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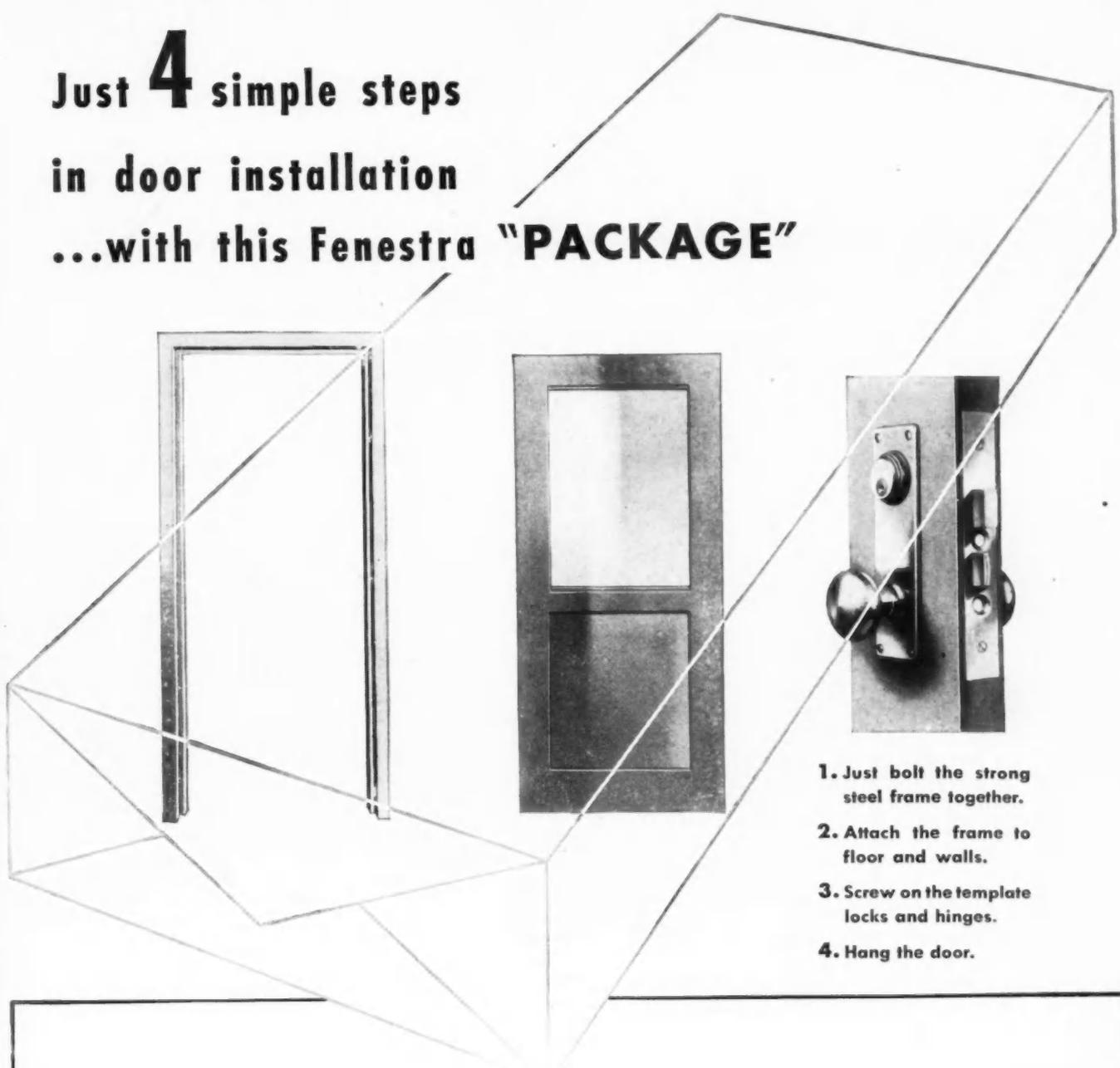
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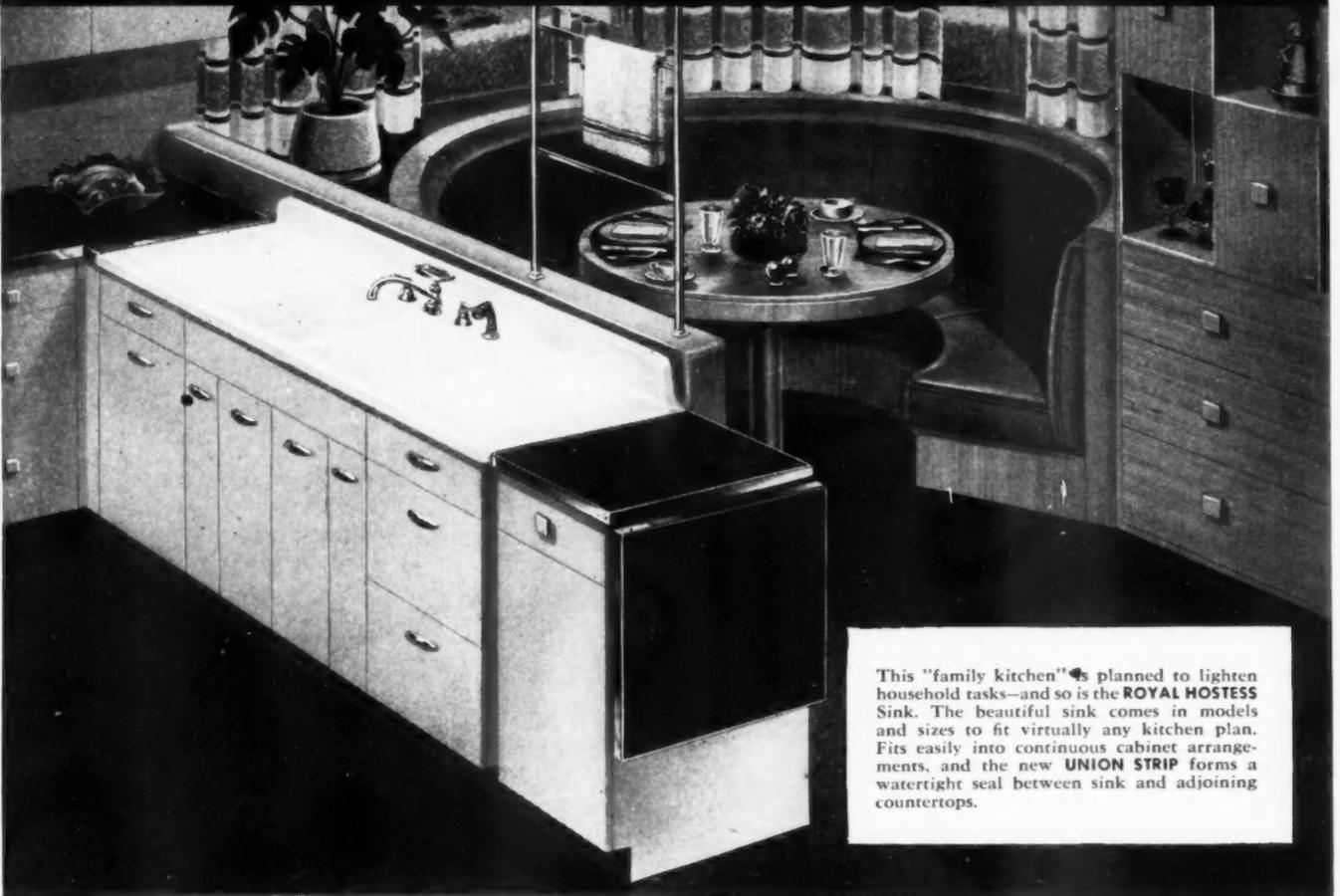
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Subscription price: United States and Possessions and Canada, 1 year, \$3; 3 years, \$5; foreign countries, 1 year, \$10; 3 years, \$20. Single copies, 50 cents each. Subscribers are requested to state company connection, nature of business, title or position. Address W. L. Taylor, Circulation Manager, 30 Church St., New York 7, N.Y. Field Staff: C. L. Conley, W. J. Griffith, C. R. Hartung, Joe Sanders, R. J. Schnell, John Simonson.

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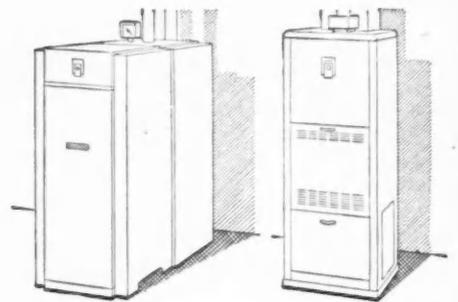
This "family kitchen" is planned to lighten household tasks—and so is the **ROYAL HOSTESS Sink**. The beautiful sink comes in models and sizes to fit virtually any kitchen plan. Fits easily into continuous cabinet arrangements, and the new **UNION STRIP** forms a watertight seal between sink and adjoining countertops.

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Two heating units by American-Standard designed for small homes, with or without basements. (Left) the oil fired **ARCOLINER** Wet Base Boiler. (Right) the gas fired **CHIPPEWA** Winter Air Conditioner.



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Publisher's Page



Socialization Versus the Middle Class

SPOKESMEN of the Truman administration are advocating increases in taxes on business and on the "middle and upper income groups" which it is claimed are needed to balance the federal budget. *American Builder* is in favor of balancing the budget by making (1) the smallest government expenditures consistent with national defense and (2) such distribution among taxpayers of the increases in taxes then needed as will do the least harm to the national economy.

The significance of the proposal to impose *all* the increases in taxes on business and the middle and upper income groups should not be disregarded. For the middle and upper income groups are the owners of virtually all business, large and small. Hence, what is actually proposed is that *all* the increases in taxes shall be directly and indirectly imposed on the middle and upper income groups. And as the middle class, with incomes ranging from \$4,000 or \$5,000 up to \$50,000 (before taxes) greatly outnumbers the rich, and in the aggregate owns vastly more property, what is actually proposed is that the great bulk of the increases of taxes shall be imposed on the middle class.

The things which in every country where they exist principally distinguish the so-called "working class" from the so-called "middle class"—known in Europe and in the literature of socialism and communism as the "proletariat" and the "bourgeois"—are their ambitions, the size of their incomes, the ways in which their incomes are made and their ways of life. The typical member of the working class

is content to make his living with his hands, is satisfied to have his labor union get his raises in pay for him provided the union gets him as much as other workers doing similar work, and has little or no ambition for promotion in position or the accumulation of property. The outstanding characteristics of a member of the middle class are *ambition* and ability—ambition and ability to work with his brain, rather than with his hands, to excel in his work, to get promoted, to command more pay than others, to increase his wealth and income by saving and making remunerative investments. The "proletariat" want equality of income without equality of work. The "bourgeois" want *inequality* of both work and income—i.e., they want to do more and better work and to be better off than other people.

Until within recent years the middle class, with its belief in and practice of individualism, was dominant in the political and economic affairs of the United States. It has now lost both its political and economic dominance and is being rapidly liquidated by the use of the power of government by politicians and labor leaders for the supposed benefit of the working class. The change began sixteen years ago when the New Deal administration began promoting both labor unionism and socialistic policies. Under the fostering care of a government which almost daily begins proceedings to destroy alleged monopolies in business, the labor unions have now become the most powerful monopolies that ever existed. It is natural for labor unions to favor so-

cialistic policies because most such policies ostensibly have the purpose and effect of benefiting people with less than average incomes at the expense of people with more than average incomes.

President Roosevelt both increased the membership and power of the labor unions and used them skilfully for his own political purposes. Now the labor unions have got virtual control of the Democratic party and are dictating its policies. The chairman of the Democratic National Committee made the significant remark after the result of the recent election became known, "Labor did it"—meaning, of course, that the labor unions "did it."

While the manual workers have become organized into powerful union monopolies, and these monopolies have been getting control of one of the great political parties and using their control of it to promote socialistic policies, the middle class has remained unorganized and has seen the leadership of the Republican party ignoring the interests of its predominantly middle class membership while competing with the Democratic party in offering socialistic policies for the support and votes of the leaders and members of the labor unions.

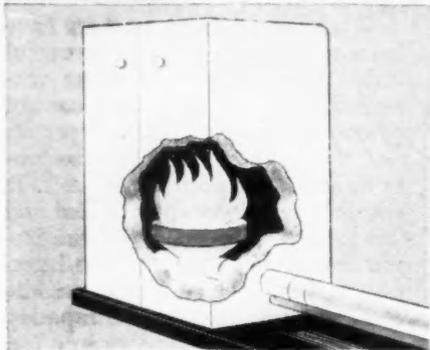
Thus the great middle class is in process of being rapidly liquidated by socialistic policies because it lacks leadership and organization of its own and because it not only regards with tolerance but in large measure supports the very leadership, organization and policies that are being devoted to its economic destruction.

American Builder is published by the SIMMONS-BOARDMAN PUBLISHING CORPORATION, with editorial and executive offices at 105 W. Adams St., Chicago 3, Ill.; 30 Church St., New York 7, N.Y. Samuel O. Dunn, Chairman of the Board and President; James G. Lyne, Executive Vice President; Robert H. Morris, C. J. Wageman, F. A. Clark, Vice Presidents; J. S. Crane, Vice President and Secretary; John T. DeMott, Treasurer.

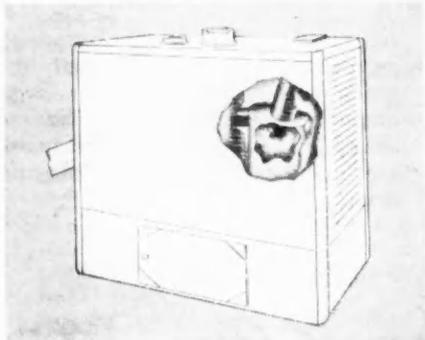
Samuel O. Dunn,

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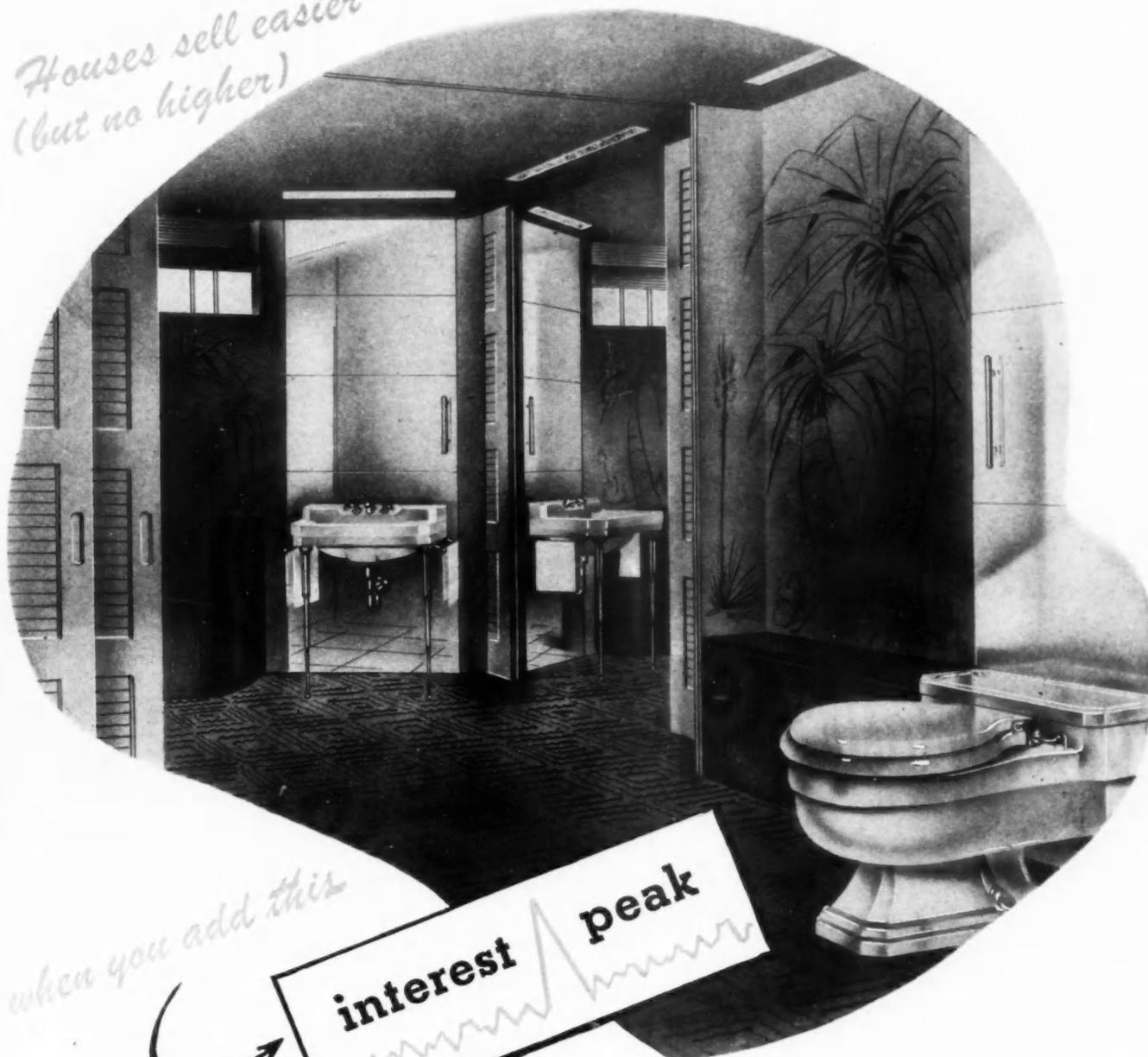


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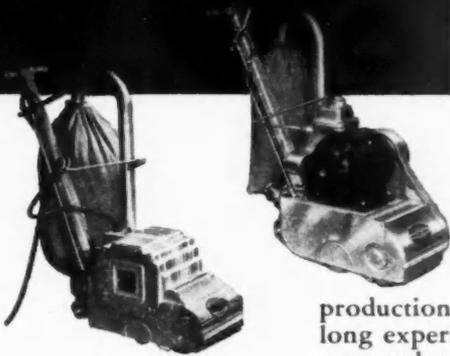
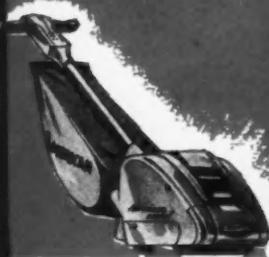
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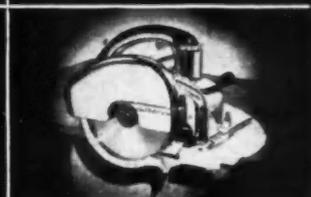
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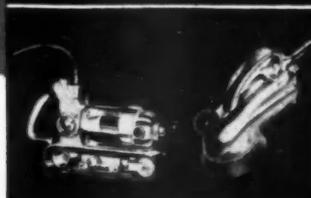
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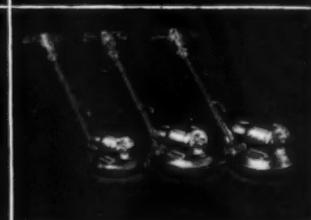
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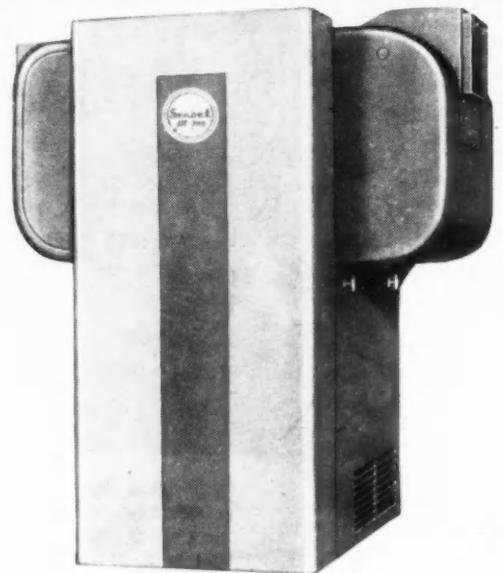
The FLAME OF FREEDOM HOUSE...



Co-sponsored by Servel, Inc., and Better Homes and Gardens Magazine, The Flame of Freedom House provides the last word in a modern, moderate-priced home. Thanks to scientific planning and all-gas equipment, it brings new freedom to average-income families—freedom that results in greater comfort, convenience, health, and safety. Yes, freedom has been literally built into the plans. For—in addition to large rooms, abundant light, a picture window, and generous closets—this home is air-conditioned year round by Servel . . . food is protected night and day by Servel . . . hot water for every household use is provided around the clock by Servel. You'll find the complete story of the Flame of Freedom House in the February issue of Better Homes and Gardens Magazine.

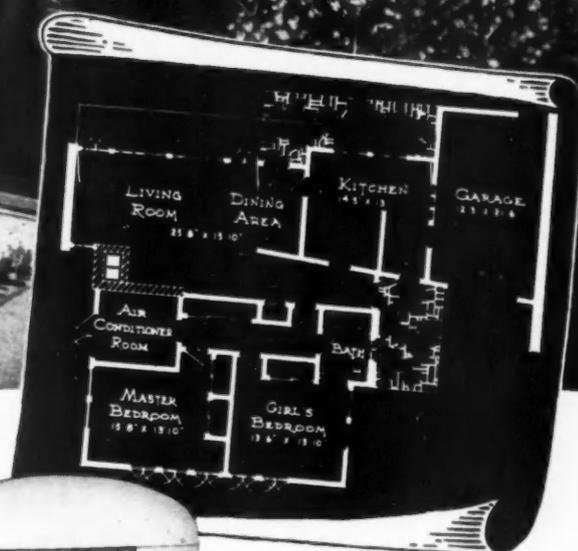
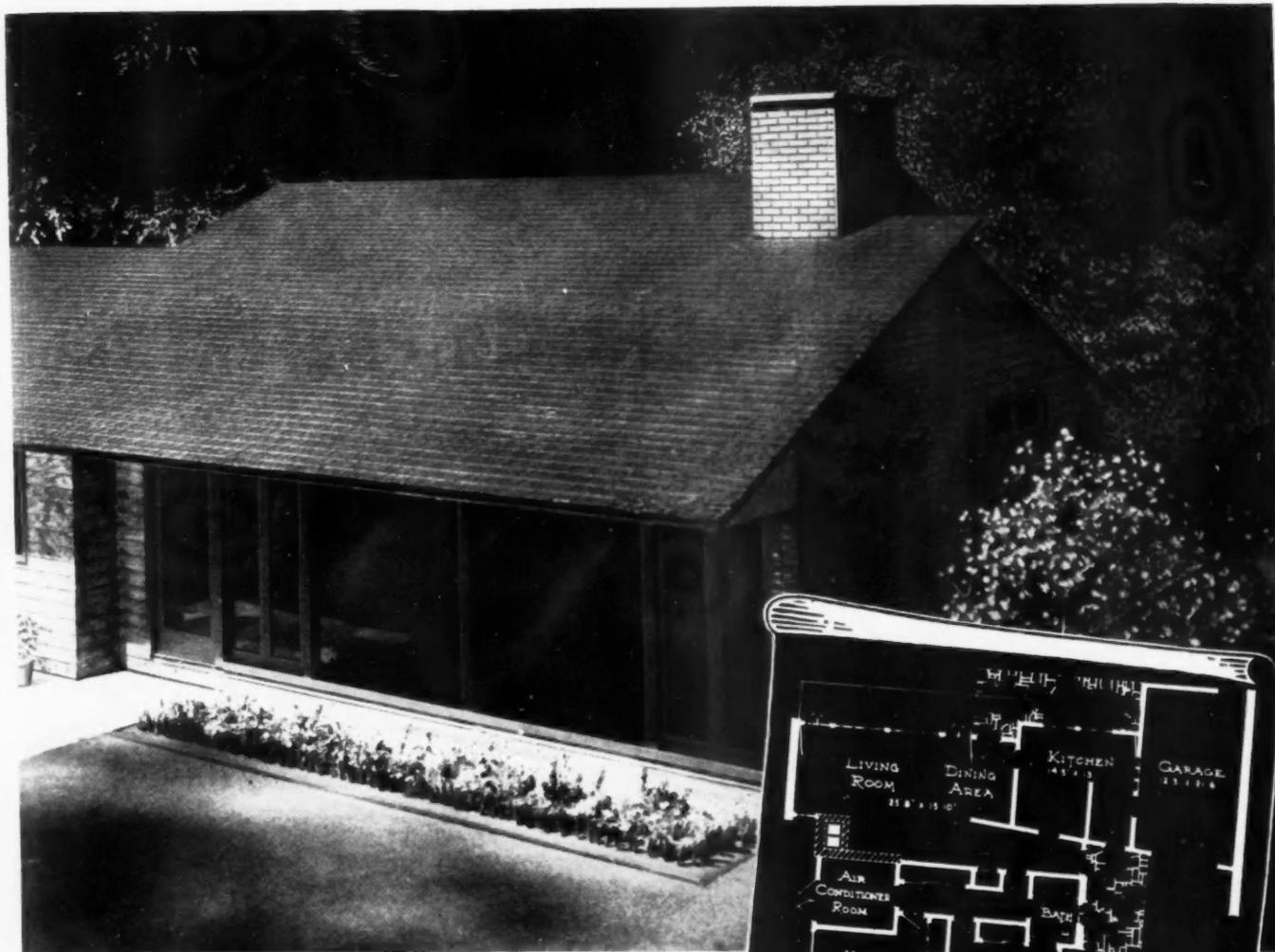
Servel Inc.

EVANSVILLE 20, INDIANA



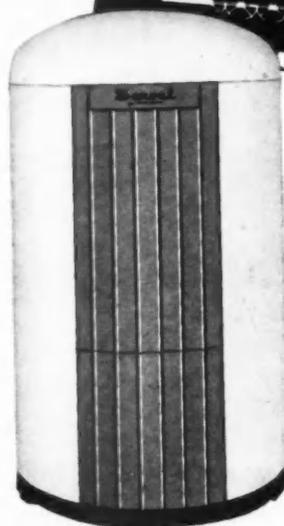
The Servel ALL-YEAR Gas Air Conditioner

The Flame of Freedom House was especially designed for Servel All-Year Gas Air Conditioning. This means that families living there will be forever free from summer heat, winter cold, dirt, draughts, humidity, pollen and prowlers. And yet, this home costs little more than an ordinary home with a good winter heating plant. Planning a house around air conditioning makes many savings possible. No basement excavation is needed. Porch, screens, and storm sashes are eliminated. And the cost of duct work can be held to the minimum.



The Servel GAS Refrigerator

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The Flame of Freedom House was designed by the distinguished architect **DAVID SEARCY BARROW** as one of the 5-Star Homes (plan No. 1902) sponsored by Better Homes & Gardens Magazine. This house was reproduced and demonstrated at the Atlantic City Auditorium during the American Gas Association Convention, October 4-8, 1948.

SEE MODEL AT BUILDERS' SHOW

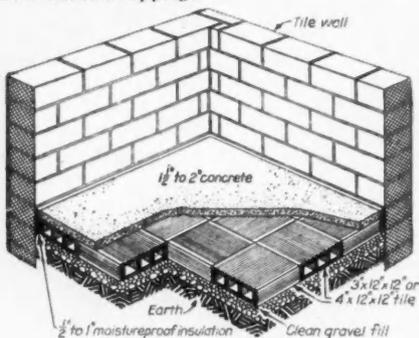
You can see a model of the Flame of Freedom House in the Servel booths 90-93, at the Builders' Show in Chicago . . . February 20-24. And for a free illustrated booklet, write to Servel, Inc., Evansville 20, Indiana.

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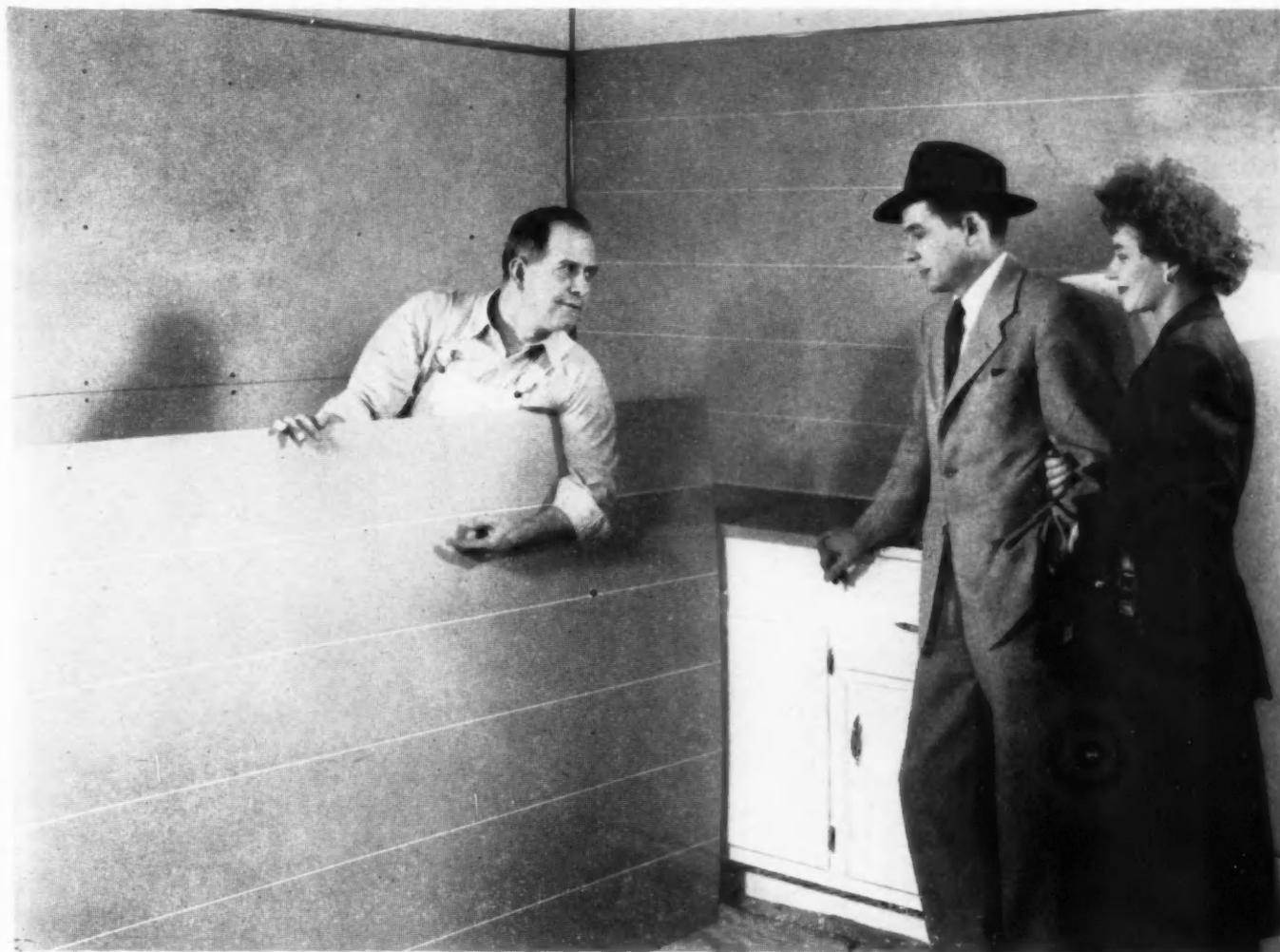
For these same reasons it will pay you, on your next job, to think of **BRICK FIRST.**

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From one end of the nation to the other, more truck users buy Chevrolet trucks than any other make. Chevrolet trucks offer more of what truck users want—more power combined with economy . . . more comfort and convenience . . . greater ease of handling . . . more value from start to finish! And to all these advantages you can add the biggest premium of all—3-WAY THRIFT! Here's the one truck that combines low cost operation, low cost upkeep and the *lowest list prices in the entire truck field!*

CHEVROLET MOTOR DIVISION, General Motors Corporation, DETROIT 2, MICHIGAN

Chevrolet Trucks alone have all these features

Chevrolet's 4-SPEED SYNCHRO-MESH TRANSMISSION offers quicker, quieter and easier operation in Series 3800 and heavier duty trucks. Faster shifting maintains speed and momentum on grades.

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Chevrolet Advance-Design brings you the FLEXI-MOUNTED CAB,

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Chevrolet's exclusive SPLINED REAR AXLE HUB CONNECTION adds greater strength and durability to heavy-duty models.

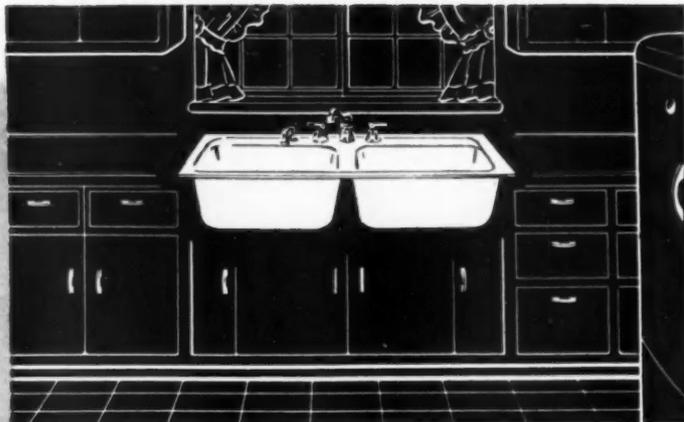
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*Heating and ventilating system and rear-corner windows with de luxe equipment optional at extra cost.

CHOOSE CHEVROLET TRUCKS FOR TRANSPORTATION UNLIMITED!

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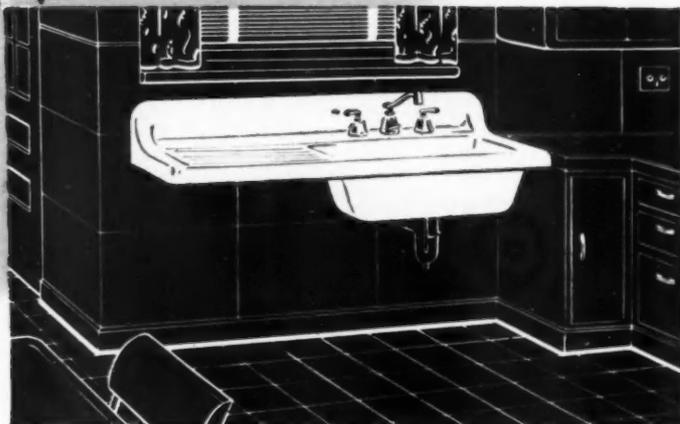


BUILT-IN COUNTER TOP installations are no problem to the Richmond line of fine enameled sinks. Shown here is the Shelton, plate No. 2115, a flat rim sink with double compartments—drilled for supply fittings. Sizes 32" x 21" and 42" x 21".



DESIGNED FOR BEAUTY AND EFFICIENCY—Richmond ledgeback sinks with single or double drainboards are ideal for base cabinet installations in the most modern of kitchens. Drilled for deck-type supply fittings with hose and spray. Model shown is the Servilla, plate No. 1535, available in two sizes, 54" x 25" and 60" x 25".

WHEN ECONOMY of space and cost is paramount, Richmond wall hung units, such as the Sewanee shown here, are just the thing. Unit illustrated as a modern roll-rim sink with single drainboard. Drilled for combination fittings and large strainer. Right drainboard (plate No. 1552) or left drainboard (plate No. 1550), both 42" x 25".



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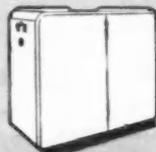
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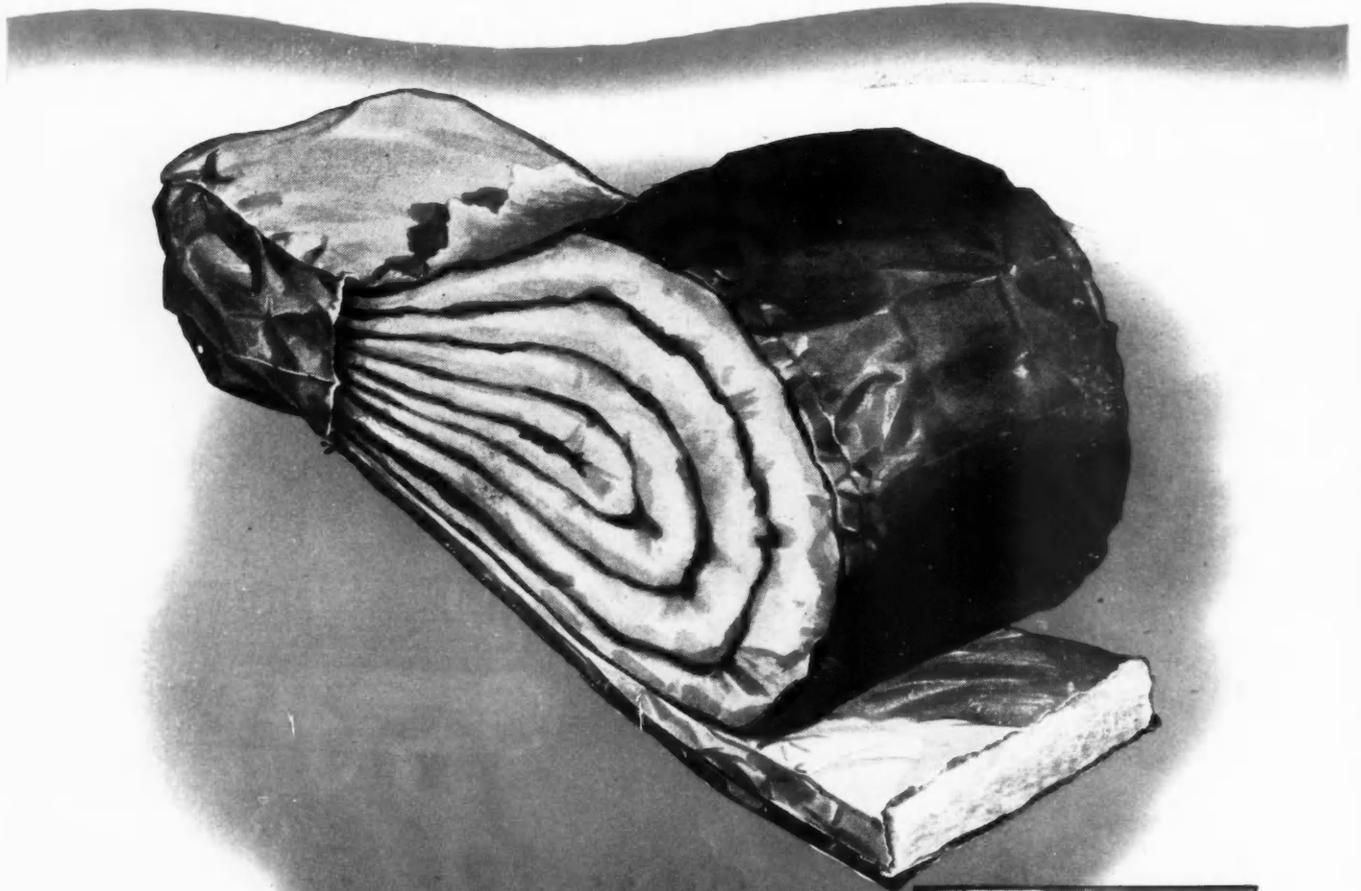
I am interested in further information on the Richmond Enameled Cast Iron sinks. Please send me full details. No obligations, of course.

