicago suburb; Irvin A. Blits, Builder

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 TO REDUCE COSTS IN FIREPROOF CONSTRUCTION . . .

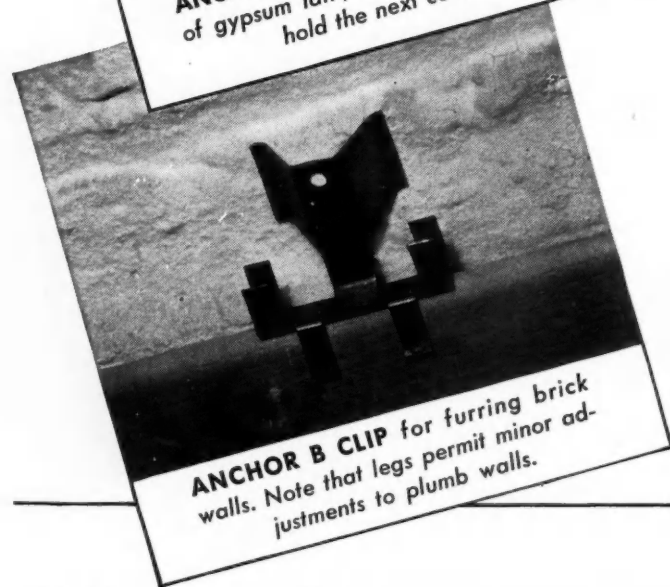
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AMERICAN BUILDER

and Building Age

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CHART I: SIDE WALL AREAS

| TYPE OF CONSTRUCTION (including 1/2" Plaster and Square Lath) | TYPE OF INSULATION | R VALUE | U VALUE | PERCENTAGE OF HEAT LOSS |
|---|--------------------|---------|---------|-------------------------|
| WOOD SHIP ON STUDS | 1" ROCK | .26 | .167 | 33.2% |
| | 2" SPAN | .51 | .189 | 38.0% |
| BRICK | 1" ROCK | .30 | .188 | 37.4% |
| | 2" SPAN | .60 | .222 | 44.5% |
| MASON SHIP | 1" ROCK | .27 | .179 | 35.7% |
| | 2" SPAN | .53 | .208 | 40.8% |

CHART II: CEILING AND ROOF AREAS

| WOOD SHIPBLE ROOF | PERCENTAGE OF HEAT LOSS |
|-------------------|-------------------------|
| 1" ROCK | 30.0% |
| 2" SPAN | 78.4% |

CHART III: HEAT LOSS ELIMINATED BY AREAS INSULATED

| Thickness of Insulation | Without Insulation | With Insulation | Percentage of Heat Loss Eliminated |
|-------------------------|--------------------|-----------------|------------------------------------|
| 1" Rock | 187 | 37.7% | 208 |
| 2" Rock | 131 | 36.6% | 191 |
| 3" Rock | 96 | 36.4% | 101 |
| 4" Rock | 78 | 36.0% | 78 |

NOTES

1. R value is the measure of the ability of an insulating material to resist the flow of heat through the material. The lower the R value, the better the insulation.

2. U value is the reciprocal of the R value. The lower the U value, the better the insulation.

3. Heat loss is measured in Btu per hour per square foot of surface area.

4. Heat loss is based on a temperature difference of 70°F between the inside and outside of the building.

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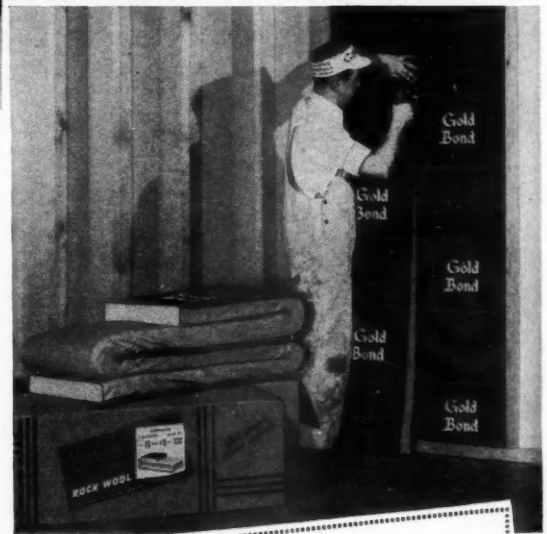
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PUBLISHER'S PAGE

Building Activity, Employment and Taxable Wealth

CHARTS recently prepared by the Office of Production Management at Washington show that the 1941 peak of building construction for all special war-time projects in the government's present program was reached in May, standing for that month at 380 million dollars. The charted course of this present monthly defense construction then declines steadily to 250 million dollars in September and to about 30 million dollars in January 1942, unless a "new barracks program," with its associated projects, comes into operation—which it may—early in the fall; in which case the charted line of war department construction continues at about 250 million dollars per month until May 1942, dropping to 200 million dollars monthly by August.

These figures are cited for the purpose of reassuring any who may doubt that there will be a sufficient supply of building labor and of building materials for the nation's special defense needs, and also for the year's normal quota of private home building and private business construction.

STEADY employment for all workers is certainly a goal to be striven for in the present defense effort, and, if attained, becomes in itself a major item of national solidarity and defense. Building labor, especially the typical home building mechanic of the smaller cities and suburbs, has to be employed on *local building work*—if at all. It cannot readily migrate nor change over to other types of defense work.

And the records of the Department of Labor show that, while the number of wage earners in the construction industry in March 1941 was 1,650,000, a gain of 660,000 over March 1940, nevertheless there was a decrease in building trades employment of 28,000 from February to March of this year. Also, the Social Security Board reports that over 164,000 skilled construction workers were registered with

State Employment Offices as available for employment in March 1941, constituting almost half of the total unemployed so registered.

It seems evident, therefore, that there is plenty of labor available for both the year's normal, private building work, and also for the government's defense program, and that special care ought to be taken to provide this employment.

TURNING next to the question of building materials and supplies, we find them not at all in conflict with munitions, armaments, ships or planes. Local building materials, and other supplies of which there is an almost limitless quantity, are principally used in home building. There is no need for "priorities" in this field—no obstacles here to defense effort or to normal business which good management, patience and ingenuity will not remove.

The Defense Housing Co-Ordinator at Washington is asking for increased activity and enterprise on the part of private home builders to supply needed housing accommodations in the active defense areas. Home building everywhere is on the upsurge; and it should not be hindered now by any adverse priority order or narrowing of financial approval. Quite otherwise; anything that the administration can do to stimulate home building and confidence in home ownership should be done—NOW—as a defense measure.

With present government plans for spending 35 to 40 billion dollars for arming in the next fiscal year, the fostering of business that can pay taxes and create taxable wealth seems essential. Private home building adds 1½ to 2 billions in taxable wealth in a normal year—homes on which the annual tax is about 40 million dollars.

Samuel O. Dunn,

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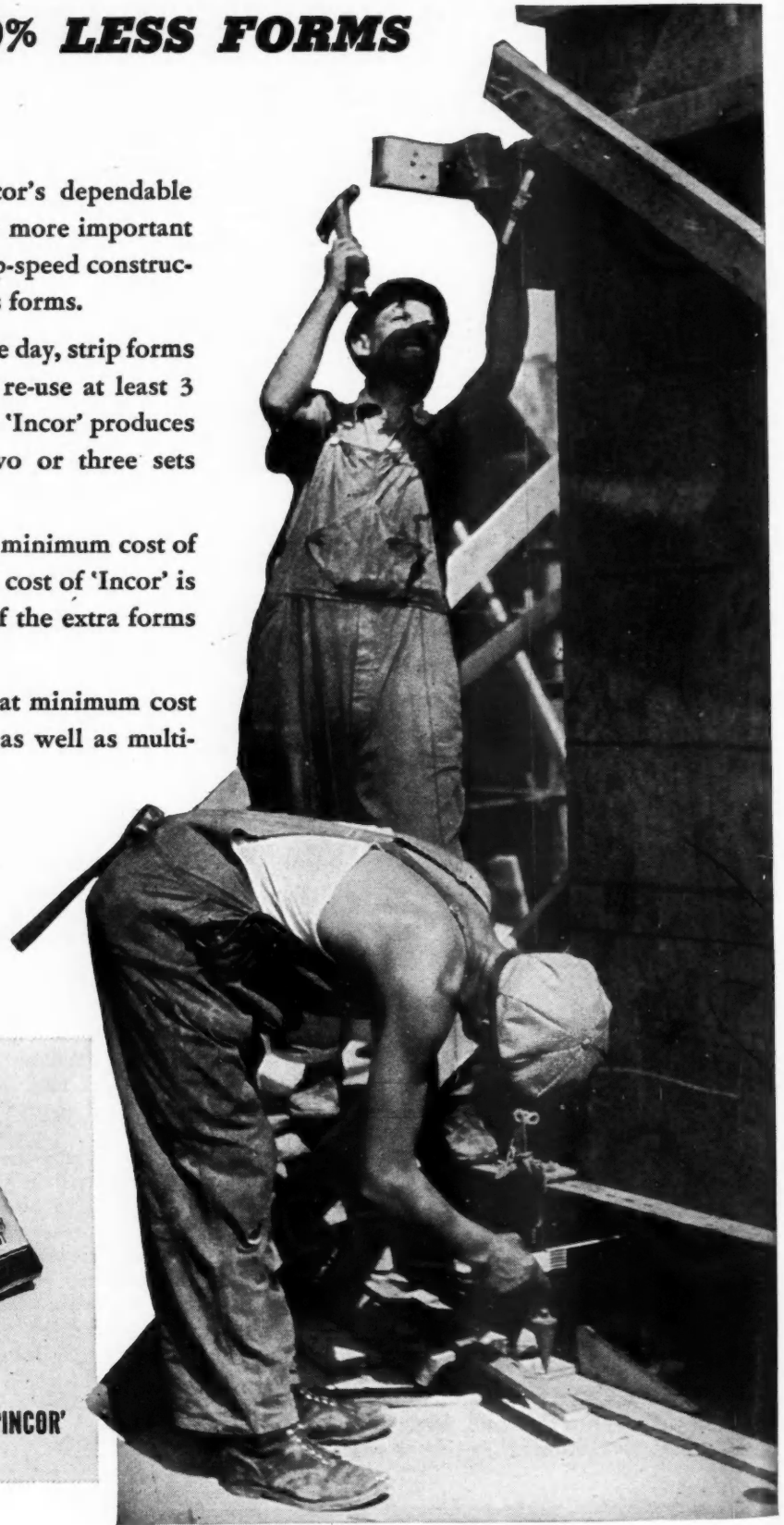
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AMERICAN BUILDER AND BUILDING AGE

Home Building Essential to National Defense

SPEAKING recently in Washington, Charles F. Palmer, Defense Housing Co-Ordinator, said, "Defense housing is just as much material of war as planes, tanks and guns. We must plan as fair and easy a system of priorities as possible but we must see that essential defense housing gets material next in line after bombers."

At a time when shortages, bottle-necks and priorities in the materials of all industries are being freely predicted, it is reassuring to builders to have such a statement of high official attitude toward their business of supplying new homes and housing. Readers of this publication will vigorously support this position and will give Co-ordinator Palmer their best efforts in co-operation.

In the same address—before the "National Housing Inventory" meeting on June 11—he reported on the current status of the government's housing program.

525,000 Defense Area Homes Needed

"Defense houses," he said, "built with public funds are now coming through to completion at the rate of thousands every month. About 15,000 units are finished, out of a total of 70,000 for which contracts have been let. Altogether allocations have been made for 100,000 defense houses to be built from public funds.

"Already, we have had reports of defense housing needs which far exceed the little money which is still available and there is no doubt that additional funds will be necessary. In anticipation of exhausting all present appropriations for federally financed defense housing construction, and this is expected within the next week, we expect to go back to the Congress for a substantial authorization to carry out this portion of the program.

"Some reports to us indicate it may be necessary to authorize immediately \$500,000,000 more for the public construction of 125,000 homes to be used as needed through suitable appropriations from time to time. We already have the data to support these needs.

"Altogether, it now looks as if there is a minimum need for total residential construction during the fiscal year 1942 (that is July 1st, 1941 to June 30, 1942) of 625,000 units. Of this number 525,000 should go into defense areas. Of the 525,000 to go into defense areas probably 125,000 should be built with government funds, leaving 400,000 to be supplied by private industry.

"That, then, is what we see for the coming year. We would rather see 800,000 houses instead of 625,000 total output, with 675,000 of them instead of 400,000 by private industry. But in a world that is changing almost hourly—in a world, a good portion of which is cringing under the lash of a ruthless conqueror,—we are forced to be realistic. Our plans have been formulated accordingly. Long ago we gave up the *business as usual* outlook. If necessary, however, we can become even more drastic in chartering the course, if it will take that to do the job we have before us."

This last had reference to a suggestion which Mr. Palmer had advanced earlier in his talk, outlining certain control steps that might become desirable or necessary to insure quick completion of defense industry homes in case serious shortages of building materials and labor should develop.

Control Possibilities

"First things will soon come first in every field," he said. "Certainly it is better to have fifteen \$3,000 homes for defense workers where and when needed than one \$45,000 home, desirable though such a home may be for one who can afford it under normal circumstances.

"No shortage in lumber now exists to any great degree, although in certain areas there has been an apparent shortage because water transportation which was formerly used extensively is not now so generally available, and strikes have interfered.

"With priorities in steel and the diversion of ships to other uses, our transportation problem may assume alarming proportions before long.

"You can see, can't you, where these problems will ultimately lead us? We must plan as fair and easy a system of priorities as possible but we must see that essential defense housing gets material next in line after bombers. It may even be necessary to make a tight and narrow definition of defense housing and restrict other building.

"We hope such drastic measures won't be required. But if it is necessary to achieve our objective, essential defense housing plus as much as possible additional housing for low income families, we will certainly proceed accordingly.

"The following procedures are possibilities:

- (A) Encourage the use of substitute building materials instead of those which are essential to other phases of the defense program.
- (B) When necessary, apply priorities on residential construction to give preference to defense housing needs.
- (C) Utilize available machinery to obviate unreasonable advance in cost to residential construction.
- (D) Expand Title VI of the National Housing Act to encourage further private building in defense areas in order to hold as nearly as possible to the present high level of privately financed construction in spite of the increasing difficulties which are anticipated."

This is a sane and logical attitude; and this publication accepts it as true that Housing Co-Ordinator Palmer has accurately stated here the basic policy of Washington officialdom toward home building. We believe that operative home builders and all others of the building industry can safely count upon a continuation of the helpful encouragement of private building that has invariably characterized the present administration.

Homes for defense workers and better housing and homes, with widely distributed home ownership, for all the people are recognized as essential to the nation's strength and ultimate safety. The building industry can be depended upon to render full and vigorous service.



Defense Housing Progress and Outlook*

By **CHARLES F. PALMER**

U. S. Coordinator of Defense Housing

DEFENSE HOMES go hand in hand with defense production. Defense production makes business. Business fills office buildings and creates cities. So we all want to know more about defense housing.

But, the people of London are not worrying today about defense housing and its effect upon cities. They are concerned with winning a war. Afterwards, there will be plenty of time to work on reconstruction. In London, first things come first.

You noticed I said "work" on reconstruction. That means the brick and mortar end. The plans for the future are now in actual process. Lord Reith, as Minister of Works and Buildings, has already instructed the London County Council and the City Corporation to prepare preliminary plans for the reconstruction of London.

To forestall individual, selfish action after the emergency with "every man for himself and devil take the hind most," Lord Reith stated to the House of Lords on January 29, 1941, that his Committee of Experts was "to advise, as a matter of urgency, what steps should be taken now or before the end of the war to prevent the work of reconstruction thereafter being prejudiced."

Therein lies the lesson for us. No matter how tough the going gets we must keep constantly before us the long range job just as long as our plans for the future do not impede the work of the present.

Defense Workers Must be Housed!

That work of the present is to see that guns, tanks, bombers and ships are not delayed for lack of workmen, because they can't find places to live.

That means \$21,500,000 of public housing for ship workers in the Hampton Roads area. That means \$20,000,000 of public housing for bomber workers in San Diego. That means more millions for 5,000 homes with government money to house steel workers in Pittsburgh.

That means the workers of our country are on the move, because production is speeded up, and production means man power.

Manpower drawn from rural areas to town; from towns to cities; from one city to another city. Why, a recent survey shows that in 68 labor markets alone more than one million workers will have to be imported.

In the San Diego, San Francisco and Vallejo areas of California there will have to be an in-migration of 31,000 workers. Detroit will need 60,000 to 90,000, dependent on extent of automobile curtailment. Philadelphia, 90,000. Northern New Jersey, 30,000. The Dallas-Fort Worth

area, around 17,000, and a town the size of Wichita, Kansas, must find 7,000.

These people must have homes. These homes are being produced under the coordinated defense housing program, through the efforts of private industry and the government. With public funds alone, 70,000 family dwelling units are under construction and 15,000 are complete. Allocations for thousands more have been made, to be built with Uncle Sam's money.

Private Home Builders Doing Big Job

Private industry has been doing its part. Private home building has shown tremendous gains the first five months of this year. These gains have been particularly pronounced in the small house field in defense areas—housing that is available to our defense workers.

But there is still not enough. We need more houses just as we need more bombers, more tanks, more ships.

We can't expect the workers who build our bombers, our tanks, our ships, to live under sub-standard conditions. We can't expect them to work long hours in the factories and then spend more hours commuting long distances back to their homes. Doing this month after month breeds discontent. It lowers efficiency. It breaks up families, and families form the stronghold of Democracy.

There are four main ways we go about housing these families. All four vitally affect cities. First, we try to see how they can be housed without building new houses. This sometimes means the arrangement for as many as six commutation trains a day such as now run back and forth between the powder plant at Charlestown, Indiana, so those incoming powder workers can use the vacant homes in Louisville, Kentucky.

Or it may mean a change-over from peace to war-time production. If auto workers become tank workers, they still live in the same homes. There is then no need for us to build, because for every 20% curtailment in automobile production about 100,000 workers are released for defense purposes.

Old Houses Made Into Apartments

Another way to get defense housing is by better use of existing homes. For example, our Rooms Registration Service in Wilmington, North Carolina, uncovered eight hundred single rooms patriotic citizens would rent to ship workers. We have such registration offices already functioning in 74 hot-spot cities. Also, plans are now being perfected through these offices to help owners con-

*From an address before the National Association of Building Owners and Managers at the Stevens Hotel in Chicago, June 18, 1941.

vert large, single residences into comfortable, modern duplexes, or to modernize certain outmoded properties, as was recently done in Newport News through the help of the Home Loan Bank Board.

You can see we are using all sensible, business-like solutions for the problem. In this way we not only get defense housing more quickly and more economically, but we also absorb the workers with less dislocation within the city itself.

However, I am sorry to report that the two methods just outlined, one, curtailment of non-essential production, commuting or transfer of workers; and, two, intensive use of existing homes, do the trick only to a small degree and only in a comparatively few places.

So we use a third way, which is direct building. It must be done in most defense areas and we want private enterprise to try it first. That is why we promptly devised Title VI of FHA. You all know how this special insurance fund helps private building, and you all know that Uncle Sam wants private building to carry all the load it can. By such a policy less public money is used. Also, local people who know the local problems do the jobs better for their cities than anyone from outside possibly can.

The fourth and last way is for Uncle Sam to roll up his sleeves and do it himself. Paradoxical but true is that such action in its first steps parallels disaster action. When a hundred thousand people were deprived of 17,450 buildings by the Chicago fire in 1871, temporary homes were quickly provided for 40,000 in barracks. Incidentally, of the \$1,000,000 of help given by foreign countries (at that time) more than half came from England!

The British knew! They had their fire of 1666 which destroyed 13,200 homes, three-fifths of London, a much greater proportion than yet done by all the incendiary bombs of all those Nazi flying arsonists.

King Charles the Second did much as we are now doing. Homes were shared. Rents were controlled, priorities were put on building materials, profits were limited, brickfields and lime plants were encouraged to expand, labor had its wages fixed and temporary shelter was provided by the State.

Great as was the disaster of the fire of London, great as was the disaster of the fire of Chicago, greater still were their rebuildings. From that lesson we must learn to capitalize on all we do now, too. We must make better cities even as we build in haste.

Some of our defense housing problems are nearly as

sudden, nearly as great and nearly as indefinite in duration of need as the ones posed by those great fires. But to solve them we now have and use trailers, or portable dormitories, or both. Where we can see a few years ahead, but where there is a reasonable doubt that the city can absorb the homes permanently, demountables are built. In every respect of as high standard as the orthodox forty to sixty-year houses, these demountables can be unbolted and moved where needed, if and when they become surplus.

Tremendous Need for New Homes

The foregoing is how we get defense housing quickly without hurting cities. But, except for the private enterprise housing, it still touches upon the minority of cases. In most places permanent homes are needed. The country has underbuilt too long. From the 240,000 non-farm homes produced in 1900 to the 894,000 of 1925 there was only one year that as few as 200,000 were built between the turn of the century and the depression. That was in the war year, 1918.

The trough of the depression created the greatest val-

(Continued to page 98)

Home Loan Bank Head, John H. Fahey, Stresses Private Home Building

IF THE hundreds of millions of dollars going to American wage-earners through increased incomes this year are invested in sound homes, the future of the nation will be doubly secure, John H. Fahey, chairman of the Federal Home Loan Bank Board, declared in Washington on June 21.

"The higher incomes of workers, stimulated by the defense program, can help stabilize our economy if turned into substantial investments," said Mr. Fahey. "Otherwise, they will increase the inflationary trend. Recognizing this, *private industry has a job to do* in making homes available on attractive terms to the hundreds of thousands of families which have moved up into the class of potential home owners in the last couple of years.

"Home-financing institutions and other units of the housing industry have gone a long way in offering new encouragement to home builders and increasing confidence in home ownership. Technical improvements have added to the comfort, convenience and 'livability' of small homes; standardization of materials has made possible new economies. Here are a few things the nation's workers can be told: 1, **They can obtain homes on the smallest down payments and the most liberal, long-term loans in our history;** 2, **Interest rates are lower than ever before;** 3, **They can pay for homes as conveniently as they can pay rent, and often at lower monthly installments.**

"The need for security was impressed upon all Americans by the economic distress of recent years. They can be made to realize that substantial equities in homes will be a guarantee of future security—a guarantee that can be attained during the crisis which we face now and which is likely to continue for the next few years. The terms on which they can obtain homes will influence hundreds of thousands of families, if they can be assured the homes they get are worth

the dollars they are called on to spend.

"Safeguards must be provided for their investments. They deserve good architectural design and planning, quality materials and adequate supervision of construction. These are provided by the most progressive home-financing institutions and the public should insist on them."

Mr. Fahey called on private industry throughout the country to provide homes for the defense workers who are crowding into key industrial centers. He emphasized the fact that the Federal Government wants private industry to assume the major responsibility for housing these workers.

"This situation calls for quick action and the utmost co-operation of all elements in the home-financing and home-construction field," he declared. "Private industry can safely and speedily finance tens of thousands of the needed housing units. If it does not take on the task, the Government will be obliged to step forward with public funds far more than it has in the past. *Private industry, as a patriotic service, should make unnecessary this diversion of public funds from the defense program.*

"There are, of course, housing projects which cannot safely be financed by private industry. The Government must do jobs that are not economically safe for private funds. But there is a great opportunity for industry to take most of the load off Uncle Sam's shoulders and meet what rapidly is becoming a critical problem."

The Federal Home Loan Bank System, which is supervised by the Board of which Mr. Fahey is chairman, embraces nearly 3,900 home-financing institutions with resources of more than \$5,000,000,000. For several months, the Board's representatives and the presidents of the 12 regional Home Loan Banks have sought to stimulate private construction in defense areas scattered throughout the country.

day. It is estimated that by May 25, the last day of inspection, approximately 25,000 persons had seen the home.

Located near so many of the Flower City's parks, the Model Home has many interesting features. It offers an unusual aspect in that it is neither a period home nor a modern home. Rather, it is a graceful harmonious blending of several periods—a contemporary home. Architect Herbert C. Williamson designed it with that intention—that it would always be up to date.

The entrance to Rochester's Model Home gives the atmosphere of the grand old South. The hallway is aristocratic and spacious looking, finished in antique glaze, with wallpaper of the same hue. Leading from the hallway are the living room, dining room, kitchen and powder room.

The dining room is unusual in its treatment and has attracted more attention than any other room. While many of the modern homes combine the living room with the dinette, in Rochester's Model Home the living room is left to its own spaciousness while the dining room is combined with what might be termed an "auxiliary" living room. Against a background of large modern bay windows is a good sized trestle table and a hutch cupboard—both in maple. At the other end of the room, about the fireplace, are a lounge chair and a colorful yellow and brown love seat, with tables and other little touches here and

there to complete the room. Not only does this unusual arrangement add a cozy informal note to what would otherwise have been a conventional dining room, but it allows some members of the family to entertain their friends freely, with the knowledge that the other members still have a comfortable spot to which to retire.

The kitchen, appointed with every modern convenience, offers ample cupboard space, a set-off breakfast nook, combined with a modern snack bar.

On the second floor are three bedrooms and two bathrooms, including the maid's quarters.

The First Federal Savings & Loan Association of Rochester further stimulated interest by offering cash prizes for best letters about Rochester's Model Home—letters of criticism as well as letters of praise. This contest was valuable to future home owners, according to E. Clinton Wolcott, President of First Federal, and to architects and builders. It proved to be a barometer of the likes and dislikes of modern home builders.

LIVING ROOM of Rochester's model home is nicely detailed, with built-in shelves flanking door to rear terrace and modern fireplace treatment. The dining lounge (below at right) serves also as a den or library; the table is located in a bay at opposite end; dining nook and snack bar in kitchen provide convenient space for the family's less formal meals.

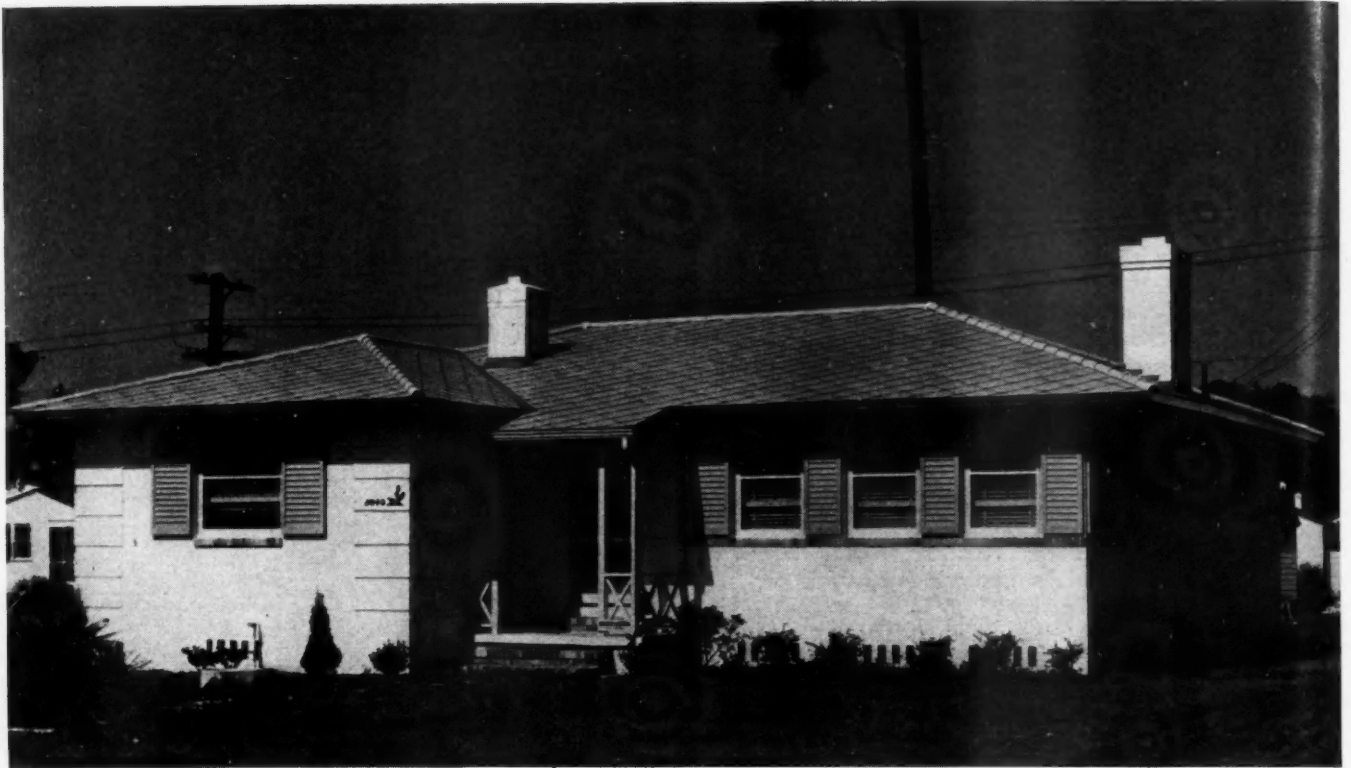


THE ROCHESTER HOME BUILDERS ASSOCIATION
Presents
ROCHESTER'S MODEL HOME

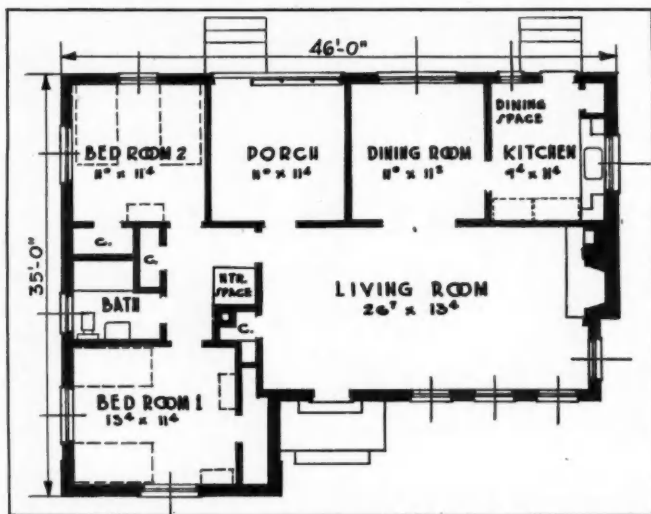
Save TIME, MONEY and EFFORT By Planning Your Home *now*

First Federal Savings and Loan Association of Rochester

ABOVE: The Rochester Builders Association presented the story of this model home in booklet form, with members and material suppliers using a good volume of advertising space. During construction, the First Federal Savings & Loan Association of Rochester used a series of news ads as progress reports to keep public interest alive and attract re-opening visitors to inspect materials and workmanship.



PRACTICAL, MODERN DESIGN blends architecture of North and South.



ENCLOSED PORCH at rear is important feature of plan. Heater space in center hall between the bedrooms is attractively tiled.

BY a combination of efficient organization and smart management, Whatley, Davin & Company, of Jacksonville, Fla., have assumed a place of leadership in home building in their area. With six residential developments to their credit, they have established an unusual record for quality in land planning, architectural design and construction methods. The firm built and sold some seventy houses in 1940, most of them in the \$3500 to \$6500 bracket, although nine were in the \$8,000 to \$10,500 bracket.

This firm efficiently combines a real estate background with a lively building practice. President Brown L. Whatley is well known among real estate men. Secretary-Treasurer Joseph W. Davin is a college-trained engineer whose father was a New York builder. In addition to subdividing and building, the firm does a large business in mortgage loans and insurance.

Pace Setter in Jacksonville

Whatley, Davin & Company organize for high quality at low cost. Build 10-25 houses at a time. Purchase all materials from local dealers

Here then, is a large firm which does a big volume of business and might be tempted, as some builders are, to short-circuit local dealers. But Joseph W. Davin told *American Builder* a different story:

"We have found it more satisfactory and economical in the long run to purchase all of our materials from local dealers rather than attempt to purchase directly from the factory or from the mill.

"We have found that this method of handling our purchases eliminates waste and, although the cost may seem a little higher on some items, we find that when the cost of each job is finally calculated, our totals are as low as can be expected for high quality materials and workmanship.

"We have considered once or twice establishing a supply depot and the purchasing of supplies and materials in larger quantities than we do now, but after investigating

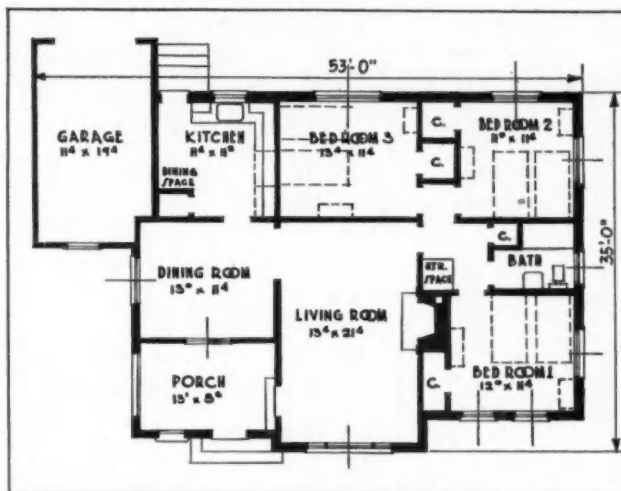


Photos by Dishinger-Woodward

BRICK AND SIDING combined in North Florida style. Note protected front porch.



OPEN PORCH at front is featured in this design. Floor plan same as house above, but reversed from layout indicated at the right.



JACKSONVILLE bungalow plan with 3 bedrooms, enclosed porch at front (seen above), 12' x 21' living room. Ivan H. Smith, architect.

this type of operation more carefully, we decided to continue on our present basis. As it is, most of our materials are bought in carload lots and unloaded directly from the car to the job. The slight savings that we would make in prices on other materials now purchased in less than carload lots, we have felt would be eaten up in operating expense of the supply depot and a certain amount of waste would be entailed.

"There is also to be considered the matter of the good will of the local dealers. We have considered this a valuable asset in our business and we consider very seriously any change in our system of operations that would cause any hard feelings. We are distinctly not in competition with the local dealer. Many of the local lumber yards are among our best customers, as they enable many of our lot purchasers to obtain homes."