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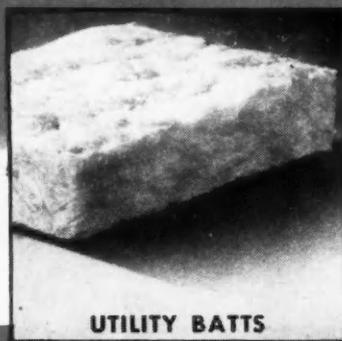
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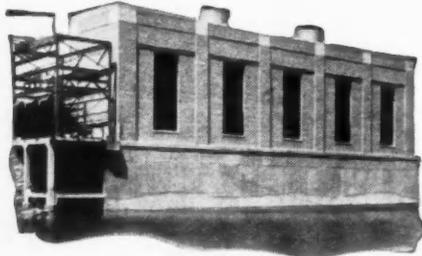
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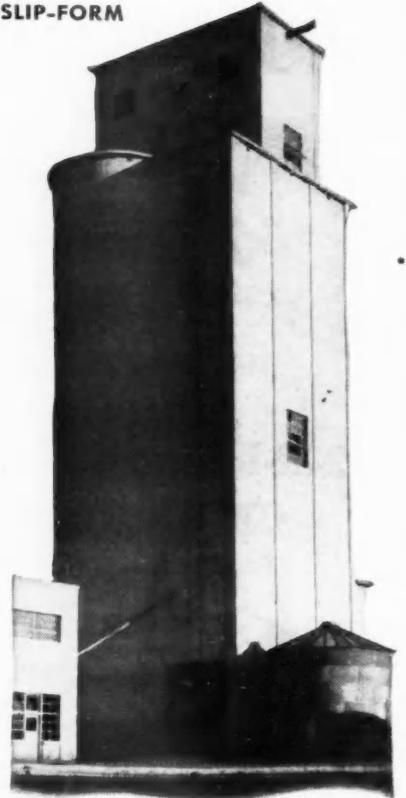
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MASS

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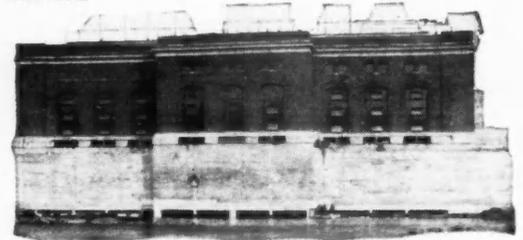
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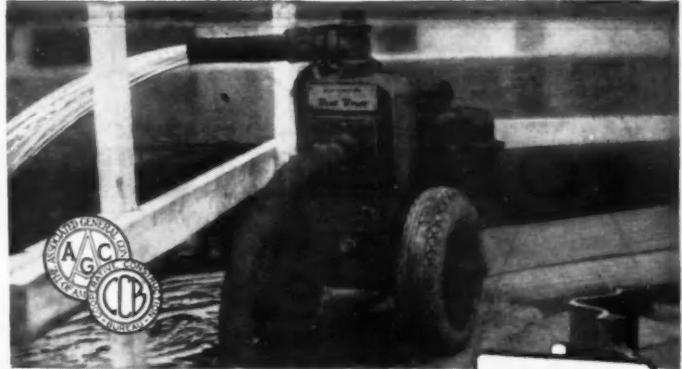
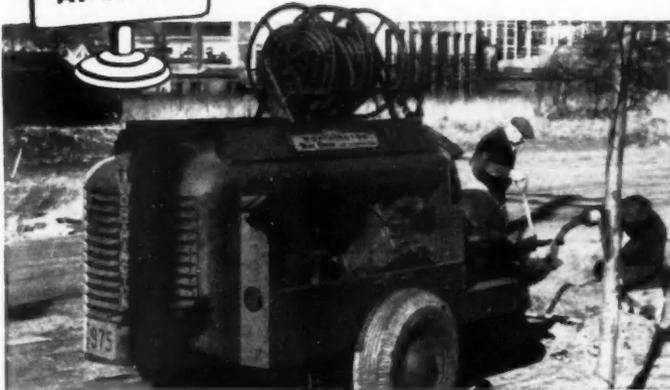
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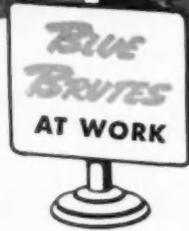
Owner: Plainfield Water Co., Plainfield, N. J.



Owner: Daniel O'Connell's Sons, Inc. Holyoke, Mass.

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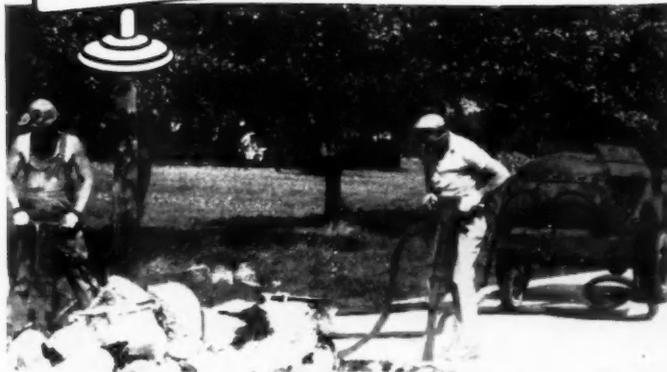
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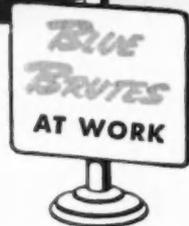
Owner: R. W. Meyer, Cadillac, Mich.



Owner: J. J. Romano, Bound Brook, N. J.

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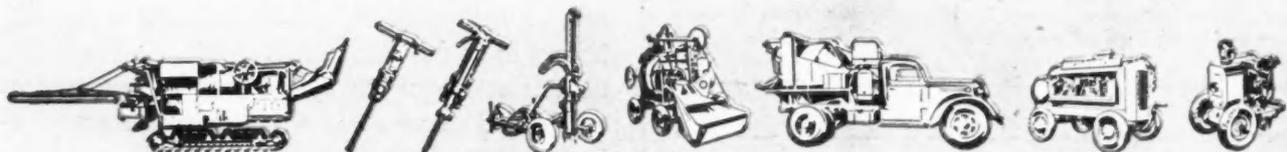


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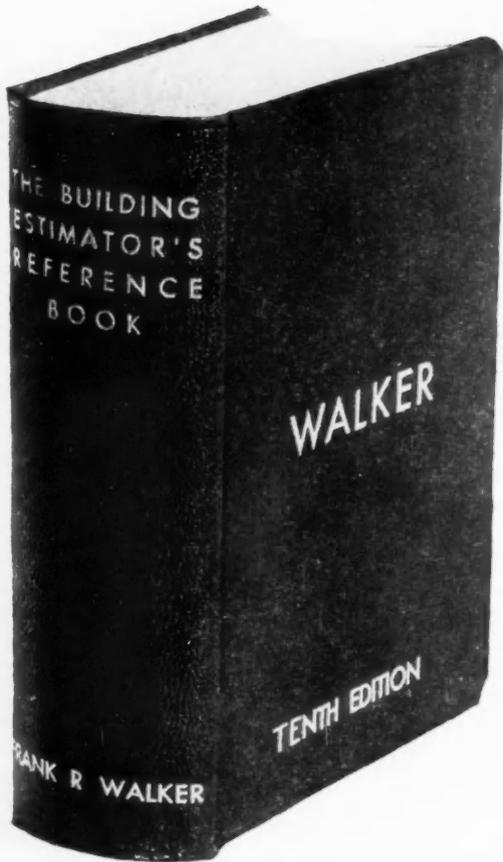


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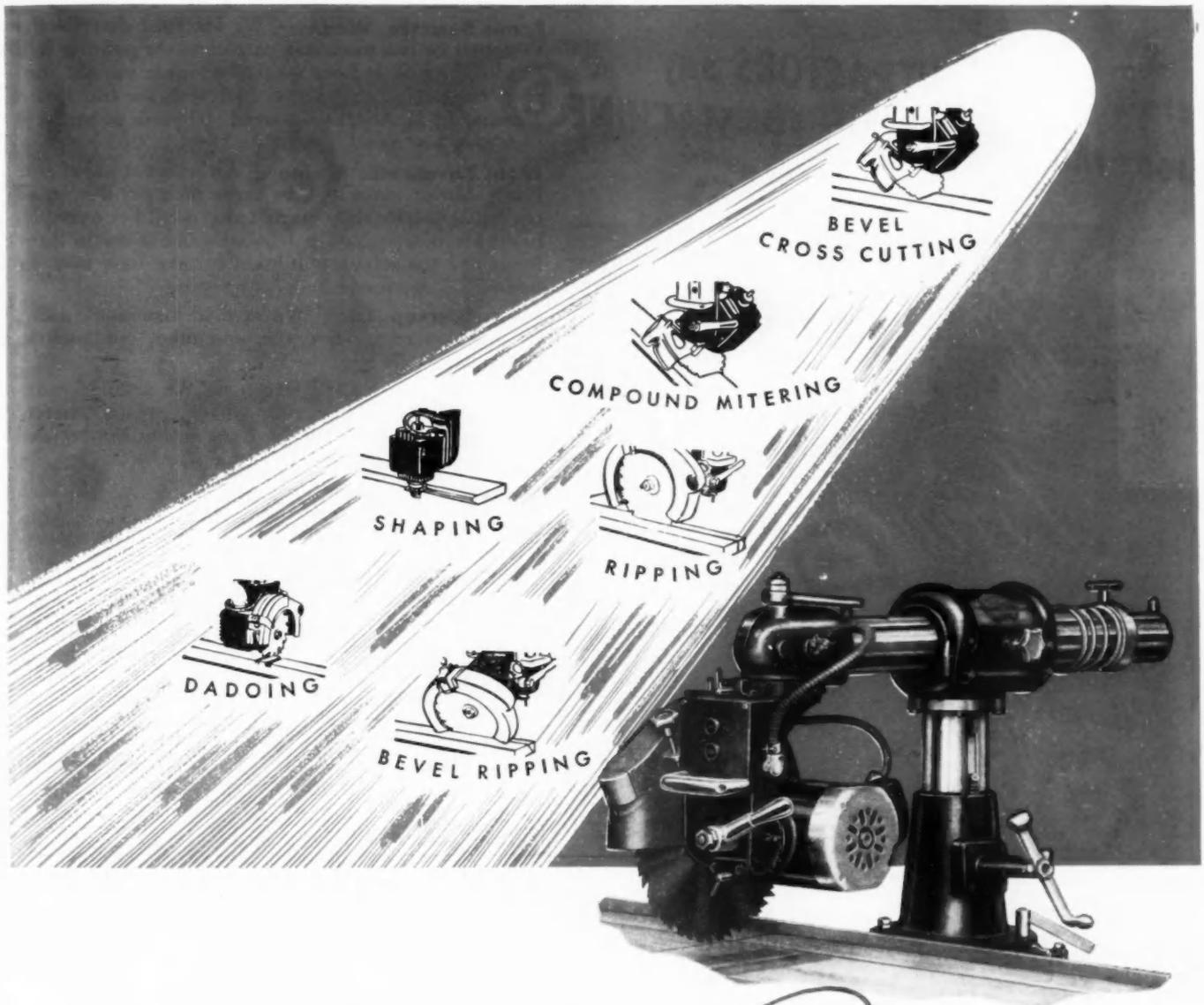
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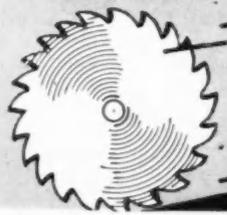
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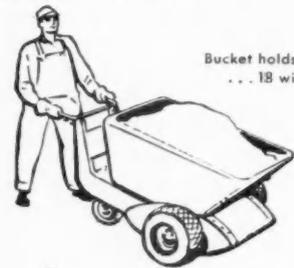


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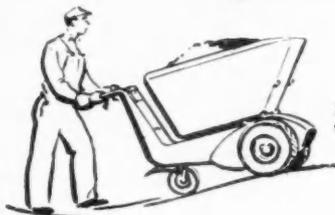
Bucket holds 10 cubic feet . . . 18 with sideboards



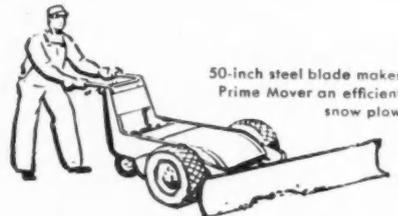
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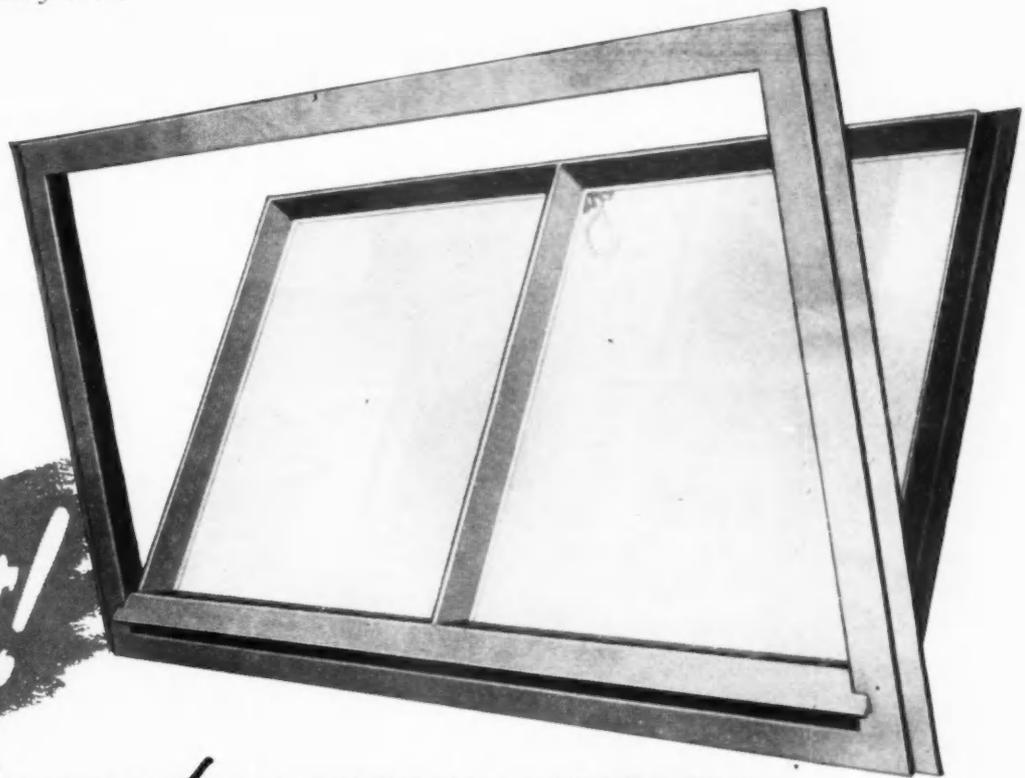
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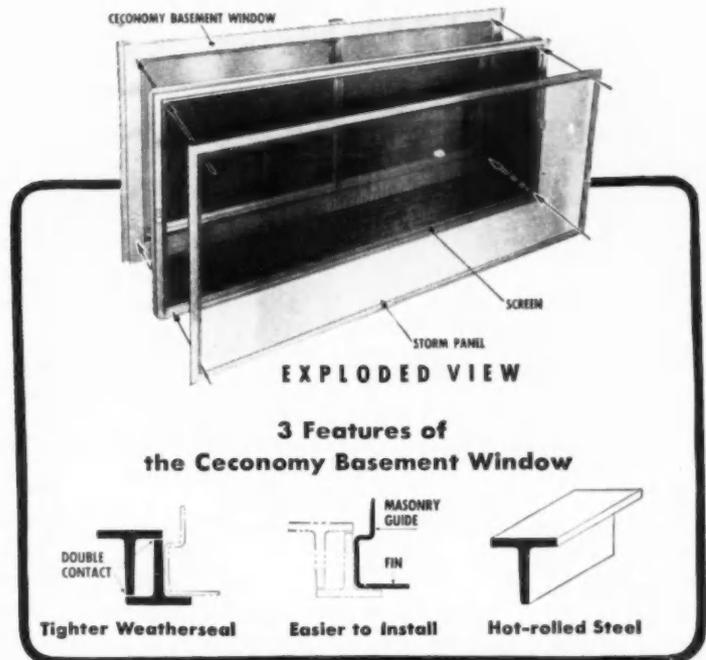
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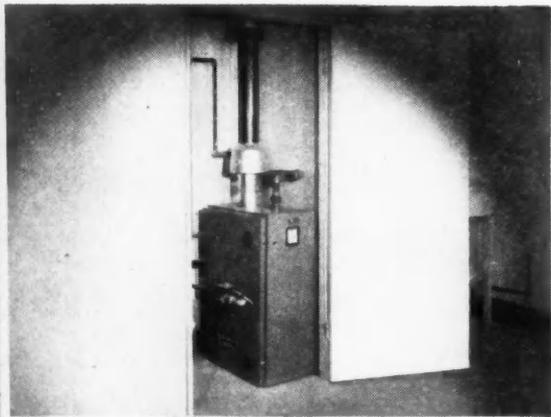
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PICTURE OF A MAN Selling a Roof!...



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Probably very few roofers think of themselves as salesmen. And yet it's right up there on the roof that sales are made or lost. The fellow who lays a roof right has more to do with selling the next job than anybody. And the outfit that keeps laying roofs right—that convinces each owner that short-cutting a job is short-

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Doing a job better means watching details. It means holding to specified exposures, using six nails properly placed when laying strip shingles, cementing tabs where wind is a hazard. It means remembering at each step that *doing it better is good business—and good selling!*



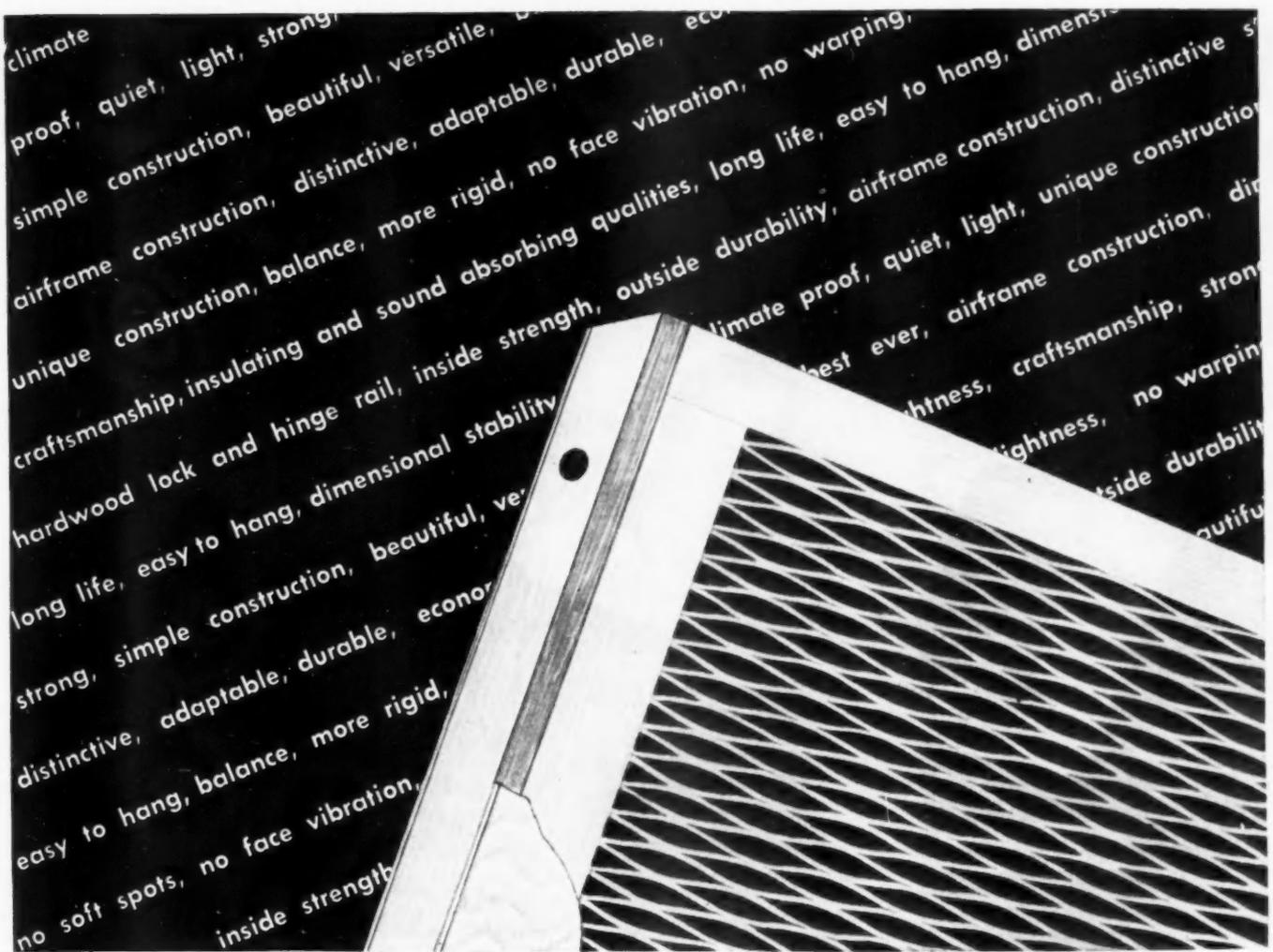
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After carefully studying the exclusive Hollow Core construction, they could readily see that no other door offered as many advantages.

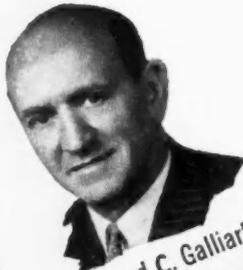
**The winning name in the Roddiscraft Door Contest submitted in conjunction with a 25-word statement by Miss Joan Englert, Hulsman Planing Mill, St. Anthony, Indiana. The two other winners were Lessing Whitford Williams, Partner, Geo. B. Post & Sons, Architects, 101 Park Avenue, New York 17, N.Y. and R. C. Emerson, B. H. Charles Cabinet Shop, 2214 Allesandro Street, Los Angeles, Calif.*

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Phone, wire or write NOW—the HAKO representative will be glad to work with you.

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HAKO DISTRIBUTORS GIVE YOU FAST SERVICE ANYWHERE IN THE U. S. A.

It's here . . .

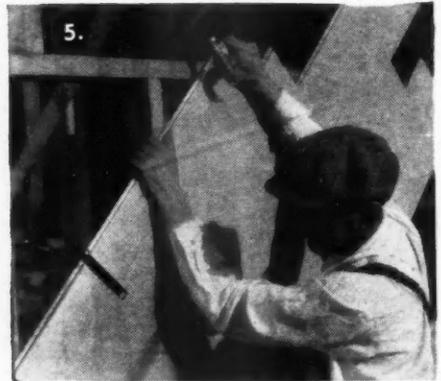


WEYERHAEUSER



BETTER BUILDING...LESS WASTE!

1. "I was amazed at the saving in time, material and labor", writes a contractor who used End-Matched lumber for siding and lining on a 66 x 100 foot dairy barn.
2. Interior lining of barn is made smooth, clean, and sanitary with End-Matched lumber.
3. Every piece of End-Matched lumber fits. No sawing needed . . . no time lost squaring up the ends. It lays up fast, and stays up tight.
4. Appearance counts too . . . and what could be better looking than the perfectly smooth under-surface of this fine home. End-joints are practically invisible.
5. Diagonal sheathing makes a sounder, more perfect building . . . and End-Matched lumber is ideal for the job. Let the joints fall where they may!



ready NOW!



END-MATCHED *Lumber*

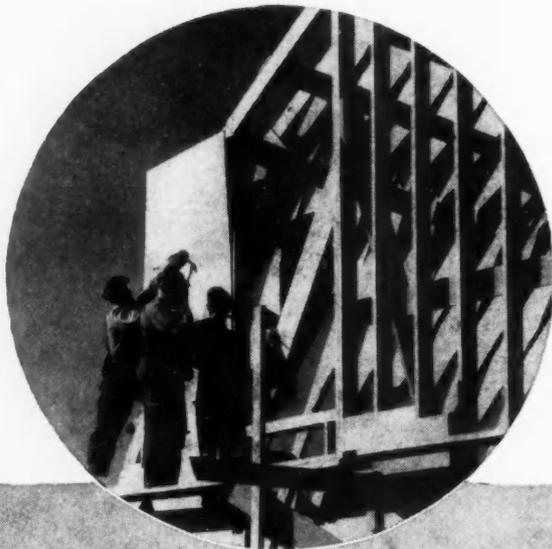
Retail lumber dealers are in a position to furnish End-Matched lumber from softwood species of the West Coast . . . lumber that locks together at the ends and edges to form smooth, tight, rigid panels of any desired area. There is no waste with End-Matched lumber—no cutting and fitting of each piece. It makes possible sound, speedy construction at lowered cost.

End-Matched, with its superior construction qualities for sheathing, siding and flooring,

is extremely popular among builders who have used it and seen its extra values. They will be glad to know that End-Matched is available. The pictures on the opposite page illustrate some of the advantages of this superior lumber product.

Sound quality in lumber helps you win friends, build sales, increase your profits. You can offer that kind of quality in fullest measure, in Weyerhaeuser End-Matched Lumber!

WEYERHAEUSER 4-SQUARE
LUMBER AND SERVICES



PLYSCORD cuts building time and costs. The large, light panels cover big areas fast and require fewer fastenings. Contractors report 50% saving in time when using PlyScord for subflooring . . . even greater savings when the panels are used for roof decking and wall sheathing. Homes built with PlyScord are tighter and warmer, as well as stronger and more rigid.

Walls are Stronger—More Rigid, When Sheathed with PLYSCORD

Here's how government tests at U. S. Forest Products laboratory rank the relative strength and rigidity of various sheathing materials on walls with openings:

STRENGTH AND RIGIDITY OF FRAME WALLS From U. S. Forest Products Laboratory Tests Wall with Openings			
Sheathing Material	Relative Rigidity	Relative Strength	
 1x8" DIAGONAL SHEATHING	1.0	1.3	
 29/32" FIBERBOARD	1.6	2.1	
 HORIZONTAL with LET-IN BRACES	1.5	2.2	
 1/4" PLYWOOD NAILED	2.0	2.8	➔
 1/4" PLYWOOD GLUED TO FRAME	3.7	4.0	➔

PLYSCORD—the unsanded sheathing grade of Interior-type Douglas fir plywood—contributes to better building in scores of ways.

PlyScord adds rigidity and strength to wall construction when used as sheathing. PlyScord is an ideal roof sheathing, too—suitable for any type of finish roofing. As subflooring, PlyScord provides a rigid, sturdy base for finish flooring, insulates, protects against drafts from below. PlyScord serves as a one-use concrete form panel as well; after form use, the panels are re-used as sheathing or subflooring—an added construction economy.

For details on PlyScord use and application, see Sweet's File, Architectural, or write for the new 1949 Basic Plywood Catalog. Also available is a new booklet, "The Wood of 1,000 Uses". Douglas Fir Plywood Association, Tacoma 2, Washington.



PLYSCORD—identified by this "grade-trade-mark"—is the sheathing grade of Interior-type Douglas fir plywood, manufactured in strict accordance with U. S. Commercial Standard CS45-48. It has a face panel of C veneer and a back panel of D veneer. Plys are bonded with highly water-resistant (but not waterproof) glues; the material will withstand occasional wetting such as might ordinarily be encountered during construction.

PlyScord Thicknesses: 5/16", 3/8", 1/2", 5/8".

PlyScord Lengths: 96", 108", 120", 144".

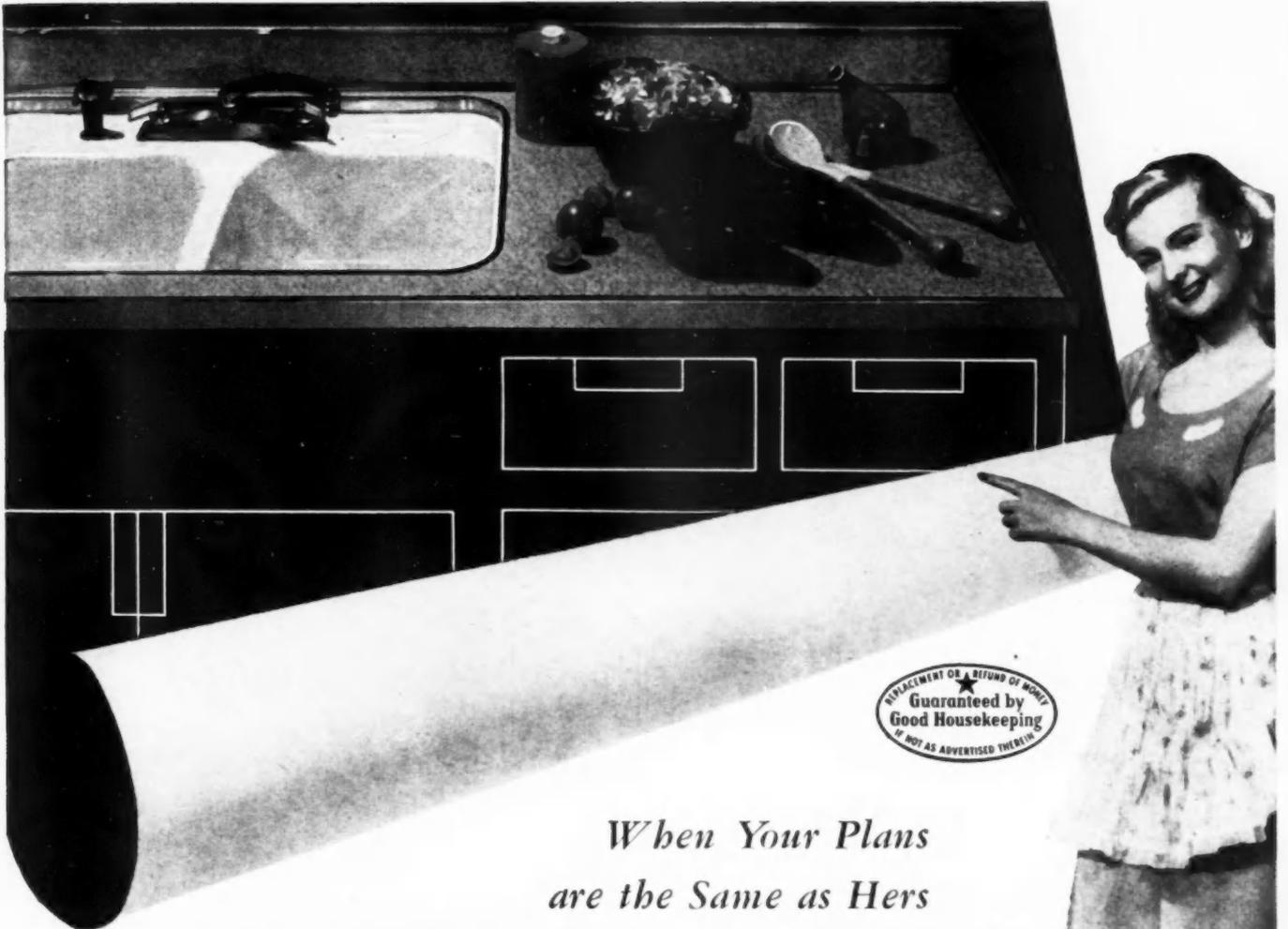
PlyScord Width: 48".

**Douglas Fir
PLYWOOD**

LARGE, LIGHT, STRONG

*Real
Wood*
Panels





*When Your Plans
are the Same as Hers*

HOUSES SELL FASTER!

Her Plans Call for a

FORMICA CABINET TOP!

Millions of American housewives have a warm spot in their hearts for cheerful, colorful Beauty Bonded Formica Cabinet Tops. They love Formica's rugged resistance to fruit acids, alcohol, boiling water, and cleaning alkalies. They know and trust this most famous name in decorative laminates.

Formica tops are so easy to have, there is no reason for any home to be without this powerful sales stimulant. Many well-known "packaged" cabinet units are available from stock with Formica tops.

A Formica fabricator in your town will gladly furnish tops for custom kitchens.

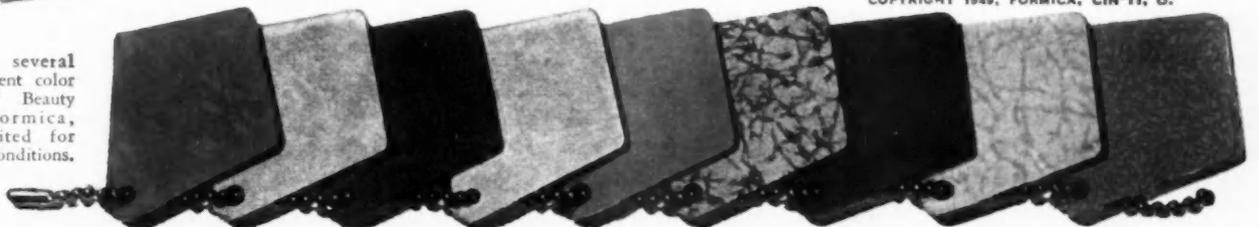


Write for our Mr. and Mrs. Jones folder. It tells in full color the story of Formica in the home. Would you like a Formica Color Pattern Index? Would you like a chip folder with actual Formica samples of six popular color patterns? They're yours for the asking. Formica, 4514 Spring Grove Avenue, Cincinnati 32, Ohio.

Formica is a Trade Mark Registered in U. S. Patent Office.

COPYRIGHT 1949, FORMICA, CIN'TI, O.

There are several dozen different color patterns of Beauty Bonded Formica, ideally suited for sink top conditions.

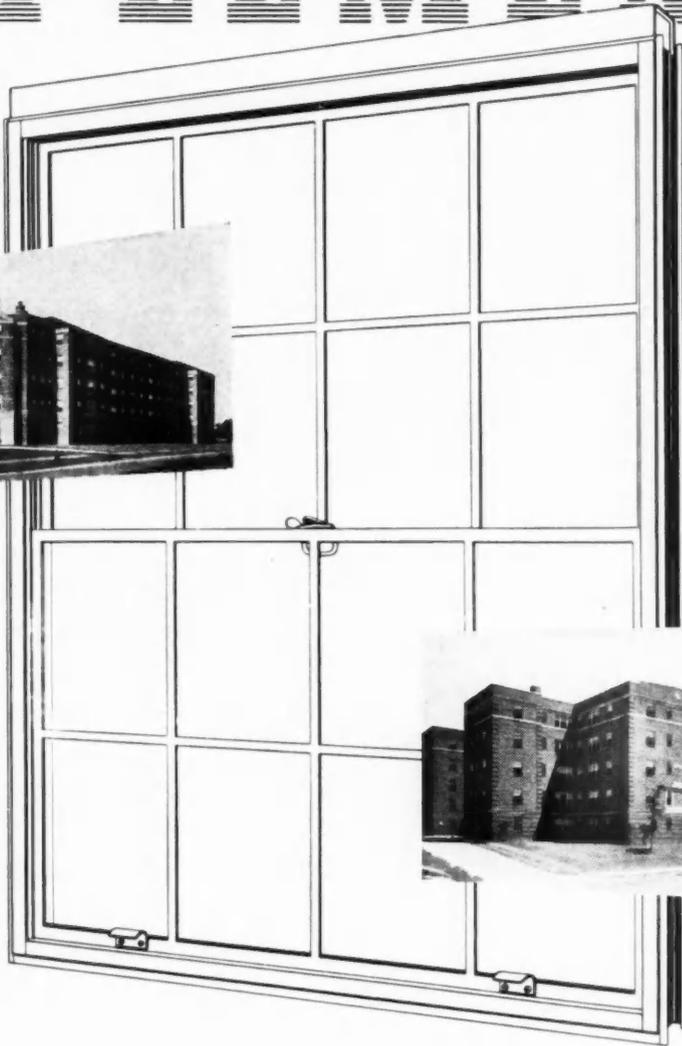


COMPLEMENT

South Park Manor, Cleveland, Ohio. Using Truscon 138 Double-Hung Steel Windows, Clerespan Joists and Ferrospan Steeldeck, Weinberg, Laurie & Teare, Archts. Charles Bernstein, Builder



Kemper Road Apartments, Cleveland, Ohio. Truscon 138 Double-Hung Steel Windows used throughout. Weinberg, Laurie & Teare, Archts. Charles Bernstein, Builder



COMPLEMENT YOUR RESIDENTIAL MASTER-PIECES WITH TRUSCON SERIES 138 DOUBLE-HUNG STEEL WINDOWS

● The adept use of Truscon Series 138 Double-Hung Steel Windows in two apartment groups at Cleveland, Ohio, lends an air of dignified beauty and efficiency to the structures . . . and assures the occupants easy-to-operate, easy-to-screen and apply storm sash, easy-to-drape windows that will give them numberless years of trouble-free service.

This outstanding window was an original development by Truscon in 1938, as an answer to the insistent demand for an economically priced steel window in the popular double-hung design. The

efficiency and economy of these steel windows have been proven thru ten years of use in thousands of installations.

Of major importance in the Series 138 Truscon Double-Hung Steel Windows is the fact that the sash members are of welded tubular construction. This assures strength, durability and finished appearance. Weights and cords are not used. Operation is controlled by motor type spring balances equipped with tapes of Enduro stainless steel.

Each window is completely factory weather-stripped in stainless steel. Screens and storm sash of the simplest and most economical type are available. Shade, drapery, curtain or venetian blind fixtures, of standard types are easily attached to the interior side, in holes provided in all units.

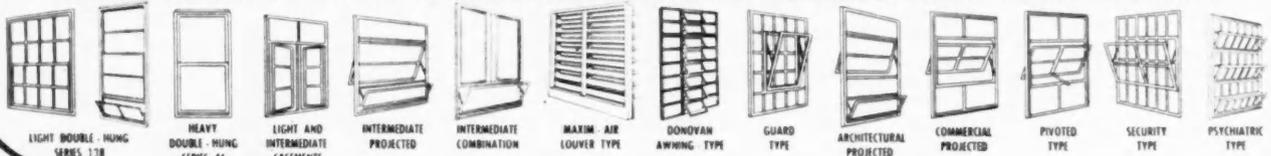
NEW LITERATURE. Write for new Truscon Catalog, complete with installation details and specifications of Truscon Double-Hung Windows and Casements.



Truscon Steel Company • Youngstown 1, Ohio

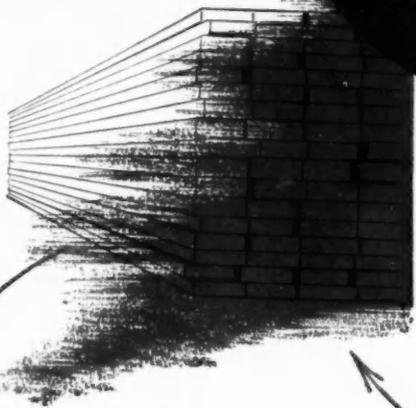
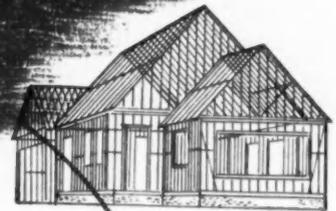
SUBSIDIARY OF REPUBLIC STEEL CORPORATION

TRUSCON'S STEEL WINDOW LINE INCLUDES ALL CONVENTIONAL TYPES PLUS EXCLUSIVE TRUSCON DESIGNS



For
Bigger
Markets...

and
Satisfied
Customers



Build with
lumber
that's...

penta-treated
chlorophenol

Build with PENTACHLOROPHENOL-treated lumber and you build greater customer satisfaction.

This tested preservative protects wood from decay and termites. Dow PENTACHLOROPHENOL increases the life of wood, cuts maintenance costs, and increases wood's salvage value.

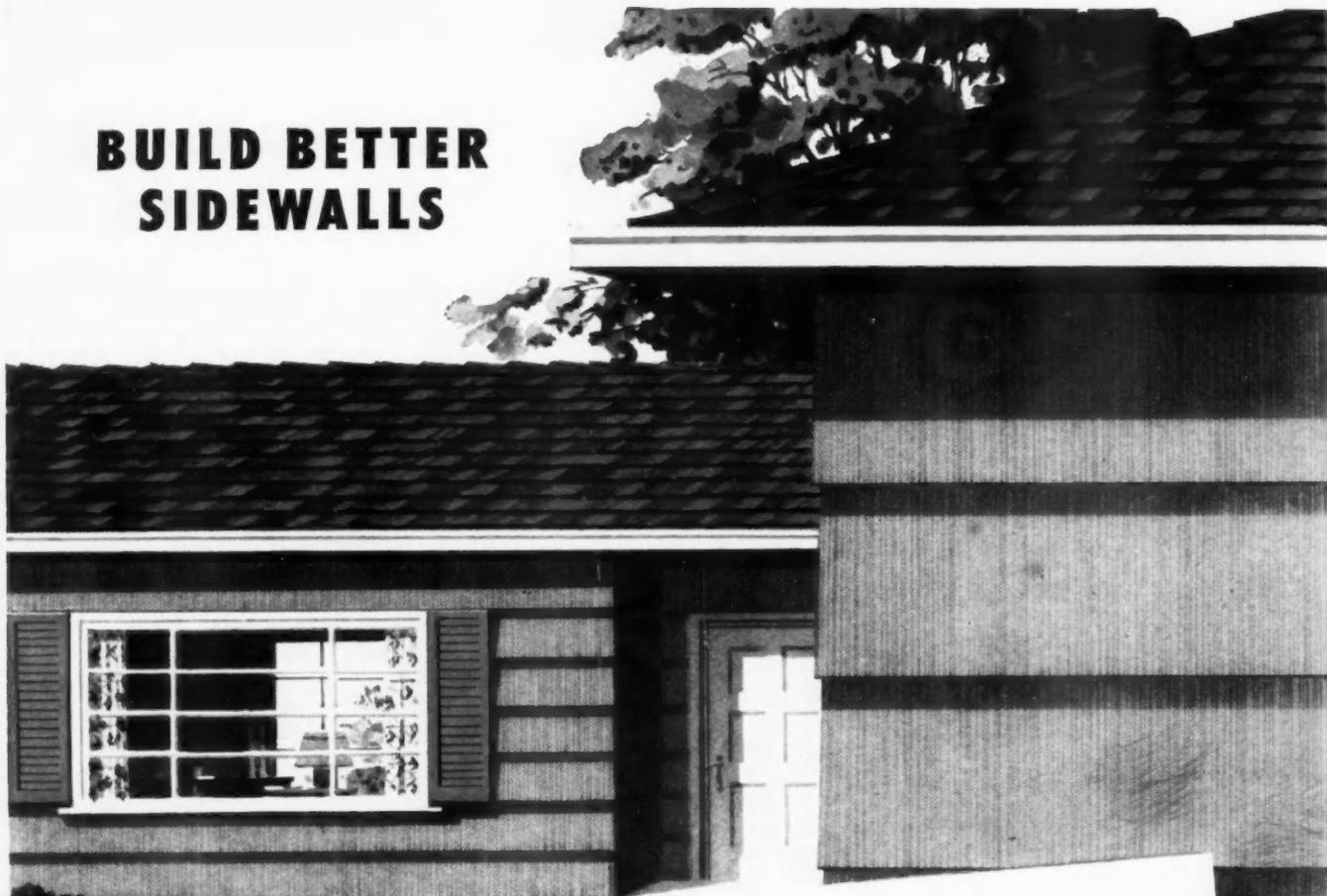
Build with "PENTA"-treated wood and add to your reputation as a builder of quality.

For further information about PENTACHLOROPHENOL write to Dow for free booklet PE 20.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN



BUILD BETTER SIDEWALLS

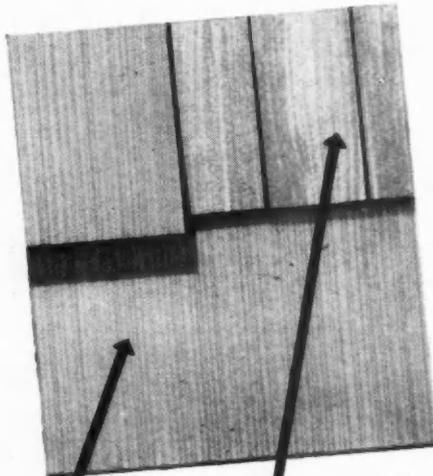


WITH STAINED *Shingles AND Shakes*

Builders are enthusiastic about this wonderful sidewall for four prime reasons:

1. Finished walls cost less! Pre-staining saves builders the time and cost of prime-coating. This saving, plus the reasonable cost of materials, makes sense.
2. Application is simple and fast. A strip of shiplap for nailing guide is the only "extra" in the way of equipment. Any man who can drive a nail can apply stained shingles or shakes.
3. Available in quantity and wide variety! Any mill listed below can provide dealers with stained shingles and shakes of excellent quality, choice of colors.
4. Architects approve them. Home buyers prefer them. Sales are easier. Customers are assured warm, attractive homes with very low maintenance cost.

FOR SPECIFICATIONS SEE SWEET'S 8b/7a



CONCEALED JOINTS
Blended with the grooved surfaces, laid tight, joints disappear.

ECONOMY FACTOR
Walls are double. Hidden courses are low cost, low grade cedar shingles.

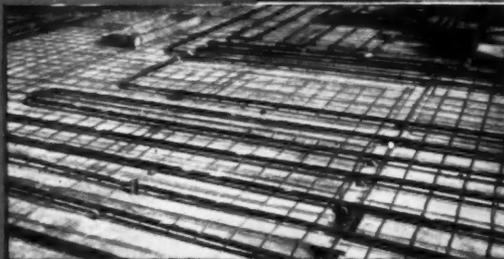


Length of Shake	EXPOSURE RANGE	
	Single-Course	Double-Course
16"	6" to 7 1/2"	8" to 12"
18"	6" to 8 1/2"	9" to 14"
24"	8" to 11"	12" to 16"

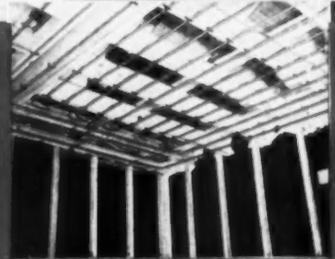
ASSOCIATED MANUFACTURERS

• M. E. Smith Lumber & Shingle Co., Seattle, Washington • Canadian Forest Products, Ltd., Vancouver, British Columbia • The Robert McNeil Shingle Co., Ltd., Vancouver, British Columbia • Croo-Digt Company, Inc., North Yonkers, New York • Everett Shingle & Shake Company, Everett, Washington • Capilano Shingle Company, Ltd., Vancouver, British Columbia • Perma-Products Company, Cleveland, Ohio • West Coast Stained Shingle Co., Seattle, Washington • Portland Shingle Company, Portland, Oregon • Wood Beautifiers, Seattle, Washington • Colonial Cedar Company, Seattle, Washington

Today's
Top
Home
Selling
Feature!



B & G Hydro-Flo Radiant Panel Heating bathes the entire house in radiant, sunny warmth from pipe coils either installed in the floor (left) or embedded in the ceiling plaster (right). There's no evidence of the heating system anywhere.



B & G Hydro-Flo Radiant Panel Heating

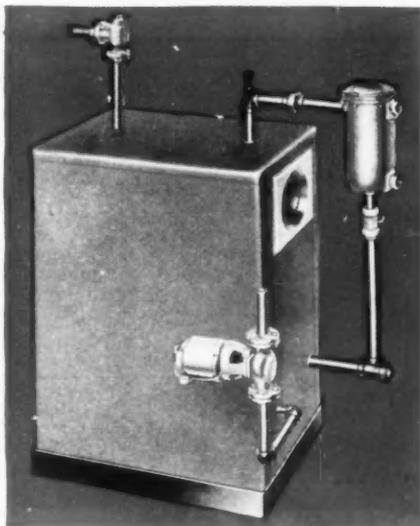
● "What keeps this house so comfortable? Where does the heat come from?"

That's the question universally asked in houses heated with a B & G *Hydro-Flo* System. No wonder home buyers—particularly women—are impressed by this completely concealed heating system. No wonder that men (who foot the bills) are delighted with the economy features of B & G *Hydro-Flo* Radiant Panel Heating.

This *forced hot water* system circulates heated water through pipe coils in the floor or ceiling. It is so accurately controlled that the heat supply is always smoothly proportioned to the weather. Hence, indoor temperature is always supremely comfortable and fuel bills at rock bottom.

And besides, a *Hydro-Flo* Heating System furnishes a year 'round low cost supply of hot tap water in virtually inexhaustible quantities . . . ample for the needs of automatic clothes and dish washers.

A new booklet, "Capture the Sun with B & G *Hydro-Flo* Heating," will give you the complete picture—write today.



The basic units of a B & G *Hydro-Flo* Heating System can be installed on any hot water heating boiler.

® Reg. U. S. Pat. Off.



BELL & GOSSETT

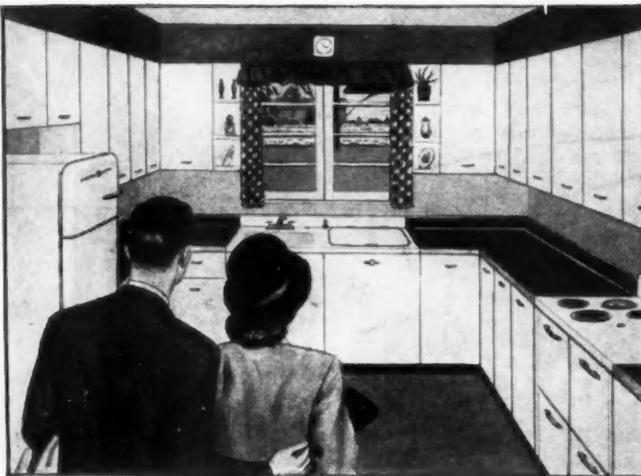
Company

Dept. AW-11
Morton Grove, Ill.



They're looking

Seeing and Selling a General Electric Equipped Home



1. This beautiful General Electric kitchen-laundry inspires any buyer. In a nationwide survey, *51 per cent of the men and 53 per cent of the women said they prefer General Electric appliances.* Each appliance brings you extra profit.



2. The G-E way of living in action. This Electric Sink eliminates messy clean-up jobs. The homemaker saves weeks of work each year, gets hours of extra leisure each day. Operating cost: mere pennies a day!



3. What woman could resist this General Electric Laundry Center? In this bright, sunny corner, the housewife saves time, work, money. Quick-clean washing, fluff drying, effortless ironing, all help to banish washday drudgery.



4. Can they afford the G-E way of living? Yes, definitely, in a "packaged mortgage." It costs only up to \$4.80 extra each month, much less than it would cost to buy any one of these appliances on the installment plan!

for a home that features...



The G-E Way of Living!

Today's home buyers seek houses that give them easier living... *electrically!* Let General Electric Home Bureau help you plan G-E equipped homes for extra profit opportunities and prestige—at first cost of only \$4.80* extra a month to the buyer! Your cost: zero!

**When equipment is included in a long-term mortgage.*

What is the "G-E way of living"?

It means living in a house where the burdens of homemaking are shifted from *people* to modern *electric appliances!*

The G-E way of living is being enjoyed by thousands and thousands of families today in General Electric equipped homes. And today's home "lookers" are learning to insist on the comfort, convenience, and economy of the G-E way of living... in bungalows *and* in mansions.

In project after project—from ten homes to a thousand—it has been *proved* that—

G-E equipped homes bring the builder *greater prestige*—for a G-E equipped home combines beauty, efficiency, and economy—the best combination for sound sales appeal.

Talking cost and profit

The G-E way of living is *easily* within reach of the average prospect. A complete G-E equipped home costs him only up to \$4.80 more a month, under the "packaged mortgage" plan.

And the buyer *saves* on operation and maintenance of efficient General Electric appliances... often, enough to cover the slight increase in the monthly payment!

Each appliance brings *you* extra profit—so your G-E equipped home is a *more profitable* home to sell.

So you see, the G-E way of living is practical for *you*—and for your prospect!

How can Home Bureau help you make profit out of the G-E way of living? Read the story below.

GENERAL ELECTRIC
HOME BUREAU
SUCCESS STORY
OF THE MONTH

Everett E. Benjamin, New Jersey builder, writes:

"We feel that whether the home is large and expensive or small and inexpensive, the completely modern *General Electric kitchen paves the way to a quicker sale of that home!*" And 90 new Benjamin foundations will soon be topped off by *more* houses with G-E kitchens and laundries!

Let us tell you the *whole* story. And let us show you how G-E Home Bureau can help you plan homes for *better living*—and help you sell them *faster!*

Just drop a post card to the Home Bureau, General Electric Company, Appliance and Merchandise Department, Bridgeport 2, Connecticut.



Everett E. Benjamin

GENERAL  ELECTRIC

YOU CAN PUT YOUR CONFIDENCE IN GENERAL ELECTRIC



Newton, Iowa

1000-home project uses
KIMSUL* insulation throughout!



Builders choose KIMSUL for its Low Cost — High Insulating Efficiency

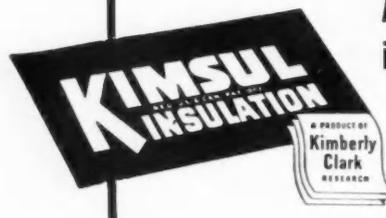
Pictured here are three of the 35 different styles of houses being built at Newton, Iowa, employing streamlined construction methods devised by Chief Engineer J. Buford Jenkins. This is a 100% site-prefabricated project. Leaders of the non-profit organization financing it, say the houses will sell for \$8,000-\$10,000. It is expected that 1000 units will be completed within three years—all of them insulated throughout with KIMSUL.

Whether you're building one house or a thousand, investigate first the many advantages of using KIMSUL insulation. For KIMSUL, with a "k" factor of 0.27, is the only many-layer stitched blanket type of insulation—and that means uniform efficiency over every inch of covered area. No thick spots—no thin spots where heat can leak out. What's more, KIMSUL comes in light, handy, compressed rolls, so it's easier and more profitable to install. No need for skilled workmen or expensive machinery. And KIMSUL is the only insulation with the fire-resistant Pyrogard* cover.

For further information, see your distributor, or write for our free booklet covering the latest techniques in the insulation field.

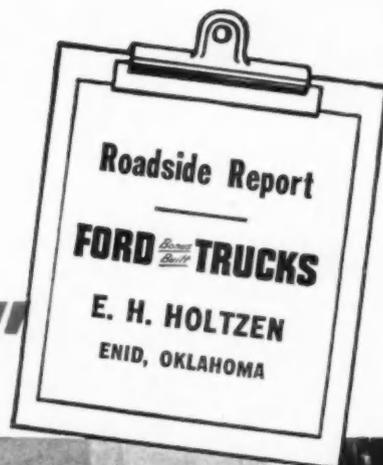
KIMBERLY-CLARK CORPORATION
Neenah, Wisconsin

**America's Finest New Homes are
insulated with Kimsul!**



*T. M. REG. U. S. AND CAN. PAT. OFF.

"Our FORD F-7 does the job with POWER to spare!"



"THIS TIME we graduated into the big truck class with a Bonus Built Ford F-7 Big Job," writes E. H. Holtzen of Enid, Oklahoma. "Our Ford F-7 does the job with power to spare, and we can understand what you mean by 'Bonus Built.' Our costs have been negligible, and our gas mileage is very economical."

With Mr. Holtzen, as with thousands of other extra heavy duty truck users, the new Ford 145-horsepower Big Jobs are all the go! One reason why . . . engine power second to none in its class. Second reason . . . the luxury of the new Ford Million Dollar Cab. Third reason . . . Bonus Built construction, a feature of every one of over 139 Ford Truck models. Bonus Built is the superstrong construction that contributes to long truck life. Life insurance experts prove Ford Trucks last longer!



BUILT STRONGER TO LAST LONGER

USING LATEST REGISTRATION DATA ON 5,444,000 TRUCKS, LIFE INSURANCE EXPERTS PROVE FORD TRUCKS LAST LONGER!

ONLY THE FORD BIG JOB HAS ALL THESE FEATURES!

- ★ New 145-h.p. Ford V-8 engine for top performance.
- ★ Ford exclusive concentric dual-throat carburetor for more power, more economy.
- ★ New heavy duty 5-speed transmissions for operating flexibility.
- ★ Big Ford rear brakes for sure-footed stopping; 16-inch by 5-inch in the F-8.
- ★ Ford Super Quadrax 2-speed axle with vacuum shift for performance flexibility in Model F-8 (single speed axle also available); single-speed Quadrax Hypoid Axle in Model F-7.
- ★ Large diameter (10-inch) wheel bolt circle with 8 studs to allow for extra-strong hub construction.
- ★ Million Dollar Cab with Ford Exclusive Level Action suspension for greater driving comfort.
- ★ Nationwide service from over 6,400 Ford Dealers.
- ★ Ford Bonus Built construction for long truck life.

Gross Vehicle Weight Ratings: F-8 up to 21,500 lbs., F-7 up to 19,000 lbs. Gross combination ratings: F-8 up to 39,000 lbs., F-7 up to 35,000 lbs.

More Glass means

here's proof
from "Pittsburgh"



IN BANKS OR BAKERIES... shoe stores or hat shops, "open vision" fronts help achieve the same end — more business. "Pittsburgh's" complete line of quality glass products and "Pittsburgh's" trained and skilled installation crews have helped to create talked-about "open vision" fronts across the country. So when you're selling store fronts, remember — your job will be easier when you mention "Pittsburgh" Products — and the store will be a better one if you use them.

MODERN HOMEOWNERS want mirrors such as this. Every modern home needs them. While the full-length door mirror tops the popularity list, other practical applications are: over living room mantels... in kitchens and entrance halls for quick spruce-ups. "Pittsburgh" Mirrors not only increase the appeal of your homes, but help increase your profits as well.



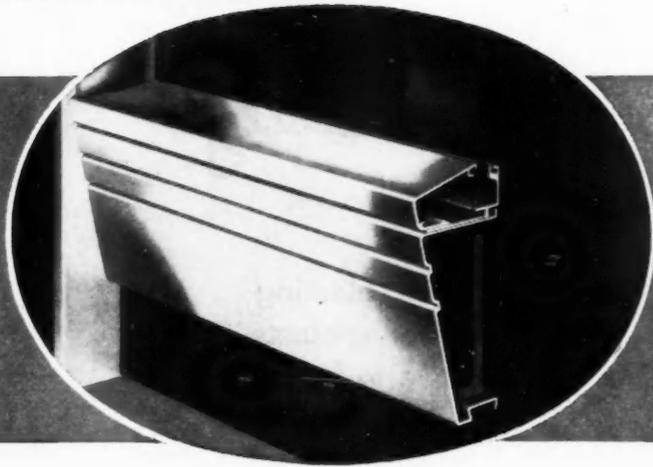
★ Design it better with



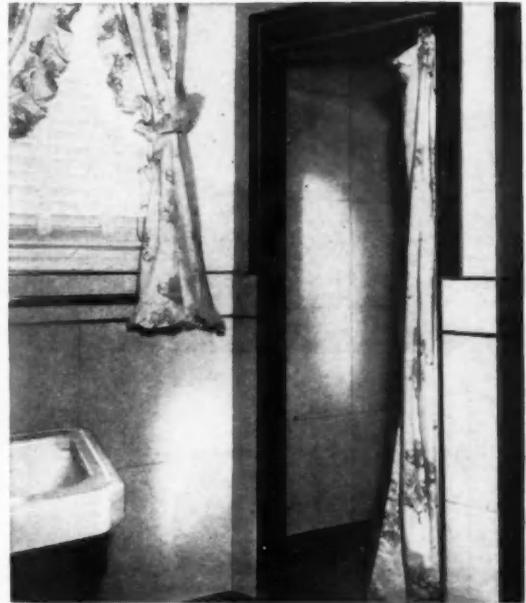
MOST views cause less ideas are r wind

P I

Better Buildings



2 PITCO DE LUXE MEMBERS — a sill-sash combination — have been designed to simplify installation and reduce the hazards of glass breakage in certain types of modern store front design. Setting procedure is so simple that a substantial saving in setting time is usually effected. The sill was designed to recess the Carrara Structural Glass bulkhead, providing toe room and protection. Invertible sill members offer variety in styling.



TO HELP YOU make better Carrara Glass installations, a new Carrara edge pointing compound has been developed in "Pittsburgh" laboratories. Setting into a tough, resilient, non-absorbent film, this new compound maintains high adhesion to the edges of the Carrara Glass. This development is typical of the work being done in "Pittsburgh" laboratories to improve the performance of all "Pittsburgh" glass products in service, as well as the quality of the products themselves.



MOST HOMEOWNERS want to take full advantage of pleasant views. That, of course, calls for picture windows. Because of its perfect transparency and brilliant flawless surfaces, Pittsburgh Polished Plate Glass is ideal for picture windows. And where insulated windows are required, we suggest Twindow — "Pittsburgh's" window with built-in insulation.

Free!

We will gladly send you free our special "Builders Kit" which includes illustrated literature showing how you can use glass effectively on all types of jobs in which you are interested.

Pittsburgh Plate Glass Company
2039-9 Grant Building, Pittsburgh 19, Pa.
Please send me without obligation your "Builders Kit" of illustrated literature.
Name.....
Address.....
City..... State.....

Pittsburgh Glass

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

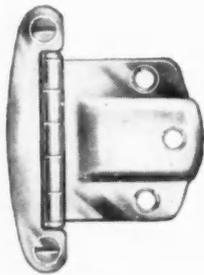
PITTSBURGH PLATE GLASS COMPANY

New MATCHING CABINET HARDWARE by Stanley



Saves guesswork in selecting
right combination for cabinets
... gives added value to homes

NEW Cabinet Door Pull (4419)—
For use with a Stanley friction
catch. Makes an excellent combin-
ation. No. 4420 Drawer Pull (not
shown) matches it perfectly.



NEW Cabinet Hinge (1539)—De-
signed for application on flush
doors, these surface mounted
matching cabinet hinges come in
gleaming chrome. Also available
for lipped doors under class 1529.



NEW Cabinet Latch (4220)—By
popular demand, this positive door
latch is now furnished with a
chrome thumb-piece (available
also with plastic thumb-piece, in
red or black). Matches 4420
Drawer Pull.

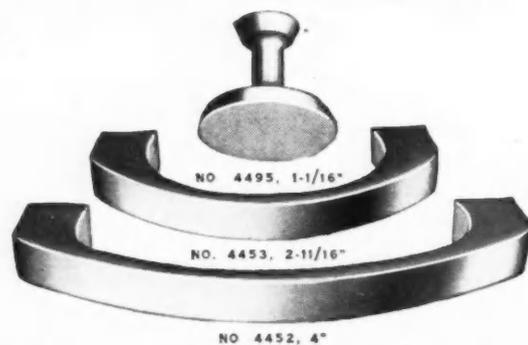
The architect who recommends Stanley Matching Cabinet Hardware adds to the *value*, as well as appearance, of the homes he plans. The builder who chooses the new Stanley line saves time and trouble—drawer pulls, latches and hinges *match*, eliminating guesswork in selecting the right combination for cabinets.

Whether of Solid Brass or gleaming chrome, nothing can match the beauty of this Matching Cabinet Hardware. And clients are impressed when you point out that "cabinet hardware throughout the house is made by Stanley". Home owners have learned, from experience and from hardware dealers, that Stanley is the greatest name in hardware. The Stanley Works, New Britain, Connecticut.

STANLEY

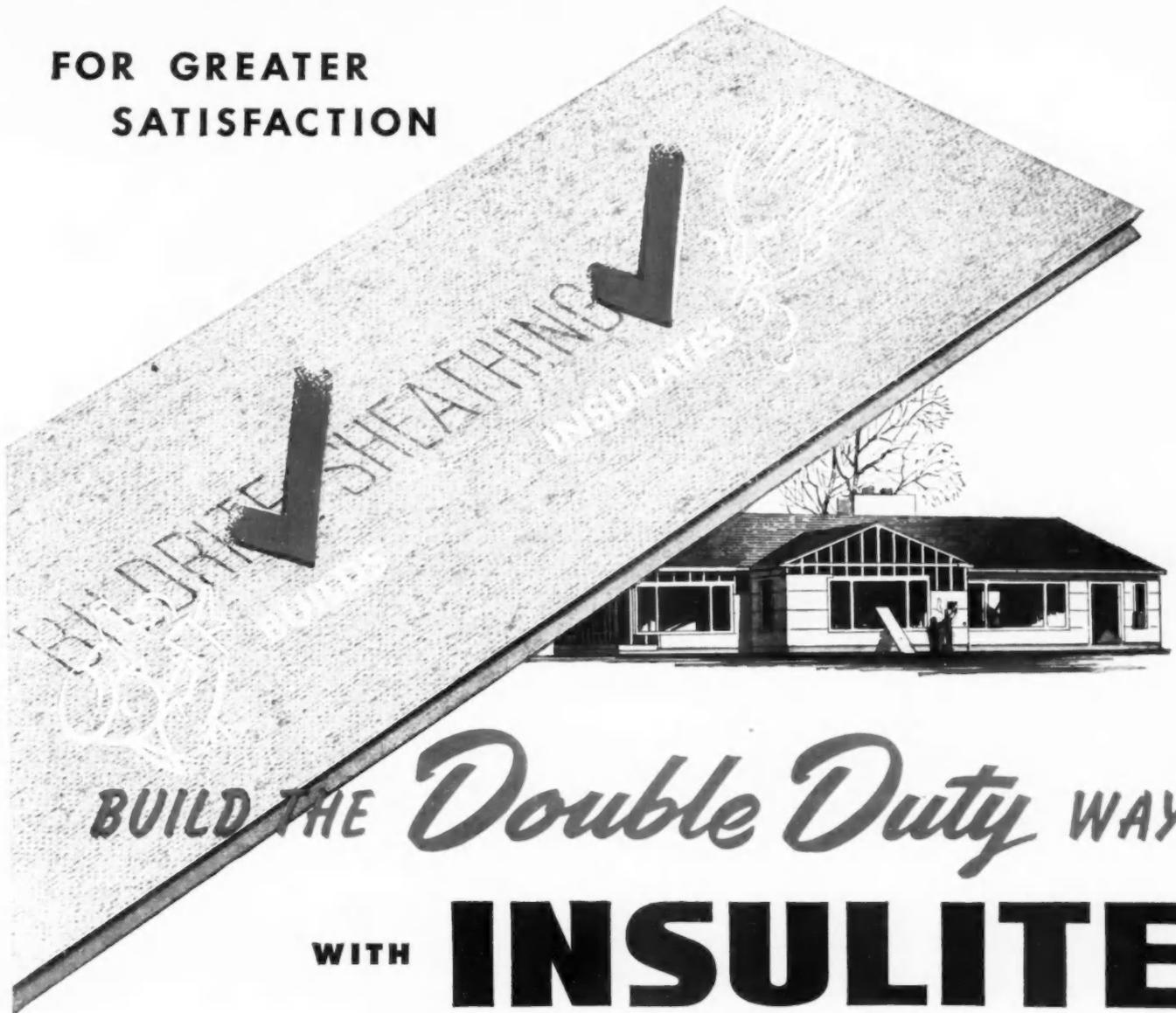
Reg. U.S. Pat. Off.

HARDWARE • HAND TOOLS • ELECTRIC TOOLS • STEEL STRAPPING



NEW Solid Brass Cabinet Pulls by Stanley in trim, modern designs, for clients who want "the finest of everything". Made of brass, they are furnished in gleaming, lustrous brass, chromium, or choice of standard hardware finishes.

**FOR GREATER
SATISFACTION**



BUILD THE *Double Duty* **WAY**
WITH **INSULITE**

Better for you and better for your customer. Your customer gets a PLUS value because Insulite gives him extra *insulating* value, and he likes his warm draught-free home. But your gain is even greater because Insulite cuts fast, fits easy, goes on in record time. Speeds up construction. Helps assure better profits on the job.

See Sweet's File
for Builders — 2c/11

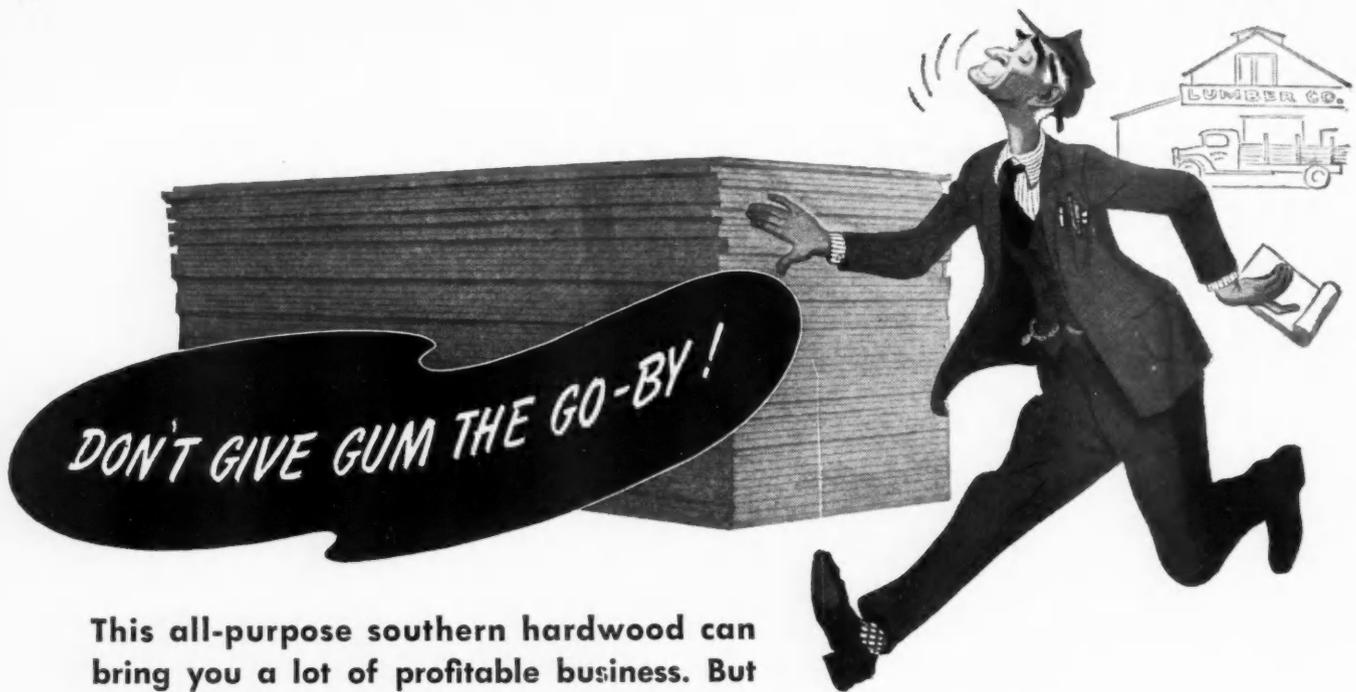
Double Duty



INSULITE DIVISION  MINNESOTA & ONTARIO
PAPER COMPANY
MINNEAPOLIS 2, MINNESOTA

"Insulite" is a registered
trade mark, U. S. Pat. Off.

INSULITE



This all-purpose southern hardwood can bring you a lot of profitable business. But for top-quality at fair prices . . . be sure the gum plywood you feature is Weldwood gum!

Don't overlook the possibilities of this lowest-priced hardwood plywood. And don't . . . just because of the low price . . . forget what really fine work you can do with a good unselected gum panel.

By that, we don't mean you should rush out and buy gum indiscriminately. Because, during the past several years, a great deal of inferior gum plywood has found its way to the market.

But we do want to remind you that *good* gum plywood is an attractive, reasonably-priced cabinet hardwood that works beautifully, and makes a striking finished installation. And *Weldwood* gum panels are always the cream of the plywood crop.

Like all Weldwood hardwood plywood . . .

oak, mahogany, birch, walnut and many others . . . every gum panel is under constant care by Weldwood experts . . . from forest to finished panel. Manufactured with the most modern methods and equipment . . . it must pass rigid inspection before it is allowed to carry the Weldwood name.

Weldwood gum panels are versatile, too. They take stains readily . . . to finish up as beautifully simulated mahogany or walnut. And for painted surfaces, these panels are ideal because there's no grain raise.

So don't give gum the go-by. It's a beautiful wood, reasonably priced, and can bring you a lot of business.

WELDWOOD Plywood

Weldwood Plywood and Mengel Flush Doors are products of
UNITED STATES PLYWOOD CORPORATION **THE MENGEL COMPANY**
 New York 18, N. Y. Louisville 1, Ky.

Distributing units in Baltimore, Boston, Brooklyn, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Fresno, High Point, Los Angeles, Milwaukee, Newark, New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore., Richmond, Rochester, San Francisco, Seattle. Also U. S.-Mengel Plywoods, Inc. distributing units in Atlanta, Birmingham, Dallas, Houston, Jacksonville, Louisville, New Orleans, San Antonio, St. Louis, Tampa. *In Canada:* United States Plywood of Canada, Limited, Toronto. *Send inquiries to nearest point.*

Weldwood* Hardwood Plywood
 Douglas Fir Weldwood
 Mengel Flush Doors
 Douglas Fir Doors
 Overhead Garage Doors
 Molded Plywood
 Armorply* (metal-faced plywood)
 Tekwood* (paper-faced plywood)



**Plastics and Wood
 Welded for Good**

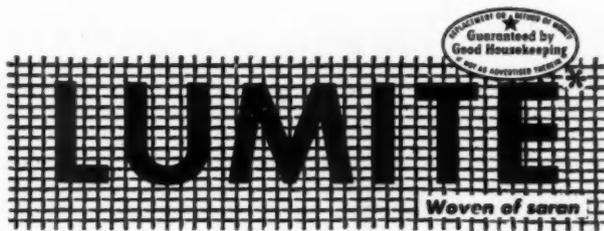
Flexmet
 Weldwood Glue* and other adhesives
 Weldtex* (striated plywood)
 Decorative Micarta*
 Flexwood*
 Flexglass*
 Firzite*
 Weldwood Fire Doors
 Weldwood Flush Veneer Doors

*Reg. U. S. Pat. Off.

Weldwood Plywood is made in both Interior and Exterior types, the former bonded with extended urea resins and other approved bonding agents; the latter with phenol formaldehyde synthetic resin.

"No sign of any staining"

Reports manager of
Everglades Hotel, Miami



*®

 HOTEL EVERGLADES
ON BISCAYNE BAY MIAMI FLORIDA

December 9, 1948

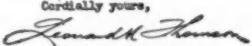
Mr. W. J. Holman, Vice-President
Chicopee Manufacturing Corporation - Lumite Division
47 North Street
New York, New York

Dear Mr. Holman:

We are very happy to advise that the Lumite screen cloth was installed in all of our screen openings here at the Everglades last year when the building was completely renovated and the material is standing up wonderfully well. This screen was chosen to prevent staining of the building beneath the doors and windows and there is no sign of any staining more than a year after the material was installed.

The Everglades has approximately 1,800 windows and doors and we used approximately 27,000 square feet of this material.

We are happy to recommend this material for similar use as it is very satisfactory.

Cordially yours,

Leonard E. Thomson
Manager

LAT:jes

Miami's famous Everglades Hotel chose Lumite because it will

- NEVER RUST
- NEVER CORRODE
- NEVER STAIN
- LAST LONGER

Wherever climatic conditions destroy other types of screening—LUMITE is the only answer. It is unaffected by the usual enemies of screening such as salt spray, moisture, or acid smoke.

When properly framed it will never sag or bulge. It actually has greater impact strength than any old-style screening.

LUMITE costs only 11½ cents to 12 cents per square foot (retail)—much less than any other quality screening. Consult SWEET'S FILE for further information or write Dept. AB-1, LUMITE DIVISION, Chicopee Manufacturing Corporation, 47 Worth Street, New York 13, N. Y.

Sold by leading hardware, lumber and building supply dealers and screen manufacturers.

SPECIFY LUMITE*
woven of saran

SPECIFICATIONS

EFFECTS OF ACIDS, ALKALIS AND SOLVENTS—Essentially none.

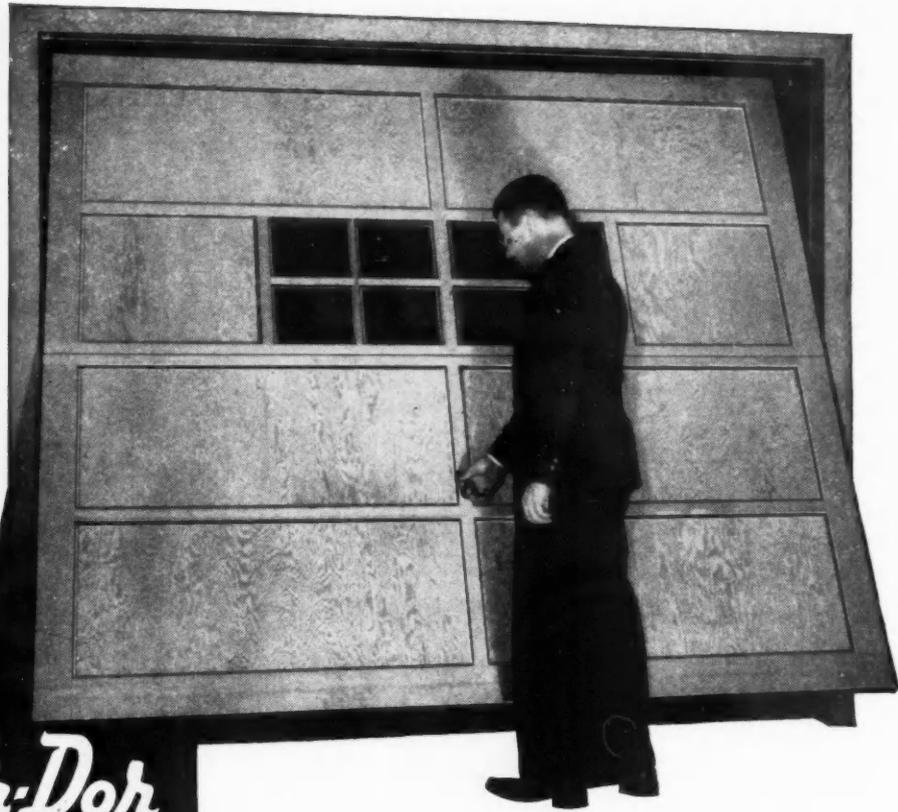
BURNING RATE—None. (Lumite is Non-Inflammable.) Melts at 340°F.

WATER ABSORPTION—Immersion 24 hours, less than 0.1%.

TENSILE STRENGTH, ULTIMATE (of filament)—Up to 50,000 lbs. per sq. in.

IMPACT STRENGTH—Greater than conventional screening.

INSTALLATION. Cut with ordinary scissors. Fold cut edges under ½". Tack every 1½" through two thicknesses. Being elastic, Lumite will automatically draw itself into a snug, firm fit. For correct methods of machine framing, consult Lumite engineers.



Craw-Fir-Dor

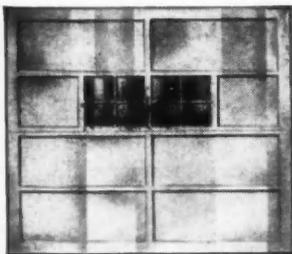
SELF-ENERGIZING • ONE PIECE • OVERHEAD TYPE

Garage Door

...OPENS THE WAY TO BETTER BUILDING...
AT *low* COST!



CRAW-FIR-DOR No. 44



CRAW-FIR-DOR No. 45

What feature is most important to you in selecting garage doors? Cost? Appearance? Strength? Durability? Ease of installation?

Craw-Fir-Dor offers *all of these features!*

Low Cost—Modern mass production and mass distribution bring you this precision-built door at an amazingly low cost.

Attractive Appearance—Craw-Fir-Dor is made in two attractive designs, to harmonize with any style of architecture. A new, auto-type lock gives added safety and beauty.

Durable and Strong—Craw-Fir-Dor will give long-lasting service. Panels are of Exterior-type waterproof, weatherproof Douglas fir plywood.

Easy to Install—Craw-Fir-Dor is pre-fit to standard 8 by 7-foot size. Hardware is 97% pre-assembled. Install Craw-Fir-Dor quickly with only 5 tools—hammer, saw, screwdriver, level, brace and bit!