One of Whatley, Davin's interesting activities recently was the building of a group of ten frame bungalows in

WHY WHATLEY, DAVIN PREFER LOCAL DEALERS

"We have found it more satisfactory and economical to purchase from local dealers.

"It eliminates waste—our costs are as low as can be expected for high quality material.

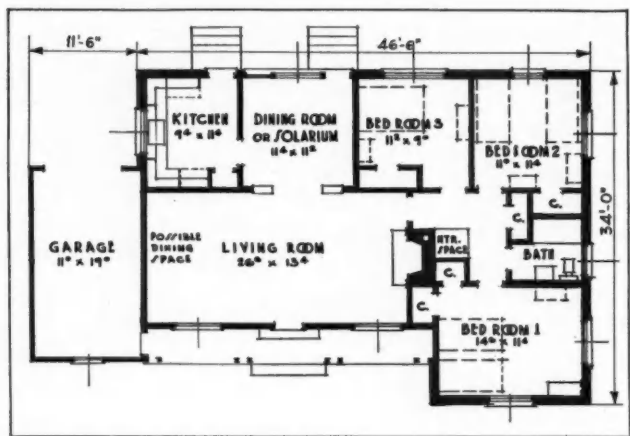
"We consider the dealer's good will a valuable asset in our business. Local lumber yards are among our best customers."—Joseph W. Davin.



LONG AND LOW, with inviting front porch. This Whatley, Davin design has a flexible plan with large living room and a dual purpose room to be used for dining or enclosed porch.



GOOD PROPORTIONS revealed in this view of above house.



FLEXIBLE PLAN with good cross ventilation, large living room.



ENCLOSED FRONT PORCH with decorative screen is a popular feature of Whatley, Davin homes. Air circulates freely through screen, vents and large window, yet porch is protected from hot sun.

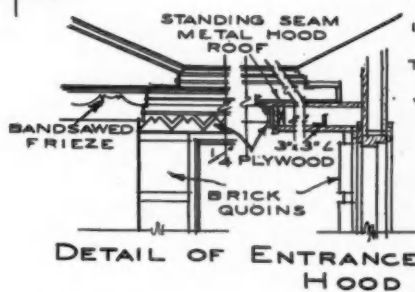
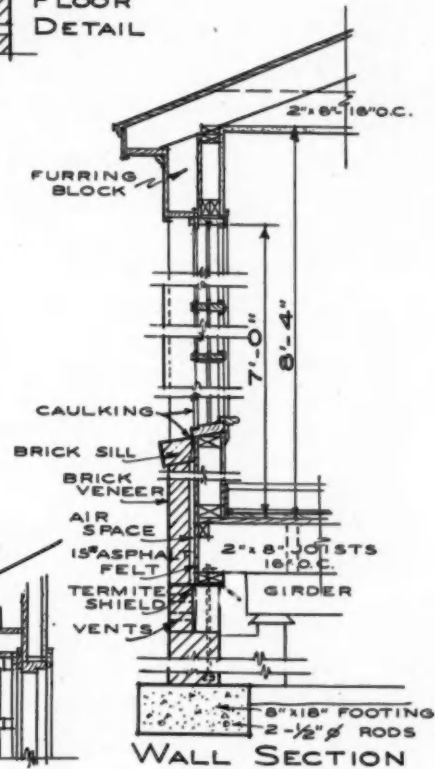
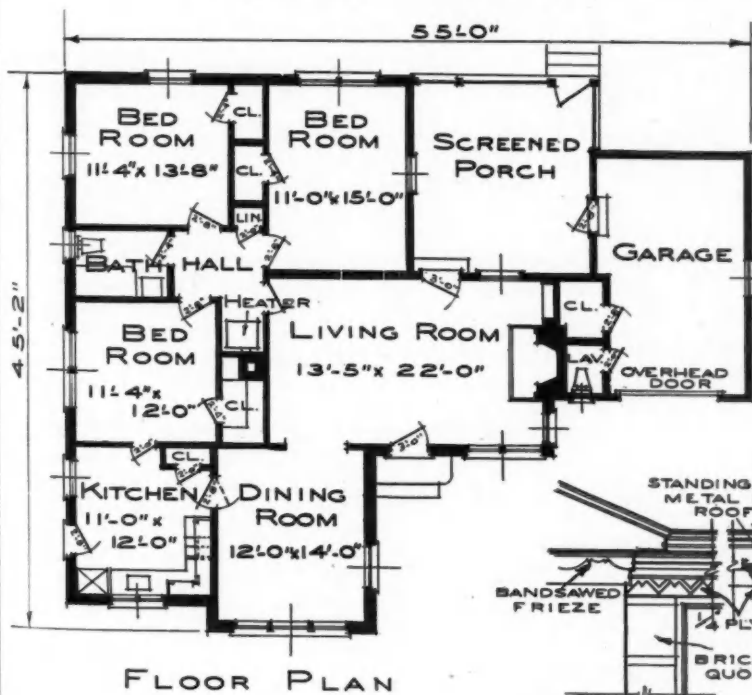
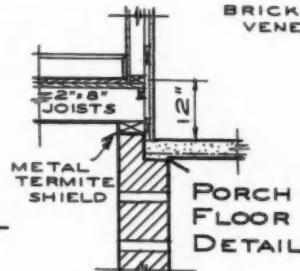
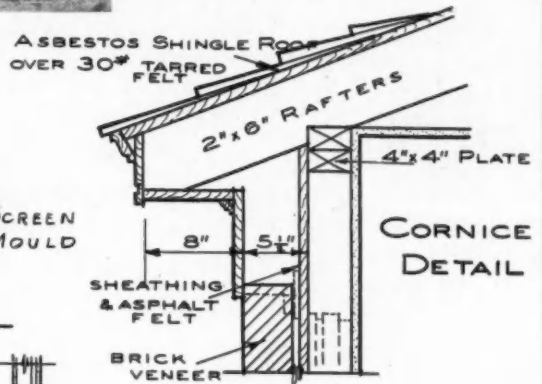
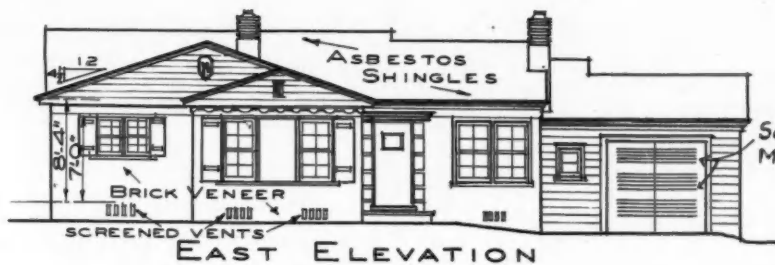
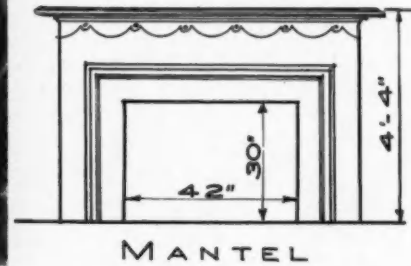
their Nicholas Park community, which were designed as "Design for Happiness Homes" in connection with the nationwide program of Libbey-Owens-Ford. These houses were built and sold under FHA Title 1 plan, enabling the purchaser to acquire the house for as little as \$275 cash and \$25 monthly.

Most of the firm's houses are built in groups of from ten to twenty-five. Davin reports that they are able to effect considerable savings in building in units of this number by constructing many parts of the house in a tem-

porary power saw shop set up in the subdivision. The principal equipment of this shop is a DeWalt saw, which is used in the precutting of most of the lumber required and also in the building of rough door and window frames, and even in the building of the entire side of a garage. The shop is demountable and can be taken down and moved from job to job. In addition to the table saw, the firm owns several Skilsaw electric hand saws which are used directly on the job.

Davin has given great thought and care to the design of the subdivision, the layout of his streets and the architecture of the houses. He employs good architects to plan the houses, and in this way sets a pace for good design that tends to raise the character of the neighborhood. As he puts it, "We find that if a good example is

(Continued to page 100)



JOSEPH W. DAVIN, of Whatley, Davin & Company, has given great thought to the details that make houses successful. In the above house, which was designed by Architect R. C. Stevens of Orlando, attention is called to the garage door decoration achieved with screen mould, the nicely detailed entrance hood, well proportioned corners, simple fireplace design, termite proofing and footing details.



1. BUILT-IN BOOKCASES with window seat give character. Decorative scroll appeals.

Photos by R. E. Leppert, Jr.



2. DECORATIVE CUPBOARD beautifies dining room corner.



3. FAN-LIKE STRIPS decorate open porch.

Eye-Catchers Help Sales

EACH ONE OF THE SIX photographs on these pages has not one but several architectural ideas that may make the difference between a house that sells and one that does not. No. 1, above, for example, has a picture window, surrounded by bookcases that give charm and dignity to the whole room. The delicate scroll work carried clear across the top of the room dresses up the bookcases and provides cover for the drapes and Venetian blind. The window seat with shelves for magazines is an added touch.

CONSIDER ALSO NO. 2, the dining room, at left, with a delicately outlined corner cupboard with the inside of the cupboard painted a contrasting deep tone. The window detail is also good, and note how the concealed radiator has been artistically handled. The decorative wallpaper and chair rail are also worthy of mention. In No. 3 the inviting porch would be a sales asset to any home, and of course, the thing that is "different" is the fanlike decorative treatment between the posts.

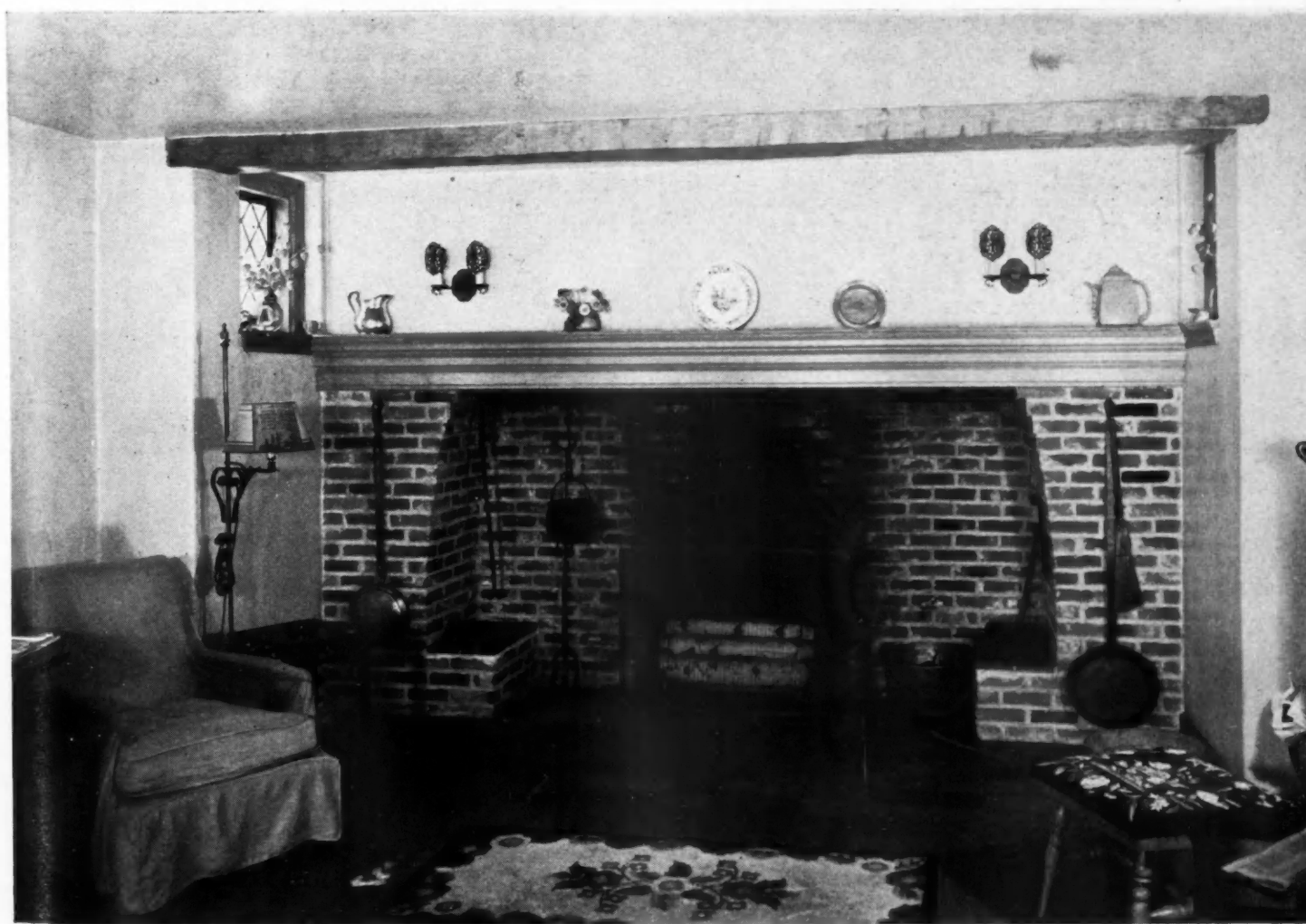
TWO EYE-CATCHING STAIRWAYS on the opposite page have special charm. No. 4 shows how the upper half of a Dutch door swings back over a Colonial stair railing fitted into a small area. The delicate detailing of the stair railing in No. 5 sets a new high, and the door and trim also have great beauty. Last but not least is No. 6 which shows a massive brick fireplace with built-in seats, a mantle that invites display. Such a fireplace alone would lift any house out of the ordinary class. All of the work shown in this collection was designed by Architect G. Dewey Swan, of Scarsdale, N. Y., who has done much distinguished residential work in Westchester County and suburban New York. The photographs were taken by Rudolph Edward Leppert, Jr.



4. DUTCH DOOR swings back over landing.



5. WROUGHT-IRON stair railing adds delicate note.



6. MASSIVE old-fashioned fireplace has a charm all its own.



SAWED CYPRESS LOGS on end were used in building these appealing Florida cabins around a small lake.



RUSTIC BRIDGE leads to small island in center of lake. Cabins rest on heartwood pitch pine piling.

Scottie's Cabins

A practical first-hand account by the builder of a unique cabin and coffee shop project on Florida's Tamiami Trail. Cabins built around small lake so occupants can fish from porch

By T. H. Phillips

Builder of Scottie's Log Cabins, Fort Myers, Fla.

WE SPENT about a year building Scottie's Log Cabins & Coffee Shop on the Tamiami Trail, and the job was full of unusual ideas as well as tough problems.

As my floor plan sketch shows, each cabin accommodates four. You will notice that the porches extend over the water where one can actually catch fish from his own front porch.

The benches on the porch are made of half-sawed cypress logs with 3 by 12 cypress blocks left in for support, and the backs are of cypress boards nailed with galvanized nails. It was difficult to get a good foundation as

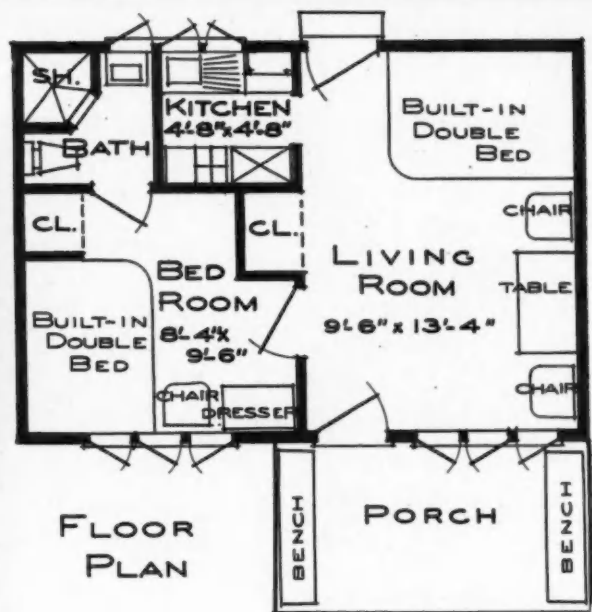
there seemed to be no bottom to the muck, and therefore pitch pine piling was jettied down as far as practical and sawed off, using the lake for a level.

The cabins are located on the north end of the Edison Bridge, which crosses the Caloosahatchee River one and a half miles north of Fort Myers. One of the pictures will give you some idea of the site—it was known as a "saw grass swamp." The soil is black muck and was very difficult to get out; it had to be thrown out with shovels, some having to be moved two or three times.

The sills are also of pitch pine. These were dead trees of which only the heart remained, and may have been



VERTICAL LOGS and local stone were used for Coffee Shop.



ABOVE: Cabin plan, 20' x 14'; porch, 11' x 8'.



A 2,000 POUND EVERGLADES LOG sawed into a slab 22 inches wide is used for the counter top in Scottie's Coffee Shop. Cypress stumps are used as stools. Kitchen equipment is of stainless steel.

lying on the ground for 50 or 100 years or more. They are 100 per cent heart. You will notice that two of the sills extend beyond the building, cantilevered to support the porch.

The cabins are all cypress including the shingles, excepting the floor joist and floors which are of Florida pine. The logs are half sawed, stood on end and batted inside. The inside is then ceiled with tongue and groove eight-inch cypress ceiling, also ceiled overhead with same. The windows are casements and have crank openers. The doors are standard except the front door which is screened, and the windows let down for ventilation. The

windows also are screened to assure comfort when open.

After the buildings were completed a reinforced concrete base was cast around each piling, which had been first notched for a key. (See detail page 90.) The reinforcing is a tire rim which had been welded together to keep any possible swelling of the piling from cracking the concrete.

The wiring is standard and the feed wires run from cabin to cabin through the gabled end roof. All of the materials used in the buildings, including the Coffee Shop, are Florida products, except those not made here.

(Continued to page 90)



"Package Job" Makes Bath Remodeling Easy



Before Modernizing



TYPICAL of thousands, this old bathroom was one of the eyesores of a fine home—hard to keep clean and unsightly to look at. A "package job" of selling transformed it as you see on opposite page.

BATHROOM modernization continues to be one of the biggest undeveloped markets in the country. A principal obstacle to more work of this type is now being removed by "package selling."

By package selling is meant the sale of a complete bathroom modernizing job by one building professional who undertakes to handle all the details at a fixed price.

When handled this way the home owner is relieved of the perplexing details of getting separate estimates from a half-dozen or so different subcontractors or workers.

Bathroom modernization, of course, frequently occurs in connection with a more extensive job performed by a general contractor, in which case there is no problem as to who runs things. Where the bathroom alone is to be fixed up, however, the field is wide open for any enterprising building professional whether it be a builder,

carpenter, plumber or, as in the case of the job illustrated with this article, the linoleum contractor.

The transformation effected was so striking that it has, in effect, become a national demonstration of bathroom modernizing. Floors, walls and ceilings of the modernized bathroom are covered with colorful linoleum according to a color scheme worked out by decorative experts of the Congoleum-Nairn Company. Walls are executed in two colors, "rose agate" and "St. Albans red." The floor is "mahogany" and the ceiling "rose agate."

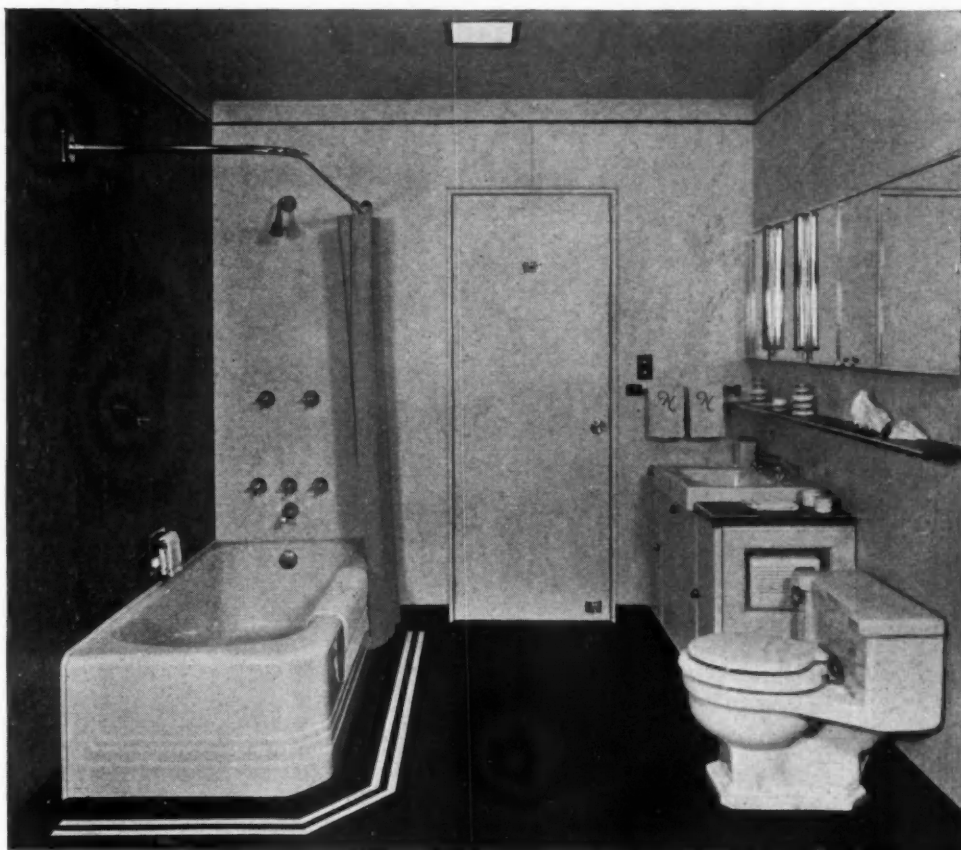
While no structural operations were involved in transforming the old bathroom, the change brought about was very striking. One of the clever ideas was the rebuilding of the old door by covering it with a layer of plywood as a base for linoleum. This produced a modern-looking flush door with a permanent washable surface.



HOW JOB WAS DONE—at left, new wiring and new piping installed. CENTER—new window frame goes into place. RIGHT—putting finishing touches on new linoleum ceiling.

After Modernizing

COLORFUL linoleum walls and floors, modern fixtures and modern design make this bathroom the finest room in the house. It's not only easy to clean but pleasant to look at. Note radio built in.



Another striking feature of the modernized bathroom is the lavatory cabinet. This provides convenient linoleum work counters on either side of the wash basin and valuable storage space underneath. Space for a small radio is provided at one end of the cabinet.

Above the cabinet is a linoleum covered shelf supported on concealed steel angle irons.

Before laying the linoleum the old floor was covered with $\frac{3}{8}$ -inch plywood to provide a smooth base. New door and window frames were installed and the old plaster properly filled and smoothed as a base for the linoleum surface. Considerable electric work was involved as well as the installation of the modern plumbing fixtures.

Estimating the job was simplified by the use of a set of master specifications covering the carpenter work, plumbing and heating, electrical, mason work, painting and linoleum. Because of the importance of these master specifications in estimating a "package job" they are given herewith in full:

Linoleum Contractor Specifications

Walls, ceiling, floor, one piece cove base and border of Nairn linoleum installed in accordance with manufacturer's specifications.

Carpenter Contractor Specifications

This contractor shall remove present bathroom door and after reducing the dimensions as called for on the plans reface with $\frac{5}{8}$ " 5-ply plywood on the bathroom face of the door. The plywood shall be securely glued and nailed to the door. All four edges of the plywood shall be rabbetted to receive metal moulding. The depth of this rabbett shall be exactly the thickness of the flange of the metal moulding, which metal moulding shall be furnished and set by this contractor as selected by the owner. All exposed edges of the plywood shall be carefully sanded, filled and painted to match the present edge of the door.



LINOLEUM covered cabinet and shelf contribute to convenience of the modernized bathroom. Door was rebuilt with plywood and covered with linoleum.

This contractor shall in resetting the door furnish three 3" chrome butts and new lock with chrome fittings to be selected by owner at the time of bidding.

This contractor shall remove present baseboard, door and window trim, medicine cabinet, screen stops and any other projecting woodwork in the room.

(Continued to page 97)

Gem of Compactness Fits Doctor's Needs



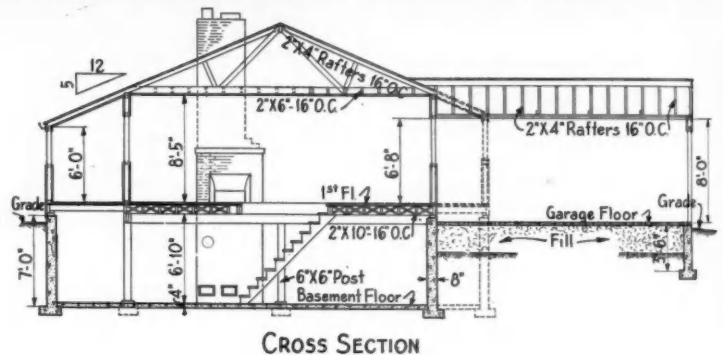
ALTHOUGH planned to suit the particular family and professional needs of a doctor, this compact little residence, as designed by K. Pyle and built in Spearfish, S. Dak., offers many points of interest to those concerned with planning and building. Within its modernly styled rustic exterior there are seven rooms, each of minimum size but maximum utility, and tucked into every possible location there is a combined amount of storage space that should prove sufficient for average needs.

Off the small entrance vestibule there are a guest closet and a little study with built-in desk where the doctor can talk to a patient without disturbing the rest of the household. This could be used as a planning room or child's study.

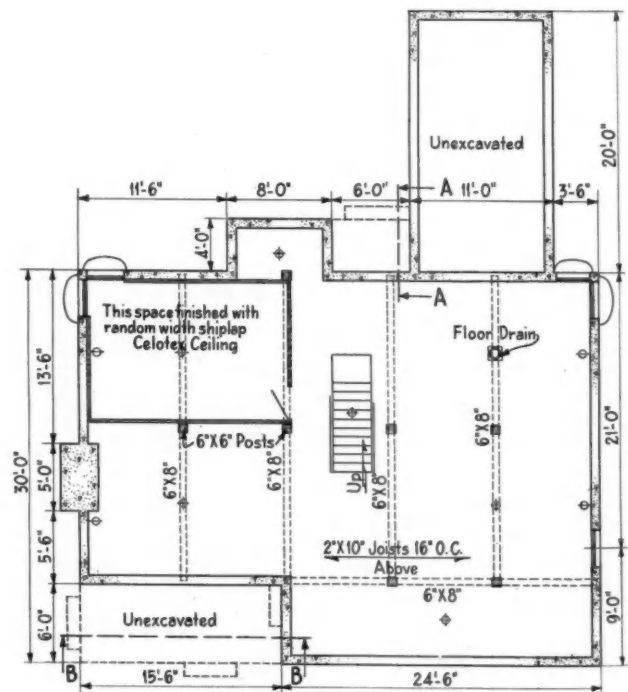
Living and dining room are combined to open up the floor plan; built-in shelves, cabinets and the fireplace practically surround the outside walls except for furniture space. The kitchen is likewise small but carefully planned to take complete equipment.

A bunk room with closet, built-in wardrobe desk and drawers underneath beds is placed between the two bedrooms and would appeal to any small boy because of its coziness and nooks for the average youngster's collections. There are eight storage closets besides the built-in cupboards in this house. Basement has ample room for utilities, hobbies, recreation and storage.

At the right, floor plans, elevation, section and details indicate construction practice. By carrying the eaves low at the front, a charming cottage simplicity has been secured. Rear elevation indicates the placement of attached garage with direct entrance from covered service porch. Section details show this floor and also concrete work and brick surfacing of entrance porch.



CROSS SECTION



BASEMENT PLAN

DESIGNED by K. Pyle, Lead, S. Dak., the above cross section.

SPECIFICATION OUTLINE

FOOTINGS & FOUNDATION: Wall footings 6" thick and 4" wider than wall on each side; pier footings not less than 16" square. Walls of reinforced concrete, thickness as indicated, waterproofed with coat of mastic.
FRAMING: No. 2 Y.P. of sizes indicated, except No. 3 studding.

WALLS: 8" diagonal shiplap, covered with red rosin building paper and 10" clear cedar beveled siding and 12" vertical boards and battens, finished with 2 coats boiled linseed oil and stain.

ROOF: 2x4 rafters braced, 1" shingle lath, and clear edge-grain red cedar shingles.

FLOORS: 8" diagonal shiplap sub-floor and oak finished floors throughout except linoleum on 5/8 pine in kitchen and bath.

INSULATION: 1" Red Top blanket between studs in sidewalls and 4" J-M rock wool batts between ceiling joists.

SHEET METAL & WEATHERSTRIPPING: 26 ga. galvanized moulded cornice gutter and downspouts.

All windows weatherstripped with factory-applied metal.
LATH & PLASTER: 1/2" Celotex lath and 2-coat plaster, sand finish.

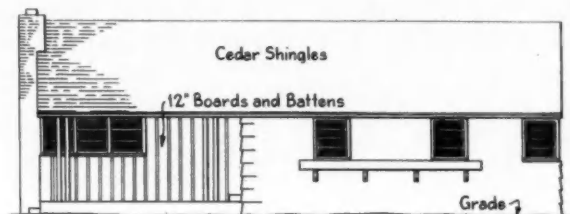
DOORS, WINDOWS, SCREENS, STORM SASH: Huttig hollow core flush doors. Farley & Loetscher Weatherseal windows. W. P. storm sash and screen frames, the latter fitted with copper screen wire.

MILLWORK, TRIM & FINISH: Ponderosa pine throughout; 4' bevel edge shiplap wainscot in living room, dining room, hallway, stained and varnished. Bunk room, vertical boarding as detailed, stained and varnished. Book shelves, cabinets and other built-ins as detailed. Kitchen and bathroom, enamel finish. Basement room, vertical shiplap, beveled edge, stained and varnished and Celotex ceiling applied as detailed.

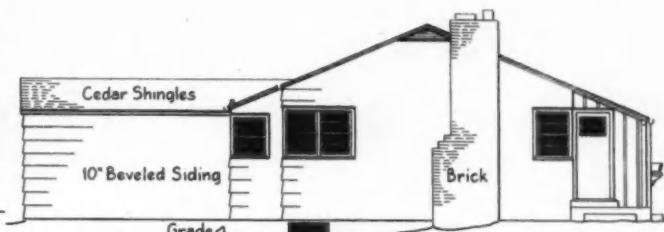
PLUMBING & HEATING: Eljer bathroom and plumbing fixtures. No. 2 Sunbeam winter conditioning unit, gas-fired. Automatic electric water heater.

FINISH HARDWARE & ELECTRIC FIXTURES: Furnished by owner.

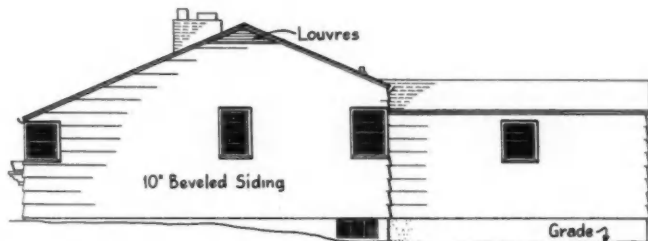
Other equipment—door chimes and Venetian blinds.



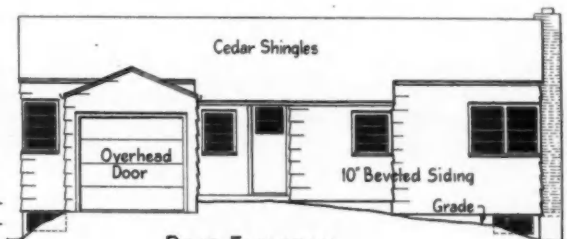
FRONT ELEVATION



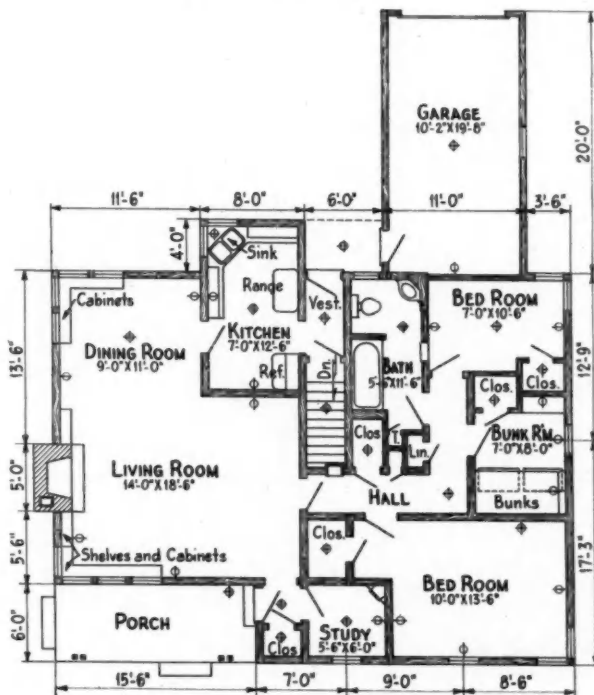
LEFT ELEVATION



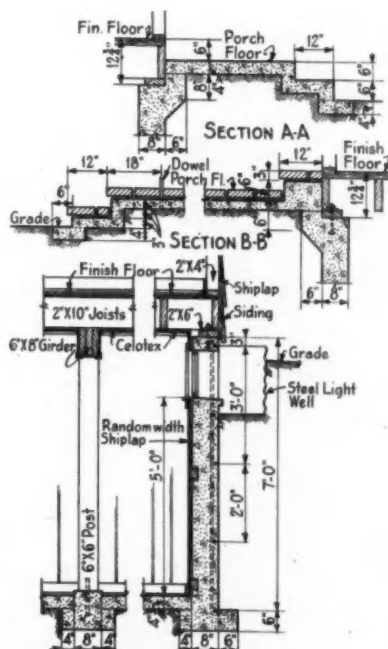
RIGHT ELEVATION



REAR ELEVATION



FIRST FLOOR PLAN



TYPICAL WALL SECTION

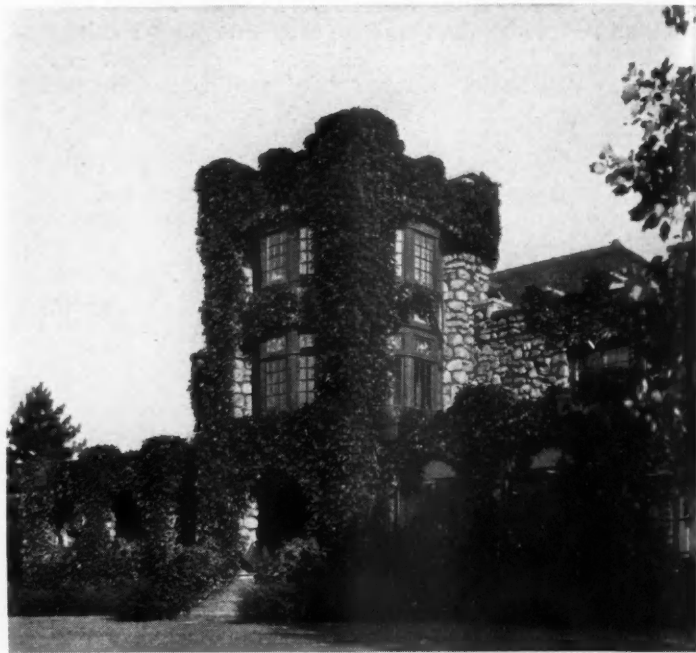
floor plans, elevations and details show the layout and construction of seven-room house arranged with 40 by 30 main floor area.

MILLIONAIRE'S MANSION GIVES WAY TO

Pity the Poor Millionaire!

Rich men's estates rapidly being turned into popular priced subdivisions. Here is the story of the DeWyckoff mansion's transformation to Ramsey Country Club Estates

By David George Bareuther



FAMOUS DeWyckoff mansion at Ramsey, N. J., now serves as club house for home buyers. More than \$2 million was spent in landscaping historic mansion designed in style of Ramsey Abbey, Hampshire, England.

REAL estate, often considered the last stronghold of feudalism, has been in the throes of a democratic revolution ever since the advent of the FHA boom in home building.

Times have been changing rapidly and the "Four Hundred," with their castles and private parks, have been crowded out of the limelight by the "Four Million," for whom new homes are needed in this country. Many of the biggest and most firmly entrenched landed estates have had to yield to the demand for new homes for America's middle classes.

Old mansions that have been landmarks in both cities and suburbs for generations have been demolished to make way for apartments and popular homes. The trend has been especially noticeable around New York City. It really started in the heart of Manhattan Island where for

several years the burden of taxation and other costs brought about the passage of one historic residence after another for the construction of modern apartment buildings. The depression, wiping out many of the high incomes, made the weight of taxes particularly serious on the large estates.

Then came the spread of the FHA and the monthly payment mortgage scheme. Extensive country properties with land by the wholesale suddenly could be marketed on the retail basis, especially when offered in the right package—complete with house, garden and garage.

Look at the names of the "Four Hundred" that have bowed to the "Four Million" and you can realize the significance of this democratic revolution in real property! Vanderbilt, Munsey, Villard, Astor, Sterling, Sherry, Belmont and many, many others.



THE VICTORIA, popular Ramsey Country Club Estates home, where middle-income buyers enjoy the luxurious environment created by the DeWyckoff millions. L. Robert Warriner, architect. Floor plans on opposite page.

MODEST HOME FOR THE MIDDLE INCOMER

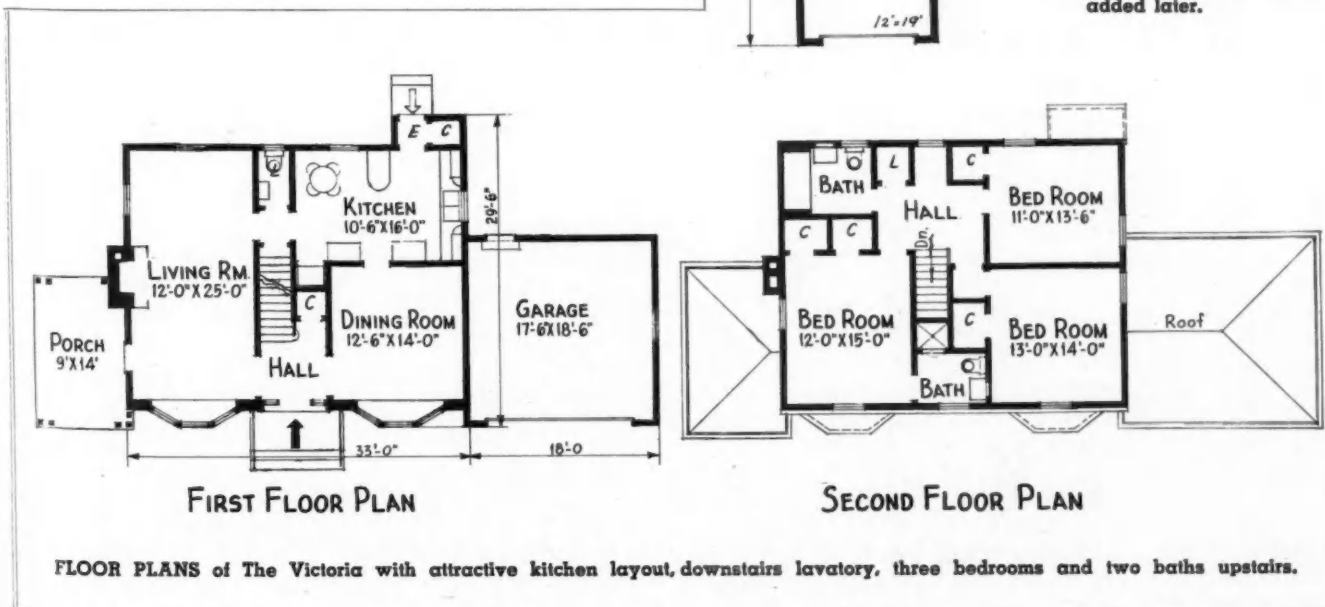
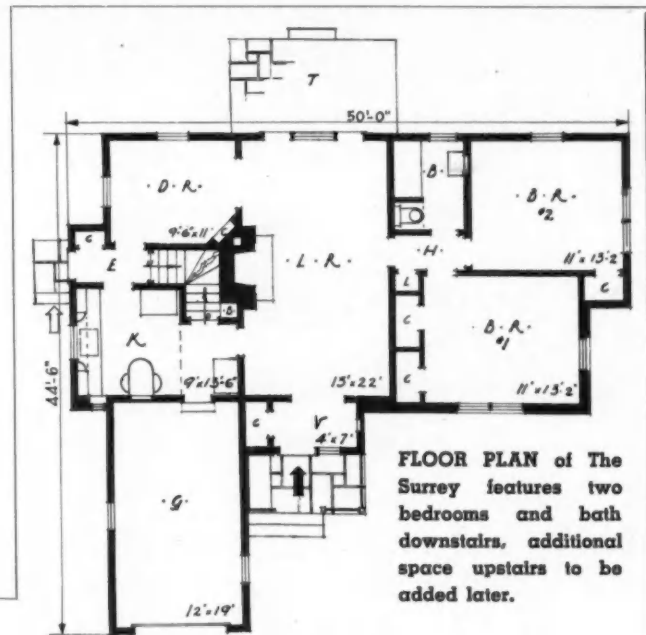


THE SURREY, well planned Ramsey Country Club home, now occupies property where the "Four Hundred" used to gather.

Of course very few of such properties have been taken over for low-cost housing. Most of them originally cost hundreds of thousands of dollars to develop and landscape, and, therefore, they offer homesites above the average in attractiveness. Homes ranging from around \$10,000 to \$20,000 were sold on the old Vanderbilt property, and the Sterling and Astor estates found a market for residences in the price class above \$30,000. However, because 86 per cent of the suburban homes around New York sell for less than \$10,000, the fastest selling development has been in the more popular price classes.

This breaking up of rich men's estates into homes for the middle income buyers of the nation is really just getting started. Indications are that under the pressure of high taxes to be levied to pay the cost of the national defense program, still more wealthy land owners will sacrifice their "white elephant" properties. Not only diminishing incomes but the difficulty of keeping large retinues of servants is a factor in the break-up of estates. The

(Continued to page 95)





PRECUT PIPE and sub-assemblies are stored in bins (left) until needed at job site. AT RIGHT—workmen attach prefabricated sub-assembly to factory-tested oil boiler.



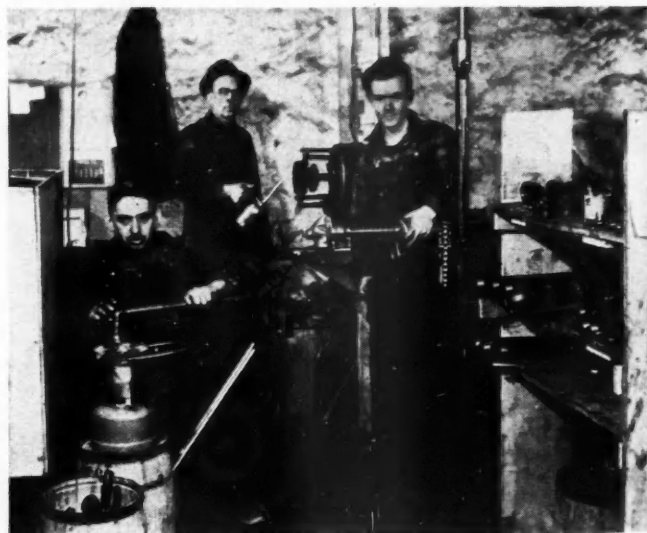
Pipe Cutting and Threading on Job Eliminated

Heating and plumbing costs cut at Hingham, Mass., by shop-production methods. Sub-assemblies delivered ready for quick installation

LOWER costs and greater speed in connection with the installing of heating and plumbing are the results of streamlined production methods being employed in a new one hundred-home residential development at Hingham, Mass.

It is a truly significant event when anything can be developed that will speed up and simplify heating and plumbing installation methods, and when such an event occurs in staid New England it is even more noteworthy.

The home development where all pipe cutting and threading on the job site has been abolished is Bradley Woods, a striking and well laid out new project being built by Hingham Homesteads, Inc., under the Federal Home Building Plan. This development is located in a high grade residential section of Hingham, and although not primarily intended for defense housing purchasers is, nevertheless, much affected by the large shipbuilding pro-



WORKSHOP where all pipe is cut to exact length, threaded and made into sub-assemblies.

gram in the nearby yards at Quincy, Massachusetts.

While there are many interesting features of this job, the most outstanding is the fashion in which plumbing and heating labor has been transferred from piecemeal activity in each house to a workshop where mass production methods can be employed. W. D. Aitken, heating man and Timken Silent Automatic dealer in Weymouth Landing, Mass., developed the improved methods used in these houses, which are in the \$6,500 class.

Speed with high efficiency has been the keynote throughout the Bradley Woods Development. When the heating contract was awarded to W. D. Aitken, Inc., they established a heating supplies warehouse and shop "on the job."

(Continued to page 92)

Super-Service Station and Salesroom Built on Gulf



ABOVE: Close-up of showroom; note absence of the display window corner posts.

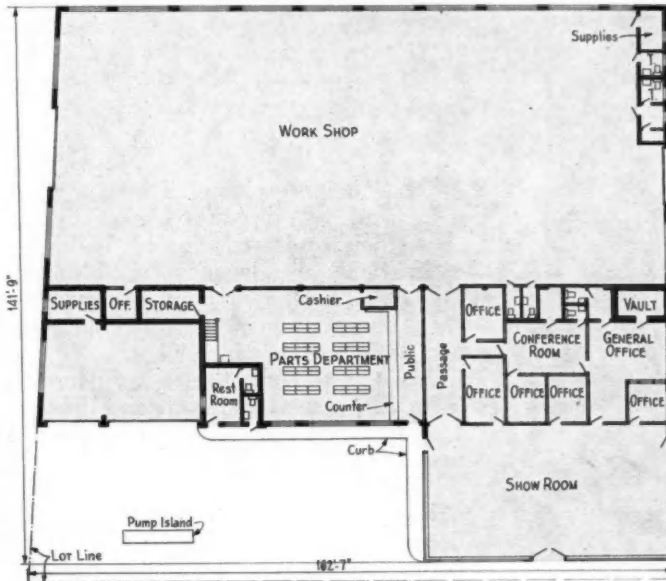
A HIGH degree of visibility is a feature of the new \$100,000 establishment recently erected by the J. F. Pate Construction Company, of Mobile, Ala., for the DeVan Motor Company, Ford and Lincoln dealer of that city. The place was designed by Fred W. Clarke, architect of Mobile, and incorporated ideas gathered by Ben G. DeVan, vice-president and general manager, in a visit to leading automobile dealers in the United States and Canada.

Of special interest is the new car showroom with its wide expanse of plate glass on three sides. The cantilever type of construction eliminated the necessity for corner columns, so there is really no obstruction to a clear view from almost any angle. The showroom is fluorescent lighted for brilliance of night display and a moving platform is provided for display of a featured car.

The establishment includes a complete one-stop gasoline service station in front, this being in line with the more recent idea that a service station can be an important feeder for other departments of the business including heavy repairs and new and used car sales.

The offices, located in the center of operations, are separated only by glass partitions in the interest of visibility. Thus the general manager from his desk may observe operations in the show room, the parts room, the other offices and even in the shop in the rear. The offices are air conditioned by a 2½-ton Carrier system. Other departments of the business including the shop are heated by suspended Janitrol gas wall heaters.

The brick, one-story building, to-
(Continued to page 91)



BELOW: View of DeVan Motor's new \$100,000 building for sales and service.

LEFT: Plot and floor plan of various sales and service departments in Mobile, Ala., structure.





LIGHT SAW does rapid work cutting diagonal sheathing.



CUTTING OUT openings takes only a few moments.

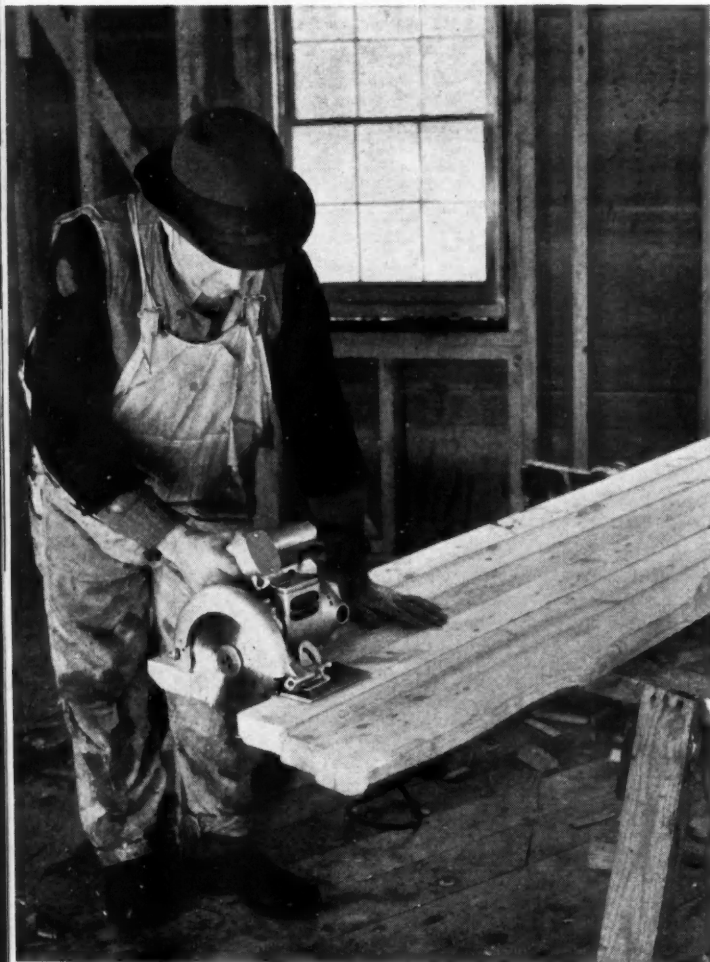
Power Saws Help Country Builder Cut House Cost

THERE are plenty of instances where power equipment has served the big building operator with great efficiency in reducing his building cost—particularly where he builds a large group of houses of similar design. But A. E. Bull, a country builder of Monkton, Md., says that the economies for a small operator are just as great, and probably more important.

Bull the builder is the type of man who believes in building a few houses each year and doing them well. He has been in the business for 15 years, and many of his workmen and his subs have been with him for that entire time. Practically all have been with him for more than ten years.

Bull is a small country builder, and proud of it, but that doesn't keep him from being progressive. He uses the latest in building materials and methods and the latest in power equipment. Of particular interest in connection with power equipment are the time studies he has kept in connection with the use of his electric hand saws. He has been using two of the latest Black & Decker models—one an 11-lb. saw for cuts up to 1 $\frac{3}{8}$ inches, and the other a 20-lb. for framing and heavy work, cutting up to 2 $\frac{5}{8}$ inches. Practically everything that goes into the Bull houses is cut on the job with these saws, and Bull estimates that his savings through use of the saws run \$40 to \$50 a house in cutting the framing alone.

Bull himself lays out most of the cutting but has a foreman who is also expert. They try to plan their work for efficient production methods. Take the case of rafters. One of his experienced men is able to cut 50 rafters in 45 minutes. High speed and accuracy are also achieved in the multiple cutting of studding, with the result that all of the studs for a house are cut in a few hours by one man using the electric power saw.



MULTIPLE CUTTING of studding done with speed.



HALF A DAY is saved in cutting stair carriages.



BULL'S MAN CUTS 50 rafters in 45 minutes.

"You don't have to be a big shot to get real economies," says A. E. Bull, Monkton, Md.



BULL THE BUILDER with his "traveling office." Strap arrangement holds blue prints above seat. AT RIGHT is portable meter pole, moved from job to job.



An important item of economy that the power saw has brought out that Bull thought particularly important was the cutting of stair carriages. It happened that the day your *American Builder* correspondent visited one of Bull's jobs it was extremely hot. He remarked that "on a hot day like this cutting the three stair carriages by hand could easily take a half a day or more." But with the power saw one carriage was cut out in 12 to 15 minutes, and a set of three required for a stairway could be done in from 35 to 45 minutes.

The lighter saw proves particularly useful in cutting diagonal sheathing and flooring and in trimming openings around stairs, chimneys, etc. In cutting many kinds of lumber where a large number of pieces of the same size are required, Bull's men are trained to cut two pieces at a time with the saw blade running through just far enough to mark a third piece.

In addition to saving time in such operations as these, Bull achieves a substantial saving in lumber because he's able to use random length boards and also cut up odds and ends of pieces that would not be used if the carpenters had to do the work by hand power.

Still another important item that any builder concerned with quality work will appreciate is that a more accurate tight-fitting job is secured. Bull pointed with pride to the underside of a roof gable where a long row of rafters came together. There wasn't a crack as big as a pencil line at any point. These rafters really fit. In all his work Bull is equally concerned about quality construction and workmanship. He believes that a small builder who puts up from two or three to eight or ten houses a year is able to exercise a personal supervision and keep a closer check on the job than the bigger operators.

He sublets very little work, and the few subs he does deal with get the jobs without competitive bidding. "I don't believe in huckstering around on bids," Bull says. Subcontractors and workmen who have been dealing steadily with him for more than ten years can be counted on to do a good job at a fair price. And in return subs feel that they can rely on the builder to treat them right.

Bull takes the same attitude in buying materials. He has been buying from the same lumber dealer for many years and says that he is satisfied that he gets a superior service as a result. Right now when there are frequent shortages of materials, Bull points out, the benefits of a long established, friendly relationship with your material supplier, your subcontractors and your workmen proves of great value. He says they have all been co-operating to the fullest extent to keep the jobs going smoothly, and he has had no difficulties in material shortages or with loss of men. He has had to pay higher prices, but none that he feels are unjustified or unreasonable.

Most of Bull's homes are built in an attractive wooded development in Towson, Md., with the appealing name of Fellowship Forest. The 60-acre tract is being carefully and slowly subdivided into large plots, none of which are less than 100 by 165 feet, and many of which are considerably more.

Being well out in the country, Bull at first experienced some difficulty with the local utilities in getting his electric power installed far enough in advance to permit use of the power saw early in the job. He convinced the utilities that anything they did along these lines to build up an increased electric load was to their advantage. He arranged for the installation of a temporary meter and switch setup

(Continued to page 96)



A PAIR of Hinsdale Homes, Inc., five-room adjoining Gloucester designs with basic plans (below) reversed and

Chicago Area Project Utilizes Twin Plans

Hinsdale Homes features new type planning, culs-de-sac, numerous variations

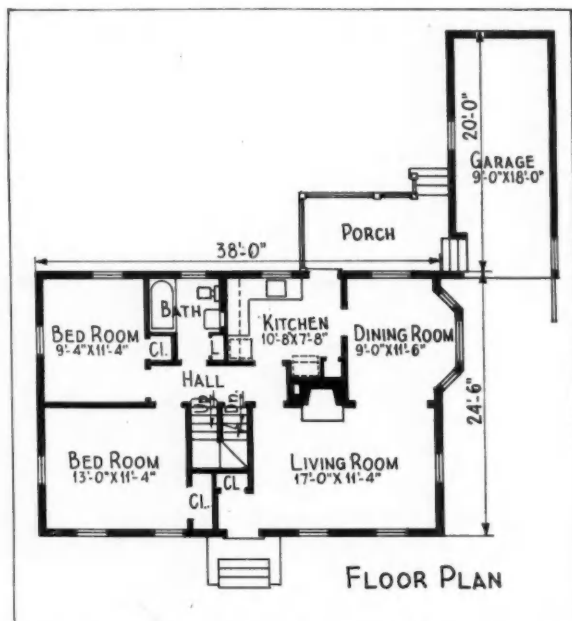
SEVERAL new ideas in the group planning and building of residential areas were developed by Hinsdale Homes, Inc., and the architects, Walton & Kegley, in the project shown on these pages. Hinsdale Homes was planned as a unit to incorporate features which could not be provided on already laid out and individually improved sites—maximum usable ground area, elimination of traffic dangers, better exposure to sunlight, open development for landscaping, and underground utility services.

Located in the village of Hinsdale, a Chicago suburb, maintenance of values is assured by rigid restrictions. Traditional Colonial design is used throughout, and each home carries a "Certificate of Registration" issued by the Federal Home Building Service Plan testifying to soundness of inner construction, utility of floor space, and beauty of design. Lots range in size from 60 to 75

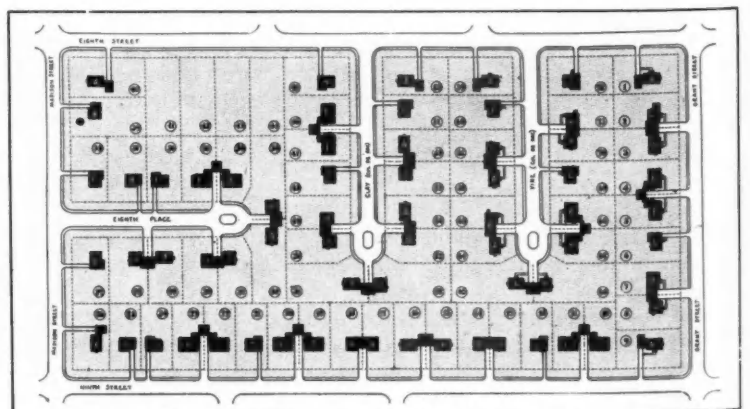
foot frontage by 125 to 158 feet deep as shown below.

To simplify construction, five basic plans were engineered so that, by reversing similar types, they can be built as pairs to provide common double garages with adjacent drives, the lot lines on these sides coming between them. This opens up the areas on the opposite sides of the houses for landscaping. The homes range in size from five to seven rooms, with two to four bedrooms and one or two baths. In some cases provision is made for adding extra bedrooms at a later date. Automatic gas-fired winter conditioning allows the homes to be built either with or without basements, utility room arrangement being shown in plans on opposite page.

The first group of homes bordering one end of the area has been completed and sold, while the second group on one of the culs-de-sac is now receiving the finishing landscaping touches and is being sold. Construction and ma-



LEFT: Five-room first floor layout of pair of "twin" houses shown above; the plan is reversed for the house at the right, and the two garages have a common wall; the one with dormers is planned for extra bedrooms on the second floor and can be built without basement by providing utility room space. Below: Plot plan shows culs-de-sac streets and division of property into lots. Letters identify types of floor plan, E being illustrated above, and types A and H being shown opposite with floor plans.





two six-room designs in two-story brick veneer, the principal variation being placement of third bedroom.

materials used include 10-inch poured concrete foundations and footings with continuous reinforcing rods, concrete basement floors laid on 6-inch cinder bed. Frame walls are either sided or face-brick veneered over Weatherwood sheathing on the outside with Rocklath and 3-coat plaster on the inside.

Exterior wood trim is white pine or red cedar; inside trim is kiln-dried white pine and gumwood except birch stools and jambs. All exterior woodwork has three coats of lead and oil paint; doors, door frames and trim have an additional coat of exterior enamel. Interior woodwork is finished with four coats of paint and enamel.

The floors have one-inch dead air space and deadening felt between sub- and finish oak flooring. Garages are

separated by 8-inch masonry walls. USG blanket insulation and asphalt shingles are used in roof construction.

Doors are white pine 6-panel Colonial, 1 3/4-inch thick; bronze screening is used, and both doors and windows are weatherstripped. The Lennox heating units are wired for summer operation of fans. Electric ranges and either gas or electric water heaters are part of the equipment. Kitchens are completely fitted with cabinets and work counters. Plumbing fixtures are Crane.

Miscellaneous items which add to salability are sunken garbage receptacles, solid brass hardware with Corbin locks, upward-acting garage doors, Lightolier fixtures, Venetian type of medicine cabinets, inlaid linoleum in kitchens and baths, brass thresholds and A-grade glazing.



Two California Cottages—



BALCONY and trellis effect at corner window, porch trim, garage door and gate are novel and attractive details.



Unique in Detail

CONSTRUCTED of redwood siding and cement plaster with red cedar shingle roof, this five-room house and attached garage, designed and built by Architect Raphael A. Nicolais, Los Angeles, covers 1180 sq. ft. In modern spirit are the corner windows with redwood detail trim, used also for the terrace and as the exterior trim generally, including the plank gate that leads to the rear garden.

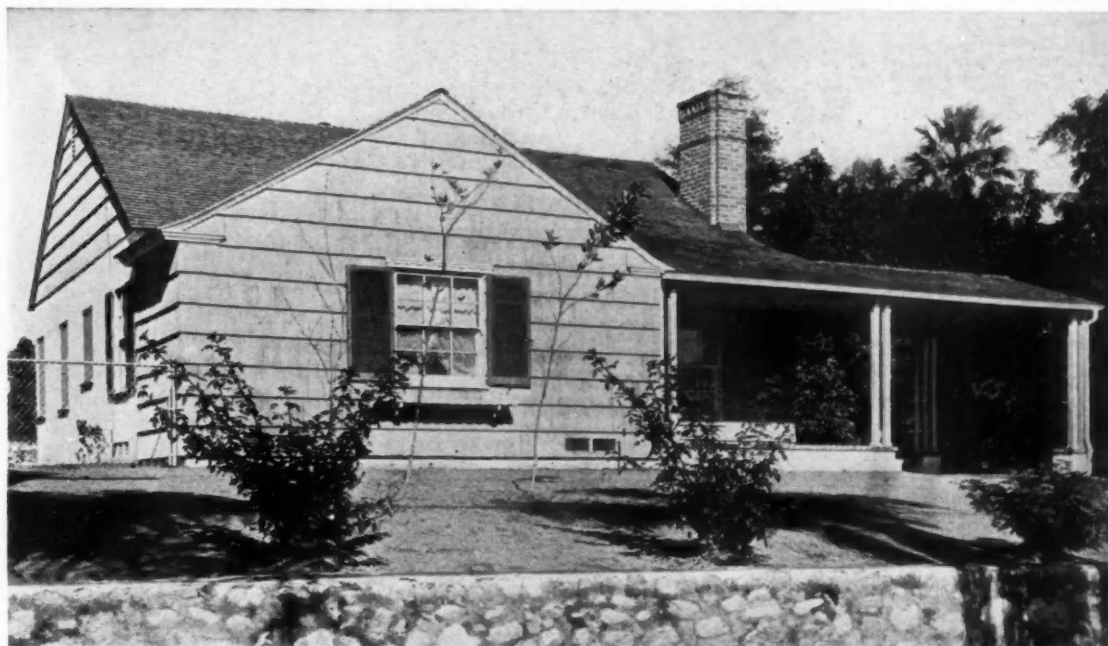
As shown in the accompanying floor plan, ample closet space is provided in this small house. The living room has a corner fireplace and opens up into the dining room, there being no separation between the two facilities. Other building features of interest include a corner fireplace in the living room and a rounded sink arrangement in the kitchen, upholstered in leatherette, with corner nook in the kitchen, upholstered in leatherette, with corner sink arrangement. The service porch has separate toilet facilities and connects with a hobby workshop, finished like the other rooms, with the exception of a cement floor. This utilization of extra space beyond the garage is a feature to be found in many small homes today.

Equipment includes Standard plumbing fixtures, a Thermador electric wall heater in bathroom, and Williams dual wall furnace for the other rooms.

THIS cottage designed and built by Architect Nicolais is as different throughout in plan (shown above) as it is in exterior at the right.



AN outstanding feature of this California home is the completeness of its electrical equipment. Even room heating is done with electric wall units.



Spacious within Small Size—All-Electric Home

A SPACIOUSNESS seldom achieved in a small house design is provided in this unusually well-built Colonial cottage, equipped for electric cooking, electric water heating, electric refrigeration and electric room heating. It was planned by Arthur C. Munson, architect, and built by Howard H. Allen, South Pasadena, Calif.

Construction details include exterior of Zephyr pre-dipped cedar shakes, painted gray, and laid on ordinary No. 1 grade cedar shingles which extend over gable ends and the front half of the house. Side walls and rear are

of stucco. Roof is of No. 1 cedar shingles; exterior trim, Douglas fir, used for doors and working shutters. Double hung (white pine) sash are used throughout except casement windows in living room. Porch and porte cochere give exterior longer lines.

On the interior, walls are stucco, and ceilings are of plaster. Other items are white pine trim, oak floors, Schlage hardware, and Crane plumbing fixtures.

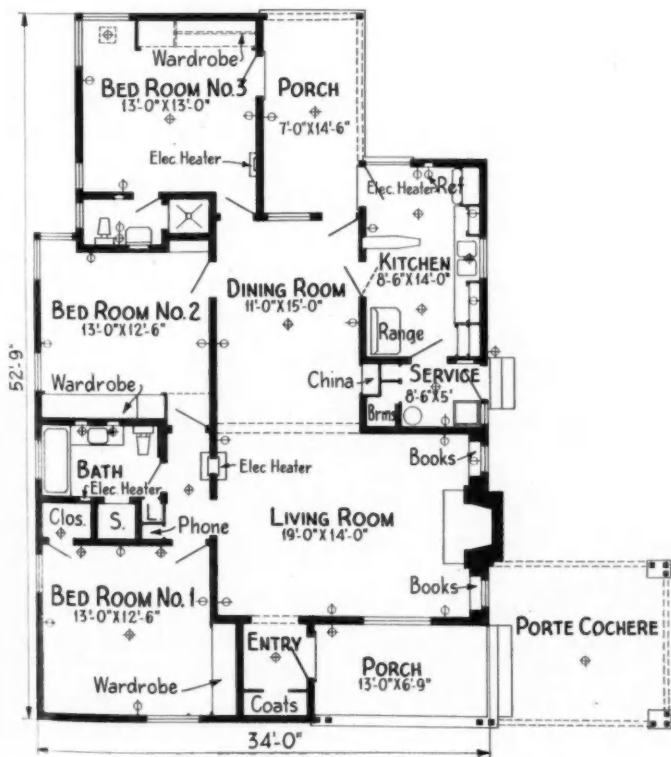
In the living room, there is an extra roomy red brick fireplace and hearth of chimney brick. Casement windows on each side of fireplace have bookshelves below. Fireplace end is paneled in detailed Douglas fir, used also for mantel trim. Living room and dining room are in one, separated only by a stucco beam.

Sleeping quarters are so arranged that cross ventilation is provided between second and third bedrooms through corner window arrangement. Wardrobes in each bedroom have built-in trays and shelves.

Heating is done with Thermador electric wall heaters; kitchen and bathrooms have the same facilities. The water heater is placed four feet off the floor and the ceiling is raised to 12 feet to allow space for laundry hamper.

Ventilators are placed off the ground to provide plenty of air, as shown in the above view.

Details which reflect high quality building include the use of thoroughly dry, seasoned lumber throughout as well as complete electrification with double wall outlets, as shown in the accompanying floor plan, and at least one outlet on every wall in the bedrooms, the use of No. 12 wiring for the many electrical services, extra bracing in the framework, and the addition of the porte cochere as well as a spacious two-car garage equipped with storage and tool rooms. A native stone foundation retains the sloping lawn.



FLOOR PLAN indicates electric service provided throughout the house for heating, cooking, refrigeration, light and appliances.

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WHAT'S NEW IN BUILDING MATERIALS

AB585 The new Andersen horizontal gliding window is well liked for its low cost, simplicity, ease of operation, and weather tightness. It comes as a complete window-unit, in stock sizes up to 5' 8" wide by 5' 6" high. When closed the sash are in line in the same plane.



ANDERSEN'S horizontal gliding window.

To open, the right hand sash glides into an inner head and sill track so that the sash pass each other, the sash riding on two steel glides in the sill track and guided by two steel guides in the head track. A three-way operating handle and lock closes the sash completely and locks it.

AB586 "Miracle Walls by Tylac" are illustrated effectively in two new displays, each of four pages, one in full color to show the home owner the beauty of this wall material for bathrooms and kitchens and the other a more technical specification sheet for architects and builders, showing recommended application practice—Tylac Co., Monticello, Ill.

AB587 "A Better Anchorage for Bolts and Screws" is a 38-page vest pocket size catalog and handbook from The Rawlplug Co., Inc., New York City. It is full of helpful information on Rawl-anchors, Rawlplugs and Rawl-drives. A companion piece in looseleaf data form is entitled "Architectural and Engineering Data on Expansion Bolts and Devices for Holdings to Masonry." It offers good tabular matter on holding strengths and sizes.