**SPECIFY CRAW-FIR-DOR
FOR ALL GARAGE DOOR
INSTALLATIONS—SEE
YOUR LUMBER DEALER!**

Craw-Fir-Dor

SELF-ENERGIZING • ONE PIECE • OVERHEAD TYPE

Garage Door



PORTER-CABLE Speedmatic TOOLS

ONE MOTOR SERVES ALL FOUR MACHINES

You save \$267 by Speedmatic's EXCLUSIVE Feature—the Quickly Interchangeable Motor Unit. It actually eliminates the cost of 3 motors. **GIVES YOU ECONOMY!**

In just a few seconds you can take off the Router motor and put it on the Shaper, the Plane, or the Lock Mortiser. **GIVES YOU ADAPTABILITY!**

1

Speedmatic Router

2

Speedmatic Shaper

Many Different Jobs!

Three to Five Times FASTER!

On all kinds of routing and shaping, Speedmatics give you cost-cutting speed — and a highly professional job — even when used by less experienced workmen.

With Speedmatics, you can cut mortises for door locks, hinge butts, stair stringers. You can plane doors and sash, and make various difficult fits. Many time-taking operations are changed into quick, accurate and uniform machine operations by these four tools.

And Speedmatics outperform and outlast ordinary tools — because they have the full benefit of Porter-Cable's 42-year reputation for quality. Note the superiorities and greater value that are built into each unit:

1 Speedmatic Router — Has at least 50% more power. No shaft distortion. Simple, accurate micrometer adjustment for depth cut. Self-adjusting end-thrust bearing for longer service.

Complete with motor \$125

2 Speedmatic Shaper — Uses inverted Router attached to pedestal-mounted table. (Table top also clamps to bench.)

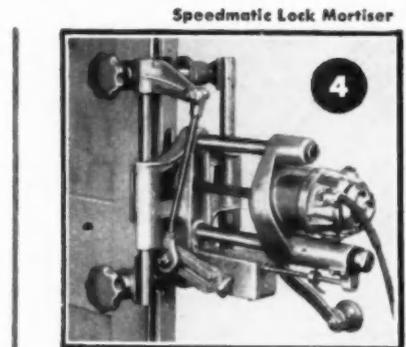
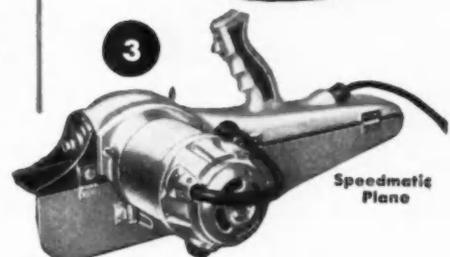
Complete with Router \$225
Table and pedestal only \$100

See your Hardware, Mill Supply or Lumber Dealer today! Or, write for complete catalog and name of dealer nearest you.

3 Speedmatic Plane — Positive, easy-to-read depth adjustment. Has renewable and reversible cutter blades that cut twice as fast, last 3 times longer between sharpenings. Includes simple grinding attachment to sharpen blades while in place.

Complete \$175
Using Router motor \$86

4 Speedmatic Lock Mortiser — Does lock mortising in one-third the time. Easy to use. Feed is positive and semi-automatic. Stops when bit reaches desired pre-set length and depth of cut. Complete . . . \$180
Using Router motor \$91



● Complete Line of Templets, Bits, Cutters and other time-saving accessories.

Speedmatics Pay for Themselves Quickly

You may buy these Speedmatic woodworking tools either as a group or separately. Whether you use one or all, your investment will pay out quickly. Remember these money-saving reasons:

1. Save the cost of EXTRA motors!
2. Do all kinds of mortising, planing, shaping, routing jobs!
3. Fit, hang and lock-mortise up to 11 doors in a day!
4. More than 140 bits, many different templets, make intricate cuts easy.

Porter-Cable

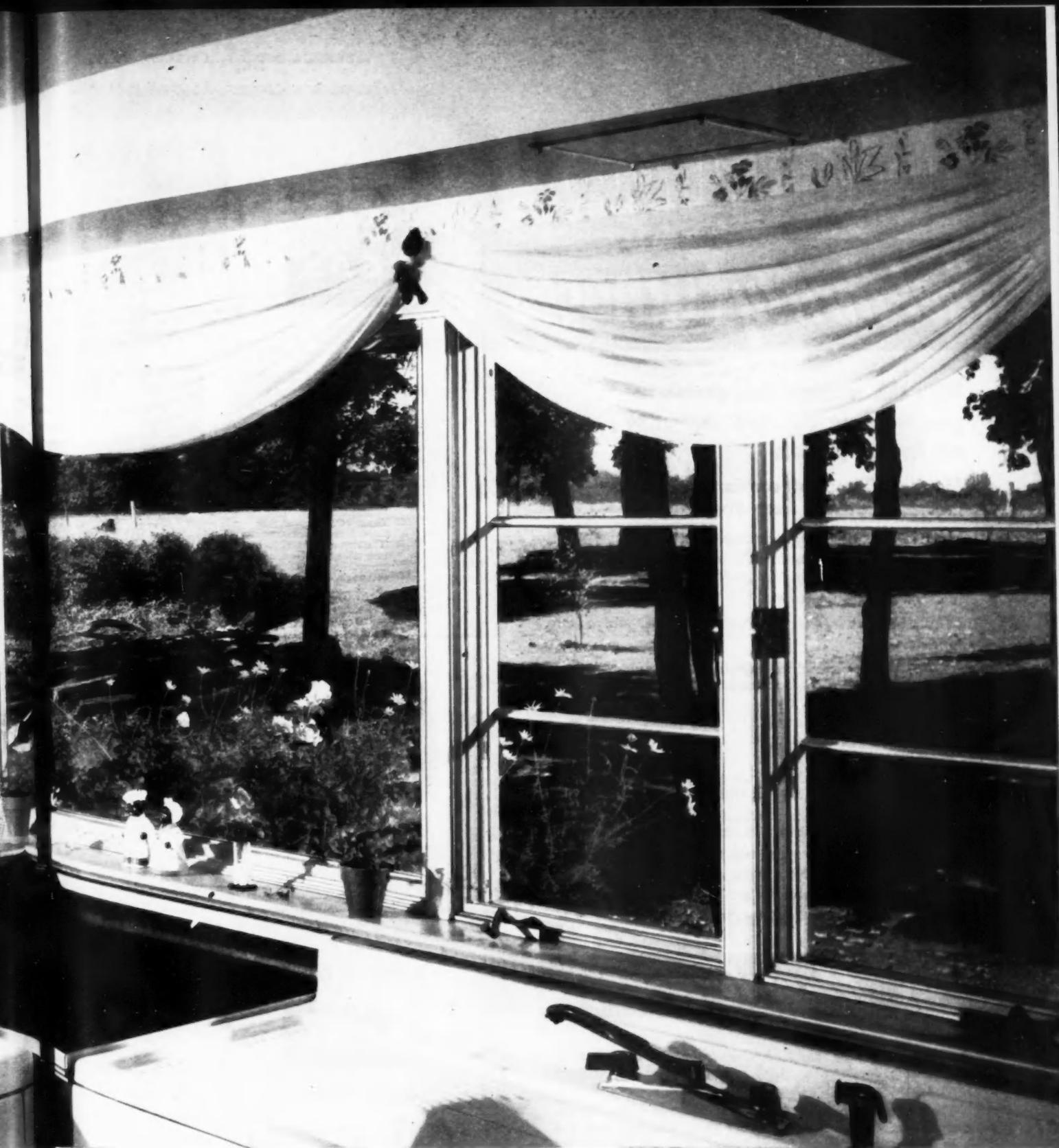
MACHINE CO.

1402 N. Salina St., Syracuse, N. Y.

Manufacturers of Speedmatic and Guild Electric Tools.



Windowalls^{*}
ANDERSEN



Andersen Casement Window Units in Sam Buron Home, Pine Bend, Minnesota

KITCHEN SORCERY: in which the illusion has been created that the *inside* of the home is really *outside*, in the sunshine and fresh air.

Andersen Casement Window Units form these WINDOWALLS... a non-ventilating picture window

flanked on each side by mullioned casements.

Specification data on ANDERSEN WINDOWALLS is in Sweet's Architectural and Builders' Catalogs, or will be sent by us upon request. See your local lumber or millwork dealer for further information.

*TRADEMARK OF ANDERSEN CORPORATION

Andersen Corporation

BAYPORT • MINNESOTA

Mueller Climatrol

fuel-thrifty Furnaces

With this complete line, there's no question about the *right* answer to any heating problem

Mueller Climatrol comfort wins quick and lasting approval from your clients

Here's a formula that guarantees client approval — saves time and trouble on every job: *Mueller Climatrol heating equals modern comfort and economy multiplied by years of client satisfaction.*

And here's why you can count on quick and lasting approval:

- 92 years of specialized experience and years of national advertising in leading magazines have established the Mueller Climatrol name.
- Up-to-the minute engineering gives your client the most advanced new heating developments. (See "Modular Design" below.)
- The complete Mueller Climatrol line gives you a unit you *know* is right for any job, with any fuel.
- Every Mueller Climatrol Furnace is built to deliver years of satisfying, fuel-thrifty comfort.

When you make it a practice to recommend Mueller Climatrol equipment, you make sure of successful jobs. Write for complete information . . . *L. J. Mueller Furnace Co., 2016 W. Oklahoma Ave., Milwaukee 7, Wis.*

M Modular Design...

All units starred **M** are Modular Furnaces — Mueller's great new heating development. Each is composed of combinations from a basic group of standardized, interchangeable units.

Thus, you can install any modular equipment (up to the complete year-round air conditioner) all at once *or a step at a time* to fit your clients' needs and budget. You can change from one fuel to another by switching modular units. You can expand the initial installation by adding modular units. At each stage, your client enjoys the efficiency of a completely engineered heating system! Write for complete details on this great new step in home-planning.

M U E L L E R
Climatrol
REG. U.S. PAT. OFF.

FOR GAS



Type 101 Gravity Furnace—Steel. For small and medium-size homes.



Type 108 Winter Air Conditioner—Cast iron. The blower-filter cabinet can be installed on either side of the heat-exchanger cabinet.



Type 109 Winter Air Conditioner—Steel. Vertical cabinet for space-saving installation. Blower assembly mounted in exclusive Roll-a-Drawer.

FOR OIL



Type 50 Winter Air Conditioner—Steel. For residential and commercial installations. Pressure-atomizing burner.

FOR COAL



Type "F" Gravity Furnace—Cast iron. Five sizes from 20" to 30" firepots. Also furnished with square casings.



Type 701 Gravity Furnace—Steel. Three sizes: 20", 22", 24". Also available in square, green lacquer cabinet.



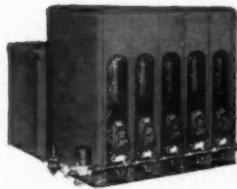
Type 702 Winter Air Conditioner—Steel. Type 701 and blower-filter unit combined in one cabinet.



Type "WG" Gravity Furnace—Cast iron. For small, compact home. 42,000 Btu at register.



Type 102 Winter Air Conditioner — Steel. "Heat-Speeder" sectional heat-exchanger design.



Type 103 Forced Air Furnace — Steel. "Heat-Speeder" sectional heat-exchanger. For large residences, apartment houses, and commercial installations.



Type 105 Winter Air Conditioner — Steel. Type 101 plus forced-air circulating and filtering unit. Shown with Mueller Levelizer Control System.



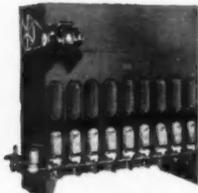
Type 106 Gravity Furnace — Cast iron. Vertical design for space-saving installation in small and medium-size homes.



Type 107 Winter Air Conditioner — Cast iron. Type 106 plus forced-air circulating and filtering unit.



Type 110 Winter Air Conditioner — Steel. Vertical design similar to Type 109 less Roll-a-Drawer. For small homes and apartments.



Type "UH" Unit Heater — Space heating unit for factories, warehouses, hangars, shops.



Type 150 Unit Heater — Suspended type. For flexible, space-saving, "overhead" installation.



Type 10 Boiler — For steam, hot water, or vapor heat, and hot-water supply in residences and small commercial or industrial installations.



Type 11 Boiler — Same as Type 10 except that controls are not enclosed in outer cabinet.



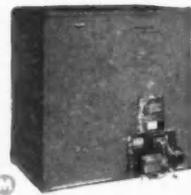
Type 20 Boiler — For steam, hot water, or vapor heat in large residences, and commercial and industrial jobs. Sectional construction for battery installations.



Type 500 Conversion Burner — Designed for quick, easy installation to convert coal- and oil-fired units.



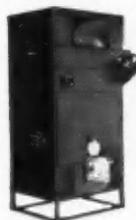
Type 201 Gravity Furnace — Steel. For small and medium-size homes. With pressure-atomizing or vaporizing burner.



Type 202 Winter Air Conditioner — Steel. Type 201 plus forced-air circulating and filtering unit.



Type 209 Winter Air Conditioner — Steel. Vertical cabinet for space-saving installation. Blower assembly mounted in exclusive Roll-a-Drawer.



Type OH-57 Unit Heater — For industrial applications. Pressure-atomizing burner.



Type 404 Conversion Burner — Highly efficient vaporizing oil burner with exclusive "flame-bowl" design. Capacities of $\frac{3}{4}$ and 1 gal. per hour.



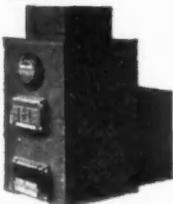
Type 450 Conversion Burner — Pressure-atomizing type. Nozzle capacities from 1 to 5 gal. per hour.



Type 460 Conversion Burner — Highly efficient pressure-atomizing type. Nozzle capacities from 1 to 2 gal. per hour.



Type "FB" Winter Air Conditioner — Cast iron. Type F and blower-filter unit combined in one cabinet.



Type "WR-72" Forced Air Furnace — Cast iron. Type "WG" plus forced-air circulating unit. 61,200 Btu at register.

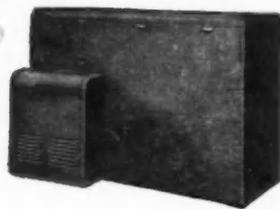
Year 'Round Air Conditioning



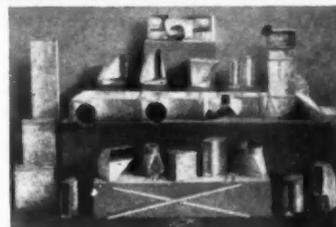
Type 900 Condensing Unit and Coil — For installation in standard forced-air heating systems. Sizes: 3 and 5 tons.



Type 901 Summer Air Conditioner — For installation with Type 105 Gas-fired, and Type 202 Oil-fired Winter Air Conditioners. By-pass damper. Sizes: 3 and 5 tons.



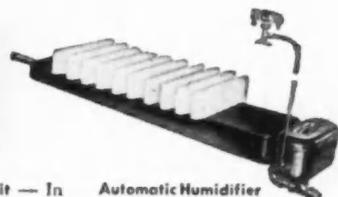
Other Mueller Climatrol Equipment



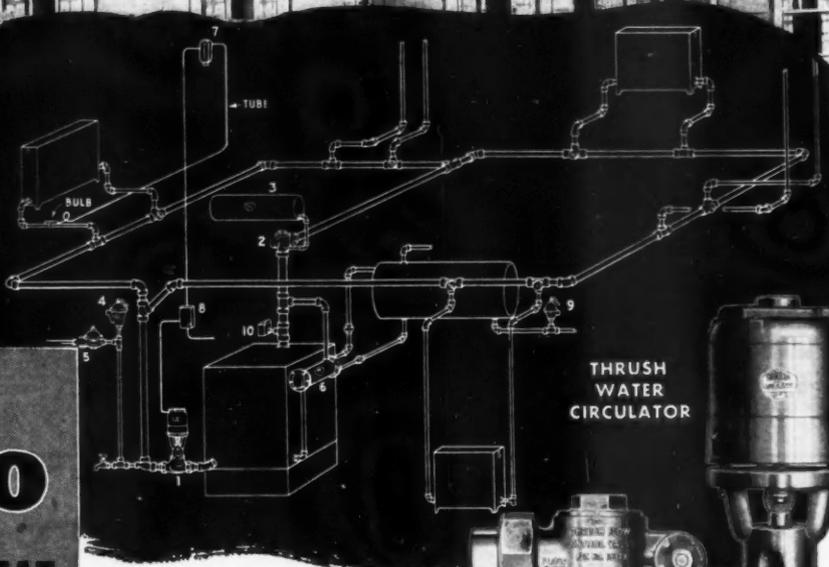
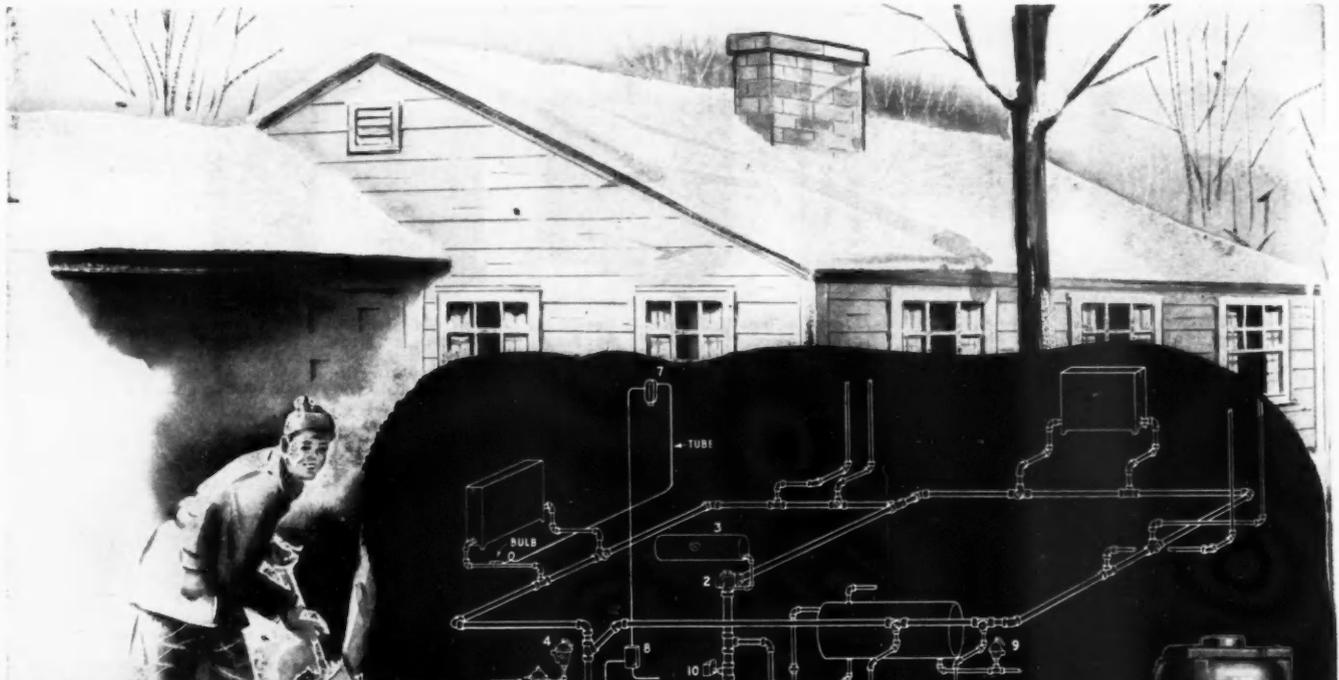
Furnace Pipe, Duct, and Fittings — Complete line for both gravity and forced-air installations.



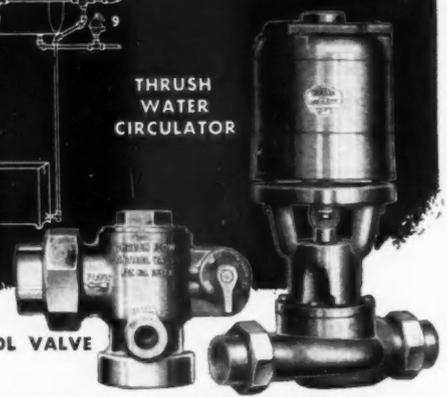
Blower-Filter Unit — In wide range of sizes for heating, ventilating, air-conditioning, and processing applications.



Automatic Humidifier — For installation in hood of any size or make of warm-air furnace.



THRUSH
Ajustaflo
 SINGLE MAIN SYSTEM OF
FORCED HOT WATER HEAT



Now... **YOU CAN INSTALL AJUSTAFLO SYSTEMS WITH COPPER OR STEEL PIPE**

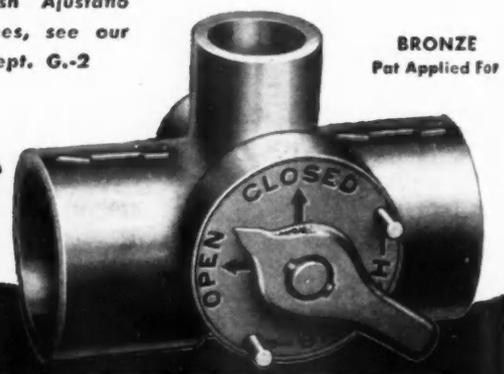
THRUSH Adjustable Supply Tees for perfectly balanced one-pipe heating, are now available in bronze for solder connections as well as cast iron. You may offer the many advantages of the Ajustaflo System with either copper or steel pipe installations. Heating efficiency is improved because just the right amount of water may be diverted to each radiator. Convenient exterior lever adjustment determines the amount of hot water passing from the main through each radiator. This assures uniform heating in every room. Flow of water through the main is increased . . . not throttled . . . when branch flow is cut down by this method.

CAST IRON



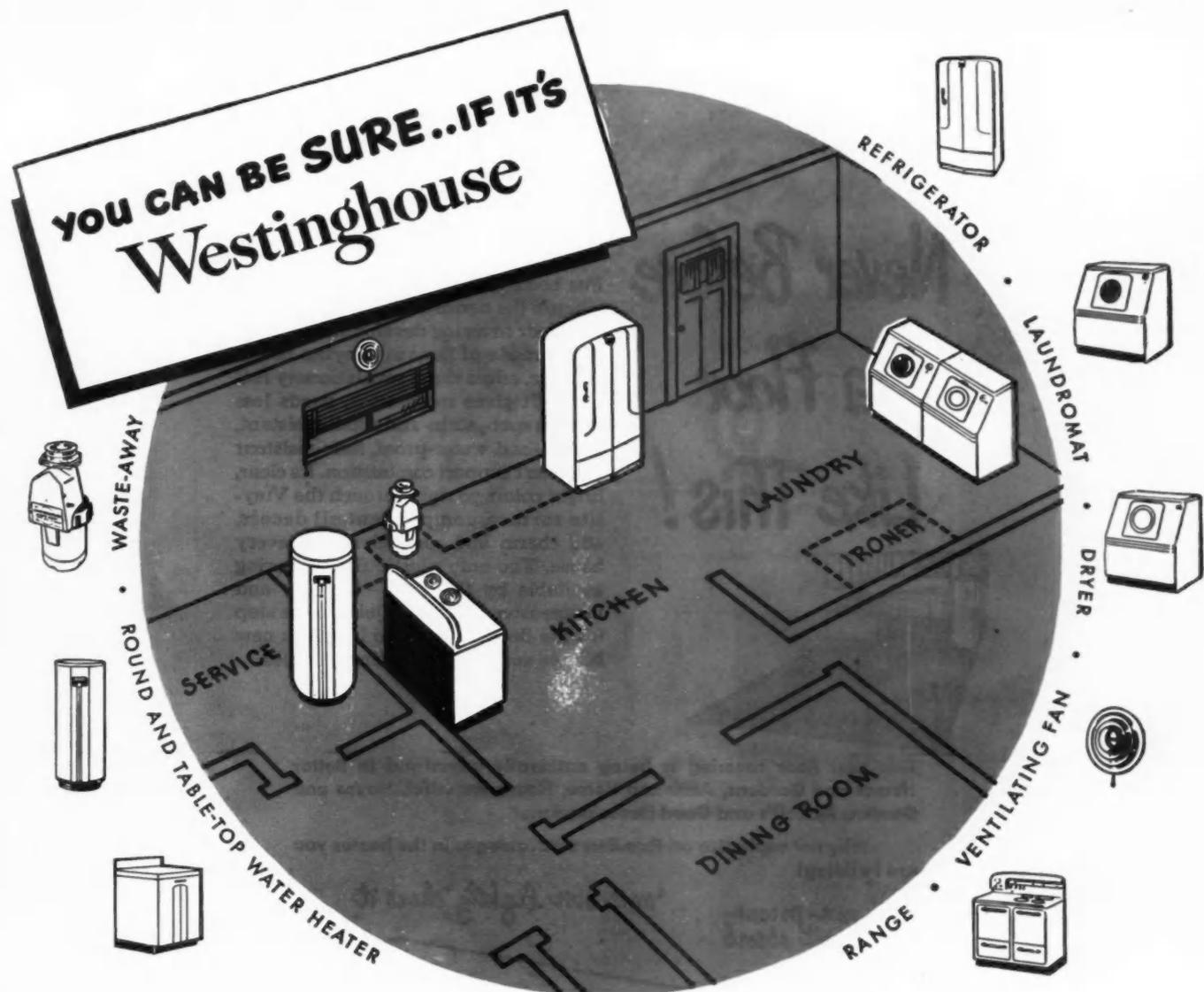
For more information on Thrush Ajustaflo System or Adjustable Supply Tees, see our catalog in Sweet's or address Dept. G.-2

BRONZE Pat Applied For



H. A. THRUSH & CO.
PERU, INDIANA

PERFECTLY BALANCED ONE-PIPE HEATING



Built in Appliances **SELL HOUSES FASTER!**

... especially if they're Westinghouse Sales Makers

When house-hunters see Westinghouse Appliances built into the kitchens and laundries of your houses, it's a good bet they'll be interested.

It is more economical to have plumbed-in, wired-in appliances installed during construction—a selling point your prospects will appreciate. And when you explain that these modern conveniences can be included in the purchase price of the house, at little increase in the down payment or monthly installments, you have a big advantage over competition.

Most of the trade marks of the quality building materials you use are covered over

with plaster and paint. So, when prospects see the Westinghouse name on these sparkling new appliances, they'll know you are giving them the best in everything.

Why not build in Westinghouse Appliances. You'll not only sell houses faster but also make a better profit, as well.

We'll Be Looking for You at the
NAHB CONVENTION & EXHIBITION
Booths 71 to 76

WESTINGHOUSE ELECTRIC CORPORATION

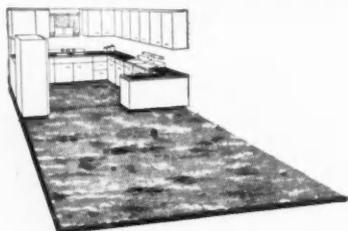
Plants in 25 Cities—Offices Everywhere

Appliance Division

Mansfield, Ohio



Never Before a Floor Like This!



For beauty, convenience and economy —here's the newest, most amazing resilient floor covering development! FLOR-EVER, made of famous Vinylite Brand Plastics, offers these revolutionary features: It gives more wear, needs less care—is spot-, stain- and alkali-resistant, grease- and water-proof, fade-resistant and won't support combustion. Its clear, bright colors go right through the Vinylite surface, complement all decors, add charm and convenience to every house. The only plastic floor covering available by the yard —it's easy and inexpensive to install. Quiet to the step it's the floor covering to install in new houses and in redecorating old ones.

This new floor covering is being nationally advertised in Better Homes and Gardens, American Home, House Beautiful, House and Garden, McCall's and Good Housekeeping.

Why not capitalize on FLOR-EVER'S advantages in the homes you are building!

Smooth non-porous surface won't absorb dirt

"once over lightly" cleans it



DELAWARE FLOOR PRODUCTS, INC., WILMINGTON 99, DELAWARE

New York Showrooms: 295 Fifth Avenue

Also manufacturers of "Wall-Ever" Vinylite Plastic Wall Covering and "Duralin" Enamel Floor Covering.



WHEELER OSGOOD *Tru-sized.*

Doors set the stage
for attractive interiors

A First Class Door Helps You Build a First Class Reputation!

A SECOND CLASS DOOR doesn't save a penny. Not when your reputation is at stake. That's why so many builders specify **TRU-SIZED Doors**. They're first class, first quality in every way... and they save you up to 55 valuable minutes on each installation.

TIME IS MONEY! **TRU-SIZED** doors are factory machined to exact book openings. They're ready to hang—without sawing, fitting or planing. Resin sealing saves additional time—protects

the surface against dirt and dampness and eliminates need of any further priming coat before final finishing.

TRU-SIZED MEANS EXTRA VALUE! You get more for your money in a **TRU-SIZED Door**. You get extra beauty, extra years of service—plus important savings in installation time. **TRU-SIZED Doors** are made only by Wheeler Osgood, and are distributed by leading jobbers from coast to coast.



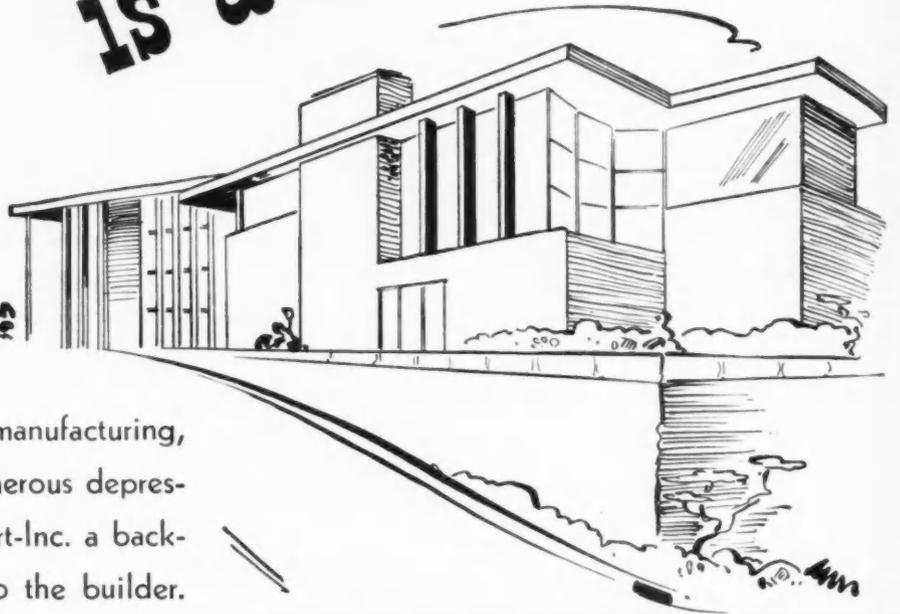
THE Wheeler Osgood COMPANY
Plants and General Offices: Tacoma 1, Washington

1216 St. Paul Ave. • Broadway 9321 • Teletype TA 77

NEW YORK OFFICE	1326 Empire State Building, New York 1	Longoro 4-6520
CHICAGO OFFICE	134 South LaSalle Street, Chicago 3, Illinois	State 2-5335-4-7
SAN FRANCISCO OFFICE	2045 19th Street, San Francisco, California	Valencia 4-2941
LOS ANGELES OFFICE	5100 So. Boyle Ave., Los Angeles 11, California	Logan 5-6245



100 YEARS
is a long time!



One hundred years of paint manufacturing, through four major wars and numerous depressions, have given Pratt & Lambert-Inc. a background of immeasurable value to the builder.

Here is experience and knowledge — yet with an eye to the future as well as the present. Here is quality with economy in modern paints and varnishes that make your houses easier to sell.

Home buyers are quick to recognize the significance of the Pratt & Lambert name. Have you tried it on your houses? Pratt & Lambert-Inc., 80 Tonawanda St., Buffalo 7, N. Y. In Canada, 6 Courtwright St., Fort Erie, Ontario.

PRATT & LAMBERT
paint and varnish

Save the surface and you save all!



1849 — Pratt & Lambert Centennial Year — 1949

OPENING GUN!

... IN THE BIGGEST PROFIT OPPORTUNITY THIS BUSINESS HAS SEEN IN 15 YEARS!
LONGER DISCOUNTS!—BETTER TOOL!—BETTER PRICE!

NO OTHER SAW
HAS THESE
WANTED
FEATURES!

New! PERPETUALLY GUARANTEED*

BALANSAW

by CUMMINS
Model 606...6-inch. With Steel Case.

\$68

At Hardware, Electrical
and Mill Supply Dealers



BALANCE AT LAST!

THE WEIGHT'S ON
THE WORK AND
YOU SEE WHERE YOU SAW

YEAR-LONG NATIONAL ADVERTISING

Here is the first ad, in February
Popular Science and March
Popular Mechanics — long-
lived readership of

4 MILLION

—followed by steady big space
in 15 national magazines in-
cluding the

SATURDAY EVENING POST



GET STARTED ON FAT PROFITS ... Act!

Only BALANSAW combines the two features you want—*Balance* and *Visibility*. With Balansaw, the weight helps do the work instead of dragging on your wrist. And you sight this saw right on the line you're cutting; an internal blower clears the cut of sawdust. Users call it the world's sweetest operating saw, and so will you!

Finest Construction! READ: 6-in. combination blade, 1 7/8 in. in the wood. Blades for flooring and transite available. Steel base adjusts instantly for depth of cut. Die cast aluminum alloy frame. Automatic safety guard. Heavy duty switch. Precision alloy steel worm, navy bronze gear. Impeller-cooled. Anti-friction N.D. ball and roller bearings. 12-in. overall, wgt., 11 lbs. Try BALANSAW at dealer's or mail coupon. You'll agree it's the easiest, surest saw you ever used!

NOT THIS:



NOT THIS:



INSTEAD:



EASY ON THE WRIST

CUMMINS PORTABLE TOOLS DIV.

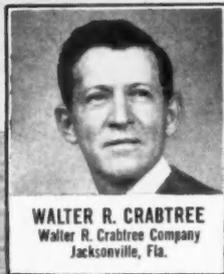
Cummins Business Machines Corp.
4740 No. Ravenswood Ave., Chicago 40, Ill., Dept. No. 6

Gentlemen: At no obligation send me details on the big Balansaw discounts and sales aids.

Name.....

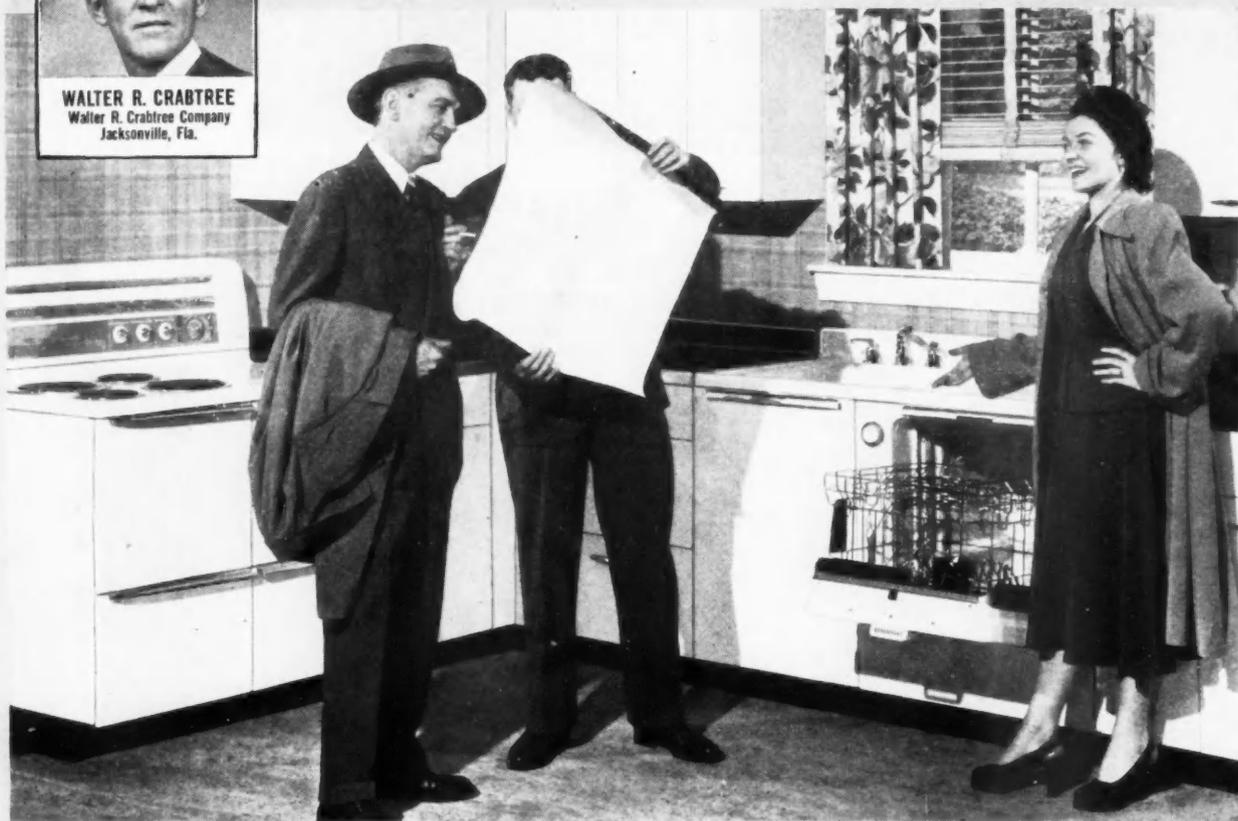
Address.....

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



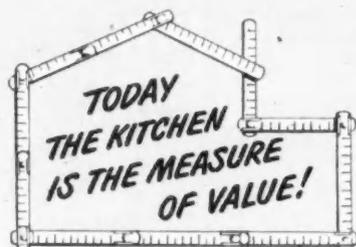
WALTER R. CRABTREE
Walter R. Crabtree Company
Jacksonville, Fla.

Builder **WALTER R. CRABTREE** Finds ...



HOTPOINT All-Electric Kitchens

add that extra value needed to convince today's value-wise home buyers!



"WE FIND that today's home buyers are kitchen-conscious," says Walter R. Crabtree, head of Walter R. Crabtree Company, Jacksonville, Fla., "and today's high home prices look lower when Hotpoint All-Electric Kitchens are installed."

THE CRABTREE COMPANY has equipped more than 100 new homes and 188 apartments with Hotpoint Kitchens and Automatic Electric Water Heaters.

MANY BUILDERS and architects are using nationally popular Hotpoint All-Electric Kitchens to give new housing units *extra* value, *extra* sales appeal—and to make *extra* profits! In most states, kitchens and new homes can be financed together with "package mortgages."