AB588 Dowflake, product of The Dow Chemical Co., Midland, Mich., is used by builders in hot weather to keep down dust on gravel roads and streets and in cold weather to protect concrete construction from freezing. Each of these uses is described in an attractive folder "How to Apply Dowflake" and "How to Cure Concrete with Dowflake."

AB589 "How You Can Protect Any Home With Copper At Low Cost" is an attractive data sheet illustrating use of copper armored Sisalkraft. This comes in rolls 10 to 60 inches wide and in three weights of copper electrically deposited on one face of the fabric in three gauges, namely, one ounce, two ounces or three ounces of pure copper to the square foot. Sixteen different construction details are illustrated showing the use of this economical copper flashing material.

AB590 Weather-Seal primer, a product of Weather-Seal Chemicals Co., Stamford, Conn., is demonstrated in an interesting way in a new folder. This is a weather proofing product for wood, brick, plaster and concrete surfaces to overcome excessive moisture and water absorption.

AB591 SW "Save-Lite White" is featured in a new 24-page folder from The Sherwin-Williams Co., Cleveland, O., entitled "Facts About White Paint and Better Illumination." Painting and maintenance of industrial plants and shops are given particular attention with charts showing the lighting requirements for various operations. Other charts show the coverage of various types of paints.

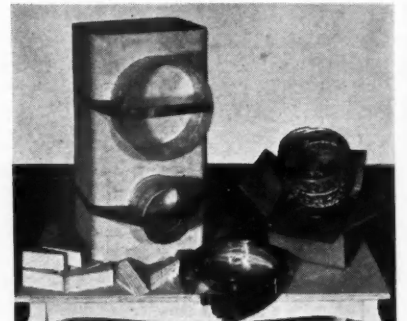
AB592 "How to Modernize Your Home" is another of the series of new handbooks for consumers, builders and dealers offered this year by the United States Gypsum Co., Chicago. It is a well illustrated book of 84 pages and covers, very impressively presented. A quantity of very helpful remodeling and modernizing information is given as an introduction to the final 24 pages which are devoted more specifically to USG products useful for such work.

AB593 "Double-Checked Floor Plans for Low-Cost Farm and Village Homes" is a design book of 16 pages from the National Lumber Manufacturers Assn., Washington, D. C. It presents

the 8 low cost farm and village homes developed by the National Homes Foundation, which is a broadly representative building industry group cooperating with the federal housing and financing agencies, and shows how to build them of good lumber.

AB594 "A Bibliography of Forest Management, Resources and Uses" has been prepared by the National Lumber Manufacturers Assn., Washington, D. C. The books, papers and reports in this compilation have special reference to the forestry area of the Pacific Northwest. It is a pamphlet of 16 pages and lists about 175 titles.

AB595 The adjustable strap-on thimble, developed by the Wilson Building Products Co., Cincinnati, simplifies the job and reduces the expense of installing thimbles for furnace and other pipes in poured concrete construction. The



ADJUSTABLE strap-on thimble attached to flue lining.

thimble is firmly strapped to the flue lining before it is put into the forms. Then the concrete is poured or the masonry is built right around the thimble. Cut the hole through the flue lining and the job is finished.

AB596 "Low Cost Homes" shows sketches and dimensioned floor plans of 13 homes designed for the \$1,000-\$2,500 price range and two attractive summer cottages all appropriately built of southern yellow pine. This attractive little plan book of 20 pages and covers is offered by the Southern Pine Assn., New Orleans, La.

AB597 "28 Concrete Homes By Leading Architects" is the title of a new deluxe brochure of 32 pages prepared by the National Concrete Masonry Assn., Chicago.

Readers Service Department Continued to Page 66

FOR QUICK, CONVENIENT SERVICE, USE COUPON, PAGE 70



This duplex apartment building, owned by Morris Marks, Salt Lake City, Utah, is equipped with two Ro-Way Overhead Type Doors.



Detached garage, with Ro - Way Overhead Type Door, Toledo, Ohio, residence of Ray Shaffner. Architect, Harold Spooner.



Attached Garage, equipped with Ro - Way "Two - Car" Overhead Type Door, Architect, Aldrich & Aldrich, Galesburg, Ill.



Ro-Way Overhead Type Garage Door in Bellevue Fire Station, Memphis, Tenn. Redlinger & Hanson, Contractors.



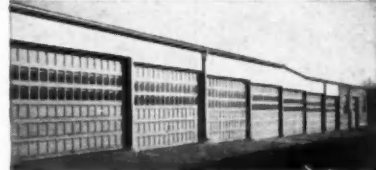
Ro-Way Overhead Type Door, 16' x 7'6", replaced another type of door when this home was purchased by John McNerney, Toledo, Ohio.



Syosset Garage, Syosset, Long Island, N. Y., equipped with 4 Ro-Way Overhead Type Doors Krebs & Schulz, Contractors.



Eight Ro-Way Overhead Type Doors at American Car & Foundry Plant, St. Louis, Mo. L. O. Stocker Co., Contractors.



18 Ro-Way Overhead Type Doors were installed in C. D. Kenny Warehouse, Baltimore, Md. Kirson Construction Company, Contractors.

RO-WAY OVERHEAD TYPE DOORS

It's "3 to 1"

They'll Save You Money!

1st. Several Models priced to fit building budgets, even on low cost projects, and still give you added values without extra cost.

2nd. Some of these improvements reduce installation costs and future service calls.

3rd. Frequently, a less expensive Ro-Way Model will meet your needs at lower cost.

So . . . it's "3 to 1" Ro-Way can save you money.

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NATIONWIDE SERVICE

Authorized Ro-Way Door Representatives are located in all principal cities to recommend model best suited to your requirements, and to insure expert installation service on every job.

ROWE MFG. CO.

728 Holton Street, Galesburg, Ill., U. S. A.

These quiet, trouble-free Doors are really designed and built to enable a car owner to completely forget the mechanical parts, just as he is able to do in operating his fine car

ROWE MANUFACTURING CO.,
728 Holton St., Galesburg, Ill.

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

Name

Address

City State

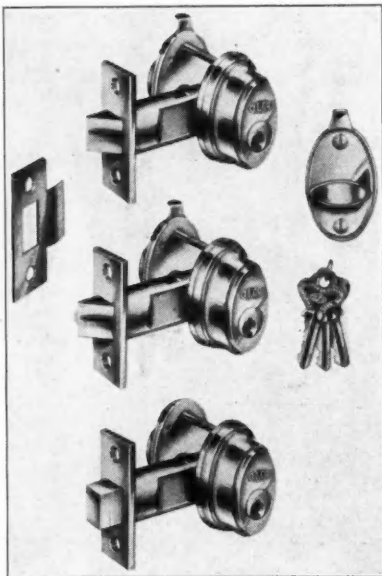
There's a Ro-Way for every Door way!

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WHAT'S NEW IN BUILDING MATERIALS

AB598 Tubutype locks, as illustrated, have been perfected by the Independent Lock Co., Fitchburg, Mass. They are extremely easy to install requiring the drilling of only 3 holes in about one-fourth the time required for ordinary lock mortising. These locks are in-



THREE new Ilco Tubutype locks.

stantly reversible for doors of either hand. Three models are offered, a regular night latch, a dead latch and a dead lock.

AB599 A useful color guide for asphalt shingles is offered by the Barber Asphalt Corp., Barber, N. J., in the form of a heavy cardboard sheet carrying 10 different color samples and a color guide chart with accompanying specifications. Barber Genasco shingles in each of these colors are shipped from various mills as indicated.

AB600 The 50th anniversary catalog of Richmond doors has been issued by The Richmond Fireproof Door Co., Richmond, Ind. It is a 12-page brochure covering kalamein doors, unit steel frames, fire doors, unit-fold walls, fol-dec doors, wardrobe doors, freight elevator doors and four-fold doors.

AB601 Color plastics for door hardware, as pioneered by the Lockwood Hardware Manufacturing Co., Fitchburg, Mass., are very attractively

illustrated in a new 4-page folder which shows the range of colors available for knobs and escutcheons. These new color style elements are available both with the Lockwood mortise locks and also the rugged Lockwood tubular lock and latch, "Bor-loc."

AB602 "See What Reyn-O-Cell Insulation Can Do For You" is a clever little folder from Reynolds Metals Co., Building Products Div., Richmond, Va., demonstrating the features of Reyn-O-Cell cellular fibre insulation. This is a flame proof fibrous blanket with a moisture barrier of reflective metal—one of the newest developments in the building field.

AB603 "Franklin's Chekit For Every Wood Finish Requirement" is the title of an attractive 4-page data sheet from the Franklin Research Co., Philadelphia. It features Chekit especially as a flooring finish. Results on cypress, oak, maple, cork tile and concrete are illustrated.

AB604 Application information for and concerning the Nu-Wood clip system is contained in a new portfolio from the Wood Conversion Co., St. Paul, Minn. Large clear type, well drawn detailed illustrations, complete directions for installation and numerous attractive pattern schemes make these data sheets more than ordinarily helpful.

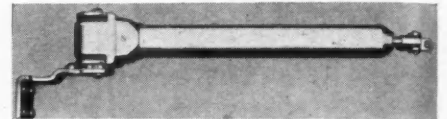
AB605 "A New Garage Door of Superior Quality at a Low Price" is the title of a 4-page pamphlet from Hall Manufacturing Co., Cedar Rapids, Ia. It features the "Overall" garage door which is of the upward acting type in four sections.

AB606 "Sink Top Construction" and "Wilson Wallboard Trim" are two new folders issued by The Wilson Metal Products Co., Columbus, O. Each consists of 8 pages well filled with photographs, construction details and helpful suggestions for handling jobs in these two fields in the modern effective way.

AB607 "A Study of Thru-Wall and Concealed Flashings" is a 6-page folder issued by Chase Brass & Copper Co., Waterbury, Conn. This has been issued in response to many requests from architects and engineers who have asked for "the kind of information that will help us write definite flashing specifications."

AB608 "Ryerson Steels in Stock for Immediate Shipment" is the 1941-42 stock list of Joseph T. Ryerson & Son, Inc., Chicago. It is a spiral bound book of 268 pages, covers structural steel, sheets, plates, etc., together with useful tables and data.

AB609 The Yale 506 Airliner is an improved pneumatic type door closer for combination screen and storm doors, developed by The Yale & Towne Manufacturing Co., Stamford, Conn. It is modern in appearance, indicative of its improved design; the complete conceal-



IMPROVED Yale screen door closer.

ment of the spring inside the cover protects from dirt and rust. The cylinder is of seamless, polished brass. The finish elsewhere is brown lacquer. Door closing with this equipment is quick, complete and silent. The air in the cylinder cushions the shutting action of the spring, which is adjustable. A new folder, "Is Your House Haunted by Slamming Doors" describes the special features of this door closer.

AB610 "Steel Makes the Home" is an illustrated portfolio of 32 pages from the American Iron and Steel Institute, New York City. It shows all the various ways in which steel plays a part in present day building.

AB611 Griffin hardware specialties by Griffin Mfg. Co., Erie, Pa., are illustrated in several 4-page leaflets. They include screen door hardware, garage hardware, reversible hinges and wrought steel corner braces.

AB612 "Briar Hill Golden Tone Ashlar Wall Facing" is a 16-page brochure showing this deluxe building material in its full natural colors. Numerous examples of homes veneered with the Ashlar size wall units and the brick size stone are illustrated. Churches and other public buildings are also included.—The Briar Hill Stone Co., Glenmount, O.

AB612S "Vacation Retreats" is a timely 16-page booklet from the Celotex Corp., Chicago, illustrating a number of summer cottages for the lake, river or ocean beach or back in the foothills or the forests. There are architect's sketches and dimensioned floor plans of 8 different cabins ranging in size from 1 to 4 rooms. Designed by experts in this field, these small homes are geared to the tempo of modern living. Emphasis is placed on spacious living rooms and outdoor terraces. Sleeping, kitchen and bath units are compactly planned for efficiency and a minimum of maintenance labor. How to build these little vacation cottages inexpensively of Celotex Company materials is detailed and explained.

Readers Service Department Continued to Page 68

FOR QUICK, CONVENIENT SERVICE, USE COUPON, PAGE 70

Miss Hazel Aarhus, Successful Builder, Says:

"Time and Again G-E Equipment Has Proved Its Economy and Sales Appeal"



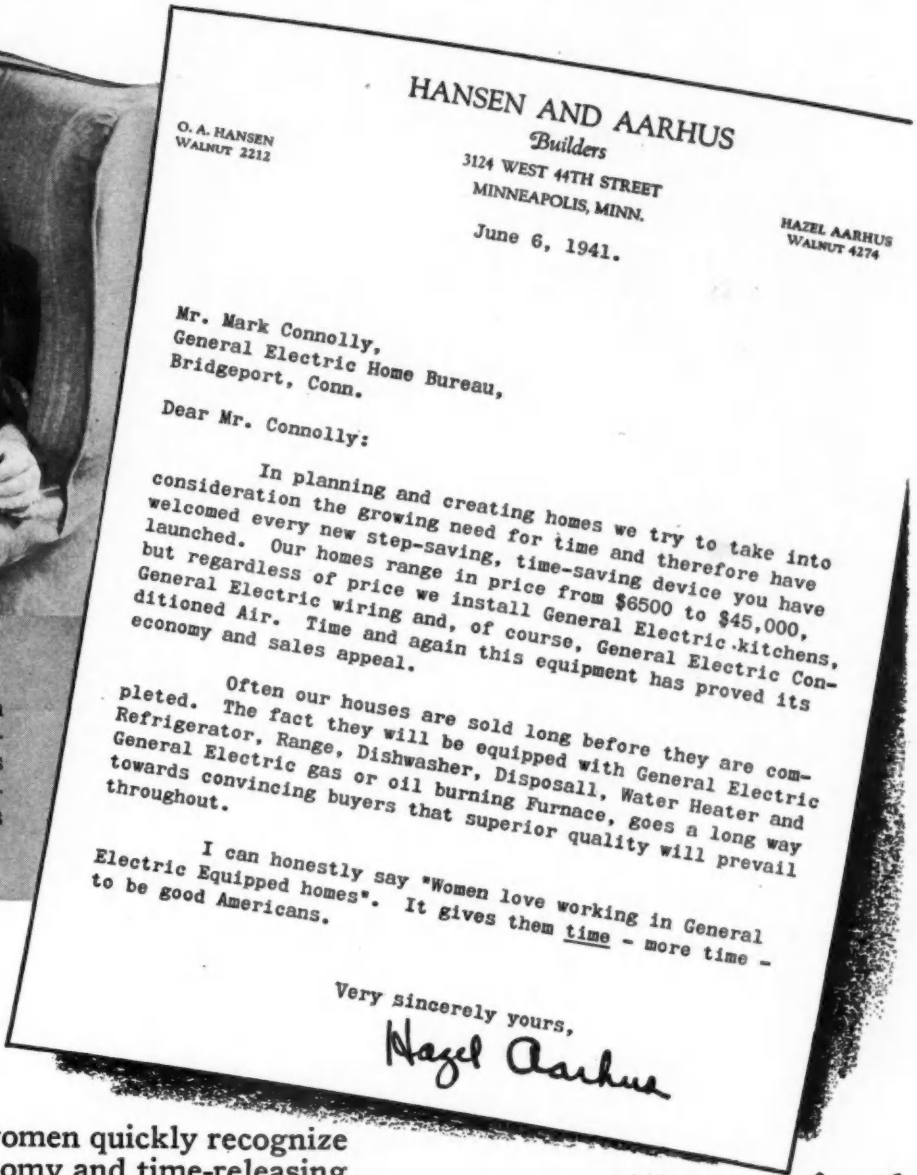
Hazel Aarhus

Member of the firm of Hansen and Aarhus, prominent builders of Minneapolis, Minn., has an enviable record as a successful businesswoman and as a builder of fine homes.

AND SHE ADDS:

"Women love working in G-E equipped homes . . . It gives them more time to be good Americans."

As Miss Aarhus suggests, women quickly recognize the added convenience, economy and time-releasing benefits made possible by G-E electric servants. Many other successful builders have found that, by taking advantage of the G-E Home Bureau's House Merchandising Plan (Architectural Engineering, Promotional and Advertising Aids), they get a greater public acceptance for their homes. You can do the same. Mail the coupon today for complete information.



O. A. HANSEN
WALNUT 2212

HANSEN AND AARHUS
Builders

3124 WEST 44TH STREET
MINNEAPOLIS, MINN.

June 6, 1941.

HAZEL AARHUS
WALNUT 4274

Mr. Mark Connolly,
General Electric Home Bureau,
Bridgeport, Conn.

Dear Mr. Connolly:

In planning and creating homes we try to take into consideration the growing need for time and therefore have welcomed every new step-saving, time-saving device you have launched. Our homes range in price from \$6500 to \$45,000, but regardless of price we install General Electric kitchens, General Electric wiring and, of course, General Electric Conditioned Air. Time and again this equipment has proved its economy and sales appeal.

Often our houses are sold long before they are completed. The fact they will be equipped with General Electric Refrigerator, Range, Dishwasher, Disposall, Water Heater and General Electric gas or oil burning Furnace, goes a long way towards convincing buyers that superior quality will prevail throughout.

I can honestly say "Women love working in General Electric Equipped homes". It gives them time - more time - to be good Americans.

Very sincerely yours,

Hazel Aarhus



General Electric Home Bureau
Dept. AB-417
1285 Boston Avenue, Bridgeport, Conn.

Please send me information on your House Merchandising Plan.

- I am building my own home
- I am an Architect
- I am building for resale

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

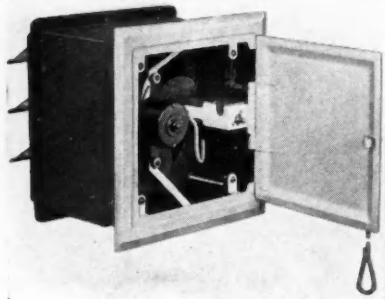
GENERAL ELECTRIC

SERVICE TO READERS

EACH ITEM in this department is numbered for convenience of readers. Please use coupon on page 70 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

AB613 Announcement is made by Signal Electric Mfg. Co., Menominee, Mich., of the addition of a new feature to its V-50A kitchen wall box vent fan in the automatic lever operated shutters. Other important features include totally enclosed motor, rubber mounting for motor, 10" quiet type fan, telescopic adjustment for all thickness from 6" to 24", detachable



WALL box kitchen fan by Signal.

plug, cast iron outside frame with white baked enamel finish, inside door for extra weather protection, close fitting shutters, and opening and closing of the door with the handle starts and stops the motor and also opens and closes the shutters. This vent fan, illustrated here, can be installed in new or old homes.

AB614 "Just Relax! There's No Danger of Accidental Scalding with a Josam Moderator Mixing Valve Installed on Your Shower" is the title of a 6-page data sheet from Josam Manufacturing Co., Cleveland, O. This moderator mixing valve is really important for builders and home owners. Operative builders find these safety showers a real sales help.

AB615 "End Summer Discomfort—End Sleepless Nights with Lau Comfort Units!" is the challenging title of a 4-page data sheet on the Niteair fan package unit developed by The Lau Blower Co., Dayton, O. A low priced big capacity fan with simple housing installation for attic cooling is illustrated in this and other literature now ready for operative builders.

AB616 Vitalized ventilation is pictured in the new Ilg propeller fan catalog No. 141 issued by the Ilg Electric Ventilating Co., Chicago. Specifications for the complete line of Ilg products are given together with illustrations including diagrams and installation views of pro-

PELLER fans, automatic shutters, fan guards, night cooling fans, kitchen ventilating fans, and other Ilg equipment.

AB617 Richmond plumbing fixtures are beautifully presented in a 28-page plastic ring bound catalog by Richmond Radiator Co., Inc., Uniontown, Pa. This is known as catalog E-36 and is dated April, 1941. Bath tubs, lavatories, kitchen sinks and laundry trays are included. Beautiful color plates carry styling suggestions.

AB618 The story of Jasper and Mabel Potz and how they solved their closet problems are shown in sprightly fashion in a new illustrated price list and catalog from Knap & Vogt Manufacturing Co., Grand Rapids, Mich. This is a 12-page treatise on wardrobe fixtures and conveniences and what they mean to the home owner.

AB619 Humidity control and air conditioning by means of the "Calorider" are developed in a 4-page data sheet from The General Air Conditioning Corp., Cincinnati, O. This equipment makes use of caloride, moisture absorbing, air purifying chemical.

AB620 "Superior Fireplaces" is the title of a new 32-page portfolio of beautiful photographs of fireplaces and clearly drawn details showing their design and construction for good draft and good heating ability. The Superior fireplace accessories are illustrated and described.—Superior Fireplace Co., Los Angeles, Calif.

AB621 "Fireplaces and How to Build Them" is a new catalog just issued by The H. W. Covert Co., New York City. This catalog gives detailed data on three types of non-smoking, free-burning fireplaces. It describes and illustrates the correct use of dampers, chambers and complete units of both the recirculating and fresh air types.

AB622 Fluorescent lighting equipment, as offered by Van Dyke Industries, Chicago, is presented in a new 12-page data sheet. Fixtures suitable for bathrooms, kitchens, desks, drafting boards, offices and stores are included.

AB623 "Dilec Safecote Wire" as offered by the National Electric Products Corp., Pittsburgh, is fea-

tured in a new 36-page handbook. The engineering data and other information in this book have proved so valuable to contractors and engineers that this second edition has been required.

AB624 You can double your closet space with Tog-Rods, according to the Tog-Rod Mfg. Co., Inc., St. Louis, Mo. This is a clever adjustable hanger rod which requires no nails, screws or brackets. A rubber pad at each end holds rod securely when straightened and locked in place. Tog-Rods are used in



ADJUSTING Tog-Rod in wardrobe.

clothes closets, for shower bath curtains, shelf supports, etc. They come in sizes ranging from 2 feet to 5 feet and are of rust proof construction.

AB625 Cornell rolling and sliding grilles, developed by Cornell Iron Works, Inc., Long Island City, N. Y., are presented in two attractive catalogs, 8 pages each. They illustrate the modern way to protect factory and business space from unauthorized entry.

AB626 "Sleep Well Tonight" is the intriguing title for a little folder on attic fan cooling from the Autovent Fan & Blower Co., Chicago.

AB626R Hand-wrought house signs, weather vanes and house number lawn markers are illustrated in a 20-page art portfolio from The Whitehall Metal Studios, Inc., 469 E. Ohio St., Chicago. These are in hand craft style, full of quaintness and individuality. Operative builders, seeking that final sales touch, are interested in such embellishments both for the individual home and for their entire home developments.

AB626S The second of four portfolios by eminent architects illustrating "Window Ideas For Small Houses" has been brought out by Detroit Steel Products Co., Detroit, Mich. It contains 5 renderings on looseleaf art paper each showing perspective, floor plans, and a close up of a Fenestra window detail. It is interesting to see how these eminent architects utilizes these windows in an unusual design way.

Readers Service Department Continued to Page 70

FOR QUICK, CONVENIENT SERVICE, USE COUPON, PAGE 70

ASK YOUR MILLWORK DEALER TO QUOTE YOU . . .

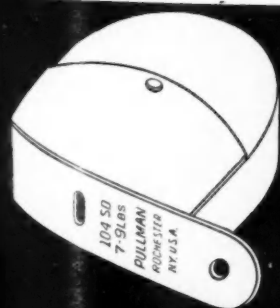
**ON ANY HOUSE JOB,
A DIRECT COMPARISON
OF COSTS WILL SHOW
THAT CONSTRUCTION WITH
PULLMAN-BALANCED WINDOW UNITS COSTS
LESS THAN WITH WEIGHTS AND CORDS**



For your next house job, get millwork estimates *two ways*—*first*—double-hung pocket-and-pulley windows, with the 3 5/8" door and window trim and matching 5 1/2" base; *second*—Complete Window Units Pullman-balanced, with 2 5/8" door and window trim and matching 3 1/2" base. You'll find the millwork estimate is 5 to 10% less with Pullman-balanced Units. Use this up-to-the-minute way to lower home-building costs while increasing value. For these low-cost Pullman-balanced Window Units offer advantages quickly apparent—modern architecturally-approved narrow trim, true counterbalancing, elimination of leaky weight boxes, trouble-free operation backed by a lifetime guarantee with every set of Pullman Balances.

Pullman Balances are time-proved by a record of 54 years of service in schools, hospitals, office and public buildings. Guaranteed Balances built of the same design and workmanship standards are available to millwork manufacturers for use in window units for modern low-cost small homes.

A demonstration unit of a Pullman-balanced window shows home owners *what* they're getting, *why* it will give best performance and service . . . wins for you their confidence and respect. Every dealer should have a demonstration unit permanently on display. Every prospective home-builder should be shown.



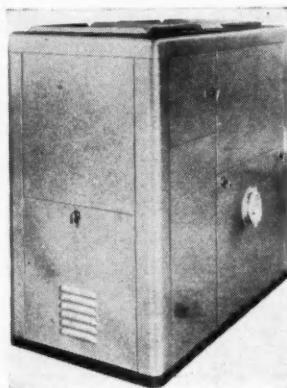
Specify Window Units with
PULLMAN
Sash Balances

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.

HEATING AND AIR CONDITIONING

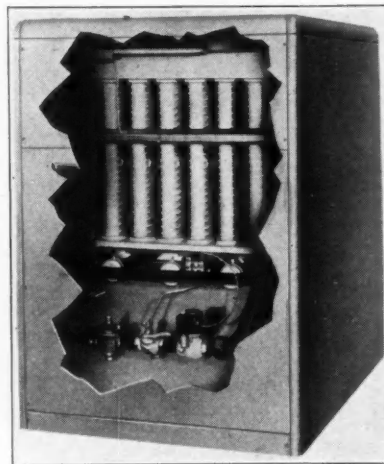
AB627 Especially designed for oil firing, a new air conditioning unit is announced by Westinghouse Electric and Manufacturing Co., East Springfield, Mass. Measuring only 60 inches high, 32 inches wide, and 61 inches deep, the drum and radiator are arc welded into one piece. The unit is complete with auto-



NEW Westinghouse air conditioner.

matic burner and controls and has a heating surface of 6200 square inches. Operated by a 1/6 horsepower motor driving a 12-inch blower, it will heat, clean, humidify and circulate 1200 cubic feet of air per minute, equivalent to at least five air changes per hour in the average home. Heat is provided by a pressure type burner approved by the Underwriters Laboratories. Number 2 or 3 domestic fuel oil is used. Access to the combustion chamber for flame observation is provided by a door through which heater coils to supply hot water may be inserted.

AB628 The addition of a gas-fired gravity furnace to the Janitrol line is announced by Surface Combustion Corp., Toledo, O. It is designed to meet the big market for gas-fired gravity



HEAT exchanger tubes in new Janitrol.

furnaces in new small homes and to replace existing gravity units in old homes. Low height is a dominant feature of the new unit. It is only 41½" high from the floor to the top of the cabinet. It is equipped with the "Amplifire" burner and "Multi-Thermex" cast iron heat exchanger tubes which are widely publicized Janitrol exclusive features. A thermal type humidifier and horizontal air flow are other advantages. The unit is fully automatic, and comes all ready to be installed on the job.

AB629 A "Retail Cooling Manual" has been prepared by Chrysler Airtemp, Dayton, O., for the use of Airtemp dealers to further the sale of "packaged" air conditioning equipment. It is a looseleaf portfolio of 122 pages.

AB630 The Carrier Corp. Syracuse, N. Y., has brought out an accordion fold pamphlet "1294 Ways Carrier Aids Industry, Business, Home." It illustrates and briefly describes numerous Carrier products for air conditioning service.

AB631 Air Controls, Inc., Cleveland, O., offers the Rex Air-Pak Jr. blower filter unit, designed to convert any inexpensive gravity type warm air furnace into a satisfactory forced air circulation



REX Air-Pak Jr. blower filter unit.

conditioner. The unit is small and compact, and inexpensive. Electric motor, fan and filter enclosed in a neat housing and supplied with thermostat does the job.

AB632 The Perfection Stove Co., Cleveland, O., is out with a new 4-page folder on its oil burning Superfex furnace for small homes, the new "90." Some interesting details are presented of this compact, highly efficient heating unit. It burns No. 2 fuel oil with a maximum consumption of .65 gallons per hour.

AB633 The McLaughlin Ventilator Co., Ferndale (Detroit), Mich., has issued a 4-page data sheet on its new streamlined Ventrola ventilating fan, a kitchen ventilator in several models for built-in wall and window installation.

AB634 "Packaged Cooling" is a new 4-page data sheet from Chrysler Airtemp, Dayton, O., presenting the new air cooling compressor unit with blower fan, filter coils and radial compressor, all neatly and attractively housed in a metal case of moderate size. The business advantages of such cooling units for drug stores, shoe stores, grocery stores, restaurants, professional offices, etc., are emphasized and the mechanical specifications for the equipment are clearly shown.

AB635 H. B. Smith Co., Inc., Westfield, Mass., has issued a 4-page data sheet on its handfired No. 15 Mills boiler, "A New Standard of Efficiency in Small Home Heating."

CLIP AND MAIL TO CHICAGO

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

(July, 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



HOW TO CHOOSE WINDOWS for a low-cost home—or any home!

● Frankly, now, there's no secret formula for choosing the best kind of window for a low-cost home—or for any home. Just do it this way:

First, choose them for economy! When you do that you automatically toss out the ordinary old-style window—the kind that isn't weather-stripped—that uses bulky weights, cords, pulleys. It lets heat and fuel dollars leak out and unhealthy drafts, or soiling soot and dirt, sneak in.

Second, choose them for trouble-free operation. Be wary of the window that's apt to need fixing; that sticks when the weather gets damp; that rattles with the wind; that often jams tight.

Third, choose them for "real" first cost. Are they pre-fit and easy to install and trim? Do sash, frame, screen, trim and storm sash "belong" to each other?

How to Choose the "Right" Window?

Just say "Curtis Silentite." It's the "insulated" window that saves fuel; that assures trouble-free operation; that's "pre-fit." Here's why:

Silentite windows have patented, built-in weather-stripping that insulates against loss of heat and infiltration of drafts, dust and soot. Lifetime springs eliminate weights, pulleys and cords. The sash rides smoothly in metal channels. There's no sticking, jamming or rattling.

And because Silentite windows are "pre-fit," they result in lower installation costs. Standardization and mass production make this better window ideal for low-cost homes.

Let us prove it by sending you "What Home Owners Say About Silentite Windows" and the story of the Silentite Window Family. Mail the coupon or see your local dealer.

If in Canada, write to W. C. Edwards & Co., Ltd., 991 Somerset St., W., Ottawa, Canada

CURTIS WOODWORK IS SOLD BY RELIABLE DEALERS EVERYWHERE

A large graphic for Curtis Woodwork. It features a circular emblem on the left with 'OUR 75th YEAR' inside. To the right, the text reads '1866 CURTIS WOODWORK' in a bold, serif font. Below that, 'SILENTITE' is written in a very large, bold, sans-serif font, followed by 'PRE-FIT' in a smaller font and 'the "Insulated" window' in a script font.

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

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

Please send me "What Home Owners Say About Silentite Windows" plus the story on Silentite Window Family.

Name

Address

City..... State

REVIEW of the NEWS

Statistics, Associations, Agencies

May Residential Construction Exceeds \$200,000,000 for First Time Since April, 1929

FOR the first time since April, 1929, the monthly total of home building contracts has exceeded \$200,000,000. This new record for the present upswing is reached for May, 1941, according to contract figures compiled by the F. W. Dodge Corporation. The total for May is \$201,274,000 residential contracts for the 37 eastern states, not including the Pacific Coast. Customarily, 15 per cent is added to cover the West Coast states. A comparable figure for 1940 was \$145,912,000 and the figure for April, 1941, \$166,462,000.

The number of projects covered by the May figures is 38,093 houses as compared with 22,939 houses contracted for in May, 1940, and 29,499 houses contracted for in April of this year.

Statistics for the four classes of construction are as follows:

| 37 Eastern States | May, 1941 | May, 1940 | April, 1941 |
|-----------------------|---------------|---------------|---------------|
| Residential | \$201,274,000 | \$145,912,000 | \$166,462,000 |
| Non-Residential | 202,492,000 | 90,164,000 | 143,304,000 |
| Public Works | 96,501,000 | 81,261,000 | 71,426,000 |
| Utilities | 48,433,000 | 11,577,000 | 25,483,000 |

Total\$548,700,000* \$328,914,000 \$406,675,000
*May, 1941, includes \$141,200,000 of defense construction.

Editors Stress Value of Air Conditioning

Airtemp Clinic Pools Data On Industrial and Domestic Advantages

MOST of the leading trade, vocational and professional editors of the country attended the first "Round Table Clinic on Air Conditioning" on June 5 at Dayton, O., sponsored by the Airtemp Division of Chrysler Corporation. Many science and real estate editors of metropolitan newspapers also attended.

In opening the meeting, D. W. Russell, President of Airtemp, pointed out that air conditioning was not new—its principles and benefits had long been well understood. "But, Chrysler Airtemp," he said, "has undertaken to do in the air conditioning industry what Chrysler has done in the automotive industry—help put

the benefits of a new service within the reach of more people. Research engineering and economical mass production made the low-priced automobile available to millions. The same formula will put year-round air conditioning within the reach of every small business and even homes of modest cost."

Merle Thorpe, editor, "Nation's Business," addressed the group on "Air Conditioning—An Aid to American Industry." He pointed out that the increasing diversion of American Industrial production to national defense was calling for increased efficiency in every industry—first, because of the need for more rapid and economical production of defense materials and, second, because the defense effort—absorbing some 25 per cent of America's normal production—requires improved efficiency in the production of the nation's normal requirements if shortages in essential civilian needs are to be avoided.

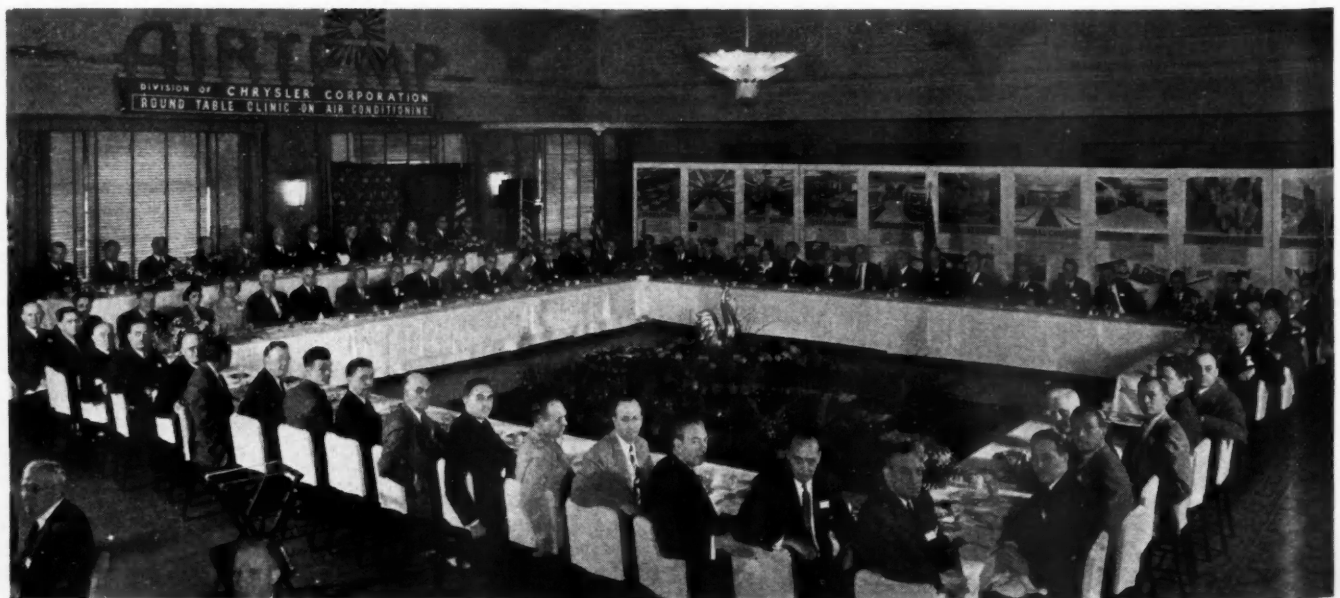
George F. Taubeneck, Editor of "Air Conditioning and Refrigeration News," told how air conditioning was to have a tremendously important effect on the development of the Western Hemisphere. "The virgin wealth of the tropics," he said, "has never been developed because of the difficulty of getting men to work under extreme climatic conditions. The opportunities for men and capital in Central and South America have awaited general and efficient air conditioning, which is now available."

Herbert C. Siekman, Editorial Director, "American Restaurant," spoke on the importance of air conditioning in the restaurant business, his subject—"Air Conditioning and Appetites." Kenneth A. Bonham, Editor, "American Druggist," spoke on "Air Conditioning and the Correct Commercial Atmosphere." John O'Brian, Associate Editor, "Progressive Grocer," spoke on "Air Conditioning as it Protects Perishables" and Lee Hickey, Editor, "Department Store Economist," discussed "Air Conditioning as A Summer Sales Appeal."

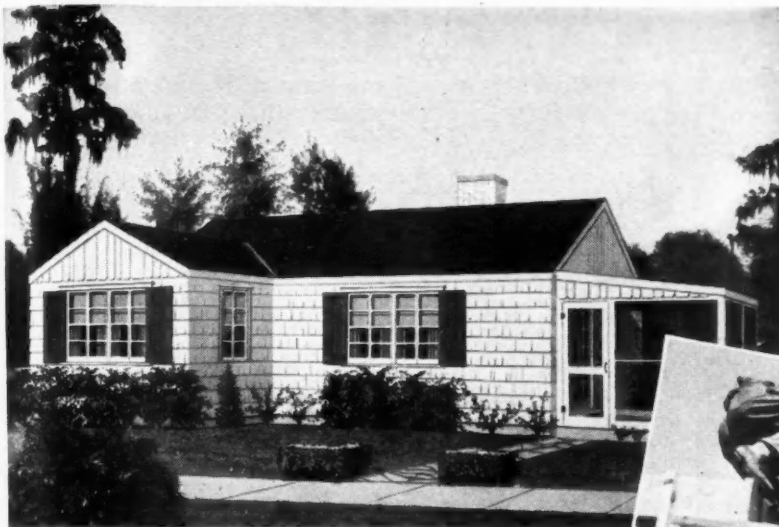
After a trip through the Airtemp factory, Roger Sherman, Editor, "Architectural Record," and Bernard L. Johnson, Editor, "American Builder," outlined the growing importance of air conditioning in the designing of modern buildings and in the growing popular-size home market. Dr. A. G. Young, Director of Medical Research, Corey Hill Hospital, Brookline, Mass., spoke on "Air Conditioning in Therapeutics and Diagnosis," impressing its benefits to health.

Allen P. Livar, Research Engineer, Airtemp Division, conducted a number of interesting experiments to demonstrate the value of air conditioning upon human efficiency and the merchandising of foods and products.

One of the features of the Clinic was an exhibit prepared by Airtemp with the cooperation of the vocational press which showed how air conditioning was being applied to the advantage of every type of business and profession. A complete exhibit of Airtemp equipment was displayed and Charles R. Neeson, Airtemp Director of Cooling Research, explained how Airtemp engineering and mass production provided the equipment required for all domestic, business and industrial uses.



BUSINESS Editors at Chrysler Airtemp Clinic on Air Conditioning.



A Better-built home from our plan book, "Modern Homes for Modest Incomes" . . . 25c a copy.

"American Builder's analysis of quality construction shows better-built homes cost less over 20-year period . . . Hidden quality in house construction makes for long, trouble-free service."

20-YEAR RECORD proves Better-Built Homes less costly



LOOK FOR
THIS TRADE MARK
AT YOUR
LUMBER DEALER'S



Arkansas Soft Pine nails without splitting. This means maximum strength at load-bearing points.



End-matched sheathing and sub-flooring work fast, disregarding stud and joist centers.



Uniform, bright, light-weight stock dried to correct moisture content. No shrinking or swelling in hidden framework.

That's why homes built of Arkansas Soft Pine save their owners many times the slightly higher first cost of well-seasoned, bright, precision-manufactured trim, finish and framing lumber.

Arkansas Soft Pine prevents expensive repairs that go with green lumber jerry building. That's because it's conditioned in humidified air to approved standards of moisture content. Plates, joists, studs, rafters and sheathing, free from shrinking and swelling, stay put. Finished floors do not pull away from baseboards, doors hang plumb, windows don't stick.

Free from pitch, the natural soft texture of Arkansas Soft Pine nails without splitting, works easily with no gumming of edge tools. Exterior trim, mouldings and siding take paint without bleeding. Interior trim takes enamel and stain without raised grain or discoloration. Mitres hold snug, don't open up.

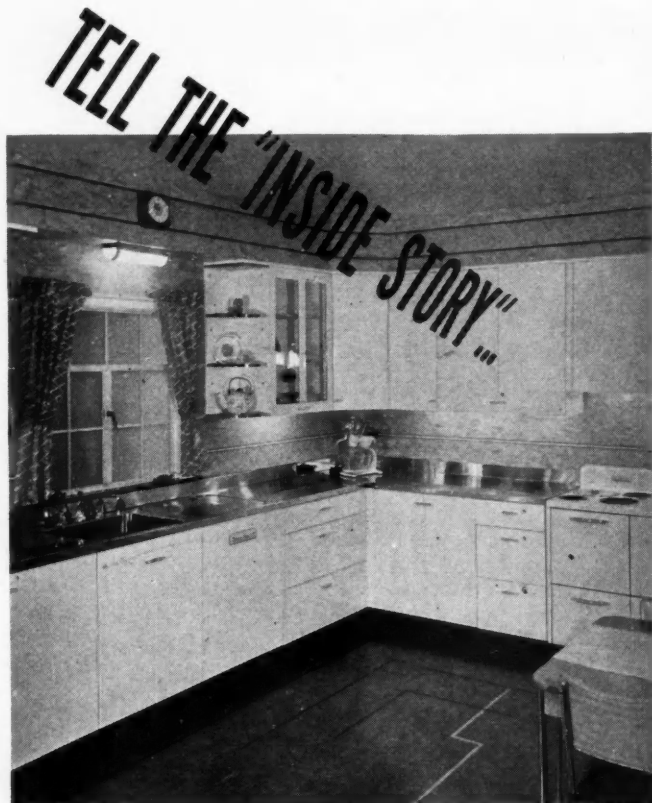
Builders, no less than owners, save money using Arkansas Soft Pine. It conforms to standard sizes and specifications, works fast, imposes no lost time in cutting out defects, protects good workmanship, insures enduring construction.

See this plus value, all purpose, better homes material at your lumber dealer's. You'll admire its light weight and soft texture. Use it on your next job . . . it will pay you better profits.

This free Hand-book tells you the how and why of Arkansas Soft Pine. Write for your copy today.



ARKANSAS SOFT PINE BUREAU
741 BOYLE BUILDING LITTLE ROCK, ARKANSAS



WITH TILE-TEX

IF you are building homes to sell, you know how important it is to make the interior of the home attractive and appealing to women. It is an accepted fact that women control the purchase of most homes, and to women interiors are vitally important.

Here, in Tile-TEX, is a material for both floors and walls that can be used to build modern, attractive interiors in the key rooms of today's home—the bathroom, the kitchen, and the basement playroom. And, in using Tile-TEX, you make important savings against outmoded and conventional materials.

Tile-TEX floors are low in first cost, easy to maintain, long-wearing, and eye-appealing. Kitchens, bathrooms, and recreation rooms are "natural" areas for this new, resilient flooring.

Tile-TEX walls are currently the sensation of the residential home building industry. Low initial cost, speed of installation, attractive color styling—all of these factors are making it the choice of progressive builders seeking to satisfy the public taste for a wall treatment that meets all present day requirements.

There is an approved Tile-TEX contractor near you who can show you Tile-TEX products now in service—show you how little they cost—and demonstrate how they can help you sell new homes. Write today for his address and for free copies of the new Tile-TEX booklets on floors and walls.

THE Tile-TEX Company CHICAGO HEIGHTS ILLINOIS

The Tile-TEX Company
Chicago Heights, Illinois

Send me complete literature on the following:

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

Name _____

Address _____

A-7

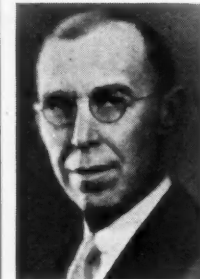
Lecture Course for Builders Announced

Two-Weeks' School Home Building Methods Will Open at University of Pennsylvania in August Under Auspices of Home Builders Institute of America

FOR the first time in the history of the home building industry a general course of instruction in home building methods will be available when the new Home Builders Institute of America opens the doors of the University of Pennsylvania famed Wharton School in Philadelphia to operative builders for a two-week session August 18 to 30.

Paul E. Stark, home builder, Madison, Wis., will be dean of the course.

"We plan in the course," Dean Stark says, "to synthesize the best thought from every field related to home building and make it part of the working equipment of every home builder who enrolls."



PAUL STARK

Divisional chiefs of FHA who will be on the faculty for the course and available for consultations as to construction standards, land planning, appraisal of value, and site location include Curt C. Mack, assistant administrator and director of underwriting, Howard P. Vermilya, director, technical division, Seward H. Mott, director, land planning division, and Maurice R. Massey, Jr., assistant to the first assistant administrator.

John McC. Mowbray, Baltimore, president of the Roland Park Company, whose developments in the Baltimore suburban area have attracted national attention, and Neal H. Stoddard, head of his own firm in Madison, Wis., are operative home builders who will have an important part in the lectures and quiz sessions.

Randolph Evans, New York, who, as architect for the Harmon National Realty Corporation, is credited with having designed and supervised the construction of approximately two million dollars worth of houses, will discuss how to relate the dwelling to the site and to obtain good architectural design at low-cost.

Kenneth W. Dalzell, East Orange, N. J., widely known as the architect and developer of carefully planned Essex county residential neighborhoods, will lecture on budgeting the cost of a house and on construction methods. Arthur A. Hood, New York, director of dealer relations for the Johns-Manville Sales Corporation, will discuss problems of building peculiar to the small community.

The house of the future will be forecast by Robert L. Davison, New York, director of housing research for the John B. Pierce Foundation, also scheduled to lecture on prefabricated housing, interesting to all home builders for the part it may play in cutting away some of the artificial barriers to lower home building costs.

Bernard L. Johnson, Chicago, editor of *American Builder*, will present data on supervising construction and on model houses; he also will conduct a panel discussion of prefabricated housing.

Arthur M. Weimer, dean of Indiana University's schools of business, will lecture on city analysis and neighborhood growth, while the Wharton School's own Arthur T. Cameron, associate professor of accounting, will give two lectures on fundamentals of cost accounting.

Lectures in land utilization, market analysis, and selling will be given by Frank P. Felton, Jr., Philadelphia, partner, Jackson-Cross Company, Richard J. Seltzer, Philadelphia, head of his own real estate firm, Herman O. Walther, Chicago, vice president of the Bell Savings and Loan Association.

Enrollment in the course is open to all members of the Home Builders Institute, and to any home builder whose experience and educational background are, in the judgment of the dean, sufficient to permit him to pursue the course profitably, according to David D. Bohannon, president of the Institute. Mr. Bohannon also points out that while candidates for membership in the Institute must qualify as to age, experience, real estate board affiliation, reputation for integrity, and ability to pass a written examination, candidates who secure credit for satisfactory completion of this course may be exempted from writing the examination for membership.

To supplement the lectures, inspection trips and field work in the Philadelphia area are planned under the general supervision of field director, Joseph W. Widing, Philadelphia, and an assisting field staff made up of Frederick A. Bond and Howell E. Roberts, both of Philadelphia, Joseph Cairns, Jr., Ardmore, John B. Mc-

(Continued to page 76)

COOPERATE WITH DEFENSE PROGRAM

Recommend

KIMSUL

REG. U.S. & CAN. PAT. OFF.

INSULATION

5 Carloads of KIMSUL
Equal 25 Carloads of
Non-Compressed Insu-
lation in Installed
Square Footage.



KIMSUL IS COMPRESSED AT THE FACTORY — EXPANDED ON THE JOB

KIMSUL is a soft, flexible insulating blanket composed of processed wood fibers. KIMSUL comes in wanted widths and thicknesses...is compressed to about 1/5th its installed square footage. Thus KIMSUL is extremely easy to ship, store, handle and install. Illustration No. 1 shows compressed blanket attached to top plate of side wall. Illustration No. 2 shows blanket being expanded to correct density and length.

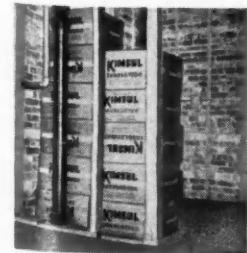
KIMSUL* gives top insulation efficiency — KIMSUL releases freight cars for urgent defense uses!

• By using KIMSUL Insulation in Defense construction, the U. S. Government not only obtains top-rank insulation efficiency, but at the same time releases freight cars for other important transporting jobs. KIMSUL Insulation is delivered in compressed blankets. Five carloads of KIMSUL equal 25 carloads of non-compressed insulation in installed square footage!

KIMSUL is one of the most effective heat and cold stoppers ever developed. It is fire-resistant, moisture-resistant and *lasting*. But just as important in this period of emergency, KIMSUL's exclusive compressed form speeds shipments, simplifies installation and lowers over-all costs. Specify KIMSUL and you assist the U. S. Defense Program by releasing freight cars for other urgent needs.

Learn more about KIMSUL now. Mail coupon below for free illustrated KIMSUL book containing complete information.

*Reg. U. S. and Can. Pat. Off.



KIMSUL Does Not "Hog" Space
Compressed form results in fewer cartons. KIMSUL does not get "in the way" on the job. Illustration shows 1,375 square feet of KIMSUL on the job and not in the way.



KIMSUL is Easy to Handle
Carton containing 125 sq. ft. of KIMSUL weighs only 19 lbs. Remarkably easy to carry... adds but negligible weight to structural load of the building.



KIMSUL Saves Man-Hours
KIMSUL goes up FAST! It's usually only a one-man job to install KIMSUL. Workmen like to work with clean, odorless, non-disintegrating KIMSUL.



KIMBERLY-CLARK CORPORATION
(Building Insulation Division) AB-7
Established 1872 Neenah, Wisconsin

Please send a representative
 Please send free book, "Guide to Efficient Insulation"

Name.....

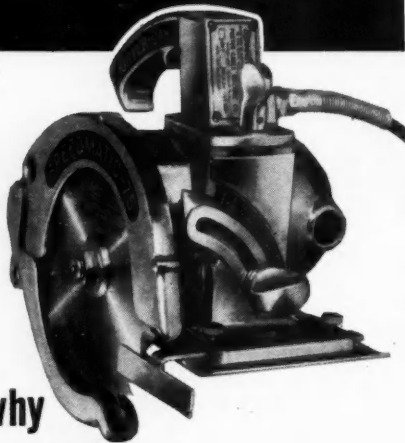
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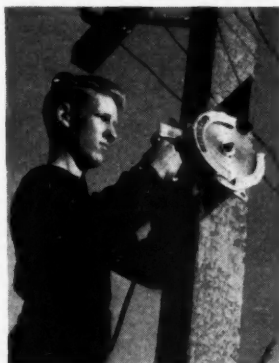


3 Big Reasons why

Speedmatic

means **FASTER**

EASIER Sawing!



1. 11% More Cutting Power—efficient helical gear drive delivers 11% more motor power actually to the blade. Saws faster—avoids overloading and stalling.

2. One-Hand Operation—Speedmatic's handle, scientifically placed at the natural balance point, assures one-hand sawing in any position! Avoids wrist-cramping, muscle strain.

3. Extra Wide Shoe—True-balanced, avoids wobbling... holds true to the line. Affords you steady, accurate, high-speed cutting.

Try this more powerful saw on your own work—check its ease of handling, its faster cutting, its all-job usefulness. Without obligation—phone local Porter-Cable man for Free demonstration Today! Write us for FREE copy, Newest Sawing Methods

Two Saws in One... With Radial Arm

The Porter-Cable easy-slide, non-sag, ball bearing Radial Arm is a sure way to get double service out of your SPEEDMATIC saw. A big time-saver on duplicate cutting. Set it up anywhere in lot or building.

PORTER-CABLE
MACHINE CO.

1721-7 N. Salina St. Syracuse, N.Y.
REPRESENTATIVES IN PRINCIPAL CITIES

NEWS—

(Continued from page 74)

Clatchy, Armond J. Peartree, L. Bruce Thompson, all of Upper Darby, and L. Bruce Stallard, Wynnewood.

Any home builder of sufficient background and experience to pursue the course profitably may enroll, David D. Bohannon, president of the Institute states. Students will meet with the faculty in informal quiz sessions every evening in the school dormitories, the students doing the quizzing. They will make field trips to interesting building operations in the Philadelphia area.

Tuition for the course is \$70. Dormitory facilities are available at \$1.00 per day. Applications for enrollment should be sent the Home Builders Institute at 22 West Monroe Street, Chicago.

Scaife Heads Hotpoint Kitchen Sales

HOWARD L. SCAIFE has been appointed manager of the Hotpoint Kitchen Sales Division of the Edison General Electric Appliance Co., Inc., Chicago. He has recently returned to Chicago from the Hawaiian Islands, where for the past year and a half he has been manager of the Hotpoint Appliance Sales Division, Hawaiian Electric Company, Honolulu. In his new position, Mr. Scaife will direct all sales and merchandising activities on Hotpoint electrasinks; dishwashers; kitchen waste exits; Hotpoint steel kitchen cabinets, and Hotpoint's kitchen planning service. He will also have charge of apartment installations for all Hotpoint Home Appliances.



H. L. SCAIFE

Mr. Scaife is widely known in electric appliance merchandising circles. His early experience in this field was with the Appliance and Merchandising Division of the General Electric Company. In 1937 he was made assistant to the manager of the Hotpoint Refrigeration Sales Division, under G. H. Smith, now Hotpoint General Merchandising Manager.

"Housing Inventory" Discussed by Big Names

HIGH GOVERNMENT officials, including Vice President Henry A. Wallace, led the discussion in a "National Housing Inventory" with emphasis on problems arising from defense housing at the convention of the National Committee on the Housing Emergency, on June 11 and 12, at the Mayflower Hotel, Washington.

The National Committee on the Housing Emergency is a citizens group made up of people interested in both private and public housing programs and in the efforts of the government to provide adequate living accommodations for workers in defense industries. Mrs. Samuel I. Rosenman of New York City is chairman.

Convention speakers included:

Mrs. Rosenman, "The Purposes and Objectives of the Inventory"; William S. Knudsen, Director General, Office of Production Management, "The Importance of Housing in the Defense Production Program"; Charles F. Palmer, Coordinator of Defense Housing, "Accomplishments and Obstacles in the Defense Housing Program"; and H. Stewart McDonald, Deputy Federal Loan Administrator and former FHA Administrator, "The Job of Private Enterprise in Supplying Housing for Defense Workers."

Herbert U. Nelson, Executive Vice President, National Association of Real Estate Boards, and James Twohy, Governor, Home Loan Bank Board, both speaking on "The Sales Market"; Earl B. Schwulst, Executive Vice President, Bowery Savings Bank, New York City, "The Rental Market and Investment Housing"; Robert L. Davison, Director of Housing Research, Pierce Foundation, and Lawrence G. McNeil, President, McNeil Construction Company, discussed technological progress in housing.

John M. Carmody, Federal Works Administrator, "Building for Groups which Private Enterprise is not Supplying"; Mayor Cornelius D. Scully of Pittsburgh, "The Housing Problem and Programs from a Community Standpoint"; Coleman Woodbury, Director, National Association of Housing Officials, "Coordination of Government Programs and Cooperation with Private Enterprise"; and Karl Borders, Chief of Rent Section, Office of Price Administration and Civilian Supply, "The Maintenance of Fair Rents."

Home Builders Institute to Try for Mutual Insurance

AS PART of its broad program to eliminate unnecessary home building costs both for defense housing and for the post-defense period, the Home Builders Institute of America will investigate the possibility of the Institute itself setting up a mutual insurance plan for its members, David D. Bohannon, San Francisco, president of the Institute announces.

Charles S. Wanless, Springfield, Ill., will be chairman of the committee appointed to study the possibilities of the plan. Included to be studied is a maintenance bond to guarantee against defects in construction of houses built by members of the Institute over a stated period of years. Included also is liability insurance, both insurance against injuries to employees on home building jobs and public liability insurance.

"Insurance rates on construction of small houses are now based on the accident data for the whole field of construction," Chairman Wanless points out. "Obviously and as shown by experience the risk is definitely less in home construction than in, for example, skyscraper construction. The lack of distinction is causing unnecessary cost to home builder and buyer."

The new Institute, specialized branch of the National Association of Real Estate Boards, has been formed to identify to the public competent and reliable home builders. The Institute will constitute a national exchange of information and experience as to methods of planning residential areas and of home production and as to conditions affecting home building and home ownership, for example, material supply, priorities, and the like.

Allison Miller Named Assistant Manager Dodge Truck Sales

APPOINTMENT of Allison Miller as Assistant Sales Manager, Truck Division, Dodge Brother Corporation, has been announced. He was previously Philadelphia Regional Manager. A graduate of the U. S. Military Academy at West Point, Miller joined Dodge Brothers Corporation in 1925 as District Manager in the Dallas Region. For several years he remained in field contact work in the merchandising of new and used cars and trucks.



ALLISON MILLER

For six years following 1930 he was connected with the Dodge factory sales organization in Detroit in various advertising and sales capacities including that of Assistant Director of Truck Sales.

Subsequently he became Assistant Regional Manager at Chicago and St. Louis, and Regional Manager, first in St. Louis and then in Philadelphia.

No Accident Record

TO BE THE RECIPIENT of the coveted safety award would bring a smile to the face of the president of any company. That on L. M. Dexter is exceedingly well earned for this is the second consecutive year in which the National Brass Company (Grand Rapids, Mich.) won an exceptional safety award. Last year it attained the remarkable record of no-lost-time accidents which means that during the entire year not a single employee in the plant was seriously injured.



L. M. DEXTER (left) President, National Brass Co., receiving Safety Award from Fred W. Pullen (Right) Chairman of the Board, Safety Council.

Though the contest for such award is intra-city and limited to the industrial plants of the community, National Brass has just been notified of nationwide recognition. It won the highest ranking the country-over during 1940 for safety in plants of its classification.

Mr. Storch builds homes that sell!



Above you see Mr. F. B. Storch, prominent Philadelphia builder, in one of the many attractive basement game rooms he has created for the homes he builds.

"In the 162 homes I have built in the last 18 months," says Mr. F. B. Storch, Philadelphia builder, "142 are equipped with basement game rooms paneled in Knotty Pine. Without exception, people 'go overboard' in praise of these rooms. I consider the Western Pines ideal for creating the kind of atmosphere and appearance that make the public buy today."

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

WESTERN PINE ASSOCIATION

Yeon Building



Portland, Oregon

*Idaho White Pine *Ponderosa Pine *Sugar Pine

*These are the Western Pines



EVERYBODY LIKES FRANTZ No. 10 Over-the-Top COMPLETE GARAGE DOOR



Dealers favor Frantz No. 10 "Over-the-Top" complete Garage Door because, in addition to its many other advantages, it means only one unit to handle . . . door and hardware are furnished complete. Builders, contractors and the man who has to do the installing vote for No. 10 because its simplicity actually saves hours of erecting time. Most important, the party who has to pay the bill goes for No. 10 because its light weight spells both easy operation and low cost. If you are not yet intimately acquainted with No. 10, don't delay the profitable experience. Write for facts.

Only No. 10 "Over-the-Top" OFFERS ALL THESE FEATURES

- Door is prefitted for 8' wide x 7' high opening. * * *
- Steel weather strip is provided. * * *
- Door is specially built for strength, yet is light weight. * * *
- No weights, pulleys, or cables are needed. * * *
- Door is toxic treated for resistance to rot. * * *
- Requires only 2" clearance above door opening. * * *
- Holes for all bolts are bored in door at factory.

FRANTZ MANUFACTURING CO.
Dept. AB, Sterling, Ill.

FRANTZ

Guaranteed BUILDWARE

Where Is This Home Building?

Analysis of Permits for 1939 and 1940 Answers This Question.

THE BUREAU of Labor Statistics, Washington, D. C., has issued a bulletin (R. 1293) presenting building activity figures on a geographical basis. Dividing the entire country into nine regions, this study shows that the Pacific, South Atlantic, and East North Central States with 102,000, 101,000, and 93,000 new homes, respectively, exceeded the totals for other divisions, and also made the most important gains in 1940 over the preceding year. An estimate of 10,000 fewer new homes in 1940 than in 1939 dropped the Middle Atlantic States from first rank in 1939 to fourth in 1940. All other geographic divisions showed gains in 1940 as compared with 1939.

Of the 540,000 new units in nonfarm areas during 1940, 79 percent were 1-family; 7 percent, 2-family; and 14 percent, multi-family. For the decade of the 1930's as a whole, the corresponding percentages were 74, 6, and 20, respectively. These percentages represent an important shift in emphasis since the 1920's, when 2-family and multi-family units combined comprised 39 percent of all new units.

TABLE—Number of New Dwelling Units in Nonfarm Areas, 1939 and 1940, by Geographic Division and Type of Dwelling

| Geographic division | All types | | 1-family | | 2-family ¹ | | Multifamily ² | |
|---|-----------|---------|----------|---------|-----------------------|--------|--------------------------|--------|
| | 1940 | 1939 | 1940 | 1939 | 1940 | 1939 | 1940 | 1939 |
| All divisions | 540,000 | 465,000 | 425,103 | 351,641 | 38,865 | 27,655 | 78,032 | 85,704 |
| Percent of change, 1940 as compared with 1939 | +16.1 | | +20.9 | | +33.3 | | -9.0 | |
| New England | 25,867 | 20,110 | 20,186 | 13,405 | 1,695 | 853 | 3,986 | 5,852 |
| Middle Atlantic | 82,923 | 92,908 | 44,580 | 44,040 | 4,121 | 3,905 | 34,022 | 44,963 |
| East North Central | 93,474 | 73,368 | 82,602 | 63,577 | 7,200 | 3,938 | 3,672 | 5,851 |
| West North Central | 34,197 | 30,579 | 31,827 | 27,317 | 1,158 | 1,191 | 1,412 | 2,071 |
| South Atlantic | 101,468 | 77,481 | 75,739 | 60,869 | 7,490 | 6,089 | 18,239 | 10,523 |
| East South Central | 28,793 | 25,923 | 23,834 | 20,355 | 3,716 | 3,781 | 1,243 | 1,787 |
| West South Central | 51,190 | 46,550 | 41,803 | 39,342 | 5,968 | 3,178 | 3,399 | 4,030 |
| Mountain | 19,937 | 16,454 | 17,913 | 14,482 | 706 | 704 | 1,318 | 1,268 |
| Pacific | 102,251 | 81,629 | 86,719 | 68,254 | 4,791 | 4,016 | 10,741 | 9,359 |

¹Includes 1- and 2-family dwellings with stores.
²Includes multifamily dwellings with stores.

Importance of the various types of units is not uniform in the several geographic divisions. Apartment-type units are of greatest importance in the Middle Atlantic States, where in 1940 they comprised 41 percent of all new units. This type was also important in the South Atlantic, New England, and Pacific States, contributing 18, 15, and 11 percent, respectively, of the new 1940 dwelling facilities. The 2-family type home was of greatest importance in 1940 in the East and West South Central States, comprising more than 11 percent of each total. In contrast are the East and West North Central and East South Central States where apartments were 4 percent of new units in the West North Central and Mountain States 2-family units were less than 4 percent of each total. The table contains the 1939 and 1940 estimates for each geographic division shown by type of unit.

Plywood Promotion Outlined

THE STORY of plywood activities during the past year and plans for the future were told to 250 plywood manufacturers and their salesmen at the two-day annual convention and sales clinic held recently at Tacoma, Washington, by the Douglas Fir Plywood Association.

"Douglas fir plywood now is an adult among building materials," said W. E. Difford, managing director of the Association. "Plywood manufacturers face peculiar problems as the result of doubled production capacity of the industry, possible increasing costs, disrupted normal market conditions and the probable future business slump in building which is expected to be accompanied by increased inter-industrial competition."

However, he outlined a five-point promotional program of the Association destined to bring even greater demand for Douglas fir plywood, which today he stated does more building jobs than any other single material. Here are the factors:

1. Expanded research and engineering projects to provide ever increasing technical data on the qualities of fir plywood.
2. Expand the farm market, which this year was tapped by the plywood industry for the first time. (Farm building is to reach

a half billion dollar mark this year.)

3. Increase use of exterior (waterproof) type fir plywood in marine construction. (More than 100,000 small boats have been built of plywood; the waterproof panels are being used for bulkheads and cabins in luxurious yachts.)

4. Bolster commercial use of plywood by railroads, tobacco companies and other industries. (Thousands of freight cars are lined with plywood; one tobacco company is using 25 million square feet of the panels for curing barrels.)

5. Foster prefabrication of houses built of plywood. (The prefabrication of houses represents the nation's fastest growing industry. More than two-thirds of these house "manufacturers" rely upon plywood as the basic building material.)

One of the high points of the convention was the introduction of the five field men of the Douglas Fir Plywood Association with each man relating different phases of the promotional work in the field. The first was A. C. Sherman, northeastern representative stationed at New York. He told of the activities undertaken to aid lumber dealers promote plywood sales and become familiar with proper usage of plywood. Joe Weston, southwest representative at El Monte, Calif., gave a demonstration of the strength and other qualities of the material. Harry Steidle, eastern representative at Washington, D.C., explained the part plywood is playing as our government makes this nation "the arsenal for democracy." Steidle explained that there are 60 major governmental agencies buying for Uncle Sam; plywood has gone into 4,000 assault boats.

Importance of the prefabrication industry was related by Dave S. Betcone, midwest representative at Chicago, as he told that there now are 45 firms each prefabricating from a few to as many as 300 houses a month. He pointed out that 31 of the manufacturers use an average for each house of 5,500 feet of plywood for inside and outside walls, sheathing and subflooring.

J. D. Long, agricultural representative at Fredonia, Kans., for the plywood industry, told of the experimental work being done with plywood in construction of various farm buildings.

At the sales clinic the following day, these field men were recalled to expand their statements and to emphasize to the attending salesmen promotional possibilities they have found. Three other men also were brought before the clinic. They are: Dr. Don Brouse, engineer for the Forest Products Laboratory at Madison, Wisc.; N. S. Perkins, chief engineer for the Douglas Fir Plywood Association, and Charles E. Devlin, director of publicity for the Association.

Dr. Brouse told of the experimental work being done at his laboratory on plywood glues and binders and on the peeling of hemlock. These later studies, which started nearly a year ago, are made possible partly by financial aid given by the plywood industry.

Perkins carried to the salesmen technical information about acoustical, insulation and vapor barrier qualities of plywood. Devlin, in turn, explained that the basic advertising policy of the plywood industry is to "show how" the material can be used to build better buildings. He stressed also that the Association has all kinds of literature and mailing pieces available for dealers.



PLAN FUTURE. E. W. Daniels, (left) president of Douglas Fir Plywood Association, and W. E. Difford, managing director of the association, are caught at recent convention discussing markets.



TRIPLE BENEFITS

for Your Customers with

BRUCE Factory-Finished STREAMLINE FLOORING!

Factory-Finish is Part of the Wood!



Surface is uniformly finished on special machines at the factory—a job unequalled by ordinary methods! The finish penetrates the pores of the wood—stubbornly resisting scratching—chipping—peeling! The "Scratch-Test" proves it.

Ready for Use the Instant It's Laid!



Customers can move in days earlier. Bruce Streamline requires no sanding or finishing on the job! Laid like ordinary strip flooring—available in Oak, Maple, Beech. Sizes: 25/32" x 3 1/4", 1/2" x 2 1/2", 3/4" x 2".