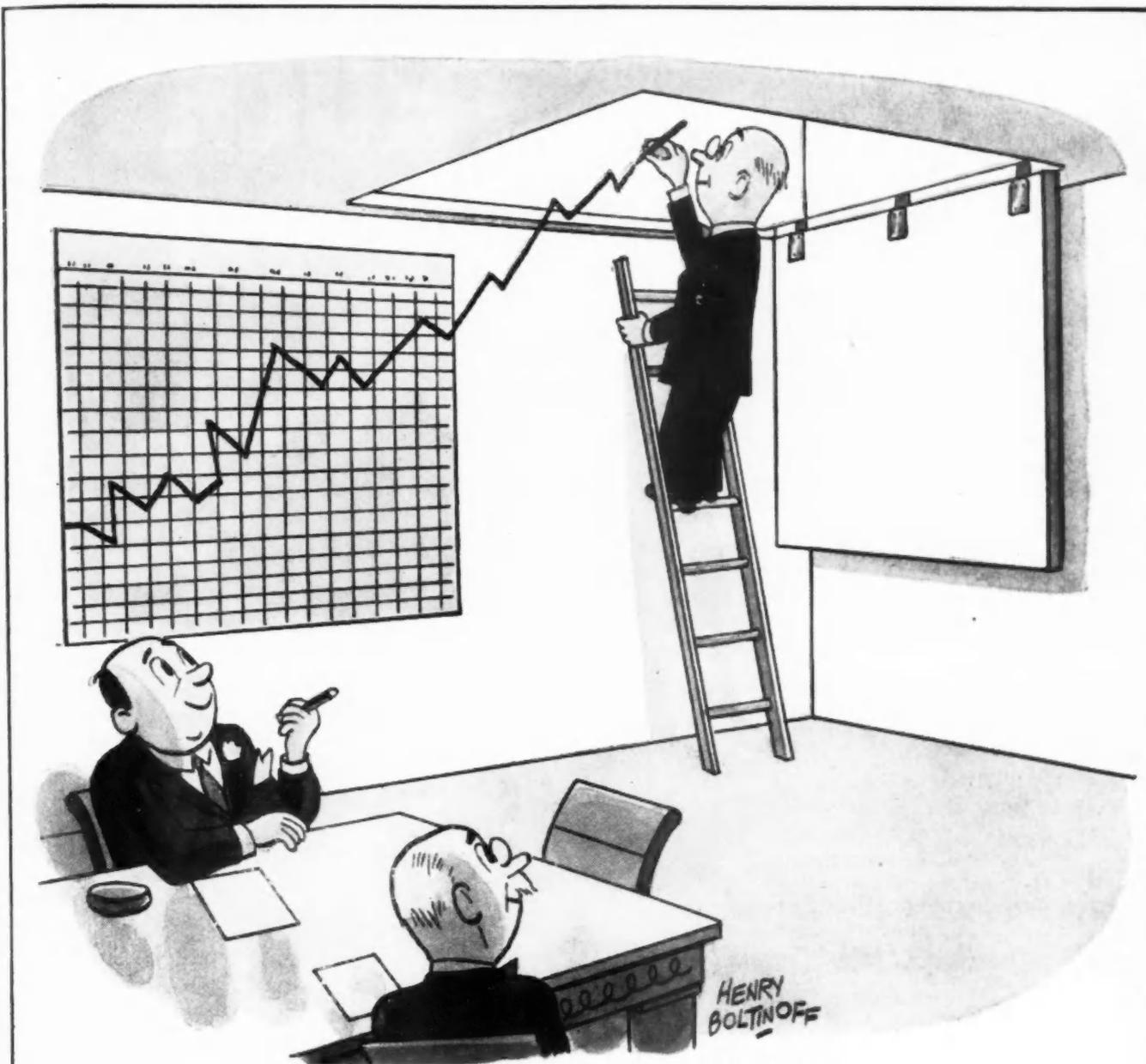
HERE'S A REAL profit-making opportunity. Phone your Hotpoint distributor or dealer ... or write to Hotpoint Inc. (A General Electric Affiliate) 5600 W. Taylor Street, Chicago 44, Illinois.

Everybody's Pointing To

Hotpoint

PIONEER OF THE
ALL-ELECTRIC KITCHEN

RANGES • REFRIGERATORS • WATER HEATERS • FREEZERS • DISHWASHERS • DISPOSALLS® • CLOTHES WASHERS • DRYERS • IRONERS • CABINETS & SINKS



HENRY BOLTINOFF
FAMOUS SATURDAY EVENING POST,
ESQUIRE AND COLLIER'S CARTOONIST

"Montgomery is so clever!

He anticipated this business increase 18 years ago when he reminded the Builder that —

Everything Hinges on Hager!"



C. HAGER & SONS HINGE MFG. CO. • St. Louis, Mo.

FOUNDED 1849 — EVERY HAGER HINGE SWINGS ON 100 YEARS OF EXPERIENCE

© 1948

'JEEP' 2 AND 4 WHEEL DRIVE TRUCKS

Cut Hauling Costs



**Powered by the War-Proved
Willys-Overland 'Jeep' Engine**

TWO GREAT LINES—2-wheel-drive "Jeep" Trucks (4700-5300 lbs. GVW) are built for long service and low operating costs for medium-duty hauling. 4-wheel-drive "Jeep" Trucks (5300 lbs. GVW) meet a real need for a low-weight vehicle with all-wheel traction to get through mud, climb steep grades and operate off the road.

DESIGNED TO CUT COSTS—Every feature of these postwar trucks is designed to lower operating and maintenance costs. They are powered by the war-proved Willys-Overland "Jeep" Engine, world-famous for gas and oil economy, easy repair and long service. They are ruggedly built of quality materials to stand up. No body frills to add non-essential weight and decrease payload.

FUNCTIONAL BODIES—"Jeep" Truck body designs not only cut weight but also make maintenance and servicing easier. Note the hard-to-damage

fenders, which make it simpler to change tires or put on chains. Wide hood opens from fender to fender, with engine and battery easy to reach. Lights are in protected position.

See the other features of 2- and 4-wheel-drive "Jeep" Trucks at Willys-Overland dealers, including the roomy cab, large windshield and windows, short turning radius and popular body styles—pick-up, canopy, van and platform-stake.

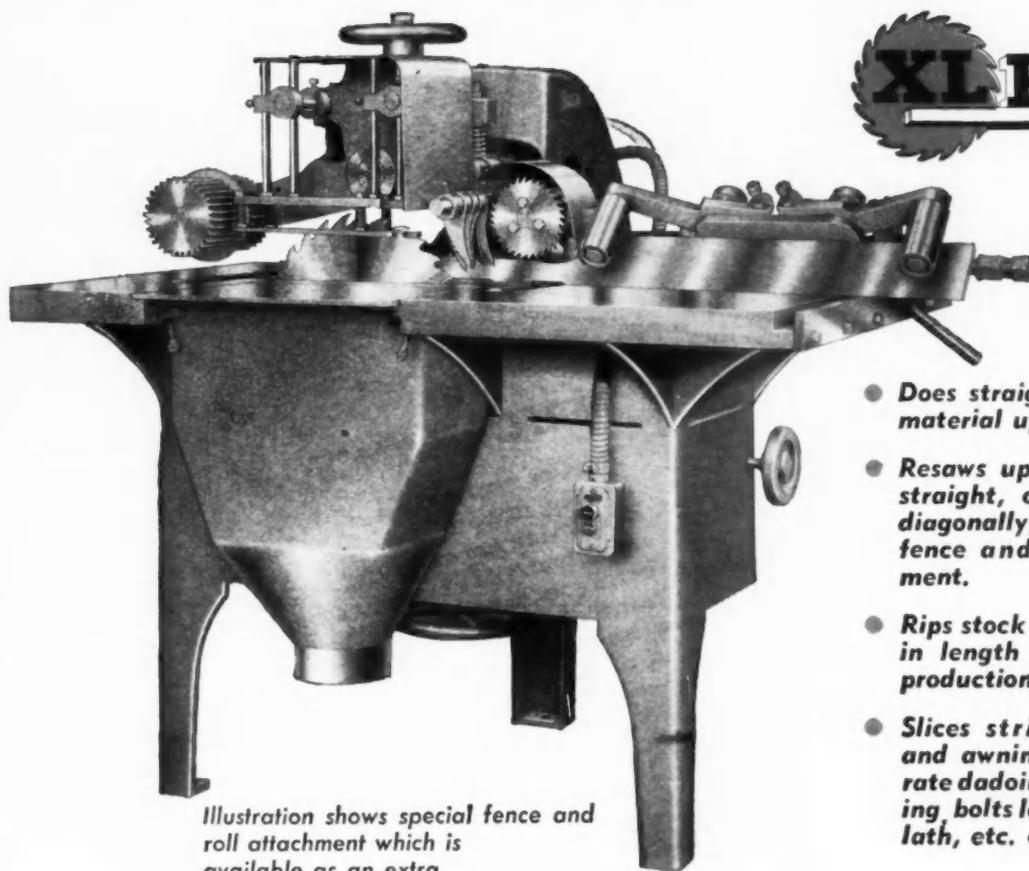
'Jeep' Trucks

WILLYS-OVERLAND MOTORS
TOLEDO, OHIO

MAKERS OF AMERICA'S MOST USEFUL VEHICLES

NEW SELF-FEED RIP SAW

Does More Jobs, Costs Less!



XL RIPPER

Illustration shows special fence and roll attachment which is available as an extra.

- Does straight ripping of material up to 4" thick.
- Resaws up to 4" stock, straight, or up to 45° diagonally, with special fence and roll attachment.
- Rips stock as short as 4" in length on a regular production basis.
- Slices strips for blinds and awning, does accurate dadoing and rabbeting bolts lath stock, runs lath, etc. etc.

NOW—FOR THE FIRST TIME . . .
 a modern, high-speed rip saw—PLUS an efficient 4-inch RESAW—which costs LESS than you'd expect to pay for the rip saw alone! Precision built, all driving parts full enclosed—no belts or pulleys running in sawdust. Saw arbor directly connected with 10

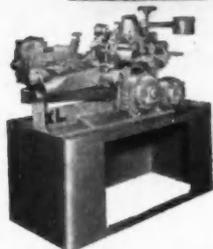
HP ball bearing main motor. Takes up to 3 saws on 1" stock, 2 on 2", 1 on 4". Can use 5 saws on lath, 3 saws bolting lath stock from slabs. Four feeds, 50 to 190 feet per minute. The XL Ripper does more jobs, costs less, pays for itself faster! Write today for folder and name of nearest dealer!

SMITHWAY MACHINE COMPANY

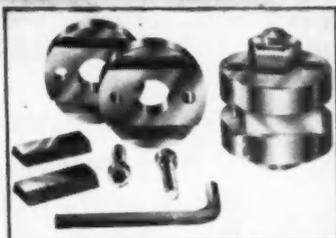
Manufacturers of the XL Line of Woodworking Equipment

4617 Airport Way

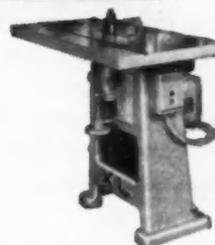
Seattle 8, Washington



NEW XL MOLDMATCHER



NEW XL LOK-SAFE SHAPER COLLAR

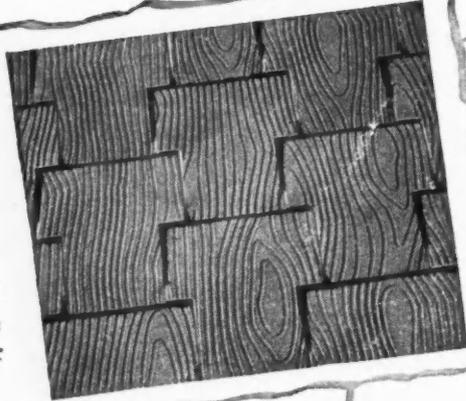


NEW XL SPINDLE SHAPER

ANY WAY YOU LOOK AT IT...

in DESIGN

Engineered to give real protection against wind and storm. Their patented, *Ruberoid* originated features give the utmost in weather protection.



in PERFORMANCE

Tite-Ons interweave and interlap, make a "one-piece" roof having *two complete thicknesses throughout*, and so firmly anchored that hurricanes haven't been able to tear them loose!



in APPEARANCE

Across the country, the finest homes are being roofed with handsome, colorful Tite-Ons. No other shingle offers your customers so much... distinctive good looks, longer years of wear, real windproof protection!



**Dubl-Coverage Tite-Ons
give you every selling advantage!**

These tremendously successful shingles give home owners everything they want in a roof! And don't forget your customers know about Tite-Ons! No other shingle has had such strong promotion... national advertising makes Tite-Ons known everywhere. You'll find it's good business to carry Tite-Ons.

The RUBEROID Co.

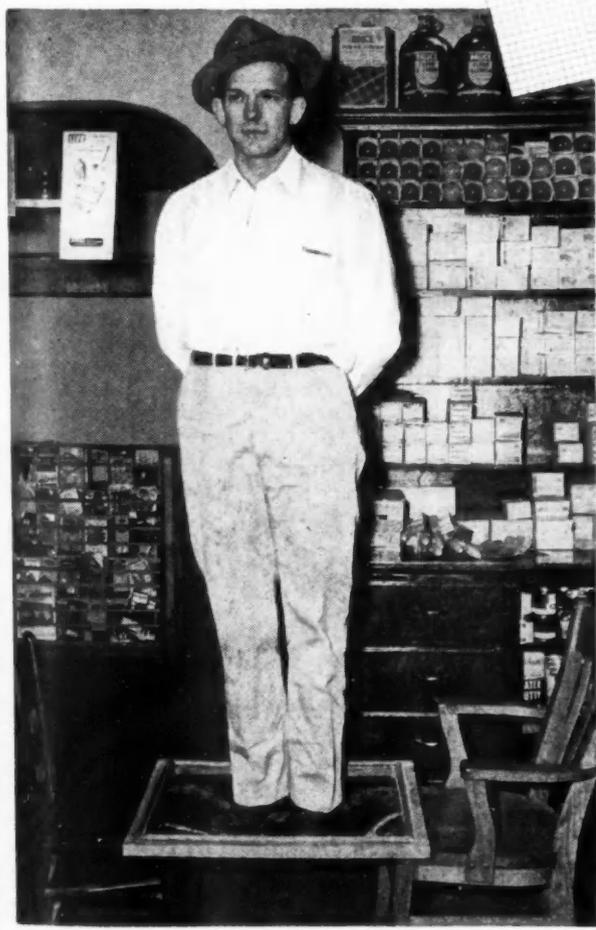
Executive Offices: 500 Fifth Ave., N. Y. 18, N. Y.
Building Materials for Home, Farm and Industry

DUBL-COVERAGE TITE-ON SHINGLES

This demonstration will help you build big volume

with

Firestone *Velon** SCREENING



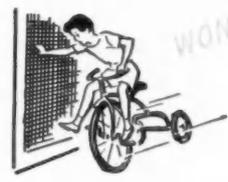
By this amazing demonstration as shown at the left, The Davis Lumber Co. of Hutchinson, Kansas, developed their screening business tenfold. Here's how they did it. First, and foremost, they selected Firestone *Velon* plastic screening on the strength of its performance in World War II. The Firestone representative helped them with a full line of manufacturer's sales helps—swatches of *Velon* screening in forest green, aluminum grey and bronze brown, envelope stuffers, window banners, display cards, newspaper mats and radio spot commercials. The public response was immediate and gratifying. Tied into this program was the dramatic eye-opening *Velon* strength test. A Firestone *Velon* screen placed between two chairs supported the weight of the heaviest employees, without denting or breaking. Biggest selling points for Firestone *Velon* screening, The Davis Company reports, were durability, non-rusting and corroding to stain housefronts.

You, too, can make a "specialty" item like screening pay off handsomely in volume sales when you stock, feature and promote Firestone *Velon* screening. A Firestone representative will be glad to furnish you with sales aids to help you build a big business in Firestone *Velon* screening. Write Firestone, Pottstown, Pa.



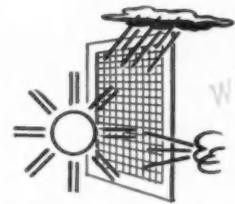
A 350 pound man stood on a framed *Velon* screen without denting or bulging it.

WON'T BREAK



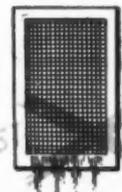
Velon has amazingly high resistance to impact.

WON'T DENT



Unaffected by sun, water, salt spray. Wipes clean with a damp cloth.

WON'T FADE



WON'T RUST

Cannot rust or corrode. Will never "bleed" to stain the house front.



THERE'S A NEW
Magic Chef

GAS RANGE

TO FIT YOUR PLANS



62" Wide—Series 1000



36" Wide—Series 700



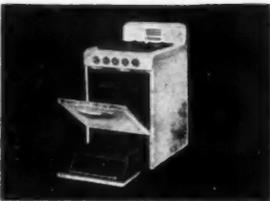
39" Wide—Series 2400 & 1300



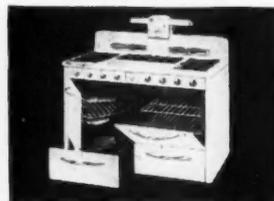
36" Wide—Series 1200



30" Wide—Series 600



20" Wide—Series 500



43" Wide—Series 400 & 460

OTHER Products: combination, coal and wood ranges, oil stoves and heaters, oil furnaces.

• Finest Homes!

Here is a range especially built to meet the cooking requirements of large homes. Beautifully styled in satin finish stainless steel, this new Magic Chef cooks for two or two hundred. It has six top burners, two large ovens, high level broiler and a 23" x 24" griddle. These and many other features are compactly built into an overall length of only 62".

• To Smallest Apartments!

HERE'S WHY MAGIC CHEF HELPS SELL YOUR PLANS

- 1 Most widely advertised gas range in America.
- 2 More women cook on Magic Chef than on any other range.
- 3 More women plan to buy Magic Chef than any other range.
- 4 Magic Chef's proven quality offers you the greatest return on your investment.

FOR CITY, "PYROFAX" AND OTHER LP GASES

• Hotels and Restaurants Too!

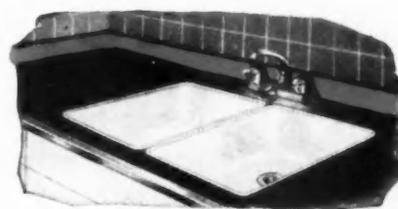
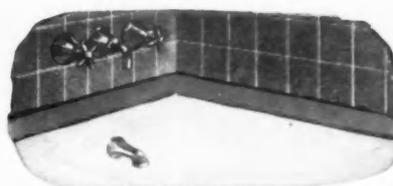
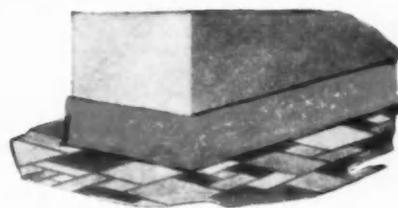
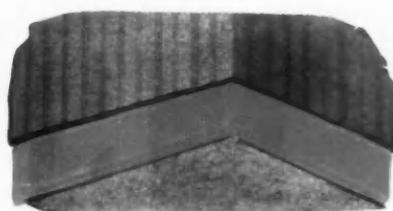
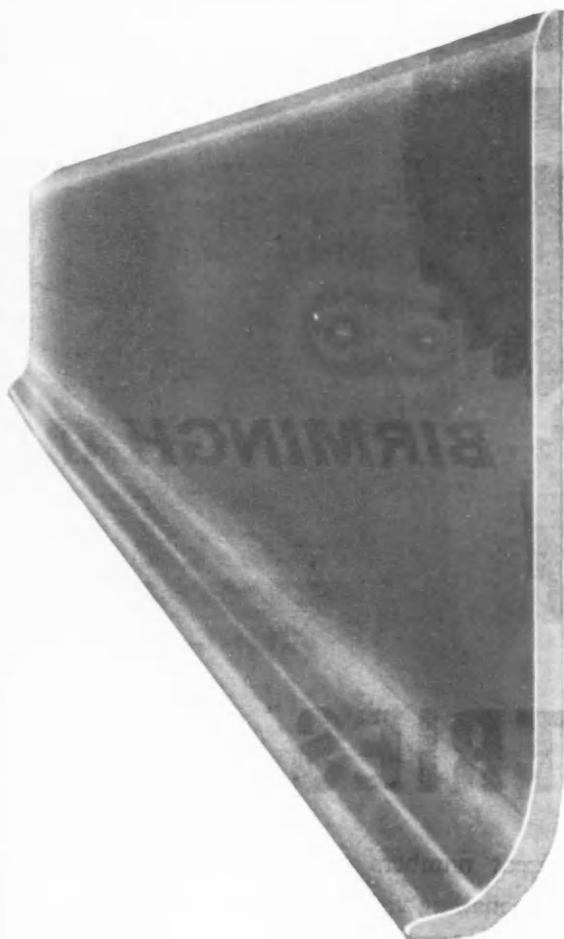
America's finest hotels and restaurants have equipped their kitchens from Magic Chef's line of Heavy Duty Gas Cooking Equipment.

FOR COMPLETE DETAILS SEND FOR OUR ARCHITECTS AND BUILDERS FILE

AMERICAN STOVE COMPANY • 1641 SO. KINGSHIGHWAY BLVD., ST. LOUIS 10, MISSOURI

VISIT THE *Magic Chef* EXHIBIT AT THE N. A. H. B. CONVENTION

Now! a new building material!



Sloane Quality *Koroseal** cove base and cove molding

- Jewel Colors
- Never Needs Painting
- Lasts a Lifetime

Now you can have Koroseal, the miracle plastic, in Cove Base and Cove Molding—in mirror-bright colors.

Koroseal laughs at rot, stain, grease, acid, alkali or moisture . . . gives a permanent, watertight fit. It's non-inflammable . . . virtually dent-proof . . . non-porous, provides no hiding place for germs or dirt.

You save on construction costs—installation is easy and inexpensive—and no painting is required!

Koroseal is also available in floor tile.

Write for FREE samples and further information about this new wonder plastic building material.

*© B. F. Goodrich Co.

DEPT. AB-1

SLOANE-BLABON CORPORATION

295 FIFTH AVENUE • NEW YORK 16, N. Y.





LONDON and BIRMINGHAM

BRITISH INDUSTRIES FAIR



Britain has long been the world's greatest customer, and has led the way in the export of manufactured products. By initiative in modern research, and from experience of commerce with other nations, her industrial production has become greater and more varied than ever in history.

Renowned for the quality of her work, Britain has applied new technique to her famous industries. By enterprise in fresh markets she has achieved record deliveries, and export production still expands. To keep in touch with these develop-

ments great numbers of the world's principal buyers are making visits to Britain.

Every year, from over 100 countries, trade buyers gather at the British Industries Fair. The Chamber of Commerce in Birmingham, and manufacturers from every part of Britain, join with the British Government to welcome them.

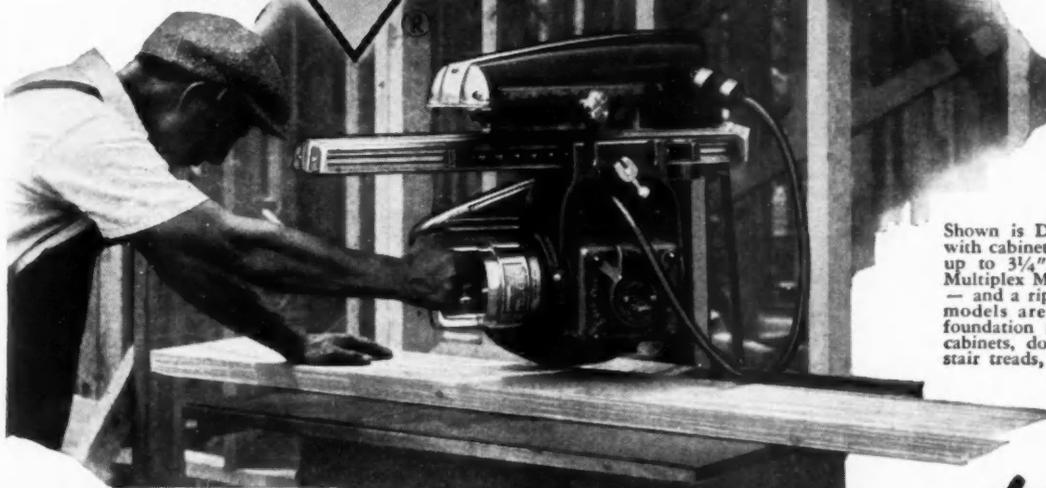
At BIF 1949, from 2-13 May, three thousand exhibitors will display the latest developments in thirty groups of allied trades. The leading men of international commerce are invited to attend the world's greatest assembly of national products.

2-13 MAY 1949

TRADE BUYERS—PLAN YOUR VISIT NOW

Information about exhibitors, special displays and facilities at the Fair can be obtained from the nearest British Embassy, Legation or Consulate.

DELTA MILWAUKEE



Shown is Delta Multiplex Model 40A with cabinet base. It has a rip capacity up to 3 1/4". Also available is Delta Multiplex Model 30A with cabinet base — and a rip capacity up to 2 1/4". Both models are widely used for cutting foundation forms, sheathing, roofing, cabinets, doors, frames, drawers, sills, stair treads, etc.

"Saves enough labor to pay for itself on one \$12,000-\$15,000 house" — that's what a Kansas construction firm says of the

DELTA[®] Multiplex Radial-Arm Saw

You cut job time and costs, with a Delta Multiplex. Two men can carry even a cabinet model, so it's easy to take right to the job.

That's like bringing along a whole shopful of handy tools. You can use a Delta Multiplex blade at any angle — and get 100% mitering capacity. The patented "Versatile Elbow" sees to that. It's a center-pivoted track that carries the cutting head and rotates 360°.

With a Delta Multiplex, you cut the full length of the sliding arm on both right-hand

— and left-hand — miters from 0° to 90°! The blade moves through practically the center of the table. Your work rests on the full table and you get full-capacity cuts.

Your nearby Delta distributor has Multiplex models with rip capacities up to 6". Inspect them there. See for yourself the Delta Multiplex features that assure you of safety, speed, convenience, capacity, and economy.

Send coupon for descriptive literature.

DELTA MANUFACTURING DIVISION
ROCKWELL MANUFACTURING COMPANY
MILWAUKEE 1 WISCONSIN

Look for the name of your Delta distributor under "Tools" in the classified section of your telephone directory.



TEAR OUT COUPON AND MAIL TODAY!

DELTA MANUFACTURING DIVISION
3802B N. Pierce St., Milwaukee 1, Wis.

Send me descriptive literature on the complete line of Delta Multiplex Radial-Arm Saws.

Name.....

Title.....

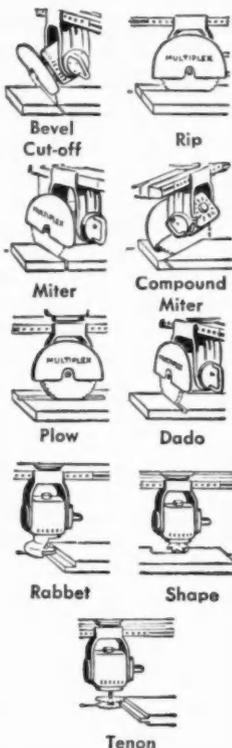
Company.....

Address.....

City..... (.....) State.....

RS-9

One Multiplex does all this — and more!



Model 20A — for cutting interior trim

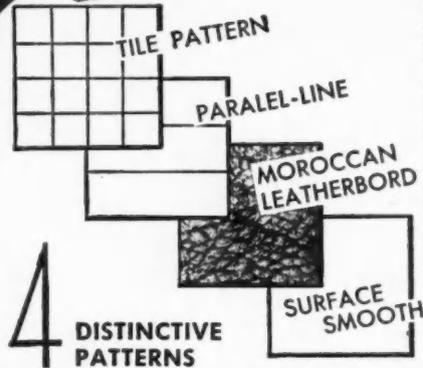
An exceptionally low-cost portable machine. Can be carried easily in the back of your car. Has a rip capacity up to 2".



Wal-lite

DECORATIVE WALL BOARD

... SETS THE PACE in Quality

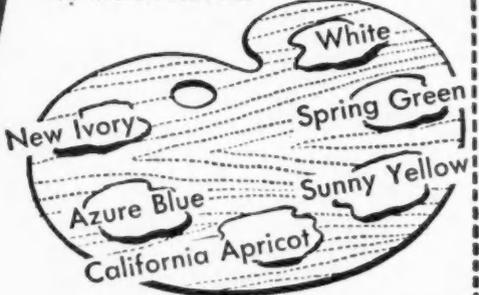


4 DISTINCTIVE PATTERNS

Great variety of interesting effects for walls of homes, business buildings and institutions.



This original deep-cut, smooth contour score line adds infinite beauty unequalled by other products. Good enough to be imitated.



5 Beautiful Colors & White
These stock colors meet almost 90% of the consumer preferences. You'll sell more jobs with a smaller, faster turning inventory.

CONTRACTORS • BUILDERS • ARCHITECTS
Specify and Use Wal-lite
ON OLD OR NEW WALLS

Specifying any building material carries great responsibility. You have to be sure each material will fulfill its purpose.

Wal-lite factory finished baked enamel wall board panels have the qualities to make you SURE and SAFE on every interior wall job. Wal-lite's extra thick coat of precision-baked enamel assures a finish of enduring beauty . . . in colors and patterns to match every taste.

No special craftsmen needed to install Wal-lite . . . finish-carpenters can do the job. And when it's installed, you're through. No costly waiting for the paint crew. Your customer has permanent color . . . permanent finish.

Wal-lite is leading the field in quality to help you be safe and sure when you specify.

IN HOMES



IN BUSINESS



FOR MORE COMPLETE INFORMATION—See YOUR WAL-LITE DEALER

Manufactured by . . .
WALLACE MANUFACTURING CO.
10th and FAYETTE • NORTH KANSAS CITY, MO.

DISTRIBUTED Through
LUMBER and BUILDING
MATERIAL DEALERS

HOW TO SAVE UP TO \$100 AND 3 WORKING DAYS ON EVERY HOME YOU BUILD

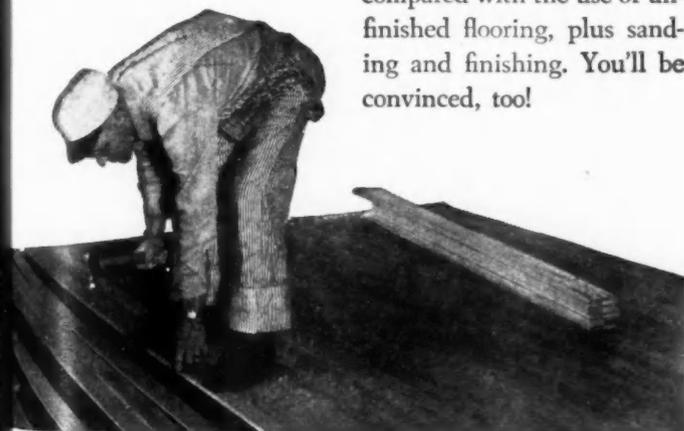
■ Durbin of Detroit, Mills of Chicago, Nichols of Kansas City, and thousands of other builders are enthusiastic users of Bruce Finished Floors. And no wonder! They save up to \$100 and at least 3 working days on every home built . . . because this factory-finished flooring completely eliminates costly, time-consuming sanding and finishing on the job.

New, Improved 1949 Finish

Home owners prefer Bruce Finished Floors because they're more beautiful, longer wearing, easier to maintain. The new 1949 factory-finish is, by all tests, the finest finish ever given hardwood floors. It can't be duplicated by on-the-job finishing methods.

Make Your Own Comparison

Ask your lumber dealer or write us for prices and complete information on Bruce Finished Floors. Then figure your own installed costs as compared with the use of unfinished flooring, plus sanding and finishing. You'll be convinced, too!



"SAVE 10¢ PER SQUARE FOOT"
 . . . says L. H. Mills of Mills & Sons,
 leading Chicago builders

"We are installing Bruce Finished Floors in all our projects. Our experience with your product now covers over 1200 homes, and the general and continued enthusiasm of buyers is gratifying to us. Savings are 10c per square foot, plus a further saving in time."



"3 LESS WORKING DAYS PER UNIT"
 . . . says Harry J. Durbin, well-known
 Detroit builder

"Our records covering 10 years' experience with Bruce Finished Floors show that elimination of sanding and finishing has saved an average of 3 working days per unit. In addition, we now save \$80 per house on cost of the completed floor."




BRUCE *Finished* FLOORS

With the new improved 1949 Finish

Product of E. L. Bruce Co., Memphis, Tenn., World's Largest Maker of Hardwood Floors

Bruce Also Makes Block Flooring, Strip Flooring, Random-width Planks, Hardwood Moulding and Trim, Pine and Hardwood Lumber, Furniture Parts, Cedarline Closet Lining, Everbond X Mastic, Terminix, Floor Care Products.



Another Big Housing Project Specifies

300 HOMES INSTALL CLAY PIPE SEWERAGE SYSTEM

The new 300-home Byrne-Moline Communities Housing Project at Moline, Illinois, selected Vitrified Clay Pipe exclusively for all its sanitary sewers. The over-all job includes 49,300 feet of Clay Pipe. This new housing is a project of Byrne-Moline, Inc., and is under the supervision of William M. Coopman, Moline City Engineer.

Vitrified Clay Pipe 100%

Vitrified Clay Pipe is chemically inert throughout because it is made of nature's own basic material. Through and through it is the same long-lasting clay, *heat-bonded at fusing temperatures* into a strong, permanent pipe that never wears out! Clay Pipe is rust-proof, corrosion-proof, and acid-proof . . . needs no paints or other coating to protect it from the action of corrosive soils, water, or the chemical action of waste materials.



Vitrified
CLAY

Write for Information on Your Clay Pipe Question

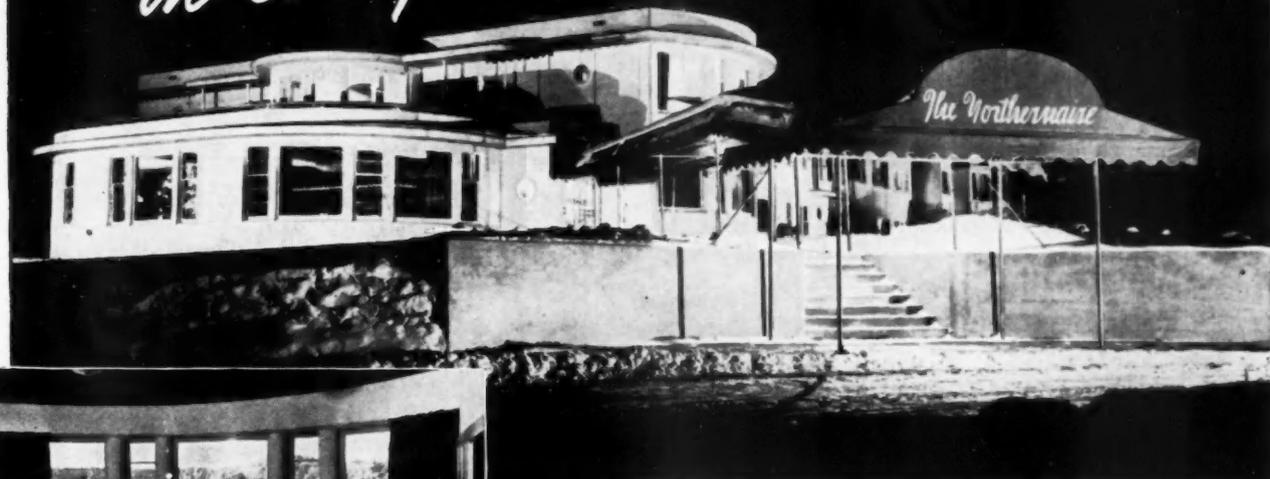
NATIONAL CLAY PIPE MANUFACTURERS, INC.

100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.
522 First National Bank Bldg., Atlanta 3, Ga.
703 Ninth & Hill Bldg., Los Angeles 15, Calif.
1105 Huntington Bank Bldg., Columbus 15, O.



PIPE

"The building is most satisfactory in every respect"



Above: a strikingly handsome structure is The Northernnaire, country club hotel and spa, at Three Lakes, Wisconsin. Stanley W. Howe, A.I.A., Architect, Monroe, Wisconsin; Cy Williams, designer and builder, Three Lakes, Wisconsin.

Left: one of the beautifully appointed bedrooms in The Northernnaire.

The famous resort hotel and spa, The Northernnaire, at Three Lakes, Wisconsin has steel-framed floors and walls. "Because," owner Carl Marty, Jr. says, "low maintenance cost was essential and the lasting quality of Stran-Steel floor joists and studs was considered more important than initial cost. Stran-Steel framing was the recommendation of our designer and builder, and was immediately available. No condensation, plaster cracking or sound-conduction have developed. The building is most satisfactory in every respect."

Stran-Steel framing members are favored where rigid construction, long life and low upkeep are essential. Yes, if you are planning quality buildings—residential, garden type apartments, commercial and industrial structures of not more than three stories—investigate the advantages of Stran-Steel framing.



STRAN-STEEL REG. U.S. PAT. OFF.

GREAT LAKES STEEL CORPORATION

Stran-Steel Division • Dept. 30 • Penobscot Bldg. • Detroit 26, Mich.
UNIT OF NATIONAL STEEL CORPORATION



Modern Methods of Home Heating

By **J. L. SHANK**

Consulting Engineer

•
INTRODUCTION BY

S. KONZO

*Professor of Mechanical Engineering
at the University of Illinois*

★

CONTENTS

Gravity Warm Air Heating

Methods for Figuring Size of Plant Required, Installation Procedure

Forced Warm Air Heating

An Answer to What Is "Air Conditioning"?

One Pipe Steam Heating

Latest Information on Modern Boilers, Radiators

One Pipe Hot Water Heating

"The Hot Water Heating System Has Had a Change of Face"

Radiant Heating with Hot Water Floor and Ceiling Panels

Description, Function, Installation Methods, Advantages

Heating Commercial Buildings

Good Information on Selection of Units

Heating with Floor Furnaces

Installation Advice, Comparison to Other Methods

Radiant Heating with Warm Air

Information About "The Most Discussed Subject" in Modern Heating

Radiant Floor Panel Heating with Hot Water

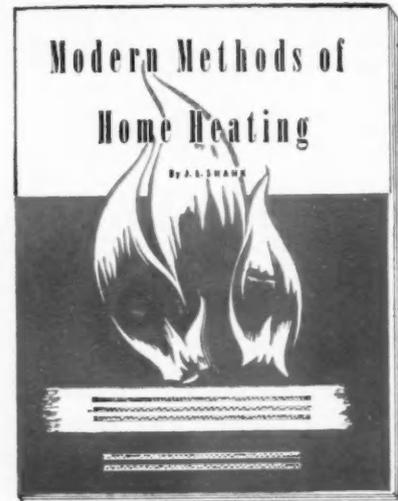
Basic Advice on Correct Installation and Operation Techniques

Radiant Baseboard Heating

How Uniform Temperature Is Achieved

Heating System Controls

Fourteen Different Types Discussed



The most comprehensive book on modern home heating published. It covers all the latest methods of heating homes and small commercial buildings, written in language the layman can understand.—

Included is the most discussed subject in the heating field today—Radiant Heating. Everyone interested in home building should have a copy of this book.

A builder will find this a valuable source of information. It will enable him to discuss authoritatively the advantages of the various types of home heating.

Special trade contractors will find it of special value.

The prospective home builder will also find in it the information he needs.

Profusely illustrated with photographs, charts, tables and diagrams. Each article is a complete study of the heating requirements of an individual house.

66 Pages 111 Illustrations

ONLY \$1⁰⁰ PER COPY

Special prices will be quoted on quantities of 100 or more.

Size 8¼" x 11¼"

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AMERICAN BUILDER

Simmons-Boardman Publishing Corp.
30 Church Street, New York 7, N. Y.

Please send me postpaid copies of "Modern Methods of Home Heating." Enclosed is check money order for \$.....