Distinctive Style at Moderate Price!



Rich, lovely, beautiful! Bruce Streamline Factory-Finished Flooring is beveled to give a distinctive shadow pattern effect that home owners admire. And yet, it costs no more than ordinary flooring finished on the job!

MAIL THE COUPON
for a "Scratch-Test" Panel and complete
information on Bruce Streamline Flooring.



STREAMLINE HARDWOOD FLOORING

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



E. L. BRUCE CO., 1419 Thomas St., Memphis, Tenn.

Gentlemen: Please send FREE "Scratch-Test" panel and full details about Bruce Streamline Flooring.

Name.....

Address.....

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

Fir Door Institute Meets

A MANUFACTURER of door hardware and a large lumber distributor were among the speakers who addressed the recent annual meeting of Fir Door Institute members at Tacoma, Wash., as they reviewed accomplishments for the year, re-named officers and laid plans for an expanded promotional program.

Officers of the industry-wide organization representing Douglas fir door manufacturers are: president, J. F. Simpson (vice president of Buffelen Lumber and Manufacturing Co.); vice president, H. E. Tenzler (president of Northwest Door Co.); treasurer, N. O. Cruver (vice president of Wheeler Osgood Sales Corp.); secretary, C. T. Eckstrom (manager of Monarch Door Company). All are of Tacoma.

E. A. "Doc" Woods, vice president of George C. Vaughn & Son Co. at Houston, Texas, told the door men of the market for fir doors and other fir products in the territory his firm serves.

In discussing future promotional trends, Dave C. Crawford, factory manager of Crawford Door Company at Detroit, Mich., announced an intensified advertising and sales program is intended for the Craw-Fir-Dor, overhead type garage door for which his firm manufactures hardware. Crawford pointed this even greater activity will be directed toward key markets.

W. E. Difford, managing director of Fir Door Institute, presided at the meeting. His annual report to the association members and their sales representatives present was given by a series of charts discussing the advertising, sales promotional and research activities of the fir door industry.

Aluminum Production Increased

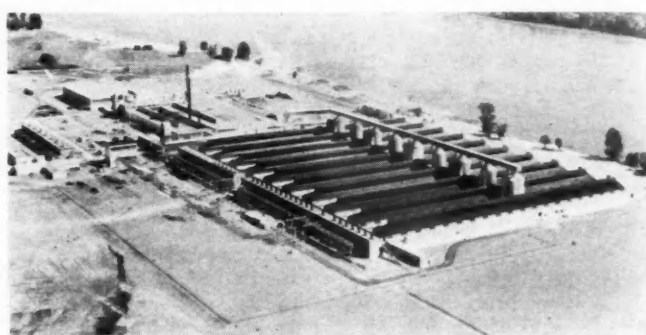
THE FIRST 5 units of the new Vancouver, Washington, works of Aluminum Company of America were put into operation on May 29. This marked the completion of a large construction project in an unbelievably short time. Less than 15 months ago the site now occupied by the new works was a cow pasture. When the switch was thrown inaugurating the 5th unit the capacity of the plant was increased to more than 150,000,000 pounds of pig aluminum annually.

This figure is highly significant when one considers that the total production of all aluminum in the United States did not exceed 130,000,000 pounds per year in the last world war, and that the entire industry in the United States did not produce 150,000,000 pounds a year until 1924. Yet the Vancouver Works will account for only a fifth of the metal to be produced by Aluminum Company of America by midsummer of 1942.

Construction of the new plant began in March a year ago. At that time the plant was designed to deliver 30,000,000 pounds of aluminum a year. But the national need for aluminum became so great that the company decided to add other units as construction proceeded. Each unit was to have an annual capacity of 30,000,000 pounds.

The first unit went into operation last September, less than six months after the first concrete was poured. A second unit was completed in December. The third went into service in March, the fourth in April.

The construction of the Vancouver works is part of an expansion program which approximates \$200,000,000. When the program is completed in mid-summer 1942, Aluminum Company of America will be able to more than double its peak peacetime production of 1939 of more than 327,000,000 pounds.



ALCOA'S new 5-unit plant at Vancouver, Wash.

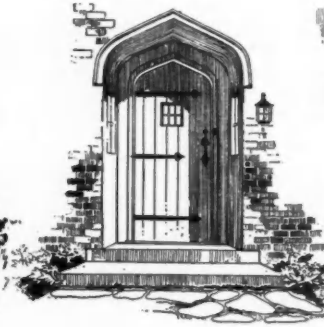
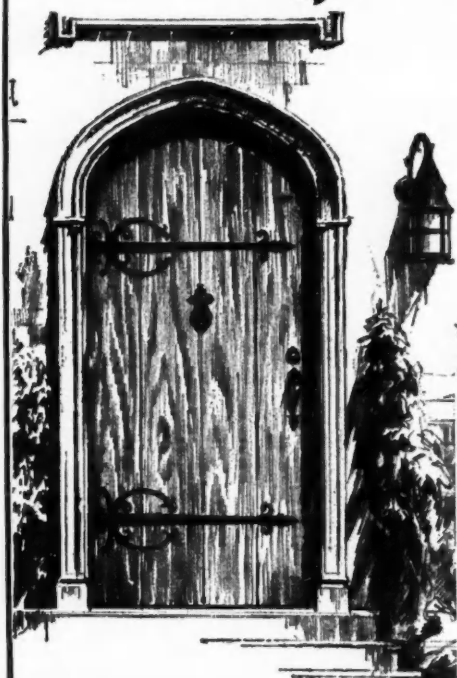
Friendly Doorways by MCKINNEY give

EXTRA SALES APPEAL to your Homes

First impressions *count*—and a Friendly Doorway is a silent salesman for good taste and quality building.

McKinney Forged Iron Hardware lends warmth and charm to every door and is adaptable to most homes in any price range.

You'll find quality hardware throughout the home helps make SALES and SATISFIED HOME OWNERS.



MCKINNEY MANUFACTURING COMPANY • PITTSBURGH, PA.

OVER 75 YEARS DESIGNING AND MANUFACTURING GOOD HARDWARE

PRODUCERS TELL US— About Products, Personnel, Plants

Clarence F. Bennett Completes Half Century with the Stanley Works

AT A DINNER held at the Shuttle Meadow Club, New Britain, Conn., on May 14, Clarence F. Bennett, Chairman of the Board of Directors of The Stanley Works, was feted by company officials and old friends, honoring his fifty years of service. In 1891, as a young man of nineteen years, he became an employee in the shipping room, then in the production department and, at the age of twenty-five, was made production superintendent. Within a few years he became assistant general superintendent and then general superintendent.



C. F. BENNETT

In 1912 Mr. Bennett became a director of the company and later was elected Second Vice-President, and then First Vice-President. In February 1923, he became President of The Stanley Works and held that position until March of this year when Richard E. Pritchard succeeded him as President, and Mr. Bennett became Chairman of the Board of Directors.

Well-known by the trade, he is regarded by thousands of Stanley employees not only as the efficient "big boss" who has successfully guided the destinies of The Stanley Works and its several divisions for many years, but as a man intensely interested in the affairs of his employees, and civic matters. He is at present leading a campaign to raise \$700,000 for the New Britain General Hospital, of which he has been President for many years.

Cruver Advanced with Wheeler Osgood

AT a recent meeting of the board of directors of the Wheeler Osgood Sales Corp., Tacoma, Wash., Norman O. Cruver was promoted to the position of vice president and general manager following the retirement of D. J. Young. Mr. Cruver had been in charge of plant operation at Tacoma for a number of years and is very well known to the door and plywood trade. He has been one of the leading factors in developing the Wheeler Osgood line of Woco and Laminex doors both in Douglas Fir and in Philippine hardwoods, has been active in the Fir Door Institute in its development of prefit stock doors and has been a leading figure in the Douglas Fir Plywood Assn.



NORMAN O. CRUVER

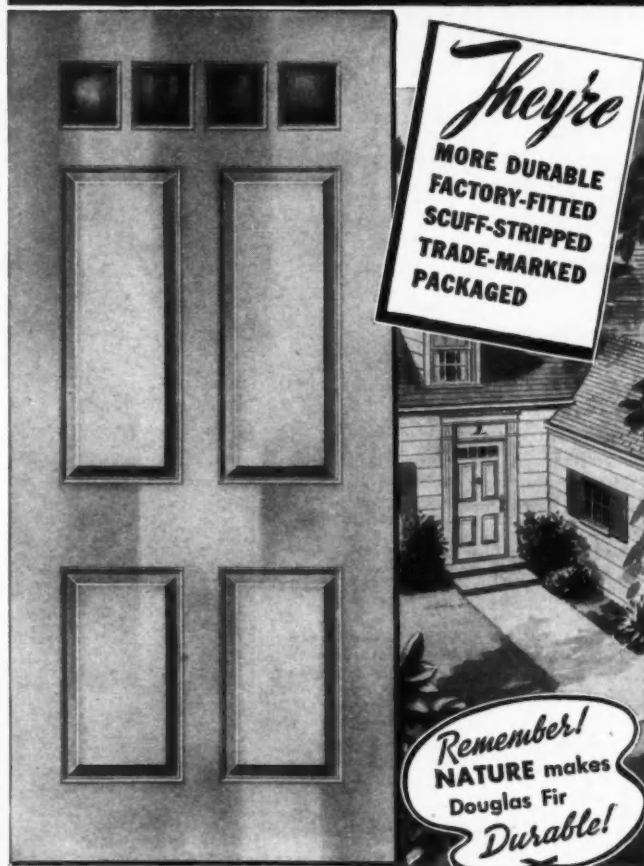
Heating Plant Manufacturers Meet in Chicago Convention

THE annual mid-year convention of the National Warm Air Heating and Air Conditioning Assn. was held June 3 and 4 at the Palmer House, Chicago, and was well attended. Highlights of the program where the president's message by C. A. Olsen, Elyria, O.; "What Are We Defending and Building for Defense," by Dr. C. Copeland Smith of New York City; "What About the Future for Building Construction?" by Bernard L. Johnson, editor *American Builder*, Chicago; "Oil Burner Standards" by R. M. Sherman, Hartford, Conn.; "Scrap Iron Situation and Wage and Hour Act" by W. W. Rose, Cleveland, O.; and "Proposed Method for Standardizing and Rating Leader Stacks and Fittings for Gravity Warm Air Systems" by Professor S. Konzo of the University of Illinois. An "Open Forum" on air conditioning was conducted by Fred S. Boone of Indianapolis.

George E. Boeddener, secretary of the association, maintains headquarters at 145 Public Square, Cleveland, Ohio.

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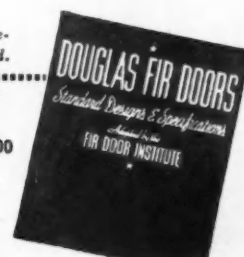
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● You save time and work every time you use a Tru-Fit Douglas Fir Entrance Door! For these quality doors come pre-fitted, ready to hang the instant you remove the protective packaging and scuff strips. You are also sure of a better looking entrance door . . . one that will keep its beauty indefinitely! For Tru-Fit Entrance Doors are made only from all-heartwood, vertical-grain, old-growth Douglas fir . . . the wood made durable by nature. Tru-Fit Entrance Doors are precision-made by skilled artisans in strict accordance with U. S. Commercial Standard CS91-41. See your lumber dealer today. One of the 27 Tru-Fit designs is perfect for every size and style of house you build.

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SKILSAW speeds up all wood sawing . . . sizes pre-cast concrete blocks . . . cuts Celotex, Transite and other compositions . . . cuts metals, scores stone, tile, etc. 9 models.

SKILSAW DRILLS speed up installation of pipe, conduit, fixtures, hardware. "Extra-powered" for faster drilling in wood, steel, compositions. 22 models.

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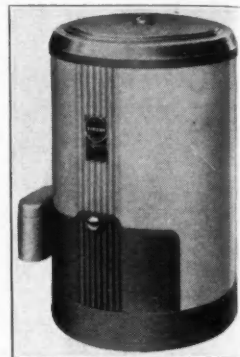
SKILSAW TOOLS

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YOUR DEALER WILL GLADLY DEMONSTRATE THESE TOOLS FOR YOU

Timken Expands Water Heater Line

THE TIMKEN Silent Automatic Division of The Timken-Detroit Axle Company, Detroit, announces a new oil burning water heater which will be known as the Model 30-E. It has a capacity of 30 gallons per hour heated through a 100 degree rise in temperature. The Model 30-E enlarges the Timken line to include water heaters with capacities from 30 gallons per hour to 65 gallons per hour. The new model is the smallest capacity water heater equipped with a power burner now on the market. It is a coil type heater designed for use with separate storage tank up to 90 gallons capacity. Water is heated by a Timken Wall-Flame Oil Burner in a 24-foot coil of 1 inch copper tubing which is coiled around the burner flame. Turns are spaced apart so that hot gases circulate between and around the coils.

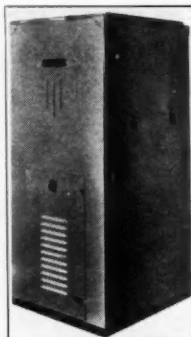


NEW 30-gal. Timken water heater.

The burner is rated to burn 2 pounds of Nos. 1 or 2 fuel oil per hour. The burner is powered with a 1/100 horsepower motor. Other features of the burner include simplicity of design with only one moving part, especially designed chromium steel flame-rim and grills, self-lubrication and electric ignition. The ability of the burner to operate at continued high efficiency at the extremely low oil rate is the key to the many advantages of the unit.

New Gas-Fired Air Conditioning Unit

ESPECIALLY designed for year-round use in the home where space is limited, a new gas-fired air conditioning unit is announced by the Westinghouse Electric and Manufacturing Company, East Springfield, Mass. This type GV-90 unit is rated for an input of 90,000 Btu per hour and an output of 72,000 Btu per hour, with a capacity of 900 cfm at 1/4-inch static pressure. The over-all height of the unit is only 64 inches with base dimensions 28 by 30 inches deep.



WESTINGHOUSE gas heater.

Return air may be brought in the top or the bottom of the unit, making its application flexible. The 12-inch blower wheel, driven by a 1/6-horsepower motor, is placed below the heating element to make the unit more compact. Both burner orifice and air opening are adjustable and the same burner can be used on a wide variety of gases.

The standard unit is fitted with filters, humidifiers, and standard control equipment and embodies all the features necessary for a complete winter air conditioning system. This same unit may be used in summer circulating air throughout the home to aid in cooling.

Announces New Home Cooling Units

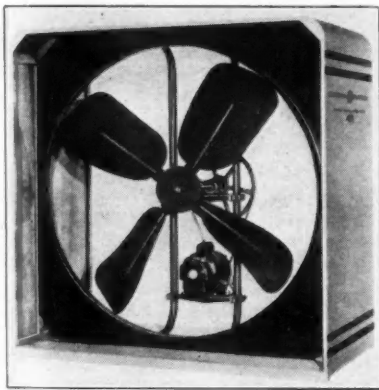
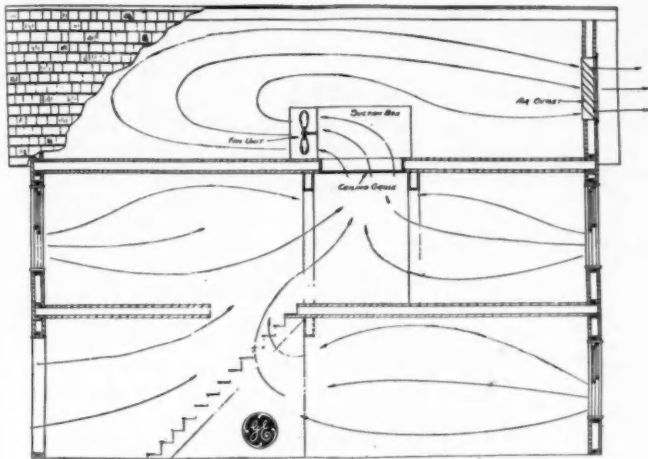
GENERAL ELECTRIC has been devoting several years of research and experiment to a solution of the growing demand for an economical method of bringing summer comfort to the home. The new G-E attic fan home cooling unit is designed for adaptation to the varying needs of different types of homes, and four simple elements of correct installation make possible an inexpensive and effective method of summer comfort cooling an entire house. The units are installed according to rules worked out in exhaustive tests in the G-E fan laboratories so that there is gentle, but ample air movement through every room in the house. The cooling units are available in three sizes so that the unit's capacity for air delivery may be based upon the size of the house.

The home-cooling unit is designed for long life and quiet, vibrationless operation. Smartly styled by Ray Patten, the fan unit is enclosed in an attractive square wooden housing. The housing itself is mounted on rubber blocks, the wood casing is designed to prevent transmission of noise, and every moving part of the fan unit is isolated from other parts by resilient rubber.

Size of the cooling unit needed is determined by adding up the cubic content of all the living space in the house. In localities

where a protracted hot summer is customary, the air delivery capacity of the cooling unit should be sufficient to provide a complete air change once a minute throughout the house. Somewhat smaller capacities in cooler climates will prove effective.

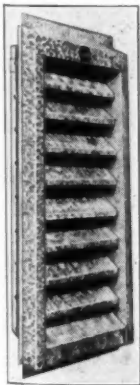
The suction chamber, ceiling grille, and air outlet openings are easily constructed and may be adapted to the varying conditions of different homes. The capacities of each element are calculated according to the fan laboratory tests.



ABOVE. Air currents through house induced by G-E attic fan. LEFT, view of fan with housing.

New Majestic Attic Ventilator

VERY MUCH in line with needs created by modern home air conditioning and home insulation is an announcement from The Majestic Company of Huntington, Indiana, of a new metal attic ventilator. Among the features listed for this new unit are: sloping, seamless top which drains all moisture to the outside; all riveted construction which eliminates the possibility of welds working loose causing wind vibration and hum; and an ingenious free drainage type of construction which provides for the minimum number of exposed joints assuring water-tightness and less opportunity for water to collect and cause rusting. In the way the louvers are joined to the frame there are no water catches at the end. The bottom of the frame is also sloped downward to cause drainage away from the house.



MAJESTIC metal vent.

The ventilator is offered in two designs, for flush or recess installation, and in three standard sizes in each design. They are built of heavily galvanized steel. A 16-mesh galvanized screen is secured to the back of the ventilator. If it is desired to close the ventilator the screen may be removed and replaced with a metal panel.

"Flowing Color" Effect with Shaded Brick

UNUSUAL USE of brick in architectural design and color harmony, characterizes a new unit of the Delaware Hospital, just opened in Wilmington, Del.

Massena & duPont, architects for the \$3,500,000 expansion pro-

(Continued to page 84)

MAKE THE MESKER STEEL SASH *Visual Test*

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Mesker Steel Sash gives you at least 35% More Quality for your money!

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"Electro-Sheet" flashing around windows is concealed by the sheathing paper.

"Electro-Sheet," bonded to building paper, closes in corner of this building and provides absolute protection against infiltration of air, dust and water at this vulnerable point. Similar protection is provided at the eaves, around doors and windows and for flashing drip caps. This house was built in Johnson County, Kansas. Harry L. Wagner is the architect, R. L. Falkenberg & Co., the contractor.

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When bonded to building papers, fabrics or asphaltic compounds, "Electro-Sheet" is extremely easy to install because it has the flexibility of paper, yet stubbornly resists kinking, breaking and tearing. This exceptional material is available in rolls of various lengths, and in widths up to 60"—with the copper in thicknesses of .0013", .0027" and .004" (1 oz., 2 oz. and 3 oz. per square foot).

We make only plain "Electro-Sheet" Copper which is combined with paper, fabric and asphaltic compounds by other manufacturers. Samples of the finished products and names of manufacturers will be furnished on request.

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THE AMERICAN BRASS COMPANY



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 Subsidiary of Anaconda Copper Mining Company
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 New Toronto, Ontario

PRODUCTS—

(Continued from page 83)

gram of this institution, have utilized the new principle of "flowing color" in the exterior face brick construction, beginning with dark tans at the bottom and graduating to lighter shades at the top.

According to Alfred V. duPont, of the architectural firm, a special feature of the installation was the selection and mixing of the bricks for each floor at the factory before shipment, according to a pre-arranged color chart indicating the effect to be achieved.

Reid Brick Company, Philadelphia, were the suppliers, furnishing more than 1,000,000 bricks.

New Rental Floor Sander

THE 1941 model of the Hilco Chief is offered by the manufacturers, The Hilger Company, St. Cloud, Minn., as rental equipment for dealers having painters and contractors among their



rental customers, as well as householders. It is pointed out that the Hilco Chief is a faster cutting machine than usually expected of rental floor sanders. However, the trend of painters and contractors towards renting floor sanders as required is stimulating a growing demand for rental equipment that can be easily operated by amateur as well as professional hands.

1941 Hilco Chief

Modern Kitchen Bureau Announces New Plan Committee Chairmen

WA. "ART" GROVE, advertising manager, Edison General Electric Appliance Co., Chicago, has been elected chairman of the Plan Committee of The Modern Kitchen Bureau for 1941 and 1942. Roger Bolin, manager, merchandise advertising and sales promotion, Westinghouse Electric & Mfg. Co., Mansfield, O., will be the vice chairman of this committee for the same period.



W. A. GROVE



R. BOLIN

In their new positions, Mr. Grove and Mr. Bolin will guide the promotional activities of the Bureau, supervising the preparation of all Bureau campaigns. Both these men have been closely associated with The Modern Kitchen Bureau throughout its five-year history, and their experience and knowledge of electrical appliance merchandising is expected to be of great value in Bureau activities during the next two years.

Mr. Grove and Mr. Bolin were elected to their new posts at a meeting of the Executive Committee of the Bureau on June 2, during the sessions of the Edison Electric Institute's annual convention at Buffalo, N. Y.

Not So Naive

Peoria, Ill.

To the Editor:

Your editorial, "War on Two Fronts," hits the nail squarely on the "nose." I'm copying it and sending it to our two senators and our representative. Not that I'm so naive as to think anything along this line will do any good, or have any effect. We are up against a domestic "revolution," nothing less.

H. H. BRAUN.

ON & OFF the RECORD

Views and Comments

by *Structor*

HEATLESS SATURDAYS—I suppose that "heatless Saturdays" will be a logical sequence to "gasless Sundays." Home owners on the Eastern seaboard may be expected to turn their oil burners off and stay in bed all day if Harold Ickes so decrees. It will be a warming thought, I'm sure, to home owners as they look at their oilless oil burners to reflect that the tankers that have always delivered the oil have been lend-leased to England, or may by now be resting firmly at the bottom of the Atlantic.

PARADOX OF PLENTY—It's a cockeyed situation that suddenly changes the paradox of plenty to the scarcity of war. We have an abundance of oil as well as lumber, copper, iron and other raw materials. Too much, we were told, while futile efforts were made to curtail the nation's abundance. Now shortages are suddenly so acute that the government has to appoint industrial dictators to parcel out the supplies. Since Ickes was appointed czar of the oil industry, I've been expecting daily to hear that Nathan Straus or Edith Elmer Wood have been delegated to rule housing.

OUT ON A LIMB—While government spokesmen keep saying to private builders, "get going or we'll take over your business," serious minded men are wondering how far out on a limb a builder should go right now. Shall he tie up large sums of money in land, improvements and utilities only to find shortly that he can't get materials? Or will he just get nicely started on a new development to find that it has been declared a nonessential industry and eliminated? I note that the smart operators are keeping their future commitments pretty small.

Of course, the safest spots are the 140-odd communities that F. D. R. has listed as "defense areas where an acute housing shortage exists." There is not likely to be much curtailment in these areas in houses under \$5,000.

TOUGH ON CHISELERS—One consoling thought about the current shortages of some materials and of good labor is that the chiselers and price buyers are the first ones to suffer. A builder told me the other day, "I've been buying from the same lumber dealer for more than ten years, and right now I'm getting materials when lots of others have to whistle for it."

It's also true that the builder who has been paying good wages and giving fair treatment is not having much trouble holding his men. And the builder who has been giving a square deal and allowing a fair profit to his subcontractors is still getting service.

I say, let the chiseling price buyer get what's coming to him. He's always taken the attitude that price is the sole factor in business. When he comes begging for service now he may learn a lesson.

NEW BUILDERS & NEW IDEAS—Surveys show an extremely high rate of change among builders. The two-house operator of 1939 is the 20-house or more builder of today. Thousands of new builders have entered the field and many small operators have become big operators. It has its good points and its bad. Old timers, set in their ways, frequently obstruct progress. Many of the newer builders are young men with new ideas.

On the whole, I believe that building practice is improving. Standards are higher today and it takes more capital and more competence to succeed. FHA has done a lot to set at least some sort of a minimum standard in most communities, and even more important is the job done by the Land Planning Division in showing how to lay out better home communities.

(Continued to page 86)

COPPER...

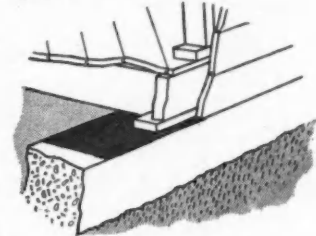
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It's an electro-deposited sheet of pure copper, uniform, impervious to moisture — backed up with two layers of wire-tough crossed sisal fibres, two layers of special asphalt, and rugged kraft paper — strong, pliable, won't kink or tear.

COPPER-ARMORED SISALKRAFT makes it possible to use COPPER — a recognized quality feature — in even low-cost construction.

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SIMPLIFIED CARPENTRY ESTIMATING

By **J. Douglas Wilson**

Head of the Building Trades Department, Frank Wiggins
Trade School, Los Angeles, California

and **Clell M. Rogers**

Mathematics Instructor, Venice High School, Venice,
California



Based on a series of articles by Mr. Wilson entitled *How to Estimate Accurately*, which appeared in *American Builder and Building Age* last year, the material has been revised and expanded into this book. Many of the original illustrations have been changed and the number of helpful tables and mathematical short cuts have been increased by Mr. Rogers.

This new book clearly explains the "taking-off" of a bill of materials required for the construction of a house and the rules and methods of making an accurate estimate of costs. The constructional order of quantity survey is used. Many skilled carpenters who have taken Mr. Wilson's evening school courses in estimating have helped in making the explanations given in this book clear and practical.

210 pages, 71 illus., 36 tables, 5 x 7, cloth, \$2.50.







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Heavy under-platings seal pores of metal to prevent rust and tarnish, and assure a brilliant chromium finish of lasting beauty. Another example of the extra care that typifies Amerock quality.

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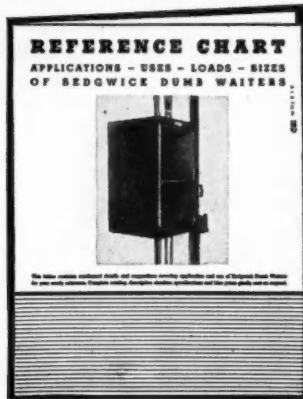
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This Useful Guide



TO HELP YOU SELECT THE RIGHT DUMB WAITER FOR THE JOB

Do you know how many *kinds* of hand power dumb waiters Sedgwick makes? How heavy loads at *busy* points can be *easily* raised on Sedgwick Hand Power Dumb Waiters because of correct counterweighting, better design, superior construction? This Reference Chart tells you what type and capacity is best suited to the individual job. Electric dumb waiters, too. The Sedgwick Roto-Waiter is the most modern and economical electric on the market today. Write for your copy of this free Reference Chart now—while the supply lasts.

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Dumb Waiters & Elevators

On & Off the Record

(Continued from page 85)

JERRY PEGS THE PRICE—Should the cheapest, sharpest, shoddiest builder in a community set the standard of reproduction or appraisal value? Anybody ought to know the answer to that—even a government job holder. Yet high quality builders everywhere continue to complain that this is just what happens and that **FHA appraisers let the jerry builder establish the valuation.** Thus, **FHA, which should be attempting to improve building standards, is actually discouraging the use of quality products, materials and services.** The quality builder who ought to be encouraged comes in for a drastic squeeze play between rising prices and low appraisals.

APPRAISAL INCONSISTENCIES—It's a peculiar fact that mortgage appraisals on **FHA properties** have been consistently under-appraised, while those for life insurance companies are over-appraised. Now I know that appraisal is supposed to be an exact art, but somebody must be lying! It looks to me as though some **FHA appraisers are lying through their appraisal, changing a 90 per cent loan to a 70 per cent one.** And some life insurance appraisers must be lying by changing a 60 per cent loan to an 80 per cent one. In the case of life insurance companies, the reason is probably that they are limited by law in many states to making loans of not more than 60 per cent.

BUILDERS OF DEFENSE HOUSING—There's no doubting that the various Federal agencies in charge of defense housing have made a mistake in turning too much of the work over to contractors of the heavy construction type who are for the most part unfamiliar and unskilled in residential building. **There are hundreds of experienced residential builders far better qualified for this type of work than the heavy construction contractors.** These fellows, however, are used to getting government contracts and have gotten right down to the right people in Washington.

FULL SPEED IN REVERSE—This subject of defense housing out of government funds has lots of ramifications. In a recent speech, Roy Wenzlick said that in his opinion every group of government financed and owned houses kills off many times that number of new homes built by private builders. Every time the government announces a new 500-home public housing project, the nation gets a thousand less houses. That's full speed in reverse.

TITLE VI BOOMS—The biggest aid to new home building in tremendous volume is **FHA's new Title VI.** That is, if it is administered in a way to make it work, and of course the local **FHA interpretation of the law can make it or break it.** An interesting feature is that **Title VI amortization payments for the first five years are about one-third more than during the balance of the life of the mortgage.** This is a safety factor that encourages home buyers to make a greater saving during boom times. The foremen and skilled workers who buy homes under this plan will build up enough equity during boom times, it is believed, to make it worthwhile holding the house through the depressions later on.

PALMER'S PRIVATE HATCHETS—Defense Co-ordinator Palmer recently said, "Our first problem is the unwillingness of a good many of those concerned with housing to cease trying to put a razor-edge on the little private hatchet with which they have been hacking away on their own little patches of wood." He said, "It may be necessary to make a tight and narrow definition of defense housing and restrict other building" and "it may become necessary to urge that mortgage lending on residential construction be curtailed in nondefense areas—and that such curtailment be applied to higher cost building even in defense areas."

He predicted that in the fiscal year July 1, 1941 to June 30, 1942, 625,000 housing units would be built, of which 525,000 should go in defense areas. He said 125,000 should be built with government funds and 400,000 by private industry.

Is this the handwriting on the wall, or a loud voice from a convention platform?

LETTERS from Readers on All Subjects

Facts, Opinion and Advice Welcomed Here

Aluminum for Defense

Pittsburgh, Pa.

To the Editor:

You appreciate the fact that the present war is a highly mobile war in which the airplane is of vital importance. As a result, there has been an unprecedented demand for aluminum.

At present, there is no shortage of aluminum for national defense, although civilian applications have been materially curtailed. This reduction in civilian uses has affected many of your readers who have, because of the pressure of defense demands for aluminum, been forced to accept substitutes for the duration of the war. We appreciate the spirit in which they have cooperated with us.

Just how long we will be able to say "There is no shortage of aluminum for national defense" is problematical. There may be a shortage next month, in six months, in a year. It depends largely on plane production, not only for the United States but for Britain as well. According to a recent announcement by W. S. Knudsen, the expanded plane program will require an annual production of 1,600,000,000 pounds of aluminum. The best available estimates indicate that this is more aluminum than the whole world produced last year.

Aluminum production in the United States during 1939 was 327,000,000 pounds. Domestic production at present is at the rate of nearly 600,000,000 pounds annually, and by July, 1942, will reach 825,000,000 pounds a year. Until recently, Aluminum Company of America was the sole producer of primary aluminum in this country, and by July of 1942 it will have completed a national defense expansion program which will more than double the production built up over a half century of operation. In 1942, the company's production of new metal will amount to more than 720,000,000 pounds; and to reach this production, as well as to expand fabricating facilities, the company will have expended \$200,000,000, all of which it is financing itself.

The forging capacity in the plants of Aluminum Company of America has been increased approximately 175 per cent; extruded shapes capacity, sheet capacity, and tubing capacity have in each case been more than doubled; while wire, rod and bar capacity is up 130 per cent, and sand casting capacity is now approximately 200 per cent more than it was at the start of the war in September, 1939.

ALUMINUM COMPANY OF AMERICA
By Douglas B. Hobbs

All Concerned Are Satisfied

Lead, So. Dak.

To the Editor:

Your very kind letter of May 27, with the attached "tear sheets" from the October 1938 issue of the *American Builder*, showing the details of a house with corner windows and the detail of the corner window itself, came yesterday. I have turned these details over to the man who is interested in building this house, and he appeared very much pleased with them. He says that they show him just about what he wanted to know. So you see, again the *American Builder* has helped someone.

Please know that this has been very gratifying to me because I told him that I was sure we could get whatever help we needed from you; and that is just the way it turned out. By this simple favor, you have won another very staunch friend for your publication and your staff.

K. PYLE.

Plan Suggestions Please

Watertown, Conn.

To the Editor:

We have greatly profited by and enjoyed your magazine for the past few years. After studying its pages from month to month, and filling waste paper baskets full of our attempts at

(Continued to page 88)

CRD sills are one of today's best lumber buys. They help make sales points of former danger points in home construction. Available as part of CRD frames or as separate items. Ask your dealer for today's favorable price.