Name

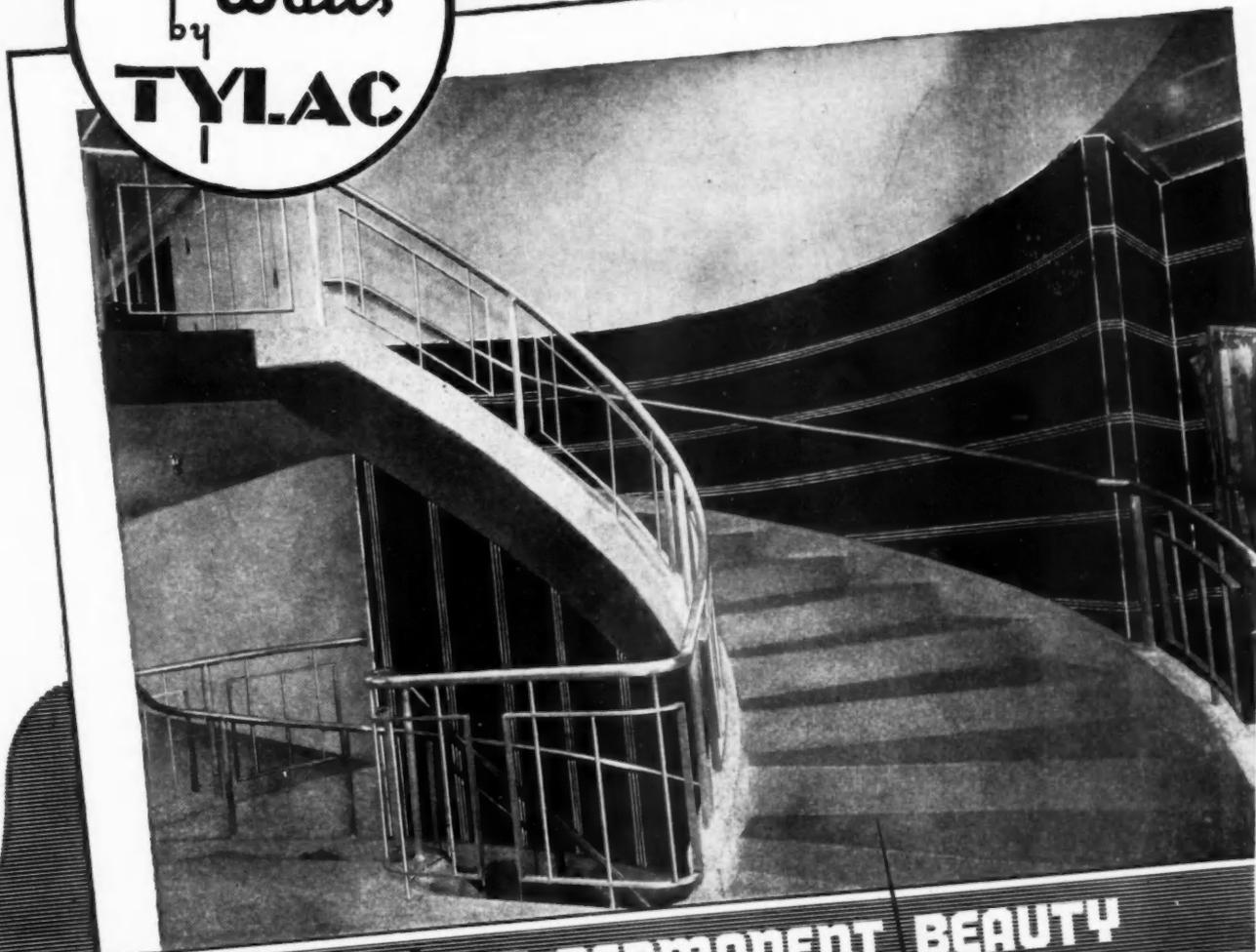
Address

City

State

Miracle
Walls
by
TYLAC

Design FOR PROFIT



INTERIORS OF PERMANENT BEAUTY

Tylac dealers and jobbers everywhere are ringing up extra profits daily by developing new commercial customers for Hi-Baked, Plastic Enamel Surface, Miracle Walls by TYLAC. Endless uses for TYLAC exist in stores, offices, colleges, hospitals, hotels, institutions, etc.—don't overlook these sales opportunities—they run into big business—and extra profits.

Miracle Walls by TYLAC in 18 beautiful colors and four modern patterns afford an unlimited variety of decorative schemes to please the taste of even the most exacting customer. They're quick and easy to install with ordinary carpenter's tools—and once installed, retain their freshness and lustre by the occasional use of a damp cloth. They're permanent and require no maintenance.

If you're not selling TYLAC for commercial uses, you're actually losing many extra profit dollars. Decide now to make 1949 a banner profit year by cultivating this rich field for extra TYLAC business—it's practically unlimited in sales possibilities.

Write us today for our liberal sales plan and many advertising and dealer helps.

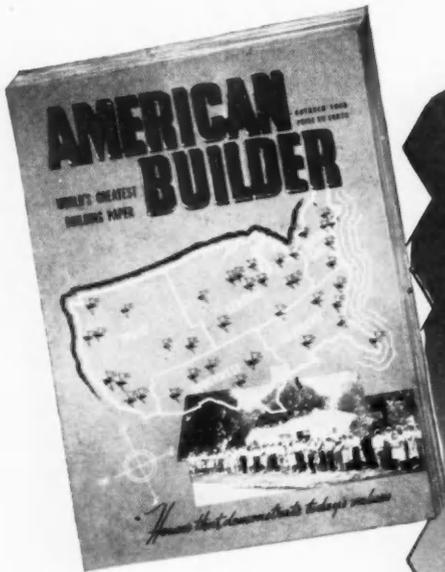
THE GREATEST POST-WAR DEVELOPMENT IN THE INDUSTRY

Central Hardware Co., St. Louis, puts TYLAC to excellent use in remodelling their 6th Street, store.



Beauty
Economy
Permanence

TYLAC COMPANY MONTICELLO, ILLINOIS
PIONEERS IN THE PREFABRICATED WALL PANEL INDUSTRY



Biggest Value in the Building Field

3 years for \$5.00 1 year for \$3.00

KEEP POSTED—read the American Builder every month. The highly competitive building business demands that you keep abreast of the times. Be informed on the latest techniques of building—keep posted on the new and improved products, materials and equipment—get the benefit of tried and proven methods of selling homes, new ideas on financing and land development.

Special information on small commercial and industrial structures—stores—motels—shopping centers and farm buildings.

In addition you get the latest in home designs—pictures and plans of the best sellers from coast to coast.

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"Coleman Floor Furnaces CUT COSTS, UPHELD VALUE 2 WAYS" ...For Richmond, Va., Builder



Crestview Addition No. 3, developed and built by Duke Construction Co.—heated throughout with Coleman Floor Furnaces to hold down costs, yet give top-quality automatic heating of the kind buyers want.

Buyers feel Coleman equipment proves high quality of Duke Company's houses



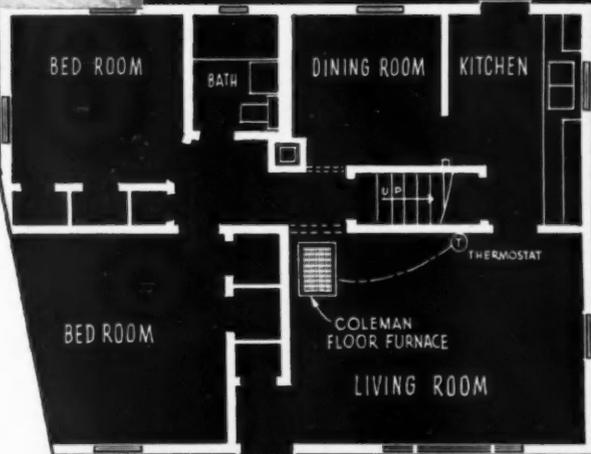
Ludwig Bloch, aggressive vice president of Duke Construction Co., Richmond, Va., one of the South's small home building leaders.

DUKE CONSTRUCTION CORPORATION
7100 HORSEPEN ROAD
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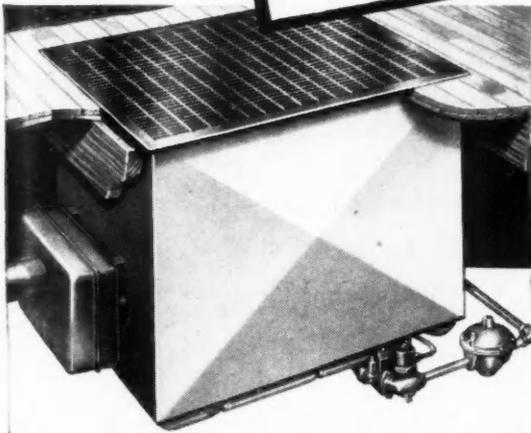
The Coleman Company, Inc.
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Gentlemen:

In these days of complaints about high housing costs we have to do everything we can to hold down ceiling prices and still get the quality that customers recognize. That's why we are using Coleman Floor Furnaces. Properly located and properly installed, they reduce building costs, yet give top quality automatic heating. And what's more, Coleman Floor Furnaces are so well known that our buyers consider them real proof that we put best quality materials into our houses.

Ludwig Bloch V.P.
Duke Construction Co., Richmond, Va.



This shows typical Coleman Floor Furnace installation



This is how Coleman Floor Furnace fits into floor. Takes no room space. No basement excavation needed. No costly duct work. No added plumbing expense.

See how Coleman may help you, too, in designing to beat "price resistance"

Duke Construction Company is only one of the many leading building firms now switching to Coleman Floor Furnaces. Scores of these leaders are learning how Coleman helps cut costs: eliminates costly duct work, saves basement excavation costs, cuts skilled-labor expense for installers and plumbers.

And, like the Duke company, they are also learning two other Coleman advantages: First, how Coleman engineering really gives home-owners the "warm-floor" heating and the clean automatic heat they want. Second, how Coleman reputation for quality and service helps sell houses—by proving to prospects that the builder is using the best heating equipment the money will buy.

You, too, want to see proof of these advantages that are switching so many builders to Coleman. Use the coupon below and let us tell you how we can help meet your problem of holding down building cost and selling price. Tell us what kind of fuel you want—gas, oil, or LP-gas—we make models for all three. Do it—today!

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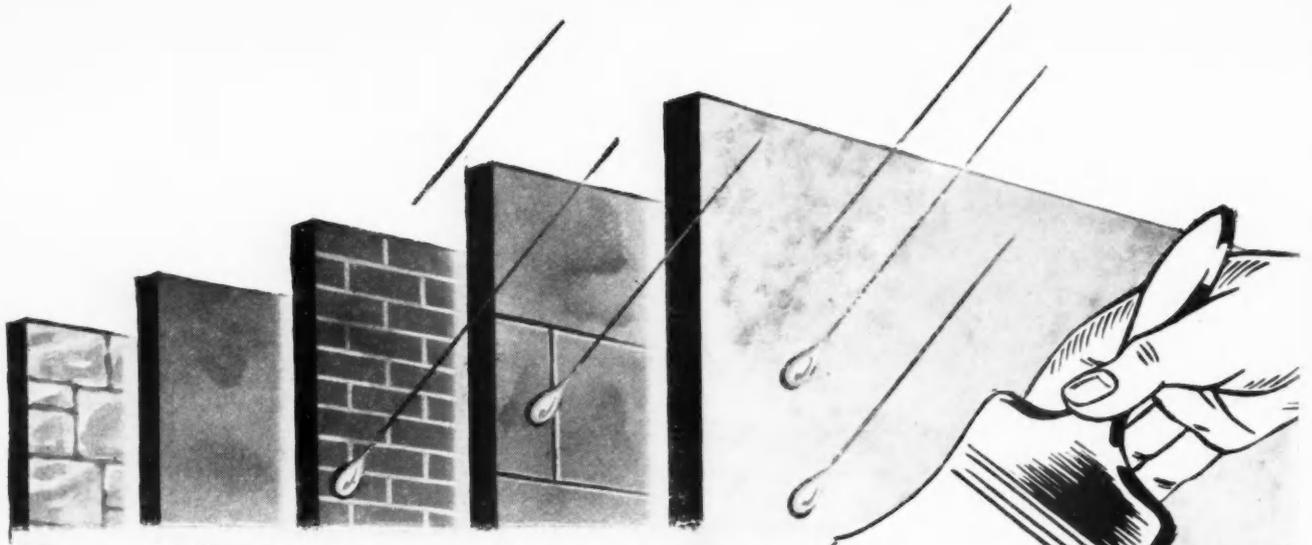
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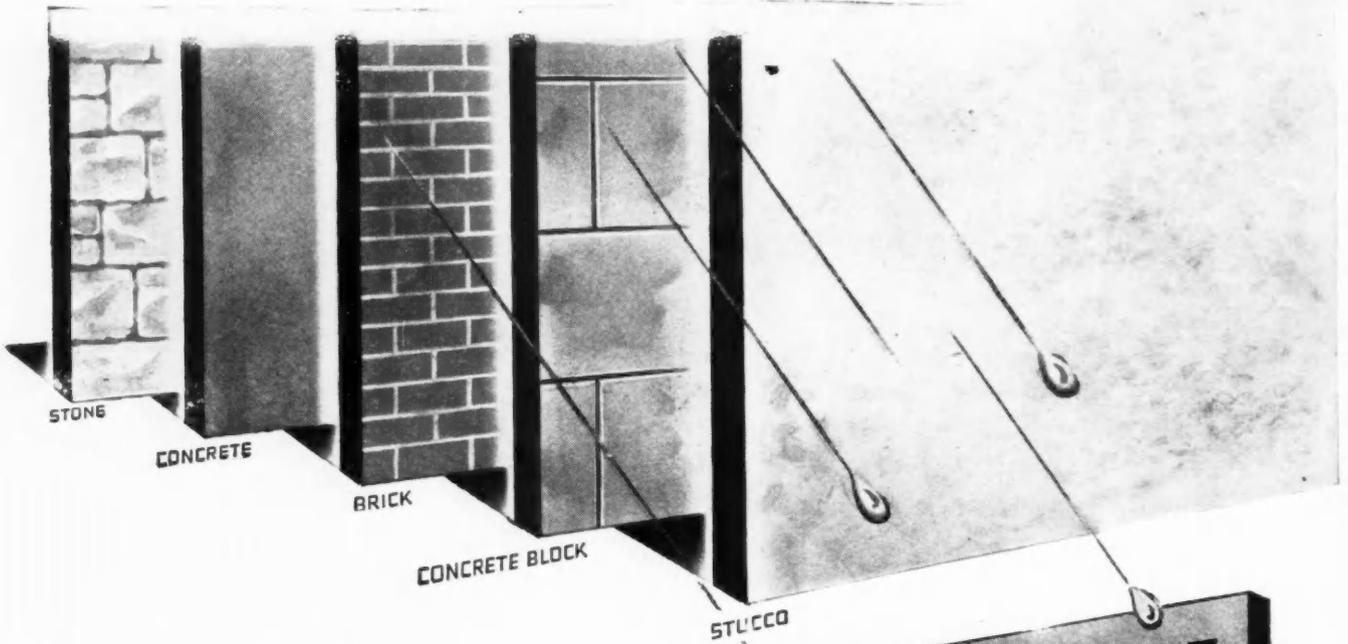
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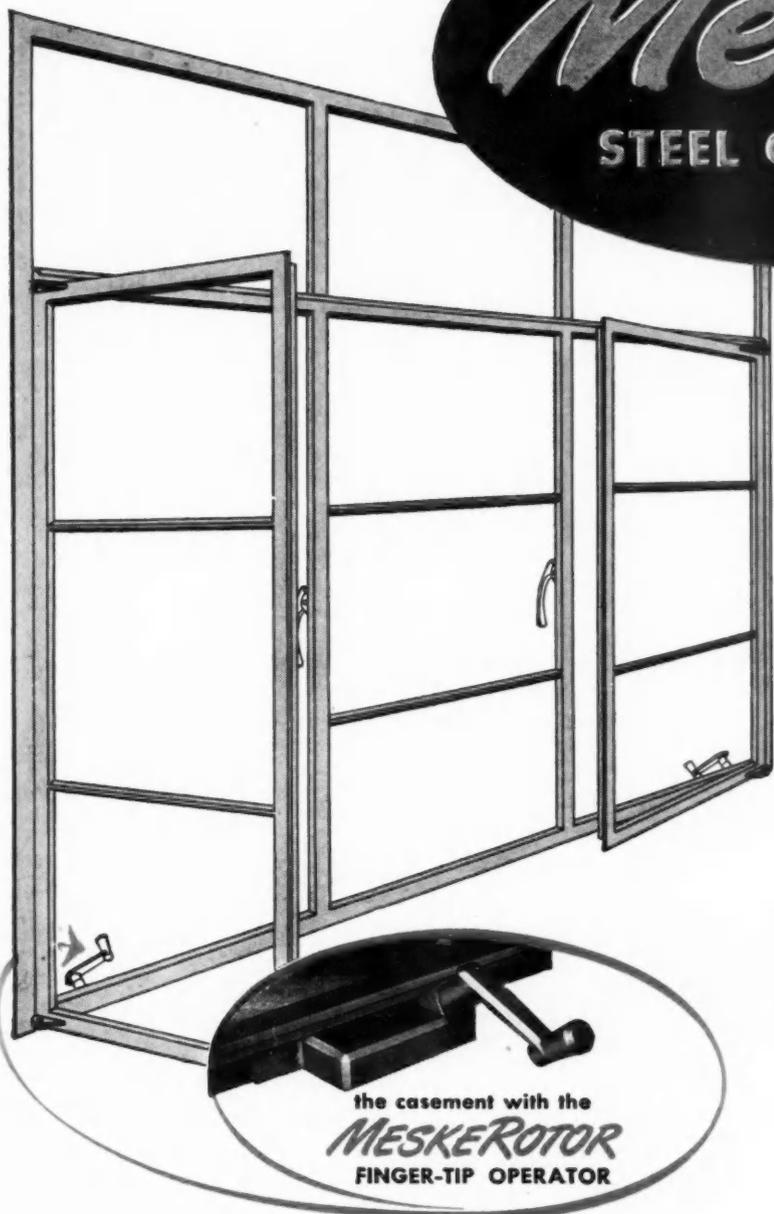


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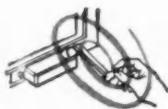


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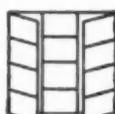
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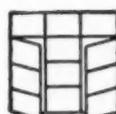
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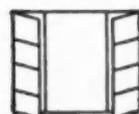
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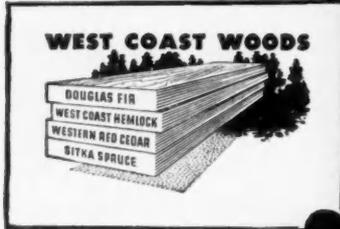
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NEW NATIONAL ELECTRIC

PLUG-IN STRIP!



"We have found Plug-In Strip to be all you claim for its ease of installation on the job, the saving of labor, the complete service it renders and the economy as compared to individual outlets."

Electrical Contractor

"Plug-In Strip lends itself to a multiplicity of applications, and we now have not only electrical contractors, but also department stores and industrial accounts using this type of convenience outlet system."

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"We have several contracts on office buildings that were awarded after the brick walls had been erected and the tenant space not yet sub-divided.

The problem was how to get an adequate number of outlets to meet unknown demands with a minimum amount of brick and concrete cutting. We found Plug-In Strip to be the perfect answer."

Electrical Contractor

"In our new office addition, we have used LOPO-TRIM to carry telephone circuits and CF2 606-18 PLUG-IN STRIP in 110v outlets for office equipment."

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"Your new Plug-In Strip with its cut-in-the-field feature and fast method of connection is a big improvement."

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"Especially in renovating, we found that Plug-In Strip installed very smoothly, eliminating considerable amount of breaking into the structures . . . We are proud of our installations, have made profitable jobs, and lastly our electricians like to work with it."

Electrical Contractor

"We have found that there is no waste, and Plug-In Strip was very easy to install."

Electrical Contractor

"In every case the installation of the required number of duplex outlets would have been more costly than Plug-In Strip. Also we found Plug-In Strip to be very profitable material to use."

Electrical Contractor

"I have installed Plug-In Strip throughout my new ranch house."

Home Owner

"We are more than pleased with this 'low-cost' method of adequate wiring, and recommend it for stores, homes, industrials, hospitals, hotels and anywhere that adequate outlets are required."

Electrical Contractor

"In some of the residences we have built, we have used your Plug-In Strip exclusively rather than the conventional duplex receptacle arrangement."

General Contractor

"Industrially, the uses of Plug-In Strip are innumerable . . . We have used the strip to great advantage on electrical work-benches, radio work-benches, etc. It allows the use of soldering irons, small electric motors, light welding, etc., all at the same time."

Electrical Contractor

Excerpts from letters. Names on request.

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TODAY!



You'll like this revolutionary multi-outlet assembly too. It gives you a S-P-R-E-A-D of electrical outlets —spaced every 6" or 18" apart.

- No soldered or screwed connections.
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National Electric Products Corporation
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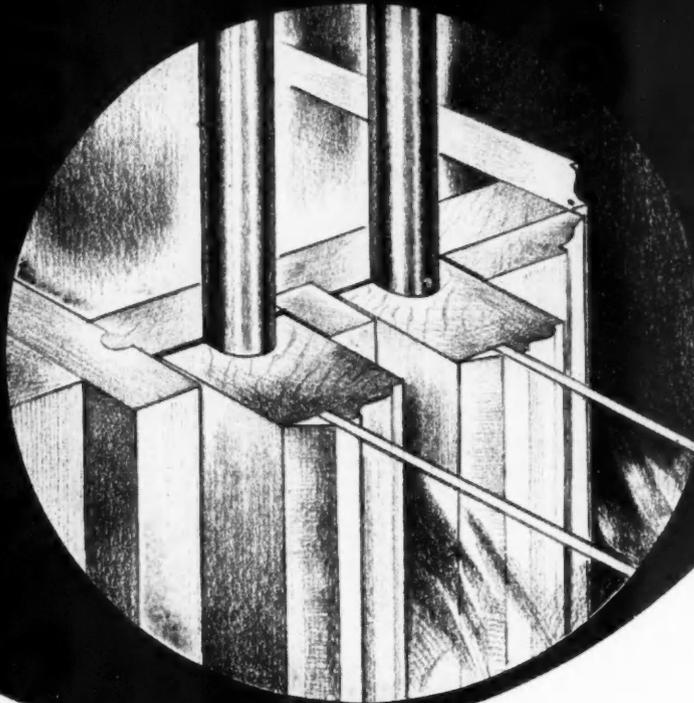
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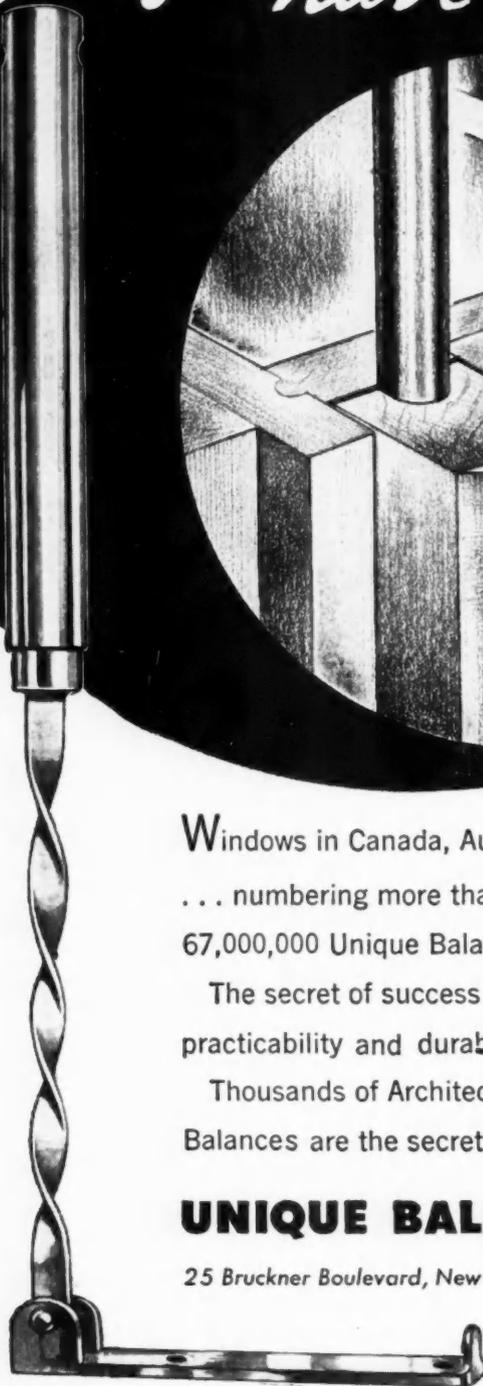
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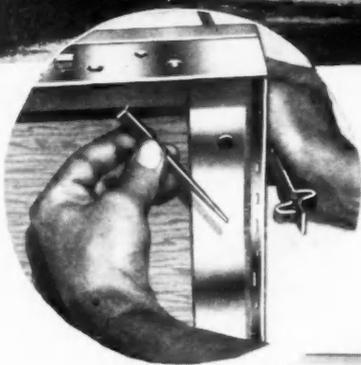
25 Bruckner Boulevard, New York 54, N.Y.



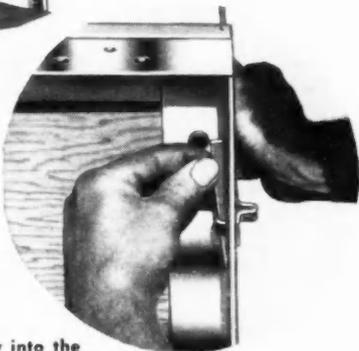
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Use UNI-FORMS on your next job. They guarantee a fast start . . . fast finish. Remember . . . UNI-FORMED concrete is better concrete . . . at lower cost.

Write for Bulletin SA-13. It has complete information on the UNI-FORM System.



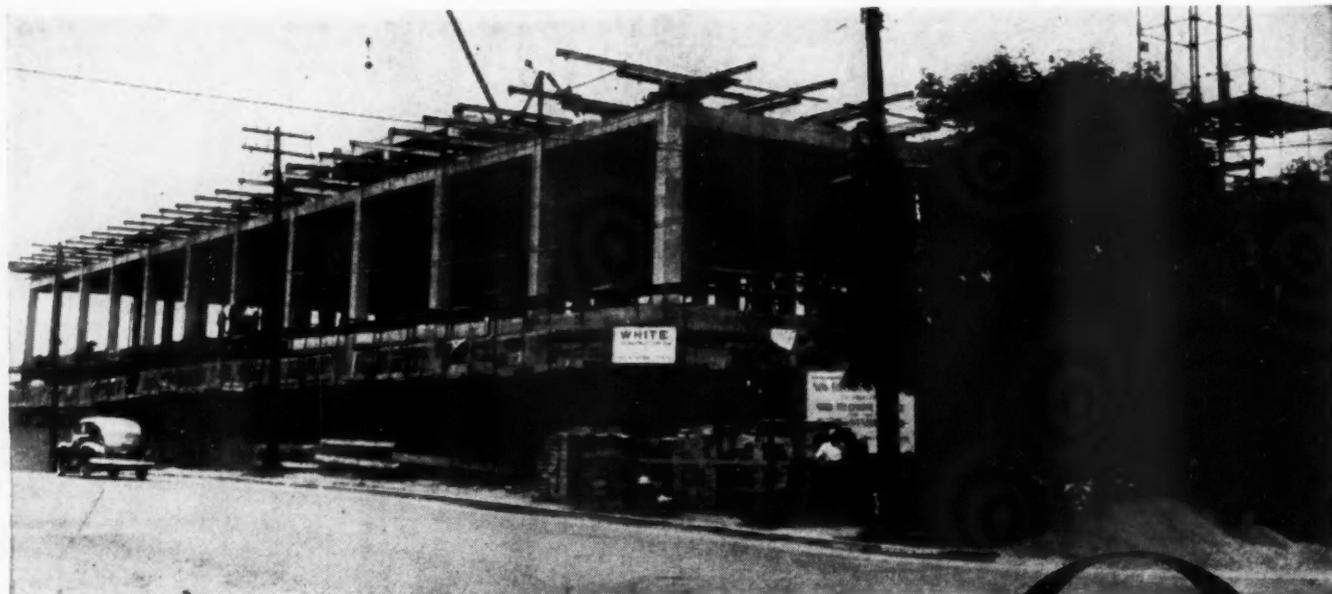
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Lone Star Cements meet every construction need. Use 'Incor', where dependable high early strength reduces form, time and cold-weather costs... elsewhere, use Lone Star Cement. For mortar, use Lone Star Masonry Cement. Selective use of Lone Star Cements means maximum quality at minimum cost.

*Reg. U. S. Pat. Off.

NEW YORK TELEPHONE COMPANY BUILDING, Forest Ave. and Hart Blvd., West New Brighton, S. I., N. Y.; WHITE CONSTRUCTION COMPANY, New York—Contractor; VOORHEES, WALKER, FOLEY & SMITH, New York—Architects & Engineers; LONE STAR Cements supplied by BRIGHTON MATERIALS COMPANY, Inc., West New Brighton, S. I., and SPRINGSTEAD COAL CO., Inc., Great Kills, S. I.



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TRENDS

BUILDING MATERIAL — EQUIPMENT — APPLIANCES

California and Texas Cities Lead in Home Building

CITIES in California and Texas again topped all others in housing starts in 1948. Out of twenty cities leading in number of new dwelling units, eight cities in California and Texas were among the first twenty. Los Angeles again led the procession with close to 30,000 new dwelling units started. San Diego, San Francisco and Long Beach were in the procession, as were the Texas cities of Houston, Dallas, Fort Worth and San Antonio. Portland, Ore., and Denver, Colo., were also among the first twenty on the list.

Non-farm house building for the year 1948 was up about 10 per cent over 1947. November 1948 showed a decline under 1947 when builders started 65,000 new permanent non-farm dwelling units, 14,700 units or 18 per cent under the number started in the same month last year.

Building material production broke all records in 1948 and is expected to increase still further in 1949, according to Producers' Council.

Dealers' inventories of most products have improved substantially and production of some building materials and equipment items has increased to the point where output has been cut back.

Material requirements in 1949 probably will be somewhat smaller on the whole than in 1948, because the volume of new construction is expected to be only slightly higher and a decrease is expected in the amount of repair and maintenance work.

The supply of steel will probably be tight in 1949, but should be as large as in 1948 and may be a little greater.

Cement supplies should be sufficient this year, but there will be no surplus and there may be local shortages owing to the geographical location of cement plants. Cement production reached an all-time high in October 1948.

Construction lumber is no longer a problem so far as supply is con-

cerned. There still is no surplus of millwork, but the backlog of orders has been decreasing in recent months.

Steel pipe probably is the most difficult construction material to obtain at the present time. Nail production has improved greatly, with the result that local shortages are less severe than a year ago.

Gypsum board and lath, roofing materials, building board, insulation board and materials, plumbing fixtures, and brick and tile should be available as needed.

Sales resistance is noted in houses priced from \$13,000 to \$25,000 and upward. Therefore, it is believed that builders will emphasize good values in housing under \$13,000 this year. The market for new houses may not be as great as had been anticipated. As of last April, some 2,500,000 families were doubled up. It is believed that only about 1,000,000 are involuntary—the others want to live that way and will continue to do so, even if housing is available.

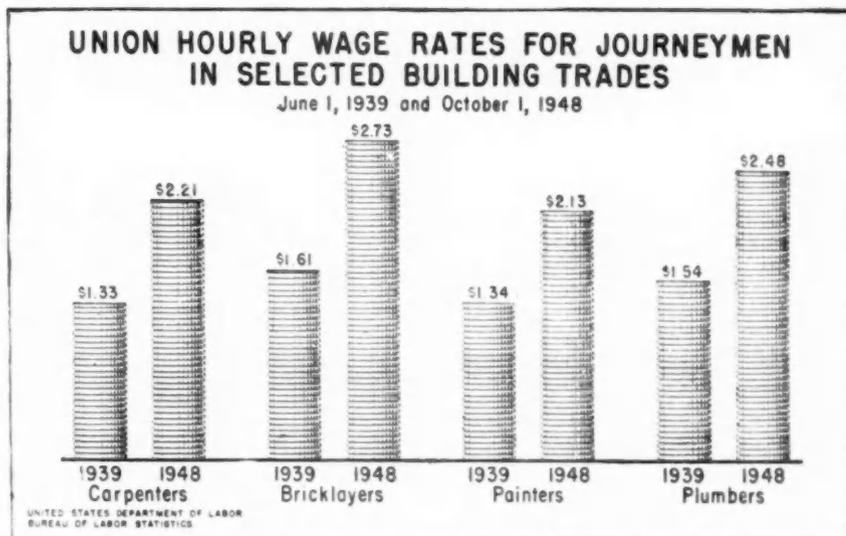
Wholesale prices of building materials last fall had increased an average of 11 per cent over 1947, and were up 128 per cent over 1939. Except for lumber, little can be expected in the way of reductions this

spring. Increased freight rates and a possible fourth round of wage increases will probably make an increase in prices of building materials inevitable, unless manufacturers, wholesalers and retailers begin to engage in price wars which have developed in other industries.

Weekly earnings of the average construction workman were \$72 last fall as compared with \$65.09 in 1947, an increase of 10 per cent. Average weekly hours dropped from 38.3 hours to 38.1, and average hourly earnings went up from \$1.70 to \$1.89 in a period of a year.

Electrical workers in construction made \$85.52 per week in September, 1948, according to the Bureau of Labor Statistics compilation, the highest of all the trade groups. Next were plasterers and lathers with an average of \$83.22 per week. Lowest on the wage scale were roofing and sheet metal workers at \$66.08 per week.

Whether new houses will bear a higher price tag next summer and fall depends largely upon what happens to building material prices and labor rates. At the moment it would appear that they are likely to go upward rather than downward, even though some falling off in volume is anticipated.



What's the connection between a good road and a good roof?

Answer: High Quality

ASPHALT!

*... and TEXACO, one of the world's largest
producers of high quality asphalt!*

IN a good road, crushed stone, carefully selected and graded, is combined with *high quality asphalt*—to produce a resilient, weather-, water- and wear-resistant surface. In a good roof, mineral granules, carefully selected, colored, screened and graded are imbedded in *high quality asphalt*—to produce a resilient, weather-, water- and wear-resistant surface.

A good road and a good roof must take year-in and year-out punishment. They can because the basic ingredient of each is *high quality asphalt*—the greatest weather- and water-proofing element ever known.

Today thousands of miles of U. S. roads are paved with *high quality Texaco asphalt*.

Thousands of U. S. homes, farm and commercial buildings are roofed with *high quality Texaco asphalt shingles, roll or built-up roofing*.

Texaco with its widespread petroleum producing and refining facilities has available and can select the correct grades of asphalt for every specific type of product. This *asphalt know-how* means mighty good roofs for America.

There's a Texaco high quality asphalt product for every essential roofing need. And each carries the name that millions know and trust—Texaco.

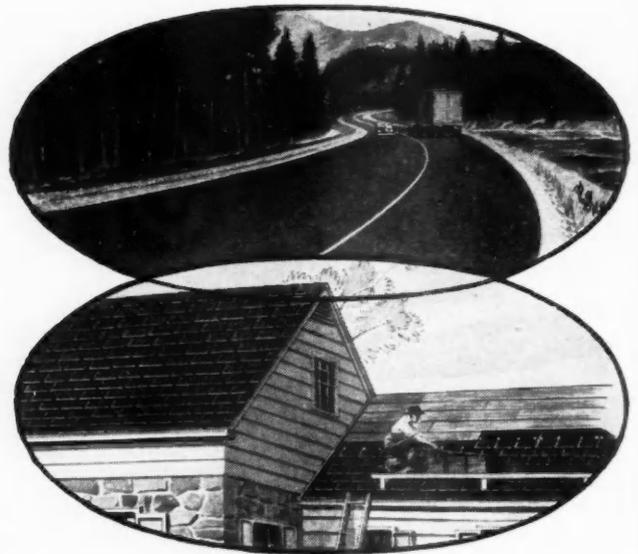


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MEMBER OF THE ASPHALT ROOFING INDUSTRY BUREAU

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*News, Views
and Comments*

On and Off the Record

OWNERSHIP COST—Construction Research Bureau says that the net average monthly cost of owning a \$9,500 house is about \$31.65. Down payment is placed at \$1,800, mortgage, at \$7,700. Monthly payments of principal and interest over 25 years at 4½ per cent are \$42.81. Average tax bill of \$14 a month plus repairs, insurance and water bring total to \$65.31. Subtract \$8 monthly income tax reduction and \$25.66 monthly equity, and \$31.65 is average monthly cost.

1940 COST—Prewar the cost was about \$25.45 a month over 20 years. The current cost, \$31.65, avers CRB, is less than rent, and proves that in spite of increased costs, home owning is still the best investment.

DOWN PAYMENT — Granted that the CRB figures are correct, and they undoubtedly are on the average, it's the down payment that is the large item. Actually, it is the down payment that is the only real cost. All additional payments are investments in personal estate and rent, the latter being lower under current ownership requirements than on a straight rental basis.

MERCHANDISING — With this in mind, it would seem that the best way to merchandise home ownership is not to quote or advertise the price of the house, but to state the down payment and the monthly payments. After all, the prospect for a new \$10,000 house is not confronted with the obligation of an immediate \$10,000 payment. He is confronted with a down payment, and a decision as to whether or not he can reasonably hope to meet a definite monthly payment.

THE \$10,000 HOUSE—It doesn't involve an ultimate outlay of \$10,000, anyway. The outlay is much more, almost twice as much with interest, insurance, taxes, repair and other items added, and somewhat less with income tax reduc-

tions subtracted. The prospect can be scared stiff with a \$10,000 sale sign, and scared even more at the final total unless he is told the only two things that really make any difference to him—the amount of the down payment, and the monthly payments.

ADVERTISING—Why not advertise only the things he has to know—the down payment and the monthly payments? Whether the house is priced at \$2,000 or \$20,000 is of less concern to the buyer than the immediate and periodic cash outlays involved.

LOW-PRICE HOUSING — Few, if any, will quarrel with the intelligent and successful efforts of builders to produce houses priced within the means of low-income earners. Some builders are learning, however, that a house can be priced too low for the good of the owner.

BASIC SHELTER—At least one builder has found that he can build and sell a two-bedroom house for \$6,500, which includes a maximum profit of \$500 for himself. Average profit is about \$400. The house is not insulated, has no door bell, no garage, no driveway strips, unfinished second floor, white interior walls. The houses sell as fast as they can be built.

BUT—This builder finds that within a few months, most of the buyers have obligated themselves on 18-month payments for door chimes, roof insulation, driveway strips, Venetian blinds, one-car garages, colored interior walls, and other items. Sometimes they get heavily involved, some too heavily to carry the house. This builder has decided that he hasn't sold intelligently, that most of the conveniences his customers buy on short term payments could and should have been included in the original package as part of the down payment and mortgage plan. He got the price too low for the good of the people he sold the house to.



Cut Building Costs
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Quality STEEL CASEMENT
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for less than Wood Frames
... save Installation Time.

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With VENTO Steel Casement Windows you get these cost-saving features plus the long, satisfactory wear that Vento Quality Windows provide. Made of heavy-section steel and carefully fitted, Vento Quality Steel Windows stand firm and swing true—a winning combination of sturdy wearing quality and trouble-free operation.