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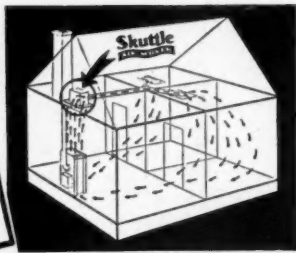


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IT'S WHAT YOU WANTED
 **MAKES A FURNACE OUT OF ANY SPACE HEATER**

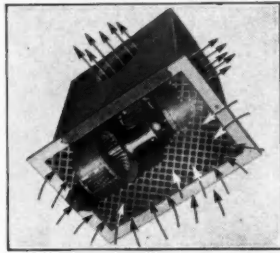


NOW ONE HEATER WILL HEAT 3 EXTRA ROOMS WITH THE

Skuttle AIR MOVER

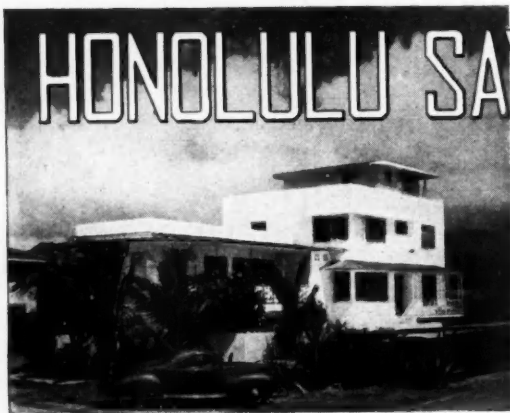
● Are you having trouble keeping within your heating budget on those small 4 room homes? If you are, it will pay you to try this SKUTTLE AIR MOVER in the next house you build. Place the heater (wood, coal, gas or oil) in any room or utility room and install the SKUTTLE AIR MOVER directly above it in the attic. Next, attach lead out ducts (6" insulated stove pipe) to openings and direct them to the rooms to be heated—that's all there is to it. Neat in appearance, nothing shows except the registers in ceiling.

Don't fail to send for prices today.



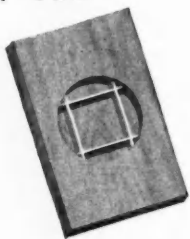
Unit comes completely assembled with rubber mounted blower motor, switch, and register. Its twin blowers insure silent operation.

SKUTTLE Sales COMPANY
Air-Conditioning Equipment
 333 FRANKLIN ST. • • • DETROIT, MICHIGAN



HONOLULU SAYS:

"It's NEW LONDONER HOLLOW-CORE FLUSH DOORS"



When you build or remodel a home be sure to install . . . New Londoner Hollow-Core Flush Doors. This is the "climatized" door, built to resist weather changes everywhere. The patented construction used in all New Londoners guarantees . . . a door free from dimensional distortion.

You should have a copy of our booklet, "Open for Inspection," which explains graphically why your choice of New Londoners will be a wise one. Send for your copy now.

AMERICAN PLYWOOD CORPORATION
 NEW LONDON, WISCONSIN

LETTERS—

(Continued from page 87)

house plans, we finally evolved a plan that fits our needs perfectly. It is built up of all the ideas we gleaned over the years—a simple plan built around a center stairway, but a departure from the usual distribution of space in such a house.

The nucleus of the idea came from a house plan in your magazine. We wanted you to know how much your magazine contributed to our happiness in our new home.

GRACE M. DUBPERNELL.

"Security Homes"

Seattle, Wash.

To the Editor:

On May 14th we received your circular entitled "Security Homes."

Enclosed please find an advertisement which is a sample of our advertising indicating that we are using the name "Security Home" which is a name coined by ourselves and which we have been using for some time in local advertising.

I am calling this to your attention so that there will be no possible opportunity of discord or misunderstanding regarding the use of the name "Security Homes" in this area.

Your "Security Homes," judging from the illustration of one of them, are apparently very much higher in cost than ours.

SEE THE
'SECURITY HOME'
 An Expandable Apartment-Cottage
\$1875 — FURNISHED !!
 (Terms to Suit YOUR Budget)
 SPECIAL SHOWING To Readers of Lake City Tribune
Saturday, April 19th, 1941
 10 A. M. to 5 P. M. Signs will point the way to
12335 — 33rd N. E.
 Come as Early in the Day as Possible
 Sponsored by
Own Your Home Association, Inc.
 6515 154th N. E. KEnwood 0505

We have called ours "Security Homes" by reason of the fact that on the terms and at the price at which they are sold, the homes will be paid for within 4½ to 6½ years, after which, in spite of any feared depression which might occur after the rearmament era of prosperity, the owners are secure in the ownership of a home, free and clear.

Enclosed please find order blank and \$2.00 for one year's subscription to *American Builder*.

OWN YOUR HOME ASSOCIATION, INC.

By S. F. Barker, Mgr.

Cause of Lath Marks, Dust Patterns and Streaks

Chicago, Ill.

To the Editor:

Many theories as to the cause of the lath marks and dust patterns have been propounded. Some have contended that the streaks and marks are caused by electrical forces, whereas others have believed that condensation is the primary source of this trouble, the contention being that the colder surfaces between the lath or between the framing members accumulate a greater amount of moisture and that any dust or dirt in the air adheres to these damp or moist surfaces more readily than to the drier surfaces between. Convection currents are undoubtedly the cause of streaks above registers and radiators but this, of course, is a different problem from that of lath marks.

Most authorities, however, now agree that dust patterns which show the outlines of the lath and structural members are caused by thermal precipitation of dust. It has been known for many years that heat has an effect on dust and that dust particles will adhere more readily to cold surfaces than to warm surfaces. For example, a cold rod suspended in dusty air becomes dirty but a hot rod remains clean. As a matter of fact, efficient dust precipitators now on the market are designed on the principle of thermal precipitation.

The extent to which dust or dirt accumulates on a wall surface depends on the temperature gradient or the difference in

temperature between the surface and the air in contact with it, the colder the surface, the greater will be the amount of dirt deposited in a given period of time. Consequently, where there are variations in surface temperatures there will be variations in the amount of dust accumulated. The surfaces between lath are colder than the surfaces at the lath and therefore, become dirtier, leaving light colored streaks at the lath. Similarly, with uninsulated walls, the surfaces between studding are colder than the surfaces at the studding, thereby leaving the lighter streaks outlining the studding. Insulated wall surfaces are warmer in the winter than uninsulated surfaces and hence acquire less dirt.

PAUL D. CLOSE, Technical Secretary,
Insulation Board Institute.

Protests Threatened Curtailment of Financing for Home Modernizing

New York, N. Y.

To the Editor:

A recent issue of the New York *Herald-Tribune* advocated the elimination of long term financing for building operations to aid in reducing the buying power of the public. This policy would certainly be detrimental to the building industry, which above all others, can only operate on long time financing.

Let luxuries and gadgets be paid for in cash, but let shelter be under easy financing. Attached is a marked page from Sunday, May 25th issue of this New York paper which prints my reply in full.

May I suggest that you make further comment on the general theme of curtailing luxury buying, but not shelter buying, through shorter financing terms.

WHARTON CLAY, Secretary,
National Mineral Wool Association.

REPRINT OF MR. CLAY'S LETTER TO "HERALD-TRIBUNE"

"A blanket curb on instalment selling, by hampering the opportunities of financing under FHA, undoubtedly would achieve an end of discontinuing remodeling and home improvements. It might even hamper the defense program by making it impossible to finance the change of one-family houses into living accommodations for defense workers.

"In the case of home insulation, the Federal policy might well be altered to give approval to longer rather than shorter terms for repayment. It is conservatively estimated that an average American house using fuel costing \$75 a year without insulation, will use only about \$40 a year if the house is fully insulated in both walls and ceilings. The \$35 saving is sufficient to carry the cost of the insulation if amortized in three or four years in most instances.

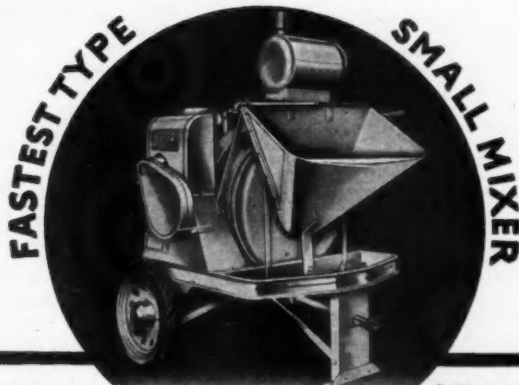
"The Bureau of Mines estimates that there will be an enormous saving in national fuel consumption if the nation's 37,000,000 existing uninsulated buildings can be brought up to date. The Bureau points out further that the man-hours for production and transportation can thus be released to advance the national defense effort.

"This conclusion is confirmed by the Bureau of Mines Information Circular 7166, entitled 'Home Insulation, an Effective Conservation and National-Defense Measure,' which states:

"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 peace-time conditions when the emergency is past and over-expansion of many industries brings new problems.

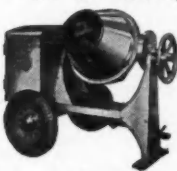
"Moreover, reducing the running expenses of houses by proper heat insulation helps home owners to maintain payments on property, and by minimizing foreclosures helps to stabilize the financial structure of the country. In short, here is a situation where the interests of the individual and the nation are identical and the greatest good for the greatest number is obtained without sacrifice to any one."

"Many other home improvements can be made that will support the national economy and no blanket withdrawal of financing facilities should be enacted. Priorities, intelligently applied, when necessary, is a more sensible solution than blanket withdrawal of financing that can be used to advantage by our home owners."



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.

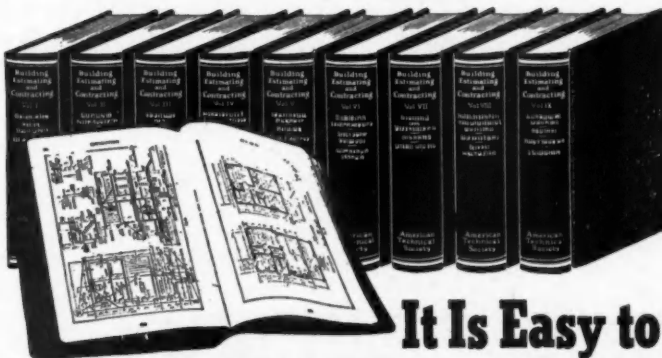


3 1/2 HIGH SPEED FILTER TRAILER
Also 5S, 7S, 10S, 14S
Power Loader Non-Tilts with Automotive-Type Transmission, Machined Steel Drum Tracks.

- Criss-Cross "Re" - Mix Drum gives more thro 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.

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521 Dublin Ave. Columbus, Ohio

JAEGER 1940 SPEEDLINE



It Is Easy to Be a CONTRACTOR

Learn to estimate, to plan buildings, to take contracting jobs, and make money on them. Here are 9 up-to-the-minute books on building, estimating, and contracting which cover, in an interesting way, the subjects that carpenters, builders, and contractors should know to make the most out of their jobs. Roof Framing, The Steel Square, Architectural Drawing and Design, Estimating, Painting and Decorating, Heating, Air Conditioning, Building, Contracting, Concrete Forms, and other subjects are all well covered. A marvelous encyclopedia for general reference purposes in the building field.

Boss Carpenters in Demand

Vast public works jobs, immense projects, and the rapid growth of home building, are making jobs for MEN WHO KNOW HOW. These books give you quick training. With them you shouldn't be afraid to tackle any job, for needed facts can be found in a hurry.

Up-To-Date Edition

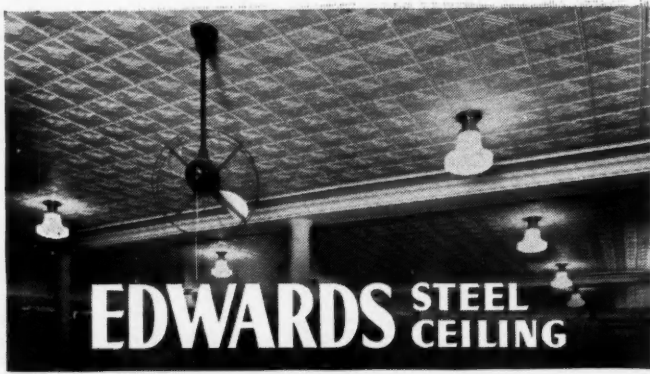
These books are the most up-to-date and the most complete books we have ever published for those interested in the Building Trades.

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You may ship me the latest edition of your nine big books, "Building, Estimating, and Contracting" without any obligation to buy. I will pay the delivery charges only, and if fully satisfied in ten days, I will send you \$2.00, and after that only \$3.00 a month, until the price of only \$29.80 is paid. I am not obligated in any way unless I keep the books.

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Address _____
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Please attach a letter stating your age, occupation, employer's name and address, and that of at least one business man as a reference.



EDWARDS STEEL CEILING

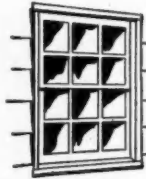
One Job Sells Another

Install one small job of Edwards Steel Ceiling and see how easy it is to get an order for another bigger job. For example, an Edwards Steel Ceiling for cleanliness and fire protection in the furnace room will suggest the same treatment for the old plastered kitchen and bath room. It will look so attractive, improve the lighting effects and save so many repair bills that your customer will become a live prospect for an Edwards Steel Ceiling in his store, office or factory. No muss, no interruption to business, no waiting for plaster to dry.

Write for Ceiling Catalog No. 176-D.
Get our estimate on your next job.

THE EDWARDS MANUFACTURING CO.
542-562 EGGLESTON AVENUE CINCINNATI, OHIO

-protection in the public interest



to give greater utility
to **wood windows**

—to enhance and improve the lasting qualities of the wood of which they are made, research scientists have developed minimum standards of *toxic preservation*—a treatment to increase resistance against deterioration under severe service conditions imposed by modern construction.

NATIONAL DOOR MANUFACTURERS' ASSOCIATION
McCORMICK BUILDING - CHICAGO, ILLINOIS

Seal of Approval—The Identification of a Product Meeting N. D. M. A. Preservative Minimum Standards



FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEETS

Scottie's Cabins (Continued from page 49)



ONE OF SCOTTIE'S typical cabins built of vertical cypress logs.

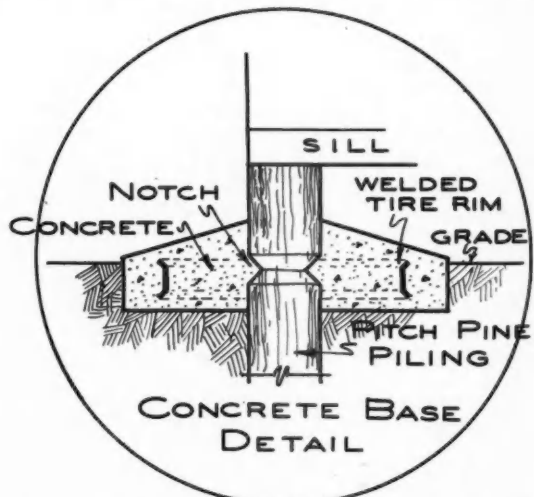
There are two built-in double beds, one in each room. There is also a small kitchenette with ice box, stove, sink and cooking utensils. All the cabins have bathrooms with showers and hot and cold water, and electric lights.

The Coffee Shop is finished inside with half-sawed logs for trim and ceiling joists. The counter is a half-sawed log 22 inches wide, each half being 18 feet long. This log was very difficult to find and is a very beautiful specimen of 100 per cent heart pine and weighed more than 2,000 pounds. It will barely float in water as it weighs about 60 pounds per cubic foot. This log was found on the edge of a lake in the Everglades after several months hunting for it. I do not mean that this much time was consumed, but I had several tie cutters and haulers looking out for it and it had to be drawn out with oxen and brought to town on a large trailer used for woods purposes. It was entirely covered with muck and rotten wood and had to be scrubbed several days with wire brushes to get down to the heart, which is indestructible except by fire. This is commonly known as light wood in the north. It is practically solid pitch and takes a beautiful finish.

The supports for the counter are the stumps of cypress trees where they swell out at the ground and are let into the log for support. After the counter was erected it was planed and scraped and several coats of clear shellac were given it, and I believe it is the only counter of its kind. The bottom of the stools are cypress stumps peeled and shellacked, a hole bored through the middle and a pipe cemented into the floor with a washer and lock nut on top. The seats are of cypress two inches thick with a spindle screwed to the bottom, which goes inside the pipe allowing them to turn. The stools are padded with sponge rubber made from kneeling pads and covered with red automobile seat covering.

The tables are also of pitch pine split and matched in the center and finished like the counter. The legs are of one and a half-inch pipe and a half-sawed log makes the feet. The make-up tables and all equipment are stainless steel, including the silverware.

The cabins and restaurant are supplied with water from a driven



DETAIL of concrete base around piling for protection. Welded tire rim is inserted for reinforcing.

flowing well, 500 feet deep, which flows 150 gallons a minute and is left open at all times to supply water to the lake which drains to the river one-fourth of a mile away. The restaurant and cabins are equipped with a water softening plant giving better water than most cities have.

The property has 500 feet front on the Tamiami Trail; has a native stone wall, full length, with four native rock steps going down to the property level which gives the whole property the appearance of a sunken garden. It is two acres in size and about half of that is taken up by the lake. The restaurant and cabins are half way between Tampa and Miami and are operated the year round. The trees between the cabins were not planted, but are the native palms known as the Cabbage Palm. The heart of this palm is a very good vegetable and can be had on the markets here at all times and is known as Palm Cabbage. There are also banana trees and papaya trees, in addition to other tropical fruits on the property as well as most every kind of tropical plant. As this is built on practically solid muck, no fertilizer is required at any time. The two flower pots in the foreground are hollowed cypress logs turned upside down.

There is a little island in the center of the lake with a rustic bridge leading to it from a small peninsula for the approach. The lake has been stocked with various kinds of native fish including bass. Several kinds of tropical birds, including Muscavoy ducks and cranes, frequent the lake at all times to feed on the small fish. We completed the project in January 1941.

* * *

Super-Service Station

(Continued from page 57)

gether with the used car lot adjoining occupy a total space of 36,300 square feet, all of it, including the drive-in in front and the used car lot, being paved. This was one of the widest expanses of paving completed in Mobile in several years.

As the building is located on a corner, service customers drive in the shop from a side street and then out at the other end and through the used car lot to reach the street again. Thus they expose themselves to nearly every department of the business, and this was a dominating idea, that is to give the customer an eye-ful of the establishment and its services.

Entrance and exits to the shop are wide and equipped with Kin-near Rol-Top doors for use in cold weather. The shop equipment includes individual booths and tool cabinets for each mechanic. Fenestra steel casement windows along one entire side of the shop, also skylights provide an abundance of light.

Adjoining the offices is the customer's lounge and next to that is the parts department. The latter includes a balcony space for the storage of heavy and slow-moving merchandise. Fast moving items are displayed downstairs.



LARGE, clear floor area tiled, fluorescent lighting, and unit heaters, are features in DeVan Motor Company showroom.

SUPERIOR FIREPLACE CIRCULATORS

make friends out of your customers

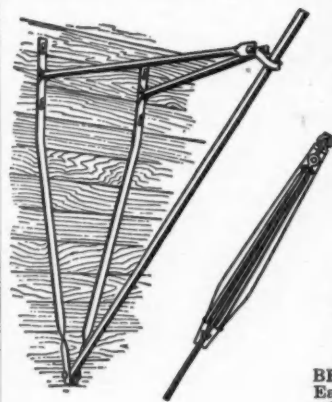
Because, Superiors assure proper construction of the Fireplace—provide long lasting comfort and furnace efficiency by uniformly circulating warm air throughout the room and adjoining rooms.



The Superior Fireplace Circulator is a complete, double-walled metal form (including die-pressed ribbed reinforced boilerplate firebox, throat and damper), around which it is easy and economical to build any design fireplace. It saves fuel and eliminates smoke troubles. See your Building Supply Dealer—or write us for detailed information and Courtesy Copy of 1941—36-page Superior Fireplace Book of designs, mailed on request to Contractors, Builders, Architects and Dealers.

SUPERIOR FIREPLACE CO.

1046 S. Olive St., Los Angeles, Calif.



CUT COST OF SCAFFOLDING IN HALF

RELIABLE Steel Scaffold Brackets can be used on wood or stucco with perfect safety. Remember: A safe workman is a good workman.

BRACKET FOLDS compactly. Easy to remove and erect on another job. Far less bulky to handle.

Speed Up BUILDING and PAINTING

In the last 30 years thousands of Builders and Painters have PROVED that Reliable Scaffold Brackets cut scaffolding costs in half, last for decades and are many times SAFER. RELIABLES are easy to erect and remove—leave no holes to be plugged. Amazingly superior in every way to wooden scaffolding. You owe it to yourself to know all about these remarkable brackets.

Satisfaction Guaranteed or Money Back
WRITE TODAY for complete literature.

RELIABLE JACK CO., 1401 W. 2nd St., Dayton, Ohio

RELIABLE

SCAFFOLDING BRACKETS

MILLION DUNBRIK DAILY



Better, improved building products at lower cost is today's greatest need.

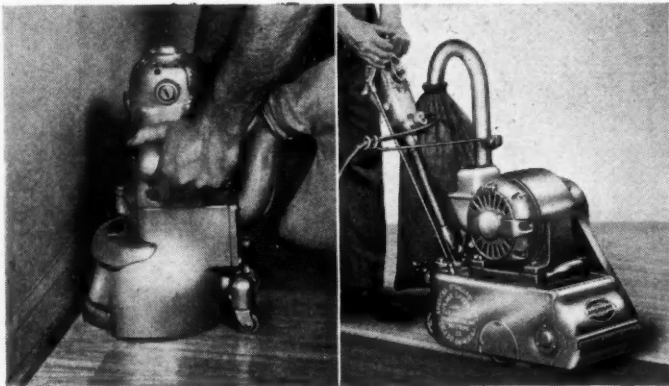
This need is being supplied by local DUNBRIK-DUNSTONE Manufacturers in some localities. Their daily production of over a million units demonstrates the quick acceptance of the products and the rapid growth and expansion of this DUNBRIK industry. Follow their examples. Make these better, lower cost products and enjoy a profitable business of your own by becoming an exclusive manufacturer in your territory.

We supply you with exclusive line production machinery and processes that utilize low-cost raw materials and common labor. Investment much lower and daily production per man much larger than previous methods. Versatile line production equipment enables you to make standard size brick and multiple sizes that short-cut construction costs to the level of frame. And you can make all products in wide range of colors, shades and textures.

Franchise protection—trade-marked products—engineering and advertising service are a few of the advantages that will help your business prosper in this growing industry. Write today for free book "4 Keys to Success." It tells the complete story.

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American Spinner Edger

American Floor Sander

MAKE BIG MONEY with an 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

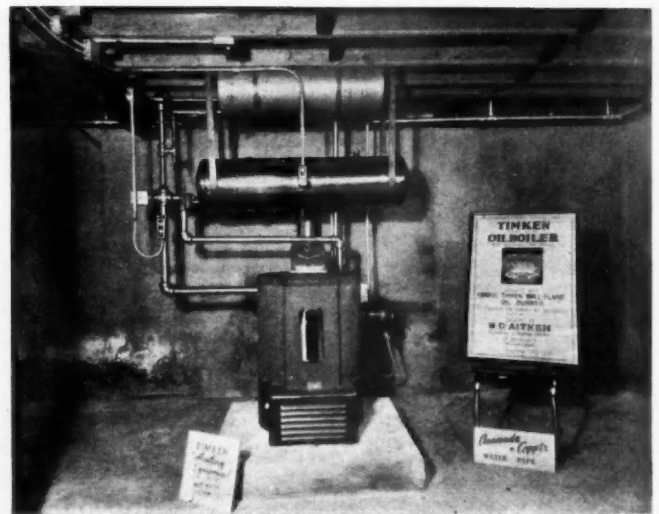
Gentlemen:

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

Name

Street

City State



COMPLETED HEATING PLANT is unusually compact, efficient.

Pipe Threading Eliminated

(Continued from page 56)

All work preliminary to the actual installation of the heating system in the home is done in the warehouse on a production line basis.

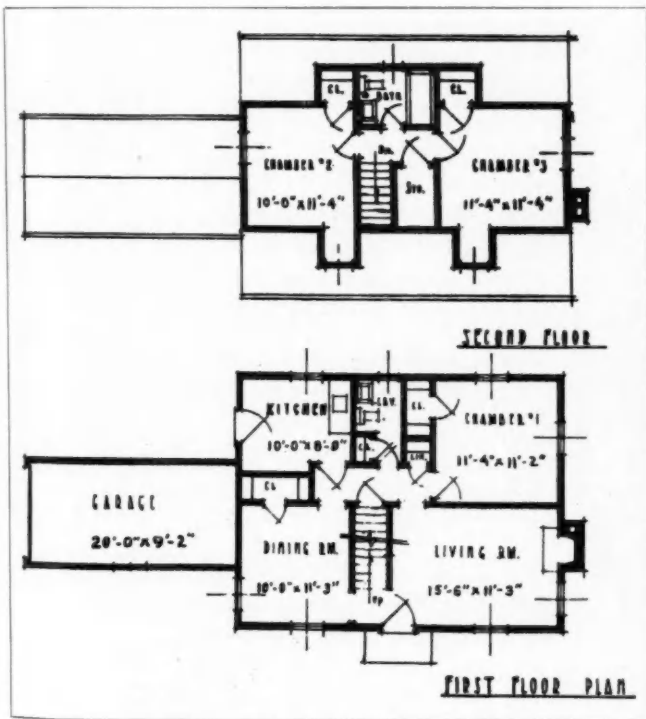
As far as is known these are the first completely prefabricated one-pipe forced circulation hot water heating systems developed for small homes. Sub-assemblies are put together and all pipe is cut to the proper length and threaded. Material for the complete heating installation is taken to each home in a group for final assembly. Installation of heating system piping does not require cutting a single pipe or thread in the home.

The heating unit is an automatic oil-fired Timken Silent Automatic Model 50-B Oilboiler which supplies both heat and year 'round domestic hot water. The unit is very compact (22½" x 24½" x 37") and completely assembled at the factory for speedy installation. The unit is delivered into the basement complete and ready for operation following connection to service lines.

The system for supplying domestic hot water is copper throughout. A 30-gallon copper domestic hot water storage tank is mounted above the oilboiler. The indirect heating coil and all

TYPIC
bedroo

piping
system
copper
Flame
Bra
garage
tory a
second
tively
Heat
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the pa



TYPICAL Bradley Woods home at Hingham, Mass. with first-floor bedroom. TruCost figures will be found on page 103.

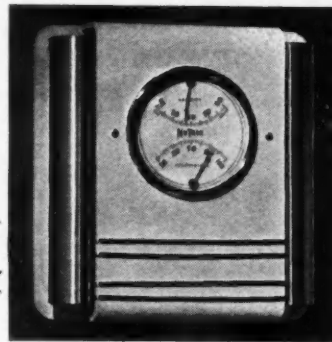
... piping to outlets is copper. Copper is also used in the heating system proper as the coil in the oilboiler is made of 32 feet of copper tubing coiled in beehive shape around a Timken Wall-Flame oil burner.

Bradley Woods homes consist of six rooms and an attached garage. Living room, dining room, kitchen, bedroom, and lavatory are on the first floor and two bedrooms and bath on the second. The homes are completely insulated. Despite their relatively large size, the heating load is only 37,000 Btu's.

Heating cost is estimated at \$55 per season. This figure was determined on the basis of weather conditions over a period of the past nine years.

(Continued to page 94)

Introducing "WEATHERMAN"



... A
NU TONE
exclusive

in their stunning new 1942 Chime line

Handsome *Weatherman* is particularly adapted to home builders' needs. For here is a beautiful 2-door Chime, with NuTone's famed resonance, combined with Airguide Thermometer and Humidity Gauge. Ivory cover and brass tubes. 8 1/4" x 8 1/2" x 2 1/4". List price, \$6.95.

Ask your distributor. Or write for Catalog 4023T, with photographs and description of the line. Prices and specifications subject to change without notice. Prices slightly higher in Canada.

NU TONE CHIMES, Inc.

CINCINNATI, OHIO
New York, 1150 Broadway Los Angeles, 837 Traction Ave.
Chicago, Merchandise Mart Seattle, Terminal Sales Bldg.
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Save
50% OR MORE
OF FINAL COSTS ON
WOOD FLOOR FINISHING
With
LIGNOPHOL

LIGNOPHOL COSTS LESS THAN 1 CENT PER SQUARE FOOT
Applied in one application with a long handled brush—reducing labor to the minimum.

LIGNOPHOL BEAUTIFIES YOUR FLOORS!

LIGNOPHOL LEAVES NOTHING TO WEAR OFF!

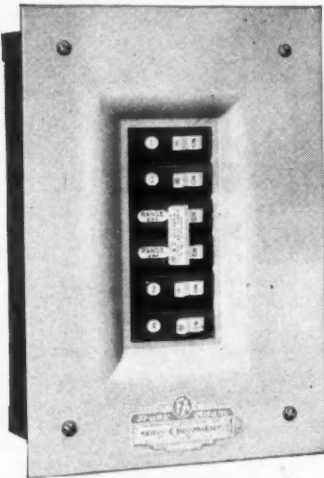
Shellac and varnish, surface treatments, wear off!
Do as thousands of contractors are doing: Enjoy more profits, attain greater job satisfaction and save 50% or more by using LIGNOPHOL to preserve and finish your floors.

FIND OUT MORE ABOUT LIGNOPHOL

MAIL THIS COUPON TODAY!

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L. SONNEBORN SONS, INC., 88 LEXINGTON AVENUE, N. Y. C.
Your Name _____
Address _____
City _____ State _____

You pay no more
but you get a bonus
when you install
TYPE AC CIRCUIT BREAKER
SERVICE EQUIPMENT
and LOAD CENTERS



in your home. No premium is charged for these features:

- Modern protection against overload.
- Only two handle positions — ON and OFF — no intermediate position. Breakers reset automatically.
- Interchangeable as to capacities.
- One-piece galvanized box — provides perfect ground connection.
- Bonderited (rustproof) cover, with pearl gray lacquer finish.
- Solderless lugs of improved type.
- Ample knockouts.
- Plenty of wiring space.

For 120 volt AC service... Capacities: 15, 20, 25, 35, and 50 amperes... Approved by Underwriters' Laboratories.

Install **FA** Type AC Circuit Breaker Service Equipment in new and modernized homes.

FA Service Equipment with **FA** D.P. 35 Amp. AC Circuit Breaker for range circuit. Also 4 S.P. AC Circuit Breakers for light and appliance Branch Circuits. Cat. No. SE41-3L7F List Price . . \$11.00

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who will make quick delivery from stock. Write us for his name and address — and for illustrated folder.

Frank Adam
 ELECTRIC COMPANY
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The Time-Saving, Money-Saving, Work-Saving, SEALER and PRIMER



Here's better, easier, quicker, more economical wood finishing! REZ synthetic resin sealer, is approved on U.S. government projects. Use REZ on your next job!

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 Vancouver, British Columbia.....Granville Island

Pipe Cutting Eliminated

(Continued from page 93)

Other construction and specification features of these houses include the following: Full basement, 10" poured concrete walls; sills bolted to foundation; insulated walls and roof; copper flashing on valleys, lead flashing on chimney; wood gutters with Toncan metal downspouts and leaders; recessed radiators; fully tiled bathrooms, Anaconda copper water pipe and brass fittings; Chase Brass and Lightolier electric fixtures; Briggs Beautyware for all plumbing fixtures; large closets; oak floors; garage with Stanley overhead doors; wood-burning fireplace; downstairs lavatory; modern labor-saving kitchens; Napanee kitchen cabinets; Hotpoint De Luxe insulated ranges.



FEDERAL home building plan featured in Bradley Woods sign.



CURVED STREETS, superblocks and "no-through-traffic" layout are included in Bradley Woods plan.



PLUMBING STACK sub-assemblies are made up in the shop and quickly installed on the job at considerable saving of time.

Pity the Poor Millionaire!

(Continued from page 55)

younger members of the family no longer want to be burdened with such properties, and many with extremely large incomes are moving into comparatively small, easy-to-maintain houses. While this trend may be tough on the estate owners it will prove a boon to the home buyers of the future, for they will be able to buy homes in beautifully landscaped and wooded properties in highly desirable areas.

An outstanding example of what happens to a famous estate is offered by the latest property of this kind to be taken over by home builders. This is the 250-acre private park that formerly was the country seat of Joseph DeWyckoff, who with Charles M. Schwab and J. Leonard Replogle, founded the Vanadium Corporation of America. This property at Ramsey, N. J., within half an hour from George Washington Bridge, was one of the show places of the nation for many years, representing a landscaping investment alone of approximately \$2 million. Today it is known as the Ramsey Country Club Estates, and it is the scene of a development of suburban dwellings selling from \$8,000 upward on minimum plots of 7,500 square feet.

The massive vine-clad stone mansion on the property was erected many years ago by Arthur D. Brandeis, department store and theatrical magnate, in the style of the historic Ramsey Abbey which has been standing near Southampton in Hampshire, England, since before the days of William the Conqueror. It is now being remodeled into a community country club for the new home owners.

The 50-acre seeded lawn of the old estate has been transformed into a nine-hole golf course along the shores of a 30-acre lake, one of three lakes on the property. The sunken gardens for which the estate was particularly noted, also are reserved in connection with the club house. One of the largest out-buildings has been transformed into a bowling alley.

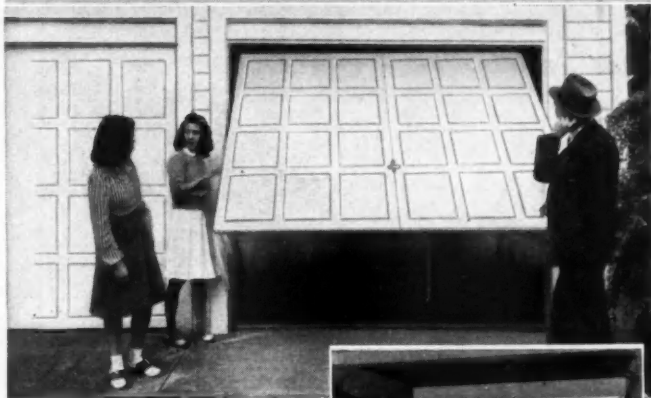
The great house, where the DeWyckoffs entertained such distinguished visitors as Lord Riverdale, Prince Dmitri, members of the Belgian royalty, Flo Ziegfeld and Billie Burke, among many others, now passes forever from the "Four Hundred." Its walnut paneled halls and drawing rooms are being rearranged to provide a club dining room, a cafe lounge and bar, a billiard room, card room and a ballroom for the enjoyment of the new suburban home owners.