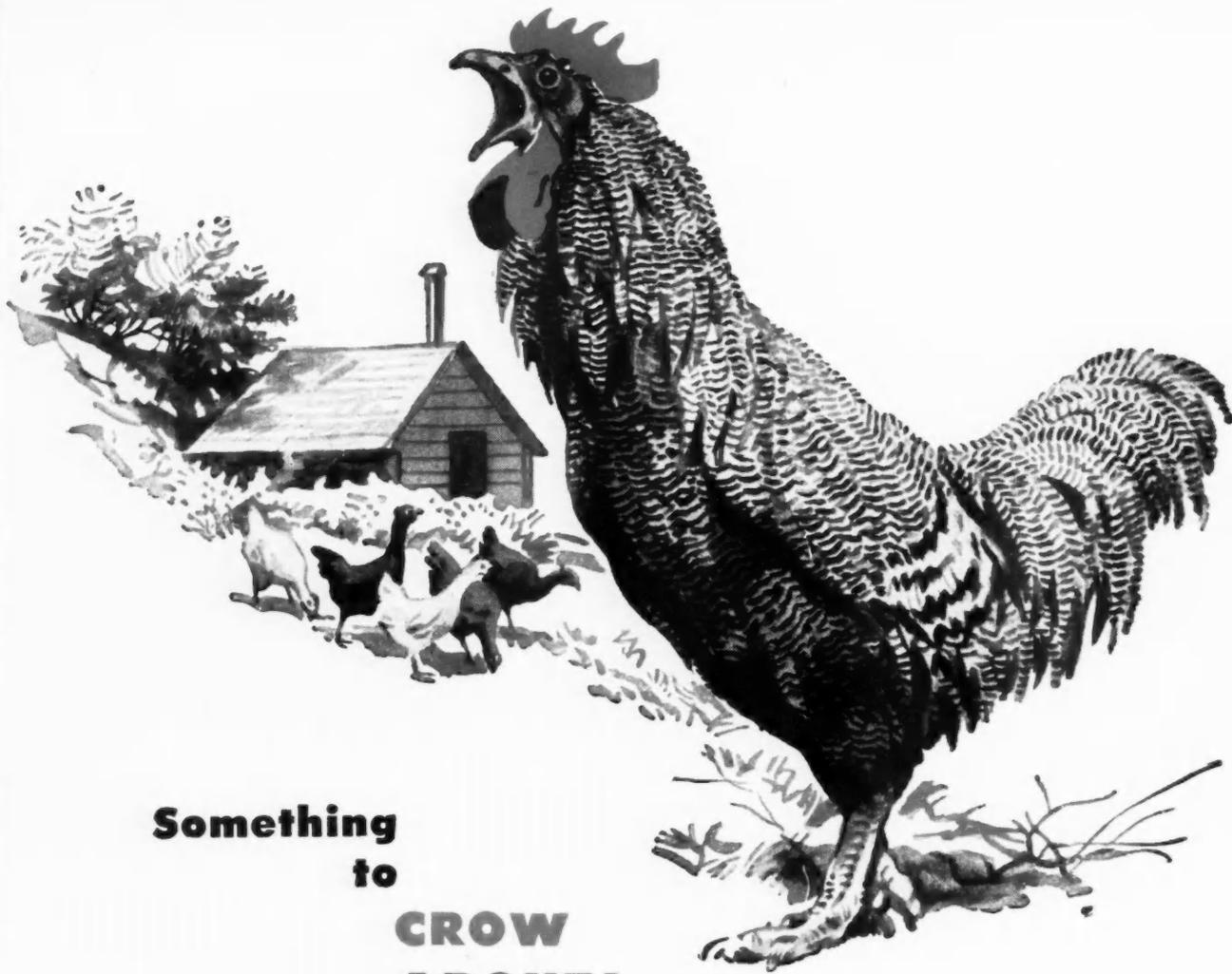
You get prompt delivery when you order Vento Quality windows. Your order will be delivered within a week, if necessary, preventing possible costly delay at the job site.

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Builders,
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**Something
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Provide for modern Electric Ranges in the houses you design and build, and you'll really have something to crow about! The facts show that your customers will want Electric Cooking. Another million American families switched to it last year. Conservative estimates indicate that the same thing will happen again this year.

So build houses that are modern today and will stay modern for years to come. During construction, include wiring for an Electric Range, leading to a range outlet in the kitchen. An Electric Range, like electricity itself, is now a "must" in every modern home!

ELECTRIC RANGE SECTION, National Electrical Manufacturers Association, 155 East 44th Street, New York 17, N. Y.

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the trend...*

wire YOUR HOUSES
FOR ELECTRIC RANGES

A SYMBOL OF ADEQUATE WIRING



Another 1,000,000 American families switched to Electric Cooking last year

EDITORS' Round Table

THIS ISSUE features the organization and operation plans of a group of large, metropolitan operative builders. The builders were selected not because they are necessarily more efficient or more successful than many others. On the contrary, most of them were chosen because their organizations and operations are typical of those of many big builders.

PURPOSE of the presentation is two-fold. The first is that because these builders are successful, many of the design, construction and sales features they use are applicable to the operations of all other builders, regardless of whether they build one or two houses a year or several thousand. This is particularly true of the training and handling of personnel, and the sales methods employed.

THE SECOND purpose is to demonstrate to the industry that since the builders who are featured are typical of hundreds of others, the production of homes has become a collection of efficiently and scientifically organized local industries.

THE BUILDERS who are featured will all be in attendance at the NAHB convention, as will their equally well organized contemporaries who build everything from a few to a few thousand houses a year. It is hoped and expected that the series of operation stories on the pages that follow will stimulate discussion and constructive criticism among all builders who attend the convention in Chicago.

THE MARCH ISSUE will feature an array of duplex and apartment structures in various sections of the nation. It will also contain a special 12-page review of the NAHB convention with, of course, the usual carefully selected wide range of subject material designed to appeal to builders everywhere.

THE EDITORS have completed plans for issuing the Convention daily newspapers which will be distributed free of charge to all convention registrants. No advertising will be accepted, and the entire expense of producing and distributing the dailies will be borne by *American Builder* as one of its contributions to the success of the convention.

(Continued to page 92)



AUTOMATIC VENTILATION HELPS SELL HOUSES!



KITCHEN VENTILATORS

Impress your prospects with an *Automatic Kitchen Ventilator* made by ILG—the *best known name in ventilation!* You need all ILG's advantages—modern streamlining, consumer acceptance, ease of installation, full rated capacity, convincing demonstration, remarkably quiet operation, and a long life of customer satisfaction. Get data and prices on the complete ILG line—send coupon or phone nearby Branch Office (consult classified directory).



ILG ELECTRIC VENTILATING COMPANY,
 2852 N. Crawford Ave.
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 () Send latest data and prices
 on ILG Ventilators for home use

Firm Name.....
 Individual..... Title.....
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Best ...for every home floor **WRIGHT RUBBER TILE**

For homes, hospitals, churches . . . wherever noiseless floors are required, WRIGHTEX, soft-surface Wright Rubber Tile is preferred. But, for longest life and lowest maintenance . . . plus unmatched beauty . . . stores, offices, schools, public buildings, libraries and other institutions demand WRIGHT-FLOOR, the hard surface rubber tile, made exclusively by WRIGHT.

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HOUSTON, TEXAS

Sales Office — 3050 W. Meinecke Avenue, Milwaukee 10, Wisconsin



EDITORS' **Round Table**

(Continued from page 91)

DEADLINE for material to be included in the dailies is 3 P.M. *American Builder* editors will cover all convention sessions, and will be assigned to duty on the floor of the Exposition Hall throughout the day. They can be identified by a special badge that each will wear in addition to the convention registration badge. News items can be given to them or filed at the *American Builder* booth, directly in front of the entrance to the exposition hall.

MARCH REVIEW of the convention will be prepared through the night following the close of the convention. Deadline for *American Builder* regular issues is the tenth of the month. To get the 12-page convention review section in the March issue, a full form is held open, and a special press reserved at the print shop. Early Friday morning, following the convention, the completely edited section will be rushed out to the print shop, and presses will begin to print the 80,000 sections at noon. In this way, the March issue will not be delayed.

NATIONAL HOME WEEK—Two staff meetings this month, one in New York and the other in Chicago. National Home week was an important part of the discussions. It was brought out that there are 640 separate trading centers in the United States, that NHW, after the start it got in 1948, can reach over half of these in 1949. The April issue will carry complete organizational outline plans for National Home Week in communities of all sizes.

A READER, who asks that his name be withheld, writes to say that he has analyzed the 15 houses built by the Milwaukee Builders' Association and presented in the December issue of *American Builder*. He says, "I am writing to you because I feel that the attitude of your magazine in connection with these homes indicates what I consider to be a very disturbing trend in the building field today—that is, that such houses are adequate and livable."

THE WRITER then says that the people he comes in contact with do
(Continued to page 94)



You choose the plan

CURTIS HAS A KITCHEN TO FIT IT

for instance



L

Here's an L-type kitchen arrangement—made up of Curtis sectional kitchen units. Twenty basic unit types—a total of 70 sizes—give you a wide range in planning for individual needs and tastes. The dimensions of Curtis units have been standardized to co-ordinate with other standard kitchen equipment. Remember, these are *wood* cabinets—designed for durability—with the quality construction for which Curtis is well known.



U

In this U-type kitchen, note how the Curtis sectional units provide an efficient and step-saving arrangement. The Curtis kitchen cabinet line includes special units which "go around a corner" to provide extra storage space. Curtis cabinets come painted white and are used by some, temporarily, just as furnished. Others give cabinets another paint coat in the color of their choice.



I

This simple arrangement of Curtis cabinets is practical for the small home or apartment. Note the ample working space which these units provide. Curtis kitchen units are easy to install, in any size or shape of kitchen. The line includes such features as broom closets, pan units and snack bars. Beautifully styled hardware is furnished—to be applied after installation of cabinets.

Curtis kitchen cabinet units are available for prompt shipment



When in New York, visit the Curtis Woodwork Display at Architects' Samples Corporation, 101 Park Avenue, New York City.

CURTIS COMPANIES SERVICE BUREAU

AB-2K Curtis Building, Clinton, Iowa

Gentlemen:

Please send me literature on Curtis kitchen cabinet units.

Name.....

Address.....

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

I am Architect, Contractor, Prospective Home Builder Student.

Please check above.

THE EASIEST STRIP IN THE WORLD
TO SELL and PUT ON...
Nu-WAY
WEATHER STRIP



Handy
**DISPLAY
 CARTON**

Takes Little Space

Anyone can sell Nu-Way Weather Strip. Anyone can install it. It's *one* strip that serves every purpose on any type of door or window, either double hung or swinging. Packed in attractive carton containing twelve individual 20-foot rolls, each with nails and instructions for installing.



**NATIONALLY
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**HOW IS YOUR STOCK OF *NuMetal*
 DOOR BOTTOM STRIPS?**



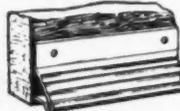
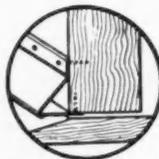
Standard lengths of
 30", 32", 36", 42",
 48"

This is the biggest door bottom strip value you can offer your customers. Made of extra heavy metal, and pure, pre-shrunk, all-wool felt 3/16" thick. Shipped prepaid on orders of three dozen or more.



**DRIP CAPS FOR DOORS AND
 CASEMENT WINDOWS**

Here are two very effective rain drips. (RIGHT) No. DCB, brass. Easy to install, no special rabbeting. (BELOW) No. AFB, brass. 20-gauge, 1 1/4" wide.



Both caps come with holes punched, nails furnished. Available any length.

MACKLANBURG-DUNCAN CO.
 OKLAHOMA CITY 1, OKLAHOMA

SOLD ONLY THROUGH HARDWARE STORES, BUILDING SUPPLY DEALERS AND LUMBER YARDS

EDITORS'

Round Table

(Continued from page 92)

not want such houses, that they may be forced to take them in an emergency, that the minimum \$12,000 price is too high for workmen, that the houses are a failure, not a challenge, and that the private builder will have little chance to correct such an abuse of the term "adequate housing," if the one most powerful voice (*American Builder*) in his field fails to act.

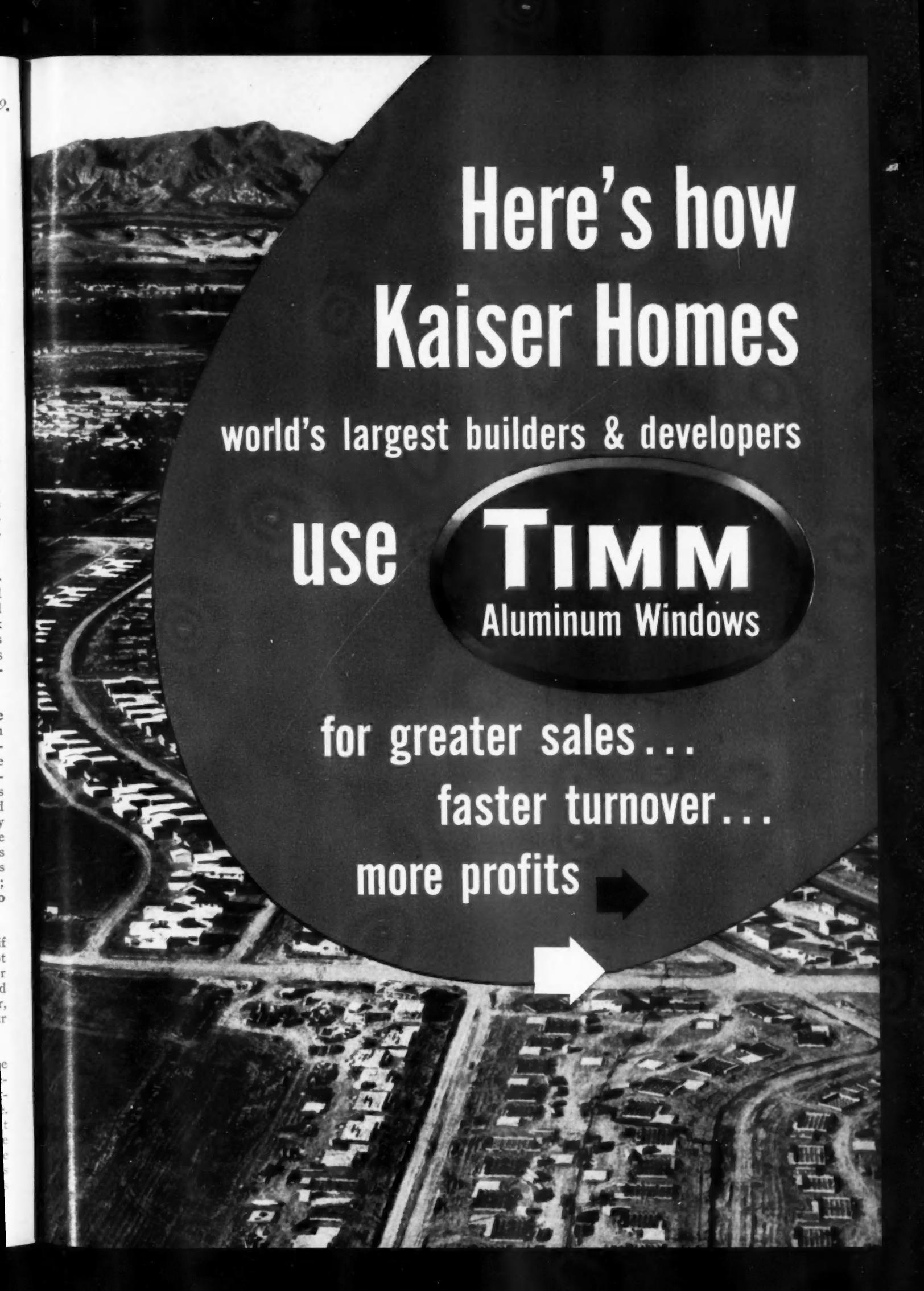
PRINCIPAL OBJECTIONS are floor area and prices. The writer says that total floor area should be minimum 1,300 square feet, living room 12x18, dining room 12x14, bedrooms 12x15 and 10x13, kitchen 10x12, and minimum of 10 closets. Price should be \$9,000, and square foot price \$7. Probably the Milwaukee builders want to say something on the subject.

A CALIFORNIA BUILDER recently took a trip east, and stopped at New York, Washington and Cleveland. When he got back home he told one of our editors that Southern California builders have something more than the climate to be proud of.

FASCIA BOARDS in the east, he said, generally are omitted on buildings using composition shingles; dry walls are not up to the California standard of workmanship; usually there are no doors between hall and living room, and between kitchen and hall; many large tracts do not have appreciable design variations; covered porches are rare; in many tracts garages and driveways are not included; prices and down payments seem to be higher.

"I SUPPOSE," he said, "that if you print this, we will hear a lot about our 'cardboard walls,' our lack of attics and basements, and our inexpensive heaters. However, these items are not necessary in our country."

WE SUGGEST that before the shooting begins, our readers carefully read the article by M. C. Huggett, which appears in this issue. Huggett is executive vice president of the Chicago Metropolitan Home Builders Association. He wrote the article after a tour of numerous building operations in Los Angeles and San Francisco.



Here's how
Kaiser Homes

world's largest builders & developers

use

TIMM

Aluminum Windows

for greater sales ...

faster turnover...

more profits



FRITZ BURNS says . . .



Fritz B. Burns, President,
KAISER HOMES* Builders
& Developers of Panorama City,
Van Nuys, California

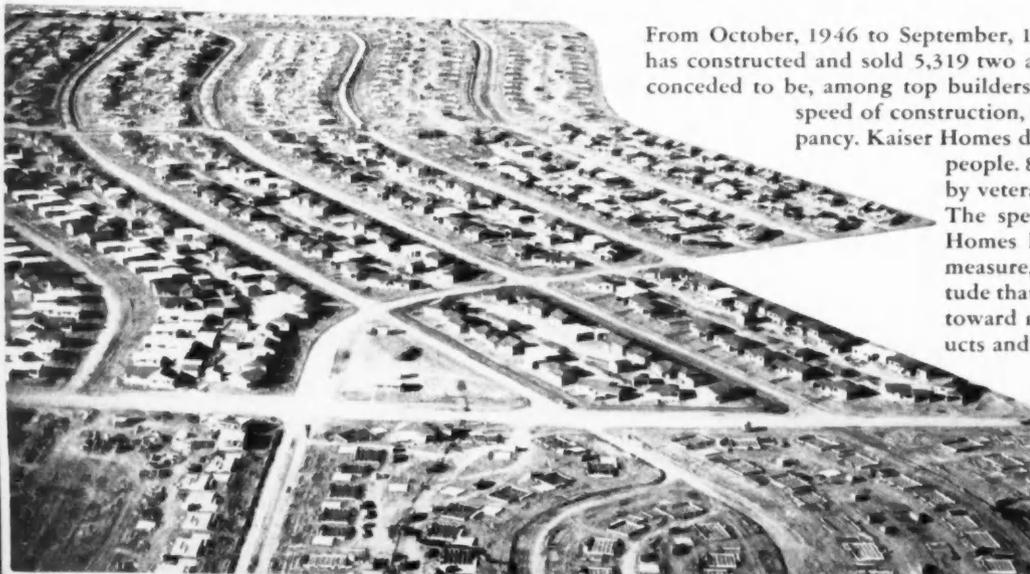
**"Timm Aluminum Windows help
sell hidden qualities of our homes"**

"We use Timm Aluminum Windows as our No. 1 sales tool in selling Kaiser Homes. First of all, Timm Aluminum Windows look like quality construction and our salesmen can demonstrate their many sales features. We find that the natural aluminum color adds a lot of sales appeal, and above all these quality windows, used where people can see them, also help very materially in selling our prospects on the hidden qualities of Kaiser-built Homes."

Fritz B. Burns

*HENRY J. KAISER, Chairman of the Board

Interesting facts about Panorama City and Kaiser Homes



From October, 1946 to September, 1948, in just 660 days, Kaiser Homes has constructed and sold 5,319 two and three bedroom dwellings. This is conceded to be, among top builders and developers, a world's record in speed of construction, volume of sales and rapidity of occupancy. Kaiser Homes during this period have housed 20,672

people. 83% of Kaiser Homes were purchased by veterans. The average price was \$9,703.00. The speed and efficiency with which Kaiser Homes has operated has been due, in great measure, to the completely open-minded attitude that Kaiser Homes executives have taken toward new construction methods, new products and innovations in the entire home building field.

In addition to their present development, Panorama City at Van Nuys, Kaiser Homes has also developed large California residential tracts in North Hollywood; San Jose, Santa Clara, Ontario, West-Side Terrace, Westchester.

Timm Aluminum Windows are our



Walter Wurdeman

"We like the beautiful narrow lines of Timm Aluminum Windows" say Kaiser Homes Architects, Wurdeman & Becket, A.I.A.* "From the standpoint of design, we consider Timm Aluminum Windows, with their modern, narrow lines, a real asset to the architectural appearance of Kaiser Homes."

**Architects for Bullocks Pasadena and Palm Springs, General Petroleum Bldg., Los Angeles, Jai-Alai Auditorium, Manila*



Welton Becket

"Quick installation, easy handling" says C. F. Herziger, Gen. Mgr.

of Construction, Kaiser Homes "In a large project, such as Panorama City, every labor saving step is important. I find that Timm Aluminum Windows help cut installation costs considerably and, believe me, that's worthwhile. Their light weight and precision manufacturing also means minimum installation time per opening and the handling of large sizes a small problem."



C. F. Herziger

"We make Timm Aluminum Windows work for us" says Fred Bauersfeld,* Kaiser Homes, Panorama City, Sales Manager "I find that getting the confidence of a prospect is necessary to make a sale. That's why I always make it a point to demonstrate Timm Aluminum Windows. Prospects figure that if quality windows are used then the parts of the house they can't see are of quality construction too. Timm Aluminum Windows have convinced more than one prospect to sign on the dotted line."

Special Demonstration At right is shown how Kaiser uses special demonstration models of Timm Aluminum Windows set up in double garage units of Kaiser Homes. Here prospects can operate the windows, and the Kaiser salesman can point out superior construction features which cannot be seen after windows are installed.

**Shown on left in group picture*



TIMM
Aluminum Windows

America's Finest Aluminum Casements

Windows are our No. 1

"Quick installation, easy handling"
says C. F. Herziger, Gen. Mgr.
of Construction, Kaiser Homes "In a large project, such as Panorama City, every labor saving step is important. I find that Timm Aluminum Windows help cut installation costs considerably and, believe me, that's worthwhile. Their light weight and precision manufacturing also means minimum installation time per opening and the handling of large sizes a small problem."



C. F. Herziger

"Timm Aluminum costs 1/3" says **Homes Director** the principal reason Timm Aluminum Windows are chosen because they never need painting. We have made the cost of painting the entire cost of painting this saving alone more than pay for more home value.

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Inside view of living
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 which aluminum can



uminum Casements

o. 1 sales tool"

Timm Aluminum Windows cut painting costs 1/3" says Andy Marland, Kaiser Homes Director of Purchasing "One of the principal reasons I put my okay on Timm Aluminum Windows for Kaiser Homes is because they never need paint. In cost studies we have made, we have proved that the cost of painting sash is about one-third the entire cost of painting a house. We can pass this saving along to our customers and give more home value at a lower selling price."

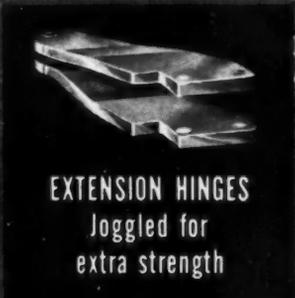


Andy Marland

view of living room installation. Note that the left unpainted. Natural aluminum blends any color scheme. Women like the ease with aluminum can be cleaned.



Outstanding Quality Features of Timm Aluminum Windows your houses plenty of extra savings



EXTENSION HINGES
Joggled for
extra strength



EXTRA HEAVY EXTRUSIONS
For extra rigidity



DOUBLE CONTACT SASH
Cuts Air Infiltration



QUALITY SASH OPERATOR
Holds sash rigid when open



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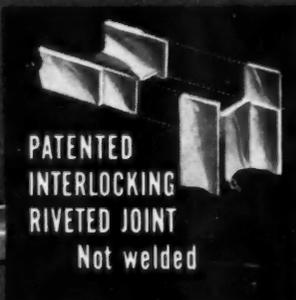
TIMM Industries, Inc.

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Write Today
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Key Features
 Windows will give
 extra sales appeal



Five thousand, three hundred and nineteen homes constructed and sold in 22 months; two thousand more homes planned and under construction at Panorama City; that's Kaiser Homes' record. Even during a housing shortage that takes sales "know how." And part of that sales "know how" is the fact that Timm Aluminum Windows help sell houses faster.

If you are building homes to sell, or if you are building on contract, use Timm Aluminum Windows on your next job.

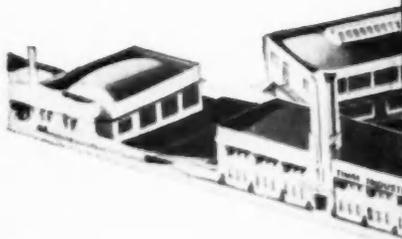
Write Today for complete catalogue of details and stock layouts and name of nearest distributor for Timm Aluminum Windows. Complete line of both Standard and Modular Sizes available.

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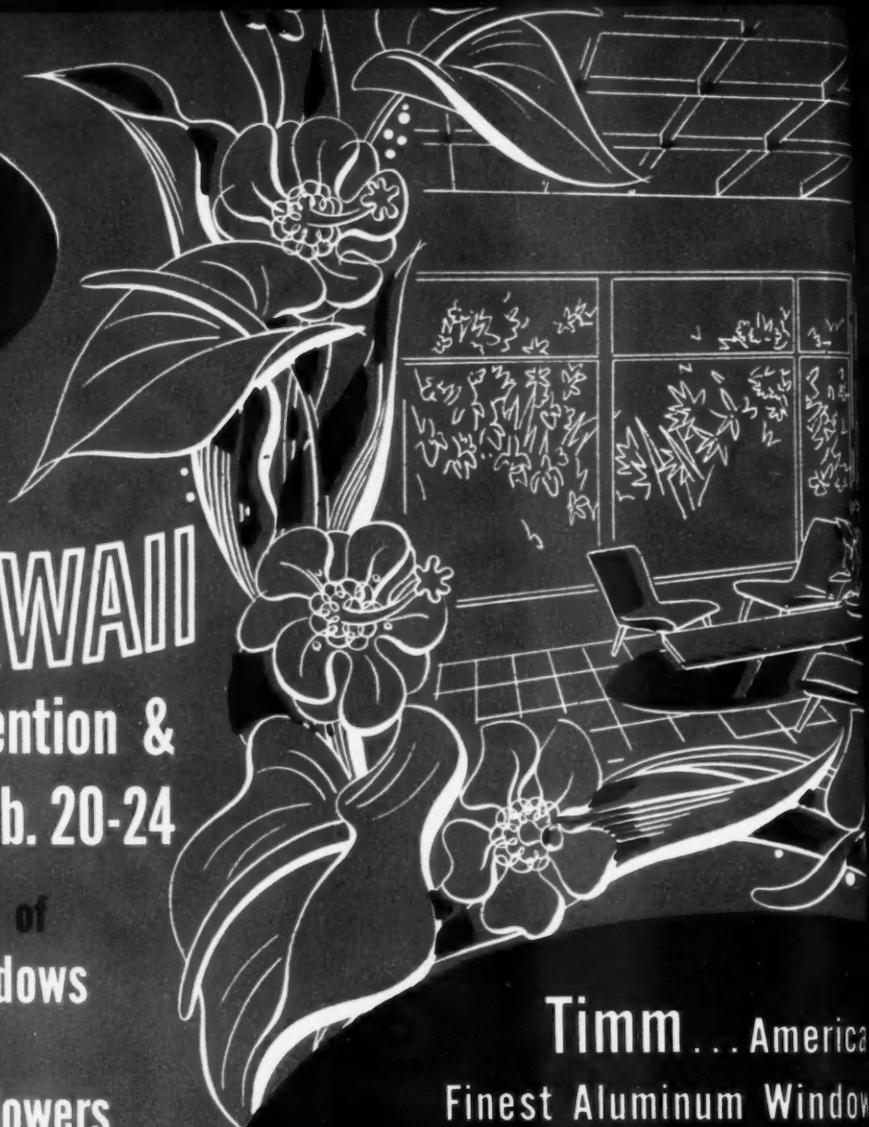
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Beautiful installations of
Timm Aluminum Windows
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Rare exotic tropical flowers
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Timm ... America

Finest Aluminum Window

Nationally advertised to over 8 million home buyers, home builders and home planners every month through

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Here it is!

THE NEW, LOW-COST



DeWALT GW
1 H. P. 18" saw

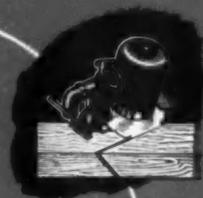
PORTABLE SAW-SHOP

you've waited for!



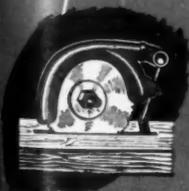
It's a MITER saw!

This new, low-cost DeWalt is easy to carry from job to job. When you put it to work you actually have a "saw-shop" on the job, because every time you change the cutting tool, you have another machine.



It's a VARIETY saw!

Light in weight (about 200 lbs. net), this DeWalt is nevertheless perfectly balanced. It is equipped with the entirely new and exclusive DeWalt-built, voltage-relay capacitor motor which operates on either 110 or 220 volts—a motor which develops 2½ to 3 times the horsepower it's rated for. It is a motor you can depend on for continuous, trouble-free service.



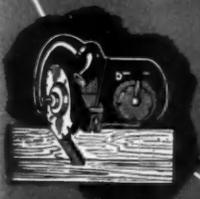
It's a RIP saw!

What's more, this DeWalt can be equipped with legs for inside shop use. With this DeWalt, your men will help you set new standards of performance and quality in building your houses better, faster and at lower costs.



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Order one now for immediate delivery. Write for catalog. DeWalt, Inc., 12 Fountain Avenue, Lancaster, Penna.



It's a BAND machine!



It's a ROUTER!

ALL THESE AND MORE
IN ONE... and for
THE PRICE OF ONE!

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THE SAW THAT'S FIRST WITH BUILDERS

See the new DeWalt at the National Home Builders Show, Hotel Stevens, Chicago—Feb. 20-24, Booth 35



**The Bedfordshire
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Popular Price Easy to Sell

The Eljer Vitreous China Bedfordshire Urinal is a natural for schools, office buildings, institutions and comfort stations.

Because it is easy to clean and keep clean, this well-designed fixture appeals to architects and builders alike. The hard, glass-like surface resists

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Ask your Eljer Distributor about this fixture, or write direct to Eljer Co., Box 192, Ford City, Pennsylvania.

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MONTHLY REVIEW

NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

NAHB Convention Program to Seek Better Building and Selling Methods

Merchandising theme runs through both the exposition and meeting schedules

Some 15,000 persons will meet in Chicago this month to learn how to build and sell better. The program for the Fifth Annual Convention and Exposition of the National Association of Home Builders has been arranged specifically for this dual purpose. Meetings will be at the Hotel Stevens from February 20 to 24.

Both the exposition and the schedule of meetings are planned to spotlight the fact that there are two kinds of building and two kinds of selling to be done.

In building, the home construction industry must build more and better houses in the economy price brackets. It also must build more and better public recognition of what the industry has done and is doing to provide homes for America. NAHB executives feel that if the first building job is done, the second will be done at the same time—hence the program emphasis on the Economy House.

In selling, builders must learn how to make the public realize the extra values incorporated in higher priced houses today, and must learn how to sell these higher priced homes to those who can afford to buy them.

The exposition, arranged by Paul S. Van Auken of Chicago, exposition director, will include 130 manufacturers of building materials, equipment and supplies, occupying 208 exhibit spaces. Many of the exhibitors are reported to have made merchandising the main purpose of their displays—to show how new products and new methods can help builders do a better job of selling homes at the same time that they make those homes better.

On the meeting side of the convention, six technical clinics and four panel discussions, arranged by Frank W. Cortright and his NAHB staff, have been carefully set up to tie better building and better selling together.

As announced by Convention Chairman W. Hamilton Crawford of Baton Rouge, La., the technical clinics will be held Tuesday and repeated on Wednesday to allow builders to attend more of them. They will deal with dry wall construction methods,

panel heating, the builder-erector's place in building and marketing prefabricated houses, the Economy House, FHA questions and answers, and merchandising houses through better design.

The panel discussions will deal with mortgage finance, merchandising, land planning and the Economy House.

Prominent among the government speakers who will appear are Raymond Foley, HHFA administrator, and Frank D. Richards, FHA commissioner. Other speakers will include

Roy Wenzlick, St. Louis real estate analyst, and National Commander S. Perry Brown of the American Legion.

Recognizing the need for building for the future as well as for the present, NAHB this year has invited university students, who are studying light construction in schools and colleges where such courses are featured, to attend the convention and exposition.

Winners of the Neighborhood Development Contest are to be announced at the Chicago meeting.

Movies of a number of Economy House projects will be shown daily throughout the convention. Slide films, charts and other visual aids will be used extensively in the clinics and panel discussions. A special invitation has been extended to wives of the builders to attend the convention.

Seattle Group Names Coordinator For Carpenter Apprentice Program



FUTURE building tradesmen in the Seattle, Wash. area, are represented among this group of apprentice carpenters being taught in cooperative plan

Through the cooperation of the Seattle Master Builders Association and other interested labor and trade groups, a carpenter's apprentice coordinator has been appointed in Seattle to serve as liaison officer among the builders, apprentices and the apprentice school. K. N. Schoonover is the coordinator.

The apprenticeship enrollment is not so heavy as last year, and attendance at the school had been dropping off, even among those who were enrolled. In order to remedy this situation, and to make the apprentice realize that the continuance of apprenticeships and benefits under the G.I. Bill depends on attendance, a meeting was held re-

cently at the A. F. of L. Carpenter's Hall. Talks were made by Carl Anderson of the A. F. of L. carpenter's union; by Harry Carr, president of the Seattle Building Trades Council; by V. H. Dent, of the builders association; by Robert Lyman of the Associated General Contractors and by a representative of the Edison Vocational School where the courses are given. After the business session, the boys were served refreshments provided by the Carpenters Apprentice Committee.

The job of the coordinator will be to see that each apprentice is trained properly, that he gets the right kind of instruction.

Plan Now to Attend or Exhibit at the NAHB Convention, February 20-24, 1949



Cortright's Column

By Frank W. Cortright

Executive Vice President, National Association of Home Builders of the United States

Two figures buried in Washington reports have suddenly assumed considerable importance for the people in this country. Both have to do with rent. One is tucked away in an imposing report from the U. S. Bureau of the Census. It shows that the median rent paid for dwellings in the United States is \$29.33.

The other can be found by applying a little arithmetic to the Administration's new public housing program. It shows that under the bills introduced in the House and Senate to establish the new million-unit public housing program, Uncle Sam is proposing to pay a rent subsidy of \$37 per month to each family to be placed in the housing to be built.

In other words, self-supporting people living in privately-rented and privately-paid-for homes pay about \$30 a month rent.

But the government, when it puts non-self-supporting families in public housing proposes to pay out \$7 a month more for them for federal subsidy alone. To this \$37 subsidy must be added the so-called "shelter rent" paid by the tenants in the public housing.

The present average shelter rent runs about \$27—based on building costs of nearly 10 years ago. Even using that out-moded base, the total rents to be charged in the "low-rent" federal housing would be about \$67 or more than twice as much as the median private rent in the United States.

Actually, the bill proposes to have the U. S. Treasury pay out \$445 million a year for rent subsidies. This amount will go to the million families who are to be selected for the projects. This will be paid annually for 40 years. The total amount of subsidy, therefore, reaches the staggering total of \$18 billion dollars over the 40 year period.

The average citizen may not understand just what is meant by socialization of housing. But he certainly can understand the plain and simple fact that a million families are to be chosen to have \$37 a month paid by the government on their rent bill.

He can certainly understand that it will cost \$18 billion of his taxes to meet a part of only their rent bill.

The fundamental question has at last been raised—and clearly illuminated. Just how much can we afford to spend out of the public treasury for housing a relatively small number of selected families? For now it can be seen that it costs a lot of money if the government is to undertake to provide housing.

Nor is the rent subsidy the only public cost involved. There is the matter of tax abatement and other tax losses. There is the overhead cost of building and operation. And there are other hidden costs that become apparent only after public housing has been built and saddled on the unsuspecting taxpayers who will have to foot the bill.

There is one good thing about this whole situation. It is simply that at long last the public housing advocates have come out with an indication of what they will cost the nation. Up to this time, they have camouflaged their efforts with pious talk about only housing a small number of families—those who need help most. Private builders have always known—and contended—that the public housers would not be content with less than 5,000,000 units. We know that this 1,050,000 units is only the beginning.

With the election tucked away, the public housers cast off restraints. They raised their initial program immediately to 1,000,000 units. And with it, the back-breaking costs inherent in such a program zoomed upward, too. The \$1,750 per room cost (not including land and facilities) is to be augmented by another \$750 if they feel it desirable.

Now the full preposterous facts are coming out in the open. It should not be so hard to make clear to people just what is involved in public housing.

Portland Airs Pros and Cons Of Low-Cost Housing in Panel

Both opponents and proponents of public housing expressed their views at a panel discussion on low-cost housing in Portland, the Portland Home Builders Association reports. The panel was a representative one, including a member of the League of Women Voters, a former regional vice president of the National Association of Real Estate Boards, the acting building inspection director of Portland, the president of the Portland Planning and Housing Association and the president of the Portland Realty Board. L. C. Simms of the Portland Home Builders Association served as moderator of the panel.

Despite diametrically opposite viewpoints among the participants, the



HERMAN A. SCHMITT

President, Portland Home Builders Assn.

association reports, opinions were expressed without acrimony.

Herman A. Schmitt was reelected president of the association. Other officers for 1949 include Palmer Biggness, vice president; Frank D. Evans, secretary-treasurer; Sanford Langoe, sergeant-at-arms. The executive board includes T. B. Winship, Ralph L. Harris, and Arthur Hanson for the builders; Al Disidero for the material dealers; George Welby for the subcontractors and Frank E. Payne for other associates.

Lamberth Is President Of Texas Home Builders

E. P. Lamberth has been elected president of the Texas Association of Home Builders. Others officers are: Sam Lemmon of Lubbock, vice president; G. E. McCresless of San Antonio, secretary; C. L. Munday of Amarillo, treasurer. Grover A. Godfrey of Dallas is executive secretary.

Boston Association Plans Panel after Utah Model

The Home Builders Association of Greater Boston reported plans for a panel discussion of the subject, "How we can build low-cost houses", patterned after the panel on the same subject which was held recently in Salt Lake City under the direction of Alan Brockbank.

St. Paul Economy House Protected From Inflation

The St. Paul Home Builders Association has developed an Economy House plan which members are building to sell for \$8,150, plus lot. An interesting feature of the St. Paul plan is the manner in which it is setting up safeguards to prevent each of these new houses from getting on the inflationary market after being built.

This is achieved by reserving to the contractor, in the sales contract, a three-year option to buy back the house if the owner desires to dispose of it within that period.

The home is conventional in construction, a two-bedroom design of frame construction. Designed by Norman R. Johnson, architect, it combines living room and dining area, and permits good room dimension in an exceptionally compact arrangement of its 708 square feet of space.

FHA has issued a commitment on the house for a 25 year mortgage of \$7,600, based on a lot valuation of \$750. That brings the total selling cost of the house to \$8,900, exclusive of mortgage loan costs.

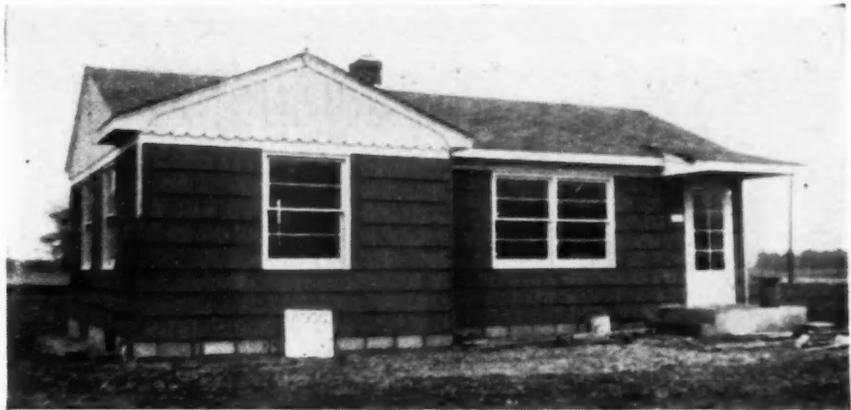
The association had begun 100 by the end of the year and expects to start 1,500 in 1949. Public acceptance has been excellent, and there is no difficulty in finding prospects, A. L. Keffer, executive director, reports.

Legion Certificate of Merit Given to Washington Builder

The American Certificate of Merit recently was awarded to Clarence (Goody) Gosnell, president of the Washington (D.C.) Metropolitan Association of Home Builders for the cooperation afforded the D.C. Veterans Housing Committee in finding homes for veterans. Since the program was inaugurated, housing applications have been taken from 25,000 veterans and more than 7,500 families have been placed.



SYLVAN KING, chairman of Veterans' Housing Committee for Washington, D. C. Department of the American Legion presents Legion Certificate of Merit to Clarence W. Gosnell, president, Washington Home Builders Assn., for his work and cooperation in finding homes for veterans



ST. PAUL Economy House is a two-bedroom design of frame construction. The house is built to sell for \$8,150 plus lot. Compact floor plan is pictured at the left



Maurice J. Fishman Heads Cleveland Association in 1949

Maurice J. Fishman was elected president for 1949 of the Home Builders Association of Greater Cleveland. Other officers are: Peter D. Kleist, vice president; Everett C. Andrews, treasurer; George N. Seltzer, secretary.