B. H. and Morton Kline, who have been developing in the New York area for many years, are backing the Ramsey Country Club Estates. They have retained L. Robert Warriner, New York architect, to design the new homes for the community, and have taken every precaution to preserve the natural beauty of the famous estate in the layout of winding drives and in the supervision of the architecture. The design of every dwelling is being governed primarily by its location and surroundings, so that such types as formal Georgian residences are being erected along the main drives, while rambling Colonial, Cape Cod and Early American farmhouse styles are fitted into woodland and hillside settings.

Kenneth A. White, manager of the project, predicts that a total of close to 200 dwellings will be completed and sold in Ramsey Country Club Estates within a year. Thirty-two homes are under way at present and 15 models are on exhibit.

Among the general specifications for these houses are: "Ready-Mix" concrete foundations, completely waterproofed; copper plumbing; floors and side walls tiled in all bathrooms; first floor lavatories and guest powder rooms; glass enclosed bathtubs; black or multi-colored slate roofs; gas or oil fired automatic hot water or air conditioned heating; Johns-Manville rock-wool insulation; red or white oak selected double floors; glass brick where proper; sanitary kitchen cabinets; glass enclosed stall showers with tiling to the ceiling; steel "I" beams on steel lally columns; Tappan gas ranges; Armstrong and Congoleum-Nairn linoleum; built-in radios; electric clocks and exhaust fans in kitchens; bathroom scales; electric door chimes; copper and wood gutters and leaders; colored slate or flagstone walks and terraces; fireproof attached garages; overhead garage doors; log burning fireplaces; complete artistically arranged landscaping; copper screens; shutters; weatherstripping on all windows and doors; all hardware by Schlage; plumbing fixtures by Standard Sanitary; colors optional; electric fixtures by Lightolier. In addition to the above quality specifications Ramsey Country Club Estates has wide winding macadam streets; no home is built on a plot less than 7,500 square feet.

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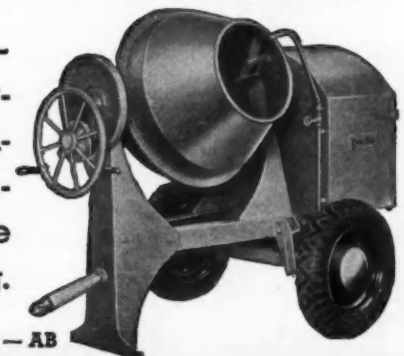


Fast discharge - 7 seconds - no tilting necessary - weighs only 850 pounds - air-cooled engine - V-belt and worm drive.

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3 1/2-S TILTING KWIK-MIX

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



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

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

BOOK SERVICE DEPARTMENT

AMERICAN BUILDER AND BUILDING AGE

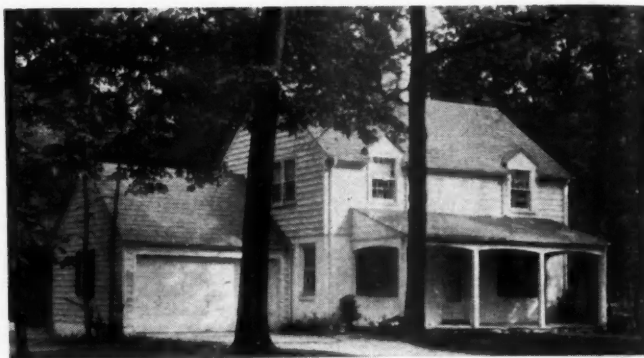
30 Church Street

New York, N. Y.

Power Saws— (Continued from page 59)

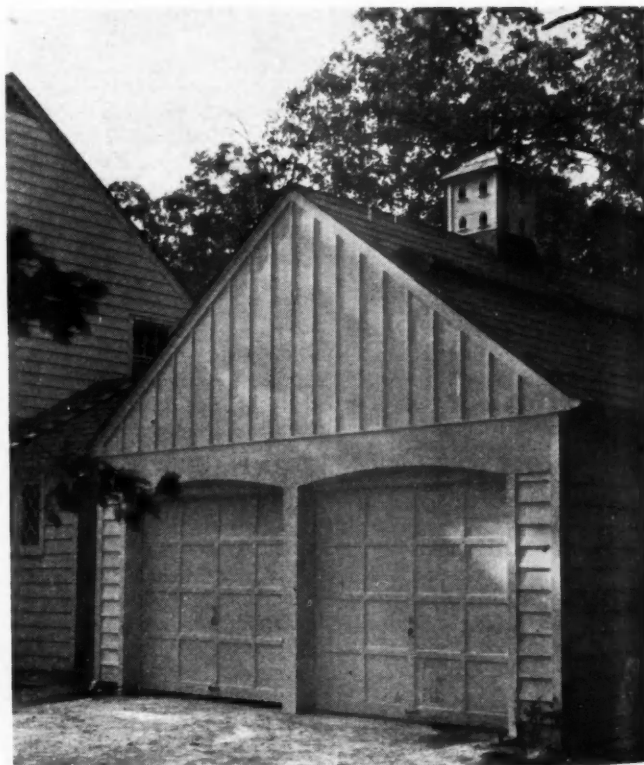
on a pole which he could move around from job to job. By placing this pole at midpoint he is frequently able to service two or three houses without moving it.

Included in the quality materials that Bull uses are: cypress exterior trim, redwood siding, Curtis millwork, Overhead garage doors, Celotex insulating plaster base, slate roofs, Johns-Manville full-thick Rockwool bats in attic floor, 20-lb. Flintkote felt under siding and 30-lb. felt under slate, DuPont paints throughout, Corbin Colonial hardware, diagonal sheathing and flooring, National boilers and concealed convactor radiators.



ONE of the attractive homes in Fellowship Forest built by A. E. Bull.

ATTRACTIVE SIGN at Fellowship Forest.



NICE DETAILING of a garage in one of Bull's most recent homes.



MODERN WINDOW and radiator treatment match the modern use of linoleum on walls.

Bath Remodeling Made Easy

(Continued from page 51)

This contractor shall prepare edge of present door jamb with an approximate $\frac{3}{4}$ " radius on all edges of bathroom side. Also, furnish and install supplementary jamb and stop as shown on plans.

This contractor shall furnish casement window operator for the two windows.

This contractor shall furnish and install at foot of bathtub necessary studding and $\frac{7}{8}$ " plywood as shown on plans.

This contractor shall furnish and install necessary grounds for supporting new cabinets and mirrors as shown on plans.

This contractor shall furnish and install all necessary furring and $\frac{1}{2}$ " gypsum board for covering entire mirror wall as shown on the plans. This board shall be applied horizontally, using only one sheet above the mirrors and one sheet below the mirrors.

This contractor shall furnish and install all accessories and recessed fixtures, and shall furnish whatever grounds are necessary to support them. These accessories are shown and listed on the plans.

This contractor shall install $\frac{3}{8}$ " 3-ply plywood over entire floor area, carefully cut and fitted to all vertical surface including the face of the tub. The plywood should be installed in not more than two pieces. This plywood shall be nailed to the present underfloor with $1\frac{1}{4}$ " rosin-sized or cement-coated taper head nails, spaced 6" on centers at all edges and 12" on centers through the body of the sheet. At the doorway the plywood shall be fitted tight to the present saddle at a point where the plywood will be $\frac{3}{16}$ " below the surface of the saddle to allow for installation of linoleum floor.

This contractor shall arrange for the disposal of all construction debris.

Plumbing and Heating Contractor Specifications

This contractor shall remove all existing fixtures which are to be placed on curb at building and picked up by others.

This contractor shall furnish and install rough plumbing to receive new fixtures as indicated on plans.

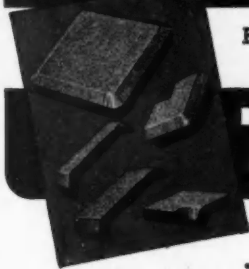
This contractor shall furnish and install the bathroom fixtures as selected by the owner.

The bathtub shall be hung in place on the studs with metal tub hangers. Two hangers shall be used on each wall.

(Continued to page 98)

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Washington, D. C.

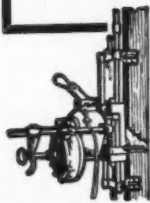
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Dept. H-7, 1337 Conn. Ave. Wash. D. C.

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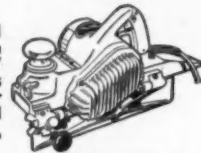
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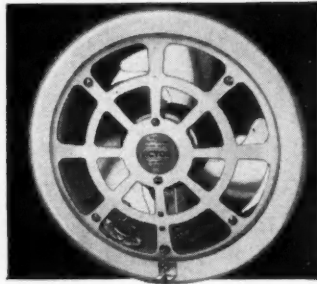
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THE T. L. SMITH COMPANY
2849 North 32nd St. Milwaukee, Wisconsin

SMITH MIXERS

THE BOULDER DAM MIXERS

Bath Remodeling— (Continued from page 97)

This contractor shall remove present radiator and prepare opening to receive new radiator.

This contractor shall furnish and install one 13-section recessed radiator, to be selected by the owner 26" wide, 20" high and 5" deep with upper and lower stream-lined grille. This radiator shall be installed on the present two pipe hot water system.

This contractor shall do all the work included under these specifications strictly in accordance with all regulations covering the Sanitary and Plumbing code. He must also apply for and secure the necessary permit from the Building department covering the work to be done.

This contractor shall take necessary precaution in removing old and bringing in new fixtures to prevent any harm or damage to furnishings, floor coverings or building structure.

Electrical Contractor Specifications

This contractor shall furnish and install necessary cable, wiring, outlets, switches and all electrical fixtures as shown on the plans.

This contractor shall furnish and set one heater as called for on the plans.

This contractor shall furnish two 18" Lumiline Mazda bulbs.

Mason Contractor Specifications

This contractor shall furnish and install all necessary patching of plaster around door, window, radiator, heater, tub, baseboard and at any other point where repair may be necessary due to construction work.

In making these repairs to the plaster, special attention must be given to the finish of the plaster at the rounded door and window openings. It is important that the plaster be in exactly the same plane as the present plaster so that no inequalities will exist.

This contractor shall use a nonshrinking quick-drying plaster similar to Savogran or Wall Stone.

Paint Contractor Specifications

This contractor shall paint where required all exposed woodwork at window and door and shall match existing colors where necessary, including the painting of the radiator grille.

General—Clauses Applying to All Contractors

The work shall be started as arranged between owner and contractors and a completion date set.

The work should be carried on in workmanlike manner satisfactory in every respect to the owner.

The various contractors shall provide insurance covering public liability and workmen's compensation as required by state and municipal laws for the duration of the job.

Any permits required for individual subcontracts shall be secured by the respective subcontractor.

* * *

Defense Housing Progress and Outlook; by C. F. Palmer

(Continued from page 39)

ley in the housing curve for over 50 years. Only about 50,000 non-farm homes were built in 1933, slightly more in 1934, and approximately 75,000 in 1935. Last year we did better than 500,000 but those didn't touch the deficit.

In other words, the defense housing problem is accentuated by this accumulated shortage. The \$598,000,000 we are already using (for direct government housing) isn't enough to lick it. More is under consideration.

The vast preponderance is going into permanent

homes. Over 88,000 of the 96,000 homes already allocated are in cities. Those homes will help those cities now. Local citizens must help see to it that those homes help those cities a long time.

Almost everyone realizes that many of the problems which arise from the defense effort cannot be handled by the localities without federal assistance. That is particularly true in the case of housing. Also, we recognize that whatever is done in the way of federal assistance must be done with the full advice and cooperation of local governments. Local interests must be consulted. The problem as far as each community is concerned is an individual one. It must be serviced by a centralized force which combines the resources of thousands of similar communities all over the country. That reservoir of strength is the government of the United States.

Local Cooperation is Important

We are ready to use these resources, but we must depend largely on local cooperation for the information which makes a sensible program possible. No federal agency or group of such agencies operating out of Washington can do its best job without such cooperation from you. If you want new construction for defense to be so planned in its location and character that it will be of the greatest help to the permanent growth of the community in which you live, and consequently to your own investment, too, then you must help. You can do this by making available to us fair and reasoned information with the public interest coming first.

Where there is already a definite city or regional plan covering transportation, new developments, and services, the planning agency will define the effects of defense projects and will be able to suggest to us how they can be fitted best into the community. Where there are no general plans to serve as a guide, some local organization should give immediate thought to the subject to prevent any serious errors that will lead to costly readjustments in the future.

The problem of defense housing is not a simple one of construction alone. It is the problem of providing shelter, plus all the numerous services which are essential to present day living. For instance, the building of 500 homes for defense workers in a city of, let us say, 10,000 people, immediately raises many questions of local planning. How are schools for the children of these defense workers to be provided? The city will almost surely be unable to afford the full cost of schools, and federal aid will be necessary.

But federal aid must be in reality federal aid, and not the federal government taking over the responsibility of the local government. Who will provide police and fire protection for these new homes? Who will pay for the necessary extension of sewer and water lines and possible extension of the entire system of municipal services? Who will handle the traffic problems involved? Who will assume responsibility for the houses when they are no longer needed for defense purposes? Who will see to it that a slum shack is demolished later for each defense home built now?

"Close-in" Building Sites Preferred

There are many other questions which must be considered at the time defense housing is planned. They must be considered, not as problems of the federal government, but as problems of the locality in which the federal government is assisting.

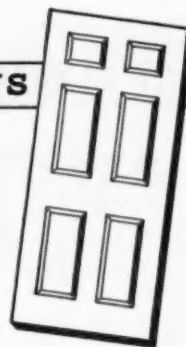
We do not feel it is wise—and I say this with the reservation that nothing which helps us to fulfill our duty of

(Continued to page 100)

DOORS · · WINDOWS

FAIR AND WARMER

Temperature 91 deg. F
Humidity 73%



FRAMES · STORM DOORS · SCREENS · TRIM

Those doors in that new Jones house!—oh, yes! they were dipped in WOODLIFE Toxic Water Repellent for 3 minutes. Even in this sticky weather I don't have to worry about

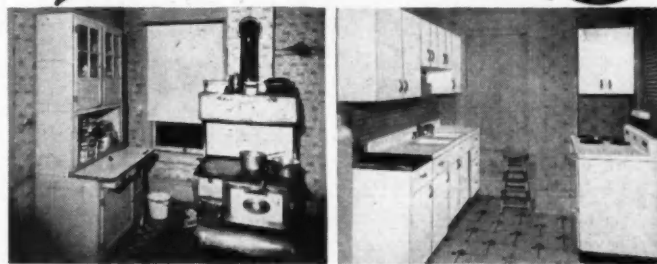
SWELLING AND WARPING

Did we have the cupboard doors treated too? (A worried frown) . . . I know the windows and frames were WOODLIFE-treated. That's a load off my mind—wish I had treated all the millwork!



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HERE are actual photographs of what happened in a kitchen within one working day's time.

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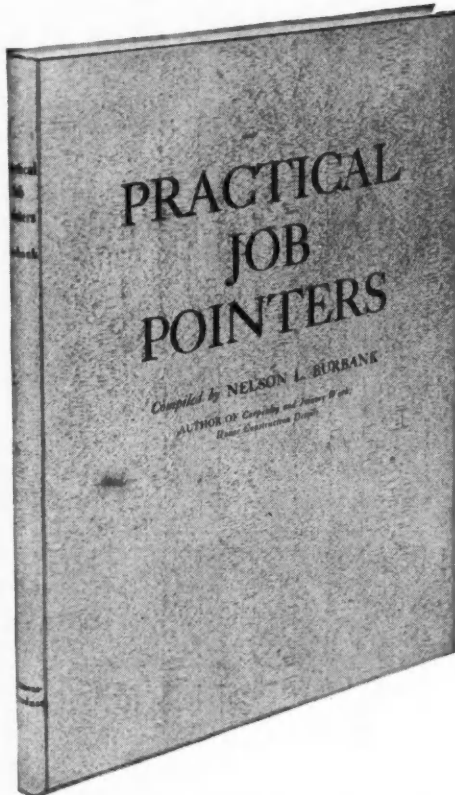
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A collection of job pointers, kinks, short cuts and "tricks of the trade" which have appeared in the *Job Pointers* section of *American Builder and Building Age* during the past decade, illustrated with drawing, collated and indexed for ready reference. There are some 600 of these improved methods as compared with 369 in the first edition. The format has been enlarged to 9 x 12 inches and a hard cloth binding used in place of paper. This necessitated raising the price but almost any job pointer found to be an improvement over present methods will save enough in time and satisfaction to more than pay the cost of the book.

Contents

Use and Care of Tools—Workbenches and Attachments—Portable Equipment—Excavations; Foundations; Forms—Sills; Girders; Joists; Sub-Flooring—Exterior Wall Construction; Inside Wall Framing—Exterior Wall Covering—Roof Construction; Bay Construction; Roofing—Cornices and Porches—Interior Wall Covering; Interior Trim—Steps; Stair Construction—Windows—Doors—Closets; Shelves; Built-in Equipment—Finished Flooring—Painting; Finishing—Screen Repairing; Screens—Sanitary Equipment—Electrical Wiring—Scaffolds; Ladders; Hoists—Garage Doors—Short Cuts in Laying Out Work.

130 pages, 600 illus., 9 x 12, cloth, \$2.00

Book Department

AMERICAN BUILDER and BUILDING AGE

30 Church Street

New York, N. Y.

Defense Housing Progress and Outlook

(Continued from page 99)

speedily providing accommodations for workers is unwise—to open up new lands for our defense housing project which will lead to the further decentralization of our cities. We feel rather, that wherever possible it is preferable to use idle land already provided with municipal services or to intensify the use of serviced areas by rehabilitating or erecting structures that will accommodate more families.

As a study by the 20th Century Fund has pointed out, nearly all of our cities have been laid out well in advance of anticipated growth and frequently in excess of any growth that could be hoped for, except in the dreams of the super-optimists who for generations have guided the nation's urban expansion. Much of this expansion remains as completely vacant subdivisions in which large investments in streets, sewers, and other public utilities lie idle in the ground. It is just good common sense to use them when practical.

I guess these three words, "good common sense," tell you as much about what we are trying to do as anything else. It makes sense, it seems to us, (1) to use existing facilities to the utmost, (2) to modernize, (3) to encourage private industry, and to have Uncle Sam roll up his sleeves and go to it *only when the job won't get done otherwise*. All of these common sense ways are now in full swing.

* * *

Pace Setter in Jacksonville

(Continued from page 44)

set, individual lot purchasers generally tend to follow it, and the result has been that the homes in our subdivisions are quite harmonious in design and of a high standard of architectural quality."

The Whatley, Davin houses are, for the most part, of a long, low bungalow style that seems to combine the practical nature of Midwestern homes with some of the beauty and liveliness of Florida and California Modern. They are equipped with decorative screen doors and shutters, attractive porch treatments, and painted in attractive colors. Since they do not have basements, most of the houses have a center hall with an attractively tiled area for location of a space heater. Most of the houses have porches protected from the sun, and rooms with good cross ventilation.

Jacksonville is prospering as a result of an increase in general business, plus considerable defense activity. Whatley, Davin are considering embarking on an additional program under the new FHA Title VI to supply the need for defense housing.

* * *

Issues New Plan Book

THE Architectural Drafting Service, 140 S. Dearborn St., Chicago, has brought out a new handbook or catalog of homes ranging from 4 to 6 rooms and costing from \$4,000 to \$8,500. Renderings are in pencil and are very attractively presented. Designed by a practicing architect who has specialized intensively in the field of small home design, these plans are strictly in step with the best present day trends. The Service has arranged to furnish at nominal cost complete blueprint plans and typewritten specifications for the homes illustrated. A mailing charge of 10 cents is asked for the book.

"TruCost" Estimating Figures for Home Designs in This Issue

"TruCost"

The Editors have prepared a 28-page explanation of American Builder's "TruCost" system of quick, accurate estimating and offer it to anyone interested at 25 cents per copy. Please enclose payment when ordering. Address American Builder, 30 Church Street, New York City.

Page 40, July: Williamson, Archt.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Basement Walls, 138 lin. ft.; Trench Walls, 66 lin. ft.; Basement Floor, 900 sq. ft.; Garage Floor, 340 sq. ft.; Excavation per ft. deep, 38 cu. yds.; Outside Walls, 28.00 sqs.; First Floor, 9.00 sqs.; Second Floor, with fin. flg., 11.00 sqs.; Ceiling, 23.50 sqs.; Roof Pitch, 9" rise per ft. run; Roof, 18.00 sqs.; Hips and Valleys, 160 lin. ft.; Cornice, C & F, 200 lin. ft.; Cornice, 6", 200 lin. ft.; Partitions, 300 lin. ft.; Inside Finish OS Walls, 300 lin. ft.; Front and OS French Doors, 2 opps.; Rear and Grade Doors, 1 opp.; Garage Door 14'6" wide, 1; Inside Doors and Cased Opps., 24 opps.; Windows and Casements, 27 opps.; Chimney, 34 lin. ft.; Main Stairs, 1; Porch Floor, 1.25 sqs.

Page 42, July: Whatley, Davin & Co., Bldrs.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Trench Walls, 220 lin. ft.; Outside Walls, 20.00 sqs.; First Floor, 13.50 sqs.; Ceiling, 13.50 sqs.; Roof Pitch, 5" rise per ft. run; Roof, incl. Porch, 18.00 sqs.; Hips and Valleys, 140 lin. ft.; Cornice, C & F, 180 lin. ft.; Cornice, 24", 180 lin. ft.; Partitions, 150 lin. ft.; Inside Finish OS Walls, 184 lin. ft.; Front and OS French Doors, 2 opps.; Rear and Grade Doors, 1 opp.; Inside Doors and Cased Opps., 11 opps.; Windows and Casements, 13 opps.; Gable Sash and Louvers, 1 opp.; 2 Chimneys, 34 lin. ft.; Porch Floor, 2.00 sqs.; Porch Ceilings, 1.25 sqs.; Porch Beam, 12 lin. ft.; Porch Rail, 8 lin. ft.

Page 43, July: Whatley, Davin & Co., Bldrs.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Trench Walls, 224 lin. ft.; Garage Floor, 224 sq. ft.; Outside Walls, 26.00 sqs.; First Floor, 13.50 sqs.; Ceiling, 15.74 sqs.; Roof Pitch, 4 1/2" rise per ft. run; Roof, incl. Porch, 21.00 sqs.; Hips and Valleys, 48 lin. ft.; Cornice, C & F, 300 lin. ft.; Cornice, 6", 300 lin. ft.; Partitions, 200 lin. ft.; Inside Finish OS Walls, 200 lin. ft.; Front and OS French Doors, 1 opp.; Rear and Grade Doors, 1 opp.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opps., 12 opps.; Windows and Casements, 14 opps.; Gable Sash and Louvers, 3 opps.; Chimney, 20 lin. ft.; Porch Floor, 1.50 sqs.; Porch Ceilings, 1.10 sqs.

Page 44, July: Whatley, Davin & Co., Bldrs.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Trench Walls, 250 lin. ft.; Garage Floor, 210 sq. ft.; Outside Walls, 23.00 sqs.; First Floor, 13.24 sqs.; Ceiling, 15.34 sqs.; Roof Pitch, 5" rise per ft. run; Roof, incl. Porch, 19.50 sqs.; Hips and Valleys, 24 lin. ft.; Cornice, C & F, 225 lin. ft.; Cornice, 12", 120 lin. ft.; Partitions, 170 lin. ft.; Inside Finish OS Walls, 160 lin. ft.; Front and OS French Doors, 2 opps.; Rear and Grade Doors, 1 opp.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opps., 13 opps.; Windows and Casements, 11 opps.; Gable Sash and Louvers, 3 opps.; Chimney, 20 lin. ft.; Porch Floor, 1.60 sqs.; Porch Ceilings, 1.20 sqs.; Porch Beam, 30 lin. ft.; Porch and Balcony Post and Newels, 8.

Page 45, July: Whatley, Davin & Co., Bldrs.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Trench Walls, 260 lin. ft.; Garage Floor, 228 sq. ft.; Outside Walls, 26.00 sqs.; First Floor, 12.50 sqs.; Ceiling, 14.78 sqs.; Roof Pitch, 4 1/2" rise per ft. run; Roof, incl. Porch, 20.00 sqs.; Hips and Valleys, 40 lin. ft.; Cornice, C & F, 250 lin. ft.; Cornice, 8", 116 lin. ft.; Partitions, 225 lin. ft.; Inside Finish OS Walls, 200 lin. ft.; Front and OS French Doors, 2 opps.; Rear

(Continued to page 102)

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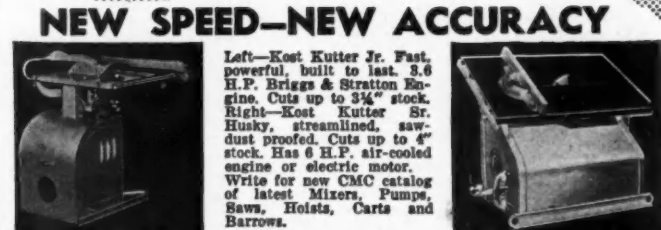
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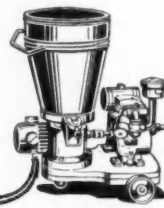


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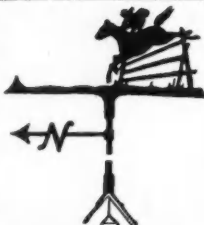
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TruCost Figures—

(Continued from page 101)

and Grade Doors, 2 opps.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opps., 15 opps.; Windows and Casements, 21 opps.; Gable Sash and Louvers, 4 opps.; Chimney, 20 lin. ft.; Porch Floor, 2.00 sqs.; Porch Ceilings, 1.80 sqs.; Porch Beam, 18 lin. ft.; Porch and Balcony Post and Newels, 5.

Page 53, July: Pyle, Designer

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Basement Walls, 148 lin. ft.; Trench Walls, 51 lin. ft.; Basement Floor, 1100 sq. ft.; Garage Floor, 200 sq. ft.; Excavation per ft. deep, 48 cu. yds.; Outside Walls, 22.00 sqs.; First Floor, 11.00 sqs.; Ceiling, 13.00 sqs.; Roof Pitch, 5" rise per ft. run; Roof, incl. Porch, 18.00 sqs.; Hips and Valleys, 12 lin. ft.; Cornice, C & F, 224 lin. ft.; Partitions, 168 lin. ft.; Inside Finish OS Walls, 148 lin. ft.; Front and OS French Doors, 1 opg.; Rear and Grade Doors, 2 opps.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opps., 19 opps.; Windows and Casements, 24 opps.; Gable Sash and Louvers, 2 opps.; Chimney, 24 lin. ft.; Porch Floor, 1.20 sqs.; Porch Ceilings, 1.20 sqs.; Porch Beam, 28 lin. ft.; Porch Posts, 4.

Page 54, July: Warriner, Archt.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Basement Walls, 128 lin. ft.; Trench Walls, 112 lin. ft.; Basement Floor, 850 sq. ft.; Garage Floor, 324 sq. ft.; Excavation per ft. deep, 36 cu. yds.; Outside Walls, 26.00 sqs.; First Floor, 8.60 sqs.; Second Floor, with fin. fig., 8.50 sqs.; Ceiling, 20.34 sqs.; Roof Pitch, 10" rise per ft. run; Roof, 16.00 sqs.; Hips and Valleys, 160 lin. ft.; Cornice, C & F, 200 lin. ft.; Partitions, 242 lin. ft.; Inside Finish OS Walls, 240 lin. ft.; Front and OS French Doors, 2 opps.; Rear and Grade Doors, 2 opps.; Garage Door, 14'6" wide, 1; Inside Doors and Cased Opps., 21 opps.; Windows and Casements, 28 opps.; Chimney, 36 lin. ft.; Main Stairs, 1; Porch Floor, 1.86 sqs.; Porch Ceilings, 1.25 sqs.; Porch Beam, 32 lin. ft.; Porch and Balcony Post and Newels, 8; Porch Roof, 1.60 sqs.; Porch Cornice, 32 lin. ft.; Porch Rail, 16 lin. ft.

Page 55, July: Warriner, Archt.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Basement Walls, 155 lin. ft.; Trench Walls, 64 lin. ft.; Basement Floor, 1200 sq. ft.; Garage Floor, 228 sq. ft.; Excavation per ft. deep, 52 cu. yds.; Outside Walls, 26.00 sqs.; First Floor, 12.00 sqs.; Second Floor, without fin. fig., 10.00 sqs.; Ceiling, 14.28 sqs.; Roof Pitch, 10" rise per ft. run; Roof, 19.68 sqs.; Hips and Valleys, 20 lin. ft.; Cornice, C & F, 250 lin. ft.; Partitions, 124 lin. ft.; Inside Finish OS Walls, 156 lin. ft.; Front and OS French Doors, 3 opps.; Rear and Grade Doors, 1 opg.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opps., 16 opps.; Window and Casements, 22 opps.; Gable Sash and Louvers, 4 opps.; Chimney, 32 lin. ft.; Main Stairs, 1; Porch Floor, 1.72 sqs.; Porch Rail, 12 lin. ft.

Page 60, July: Walton & Kegley, Archts.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Basement Walls, 126 lin. ft.; Trench Walls, 80 lin. ft.; Basement Floor, 850 sq. ft.; Garage Floor, 162 sq. ft.; Excavation per ft. deep, 40 cu. yds.; Outside Walls, 23.00 sqs.; First Floor, 9.00 sqs.; Second Floor, without fin. fig., 8.00 sqs.; Ceiling, 24.62 sqs.; Roof Pitch, 12" rise per ft. run; Roof, 15.50 sqs.; Cornice, C & F, 160 lin. ft.; Cornice, 8", 80 lin. ft.; Partitions, 144

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lin. ft.; Inside Finish OS Walls, 126 lin. ft.; Front and OS French Doors, 1 opg.; Rear and Grade Doors, 2 opgs.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opgs., 14 opgs.; Windows and Casements, 26 opgs.; Porch Rail, 20 lin. ft.; Chimney, 32 lin. ft.; Main Stairs, 1; Porch Floor, 1.25 sqs.

Page 61, July; Walton & Kegley, Archts.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Trench Walls, 312 lin. ft.; Utility Room Floor, 100 sq. ft.; Garage Floor, 464 sq. ft.; Excavation per ft deep, 48 cu yds.; Outside Walls, 50.00 sqs.; First Floor, 12.00 sqs.; Second Floor, with fin. flg., 10.50 sqs.; Ceiling, 28.00 sqs.; Roof Pitch, 7" rise per ft. run; Roof, 26.00 sqs.; Cornice, C & F, 225 lin. ft.; Cornice, 8", 124 lin. ft.; Partitions, 370 lin. ft.; Inside Finish OS Walls, 400 lin. ft.; Front and OS French Doors, 2 opgs.; Rear and Grade Doors, 3 opgs.; Garage Door 8 ft. wide, 2; Inside Doors and Cased Opgs., 29 opgs.; Windows and Casements, 38 opgs.; Gable Sash and Louvers, 3 opgs.; Chimney, 68 lin. ft.; Main Stairs, 2; Porch Floor, .36 sqs.

Page 62, July; Nicolais, Archt.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Basement Walls, 0 lin. ft.; Trench Walls, 230 lin. ft.; Basement Service, Toilet & Shop Floor, 1.50 sq. ft.; Garage Floor, 190 sq. ft.; Outside Walls, 25.00 sqs.; First Floor, 11.00 sqs.; Ceiling, 14.50 sqs.; Roof Pitch, 7" rise per ft. run; Roof, incl. Porch, 18.00 sqs.; Hips and Valleys, 75 lin. ft.; Cornice, C & F incl. Porch, 250 lin. ft.; Partitions, 200 lin. ft.; Inside Finish OS Walls, 225 lin. ft.; Front and OS French Doors, 2 opgs.; Rear and Grade Doors, 2 opgs.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opgs., 14 opgs.; Windows and Casements, 23 opgs.; Gable Sash and Louvers, 2 opgs.; Chimney, 24 lin. ft.; Porch Floor, 1.12 sqs.; Porch Ceilings, .75 sqs.; Porch Beam, 12 lin. ft.; Porch and Balcony Post and Newels, 7; Porch and Deck Rail, 10 lin. ft.

Page 63, July; Munson, Archt.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Trench Walls, 215 lin. ft.; Outside Walls, 24.00 sqs.; First Floor, 15.00 sqs.; Ceiling 15.00 sqs.; Roof Pitch, 7" rise per ft. run; Roof, 18.00 sqs.; Hips and Valleys, 64 lin. ft.; Cornice, C & F, 200 lin. ft.; Cornice, 8", 80 lin. ft.; Partitions, 164 lin. ft.; Inside Finish OS Walls, 174 lin. ft.; Front and OS French Doors, 3 opgs.; Rear and Grade Doors, 1 opg.; Inside Doors and Cased Opgs., 20 opgs.; Windows and Casements, 17 opgs.; Gable Sash and Louvers, 2 opgs.; Chimney, 24 lin. ft.; Porch Floor, 2.00 sqs.; Porch Ceilings, 3.50 sqs.; Porch Beam, 70 lin. ft.; Porch and Balcony Post and Newels, 12; Porch Roof, 4.50 sqs.; Porch Cornice, 80 lin. ft.

Page 93, July; Hingham Homesteads, Inc., Bldr.

"TRUCOST" ESTIMATING FIGURES FOR THIS HOUSE: Basement Walls, 108 lin. ft.; Trench Walls, 50 lin. ft.; Basement Floor, 700 sq. ft.; Garage Floor, 200 sq. ft.; Excavation per ft. deep, 31 cu. yds.; Outside Walls, 20.00 sqs.; First Floor, 7.00 sqs.; Second Floor, with fin. flg., 5.00 sqs.; Ceiling, 14.00 sqs.; Roof Pitch, 12" rise per ft. run; Roof, 14.00 sqs.; Hips and Valleys, 24 lin. ft.; Cornice, C & F, 250 lin. ft.; Partitions, 210 lin. ft.; Inside Finish OS Walls, 200 lin. ft.; Front and OS French Doors, 1 opg.; Rear and Grade Doors, 1 opg.; Garage Door 8 ft. wide, 1; Inside Doors and Cased Opgs., 17 opgs.; Windows and Casements, 19 opgs.; Chimney, 34 lin. ft.; Main Stairs, 1; Porch Floor, .25 sqs.

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