Exposition Display to Feature Rare Tropical Hawaii Blooms

Ladies visiting the exposition hall at the NAHB convention on the last day of the show will have a chance to secure an exotic Hawaiian bloom from one of the exhibit booths. Timm Industries, makers of aluminum windows, plan to dispose of the floral part of their display in this manner.

During the week, the blooms and foliage will be used to decorate the exhibit space. Flown direct from the Islands, they will include exotic anthuriums and other spectacular blooms such as heleconia and torch ginger.

Minneapolis Chapter Cooperates With Newspapers on Survey

At the request of newspapers in Minneapolis, the Minneapolis Home Builders Association is making a survey of its members to determine the housing situation there. A questionnaire, mailed to members by Harold Boss, executive vice president, asks the number of houses started in 1948, the number completed, number remaining unsold, the price range, the starts anticipated in 1949 and that price range.

Long Island Builders' Unit To Study Ways to Cut Costs

The Long Island Home Builders Institute has set up a Committee on Construction Costs, headed by Leonard Frank who was subsequently elected president of the institute, to develop and uncover improved methods, materials and building regulations that could result in lower building costs.

While most such association committees have directed their efforts specifically at the Economy House, the Long Island group felt that a broader purpose could give greater results. Such cost studies, it was felt, could be applied to building in all price brackets.

In terms of this broadened objective, Robert J. Rose, chairman of the Institute's Planning Committee, is preparing an analysis of Planning Commission rules and specifications through which savings could be effected if proper modifications could be obtained. Frank Clauson, chairman of the Building Code Committee, is preparing a similar analysis of building code regulations and the numerous variations that exist in the 65 political subdivisions within Nassau County.

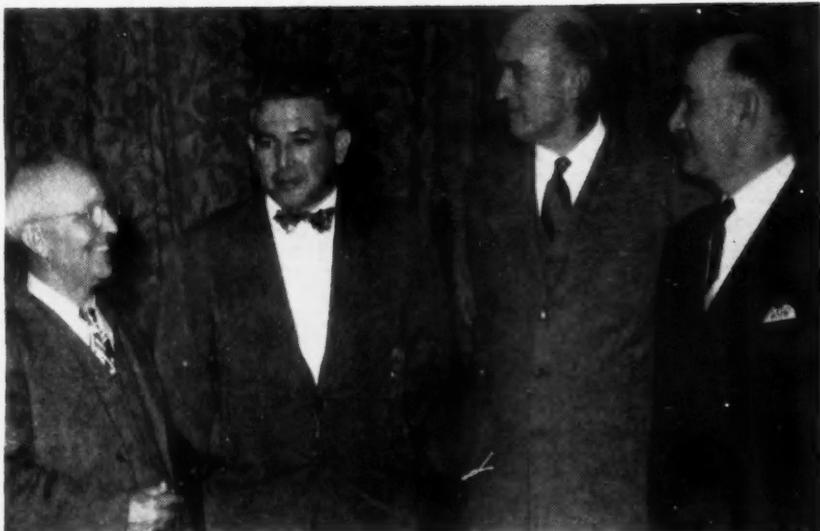
Subcommittees of architects and engineers, of building materials manufacturers and distributors, and of mortgage brokers, financial institutions, FHA and VA officials, are being held with respect to the same project.

Other new officers, elected for 1949, include Patrick J. Callan, vice president; Fred Gibson, treasurer, and James Graham, secretary. Otto J. Hartwig is executive vice president. New three-year term directors are Charles M. Jaeger, Saul Sokolov and Sam Harris.

Rochester Uses Association Signs

The Rochester Home Builders Association has arranged with a sign manufacturer to provide its members with signs bearing the association insignia. Builders post them before houses under construction.

New Orleans Elects 1949 Chapter Officers



OFFICERS for 1949 elected at December annual meeting of Home Builders Association of New Orleans, Inc., are, left to right: W. E. Douglas, secretary; Paul B. Lemann, vice president; Harry B. Rainold, treasurer, and Harold I. Paillet, president

All Women's Program Planned for Lady Builders At NAHB Annual Convention

An important new feature at the NAHB annual convention to be held in Chicago will be the inauguration of a program staged exclusively by the women builders for women builders. This will mark the first time such a meeting has been held, and it is anticipated that it will arouse keen interest among all women associated with the building industry. A program that is both lively and informative is being planned.

The meeting, titled "Women's Conference on Home Building" will run from 10:00 a.m. to 12:30 p.m. Monday, February 21, in the Grand Ballroom of The Stevens. Mrs. R. B. Butler, realtor and builder of Tulsa, Okla., has been appointed program chairman by Frank Cortright.

While details of the program are not definite as this is being written, a preview of the subjects to be discussed reveals such provocative titles as "How All Women Run Their Husbands" and the "Defense Against Socialism in Housing." Mrs. Maxine Livingstone of Parents Magazine will talk on Interior Decorating, and Mrs. Henny Mollgaard of Milwaukee will discuss "The Furnishing of the Home." Mrs. Butler, who designed and built a home from ideas suggested by 3,000 American women, will tell what she learned from her survey.

Plan Industry Engineered House

The Lansing Home Builders Association will build an industry engineered house with methods proposed by the National Retail Lumber Dealers Association and the Producers' Council, to give away as the grand prize at the Lansing 1949 Home Builders Show.

Los Angeles Builders Elect New Officers; Urge Housing Measures

Arthur A. Beliveau, Alhambra subdivider and home builder, was elected 1949 president of the Home Builder Institute of Los Angeles at the board of directors meeting in December. He succeeds Spiros G. Ponty, who assumes the post of treasurer for 1949.

Lloyd S. Whaley, Long Beach, was named first vice president; E. Avery McCarthy, Los Angeles, second vice president; and Ralph M. Burgbacher, third vice president.

An eight-point resolution of housing recommendations to the new congress was passed by the retiring board of directors. This includes substitution of the Wagner-Ellender-Taft bill with independent housing bills; classification and definition of "housing"; a four-year housing plan; a 100 per cent secondary market and an adjust-



ARTHUR A. BELIVEAU

able rate of interest; housing without cost to the taxpayers; full utilization of housing legislation now existing; reduction of housing red tape; extension of FHA insured loans to 35 years. The group also urged a national housing conference.

Gross Rental Housing Proposal Publicized by Association

While not advocating the program as a position of the association, the Long Island Home Builders Institute has publicized a rental housing construction bill, being proposed by Alfred Gross, one of its active and influential members.

Printing the proposed legislation in its association publication, the Long Island chapter of NAHB makes clear that neither NAHB nor the local chapter have considered the plan formally.

Gross declares his proposed bill is for a low-rent housing plan that will work within the framework of the private enterprise system if all the tools of government and finance that are given to public housing, short of direct grants, are given to private enterprise.

Gross presented a similar plan last year to the Joint Congressional Committee on Housing, but it did not survive all legislative obstacles. This year he is more confident. As he describes it, "Last year, I was off the



ALFRED GROSS, chairman of Long Island Home Builder's Institute mortgage and finance committee, explains his housing proposal to Sidney Kessler

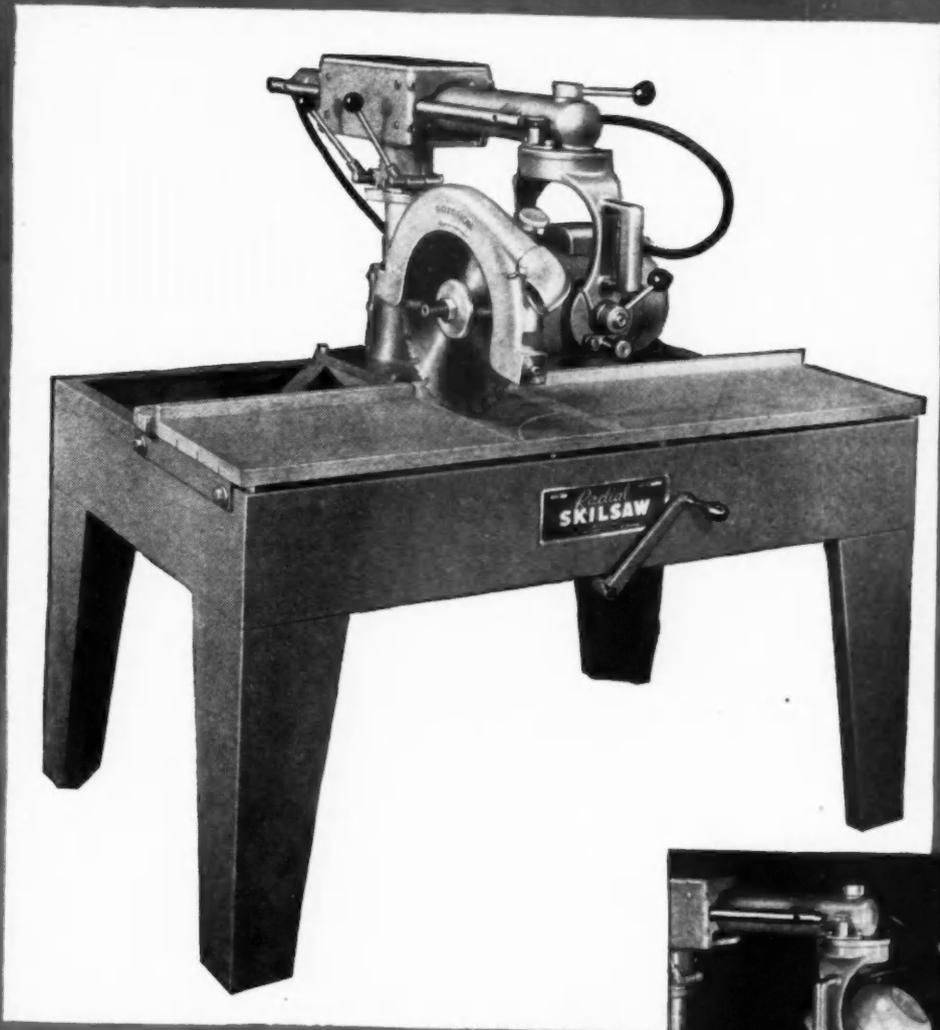
reservation. This year, they've moved the reservation under me."

Briefly, the Gross proposal would divorce low-rent housing from any element of slum clearance or rehabilitation of slums or slum dwellers. These, he contends, are social and separate problems.

It would provide communities a chance to contribute limited tax exemptions which later would be more than made up by increased valuations and new taxable properties. It would extend to rental housing some of the financing advantages now enjoyed by housing built for sale.

If adopted, Gross believes the plan would reduce monthly rentals on 608 projects from 30 to 35 per cent. Details of the plan are printed in the December-January issue of the Long Island Builder.

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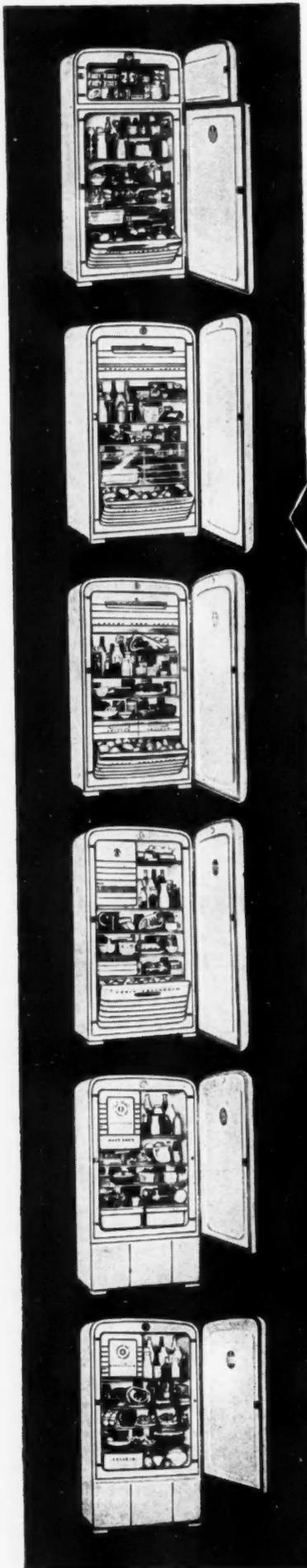
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E D I T O R I A L

Performance Guarantee

IN A COMPETITIVE market the inept and the unethical opportunists who enter the building field are quickly eliminated. Since the close of the war, however, there has been ready sale for every house built, without too much scrutiny or inquiry on the part of the buyer.

That might easily have resulted in a disastrous wave of jerry building through which the entire industry would have been discredited. But no such wave has developed, and much if not most of the credit for holding the amount of jerry building to a negligible minimum goes to the local chapters of NAHB. Membership in all of these chapters has been based on the demonstrated fitness of an applicant to meet certain ethical and technical standards. Mistakes in judging the fitness of applicants for membership have been made, of course. But, as the unfit have been discovered they have been disciplined.

So well have the membership committees in various chapters done their work that not even the professional defamers of the industry have been able to find enough cases of willful or unwillful dereliction on the part of home builders to create public hostility or public suspicion. The few exceptions to the rule of high ethical and technical standards of home builders that have been discovered have helped rather than hurt public acceptance because of the manner in which local associations have dealt with them.

Now, with the era of distress buying gone, 1949 probably will see a return to competitive selling. In such a market the misfits do not last long. There are however, always new misfits entering the field, and the next logical step for the associations is to find ways to keep the continuous stream of unfit and unethical operators from threatening the reputation of quality builders.

Is there any reason why both the public and the reputable builders cannot be protected by the establishment and advertisement of performance guarantees by the local associations?

Granting that most builders do stand back of their houses, and that failures of materials and workmanship are relatively rare, a performance guarantee by a local association nevertheless should be a profitable investment in public relations, sound merchandising and the solidification of public confidence. And it should further minimize unfair competition and the exploitation of the public by making selling in a competitive market too difficult for the unskilled and the unethical.

It is realized that there are many problems in the operation of such a guarantee which would have to be worked out carefully. It is also realized that a performance guarantee would require inspections and perhaps inspection fees and, conceivably, funds to make good the guarantee when and if that became necessary. The benefits to the builders and the public, however, appear to outweigh the problems of financing and operating the guarantee.

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Eight Building Operations That Offer Ideas for All

The eight large home building organizations described on the following pages are representative of one phase of the nation's industry—mass production of houses. These organizations are being featured because of the many ideas they present in management, planning, erection and sales which can be adapted to small home building operations. The men heading the organizations discussed will attend the NAHB Annual Convention and Exposition in Chicago February 20 to 24 and will take an active part in the business sessions, along with others who head much smaller organizations. *American Builder* urges all builders to attend this Convention, and ally themselves actively with the nation's industry organization. The free and rapid exchange of ideas at the business sessions, plus visits to the Exhibit Hall, will not only bring everyone up to date on developments and problems in the industry, but will fortify those in attendance with knowledge and ability to capitalize to the utmost on their chosen field of activity—building.

BUILDING PRODUCTS ON REVIEW

New products and equipment, plus refinements and improvements in conventional items, not only enable builders to erect better houses and other structures, but make it possible to incorporate within the structures more value in usefulness and permanence. Material and equipment items illustrated and described briefly on the pages of this issue of *American Builder* are a few examples of the work of ingenious and far-sighted manufacturers interested in the building industry. Obviously it is impossible, in the limited space allotted, to present all the products of all manufacturers or even to list all the merits and outstanding features of those products which do appear. Supplementary information on most of the items will be found in the advertising pages of this and other issues. In addition, each product presented in the pictorial review has a key number and the coupon on page 181 can be used to obtain details. Many of the manufacturers' products shown in this issue will be on display at the NAHB Convention and Exposition at the Stevens Hotel in Chicago, February 20 to 24.

Converting Dreams Into Realities

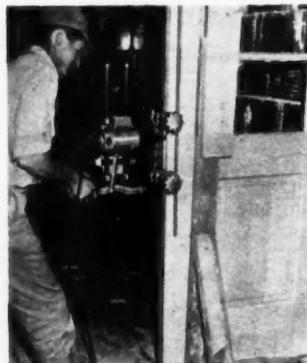
Good leadership plus fertile brains and nerve have enabled Nathan Manilow and his associates to complete more than 5,000 houses and conceive plans for 7,000 more in Chicago area

"WE WORK with him not for him", say those associated with Nathan Manilow in his multi-million-dollar home building activities in the Chicago area. Sharp-eyed, soft-spoken, cigar-smoking Manilow has achieved the ultimate ambition of the good executive—to assemble an organization which runs itself efficiently and profitably. He and those associated with him have completed more than 5,000 dwelling units and \$20,000,000 worth of other types of construction and now have planned and under way projects which when completed will produce another 7,000 units.

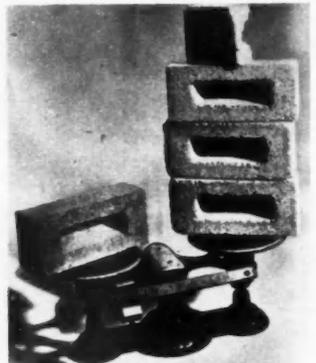
Manilow is a promoter with a high batting average of success. He inspires a spirit of drive and accomplishment in the organizations with which he is identified. Key personnel on his staff do not spend a lot of time writing memos to the "boss". Reports and paper work are held to a minimum. Instead each individual is charged with certain specific responsibilities and from then on out it is up to him to produce. Manilow's key men have the feeling they are running their own businesses. This feeling is bolstered by the fact that each year-end very substantial bonuses based on current profits are paid to employees.

Jeffery Manor, a Manilow project, started during World War II under priorities and price ceilings, is now a community of more than 3,000 families and when completed will house about 3,800 families. The organiza-

BUILDING PRODUCTS ON REVIEW



AB29179—Stanley-Carter Lock Mortiser. Stanley Tools, New Britain, Conn. Assures smooth cut because the feed of the cutter is predetermined. Only three adjustments to make in setting up for a job. Impossible to overload. Can be used to bore the hole for the bolt on cylinder locks. Cuts a mortise in 30 seconds.



AB29147—Perlite aggregate bricks. The Alexite Division of the Alexander Film Co., Colorado Springs, Colo. A lightweight aggregate used in the manufacture of bricks, blocks and precast beams. A 5 to 1 mix of Perlite to cement produces sufficient strength to meet building codes and is about 66 per cent lighter.

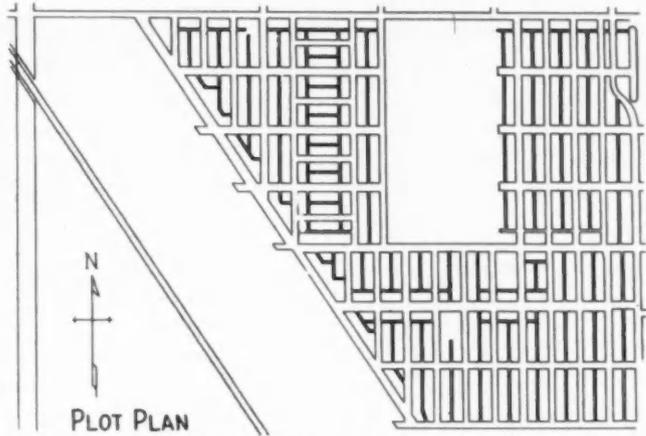


PRINCIPAL executive officers of Manilow Construction Co. and subsidiaries. Left to right: Nathan Manilow; Carroll B. Sweet, Sr.; Joseph Goldman

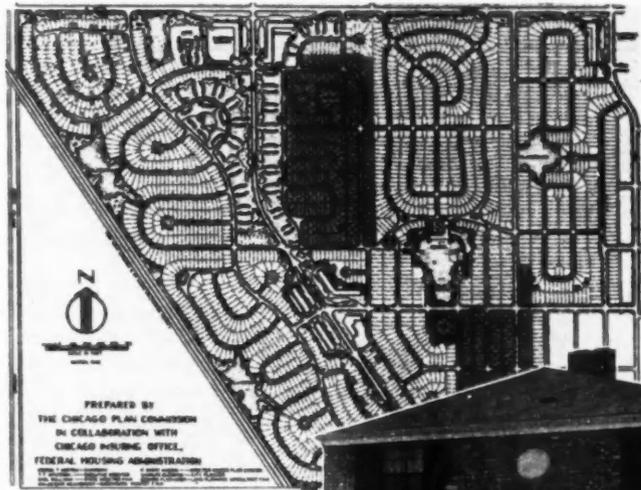
tion is proud of the fact that all during the war and post-war period of housing priorities, no priority was ever assigned that was not converted into the completion of an occupied home.

The land now occupied by Jeffery Manor was originally subdivided in the 1920's and underground utilities installed. It was platted in gridiron pattern, and in the late 1930's, Manilow became interested in building a community there. The property received special study by the Chicago Plan Commission and the land planning division of FHA with the result that the old gridiron pattern was completely revised into the present plat with curvilinear streets and large lots. While the revised plat necessitated the abandonment of certain utilities, this was more than compensated for by an increase of approximately 20 per cent in the number of home sites, plus an infinitely more attractive community. All homes in Jeffery Manor are solid masonry construction priced from \$11,000 to \$11,950.

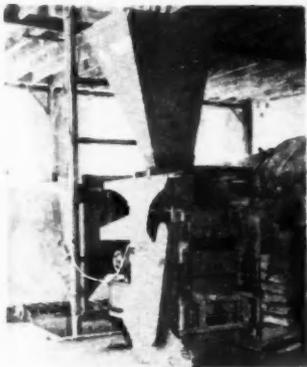
JEFFERY MANOR, one of Manilow's large projects, now houses about 3,000 families and will house 3,800 when completed. Replating the old gridiron subdivision into modern layout increased number of building sites by 20 per cent. At right is the new layout with curvilinear streets



OLD subdivision of 20's which was replatted in pattern below



BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



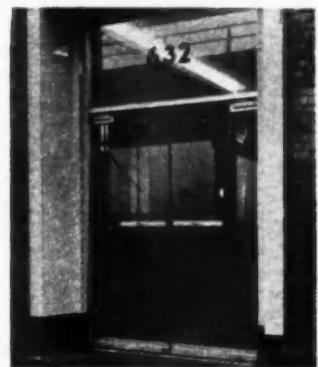
AB29149 — Concrete block plant equipment. Fleming Manufacturing Co., Inc., St. Louis, Mo. Adaptable to almost any building. Machine consists of plant mixer, skip hoist and block machine. Can be placed in area fifteen by ten feet. Operated by one man, it can produce 180 first-class blocks an hour on plain pallet.



AB29131 — Winter air conditioner, water heater. Bryant Heater Co., Cleveland, Ohio. Furnace shown is Model VB, one of 17 different sizes made for single or multiple installations. Water heaters are made in 20, 30, 40, 50-gallon sizes. The furnace and water heater shown can be installed in compact area.



AB29146 — Sanicor lavatory. Crane Co., Chicago, Ill. This is a space-saving corner lavatory, size 17x17 inches overall. Available in white or a variety of colors. For use in industrial or commercial buildings, a foot pedal at floor controls flow of water. A hand valve at top shelf adjusts the temperature of the water.



AB29133 — Glass door frame. Pittsburgh Plate Glass Co., Pittsburgh, Pa. For use with Herculite tempered all-glass doors. Heavy, anodized and extruded aluminum reinforced with steel channels and tie-rods. First of its type. Available in 12 standard patterns. Includes checking floor hinge, top pivot.



TWO OF THE houses being built in Copeland Manor, a community of 400 homes northwest of Chicago. Prices—\$11,500 to \$15,750



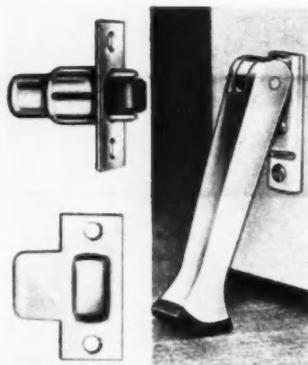
MANILOW plans 3,000 low-price houses similar to these adjacent to Chicago in 1949. Price, \$8,500. More than 2,500 have been built at Round Lake, Ill. Lower right: Typical version of houses now being built by Manilow in Hammond, Ind.



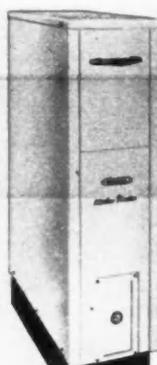
BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB29145—Lumite screening. Lumite Division, Chicopee Manufacturing Corp., New York, N.Y. A woven plastic insect screen material. It is stainproof and rustproof. Impervious to salt air, rain, snow and industrial smoke. Lumite never needs painting. The plastic strands are kept clean by washing with hose.



AB29177—A roller catch for door and a door holder. Both products of The Stanley Works, New Britain, Conn. Catch is easily installed and is adjustable. Simply bore 7/8-inch hole, 2 inches deep, at any desired location. Door holder grips floor surface. Made of pressure cast alloy with rocker-shaped rubber shoe.



AB29144—Kitchen Booster automatic electric water heater. National Steel Construction Co., Seattle, Wash. Provides extra hot water for dishwashing, plus safety in bathrooms where moderate temperatures are used. Designed in two styles. Capacity 8 gallons. Snap action thermostat, cold water baffle and heat-trap.

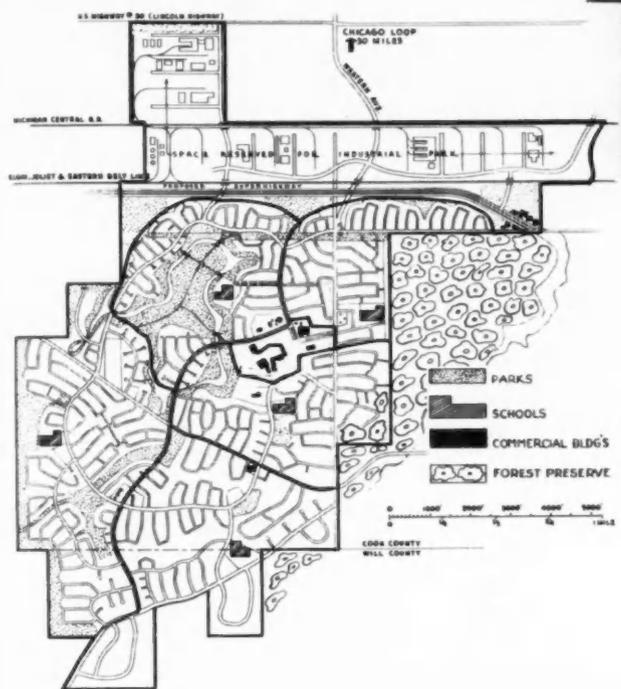


AB29143—Mulkey Portable Elevator. Sam Mulkey Co., Kansas City, Mo. Manufactured in four sizes. Easily maneuvered and placed in position. Adjustable to accommodate extensions. Balancing permits one man to handle and operate. Can be used for transporting all kinds of building materials. Savings in labor cut costs.



PHILIP KLUTZNICK, head of organization building Park Forest

Nathan Manilow and his chief executive officer, C. F. Sweet, Sr., dreamed of and finally inaugurated huge Park Forest project. They enlisted Philip M. Klutznick to carry out the undertaking



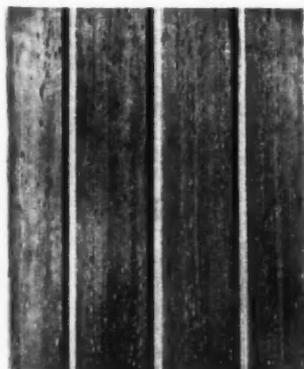
PLAT OF Park Forest, covering 2,400 acres of wooded farm land 39 minutes from Chicago's loop by commuter train. It will consist of 3,010 rental units, 5,000 single family dwellings, shopping centers, schools, churches and recreational facilities. Schedule calls for completion of 75 units per week in the spring. Above, right, is an aerial view of the project

Manilow is big-hearted. He likes to see everyone live well, be happy, prosperous and well-housed. He noted the need for housing in Hammond, Ind.; for steel mill employees. As a result his Carroll Construction Co. is now busily engaged building about 250 houses there, all in brick and dry wall, to sell from \$10,000 to \$11,000.

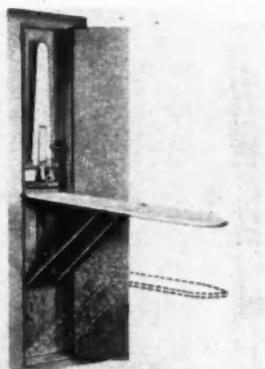
At Round Lake, Ill., the L. B. Harris Co., Inc., of which Manilow is chairman of the board, is now building about 200 frame houses a year to sell at \$6,950. Up to the present time more than 2,500 homes have been built there. Two basic plans are used here. The smaller has a complete kitchen with dining space, living room, bath, one bedroom and a utility room on the first floor with a built-in stairway to a floored but unfinished attic which can be completed to provide two more bedrooms. The other basic plan is similar to this except that there are two bedrooms on the first floor. At the Round Lake operation, a complete woodworking shop is used to precut and fabricate many of the house parts.

Manilow plans to erect 3,000 low-priced frame houses adjacent to Chicago in 1949. Plans are being processed by FHA and as soon as weather permits work will get under way in two separate subdivisions of 1,500 houses each. One will be on the southeastern edge of the city and the other on the northwestern edge. Houses will be of

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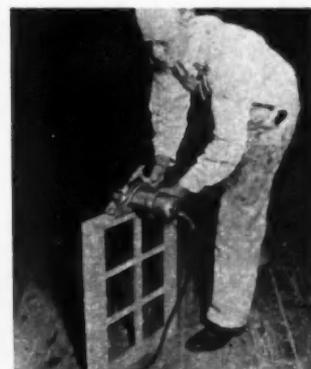
AB29182—A new interior wood paneling known as Driftwood Paneling. Weyerhaeuser Sales Co., St. Paul 1, Minn. Driftwood is precision machined to pattern and saw-kerfed to prevent cupping. Tongued and grooved for proper application. Available through retail lumber dealers in 6, 8, 10, and 12 inch widths.



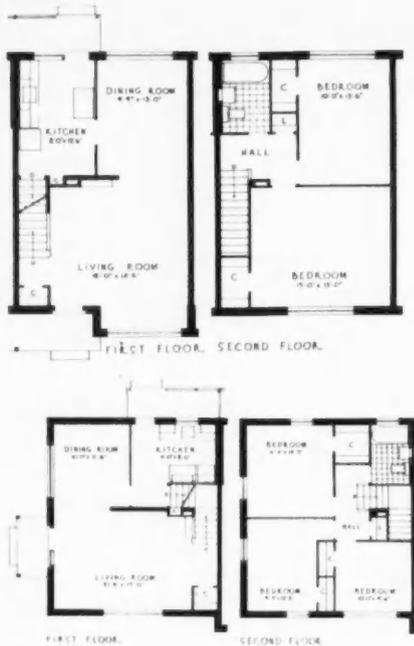
AB29130 — Built-in ironing board. Rieter Woodwork Specialty Co., Cedarburg, Wis. Eighteen adjustments for height. Dependable locking mechanism prevents wobble or tilt. Exclusive safety feature protects children. Can be installed between 2x4 studs, 16 inches on center. It is supplied with or without doors.



AB29120—Flor-Ever vinylite plastic floor covering. Delaware Floor Products, Inc., Wilmington, Delaware. A range of colors available. Flor-Ever needs no waxing for protection. It is scuff resistant. Permanently washable . . . immune to alkalis. Resists staining by water and grease. A minimum amount of upkeep required.



AB29181 — Stanley-Carter "Wasp" Power Plane. Stanley Tools, New Britain, Conn. An electric plane with patented spiral cutter which produces smooth waveless surface. By substituting shaper cutters, it becomes a miniature planing mill and will make surface beads, tongue and groove, and other moulding cuts.



FLOOR PLANS of five and six-room apartments. Each unit will have a full basement. About 200 3½-room, one-bedroom units are planned for families without children

frame construction, basementless, all dry wall interior with complete plumbing and warm air heating units. Kitchens will have complete cabinets and the utility rooms will be equipped with laundry tubs and an automatic hot water heater. Plans will be similar to the Round Lake houses except that the larger house with two bedrooms downstairs will not have a built-in stairway. Instead there will be a large opening to an unfinished second floor which can be reached by installation of a disappearing stairway. The attic will be wired and subflooring applied. These houses will sell at a maximum of \$8,500 in FHA-approved subdivisions with all utilities in. The program calls for

delivery of 125 turn key jobs each month after the fourth month.

Carroll F. Sweet, Sr., is chief executive officer of Manilow Construction Co., Inc., and subsidiary firms. Sweet, a former Grand Rapids, Mich., banker, who spent many years as an officer of the Home Owners Loan Corporation and, during the war, was in charge of housing priorities in Chicago, now has complete charge of all personnel for Manilow. He is also president of L. B. Harris Co. Inc.

Joseph Goldman, an architect, is a vice president in charge of construction for Manilow Construction Co. and all subsidiaries. Goldman, who has been with Manilow for 19 years, makes regular trips to the jobs under way, checking with his superintendents on progress, labor and materials supplies. Once a week, the superintendents on the various jobs file a report with Goldman on the number of men working in the various trades, together with a report on the weather for each day. No other paper work is involved. With these reports at hand, Goldman can check on whether adequate progress is being made because of personal attention to jobs.

Goldman has tried progress reports and more detail on control of jobs, but has found that this took too much of the time of superintendents whom he wants on the job with the men. He finds that filing this one report each week keeps the superintendents conscious of progress being made and whether it is good or bad. The secret is, of course, in hiring efficient superintendents. The theory all through the Manilow organizations is to pay high salaries, above average for the industry. This, they find, is cheapest in the long term operation.

The biggest dream of all to become

a reality for Manilow and his chief executive officer, Sweet, however, is the development of Park Forest, just south of Chicago. To handle this huge \$70,000,000 community-building job, a new corporation was formed and headed up by Philip M. Klutznick, as president. Klutznick was formerly Commissioner of the Federal Public Housing Authority.

The complete city of about 30,000 population, which it will have when completed, is being built on 2,400 acres of rolling wooded farmland with a maximum density of only ten families per acre and a building coverage limited to 11 per cent for the rental area. Steps in the construction involve, first, the completion of 3,010 rental units; second, construction of shopping centers; third, erection and sale of about 5,000 single family houses in low-price brackets; fourth, the incorporation of a nonnuisance industrial section. The whole idea was conceived as private industry's answer to the critical housing situation in the Chicago area.

The Park Forest rental section is the largest project ever processed by FHA where the commitments were issued at one time and where all commitments were closed simultaneously. The mortgages total \$27,500,000 to be advanced by three life insurance companies—New York Life; Northwestern Mutual and Sun Life Assurance Co. of Canada. All the financing was done under Section 608 of Title VI of the National Housing Act.

The dwellings now being constructed are mainly five and six rooms, semi-detached and row types, in multiples of two, four, six and eight, grouped around garden courts. Emphasis in design has been upon generous-sized rooms, with 1,062 square feet for the five-room, two-

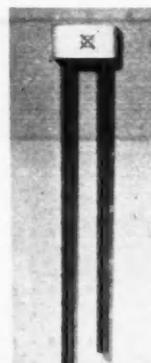
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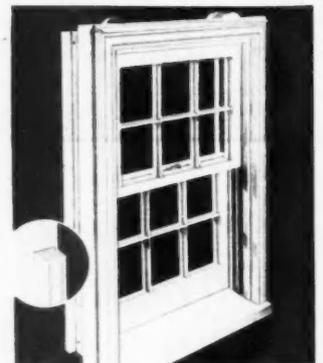
AB29129 — Gas-fired radiant front circulator. Bryant Heater Co., Cleveland, Ohio. Four sizes with automatic controls optional. Smaller sizes may be installed unvented. It has a cast iron burner with raised drilled ports for manufactured, mixed or LP gases. Flames are hidden behind a curtain of steel.



AB29132—Home elevator. Shepard Elevator Co., Cincinnati, Ohio. HomeLIFT operates at touch of button. Slightest touch on pressure-sensitive plate on bottom of cab stops its operation instantly. Recommended for installation in homes with two or more floors, especially where occupants need such equipment.



AB29183—Attractive low-cost door chime. Riffenhouse Company, Inc., Honeoye Falls, N.Y. Operates on standard 10-volt bell transformer. Width, 7¼ inches; length, 43 inches. Ivory and gold housing, long, lacquered, brass tubes. Rubber-mounted floating-percussion mechanism insures long trouble-free operation.



AB29134—New type window frame. The Malta Manufacturing Co., Malta, Ohio. "Malta Universal" frame is slotted along inside top and sides to permit easy conversion from 25/32 to ½-inch sheathing. Fully weather-stripped. Outside casing is attached. Designed for wood, brick, masonry or block constructed buildings.

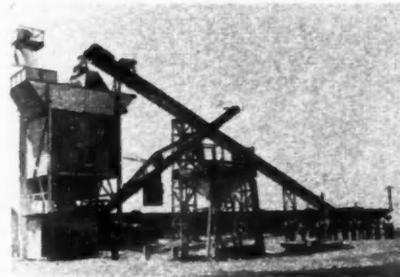
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bedroom units and 1,168 square feet for the six-room, three-bedroom units. Each apartment will have a full basement. About 200 3½-room, one-bedroom units with half basements are being included for couples without children. With the exception of the one-bedroom units, all of the units are two stories with basements.

Construction is brick veneer over wood framing, poured concrete foundation, gypsum lath and plaster interiors, metal casements and picture windows, oak floors and ample built-in features.

Exterior designs are simple and straightforward with more than 30 different basic types as assurance against monotony. Each unit will be equipped with an individually controlled, Mor-Sun, gas-fired, forced warm air furnace system. Other equipment will include a Magic Chef gas range, a seven-cubic-foot Servel gas refrigerator and a Combustion Engineering automatic water heater. Tapping of a major natural gas line which crosses the property will provide fuel for the entire project without need for large storage tanks.

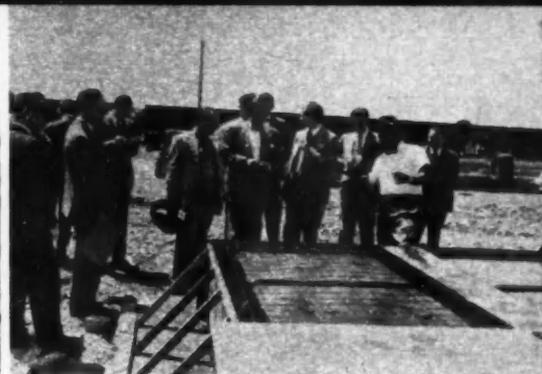
All utility lines are underground. Soft water will be available from the



THIS huge batching plant at Park Forest project will mix 650 yards of concrete a day. Sand and gravel are dumped directly from freight cars into a pit and carried on moving belt to the mixer



LEFT: One of the three portable sheds which house gasoline-powered saws, moved about the site to do heavy precutting. Right: Several of the forms used to precast concrete porches and steps, that would ordinarily be poured on the site. A porch section weighs about 2,300 pounds and is handled by heavy power equipment by use of special suction cups. A blast of compressed air releases units from forms



pumps and water softening plant installed by American Community Builders.

The organization of building trades and personnel to build this huge project was a monumental task. Richard Senior is the construction chief. All available manpower and equipment is juggled about the project with extreme care. For example, work is being scheduled so that a peak crew of only six glaziers will be able to install all of the \$300,000 worth of glass. Precutting and prefabrication of building parts is carried out with equipment and shops on the site. Even concrete members of buildings that can be poured away from the site are being made by a specialized crew. Porches, steps, and so forth are poured, set and then hauled to the job with huge power equipment. This method requires only 35 men at present—four carpenters, six iron workers, six cement masons and 19 common laborers. Done in the conventional manner, the same amount of work would require 90 men, 50 of them skilled tradesmen.

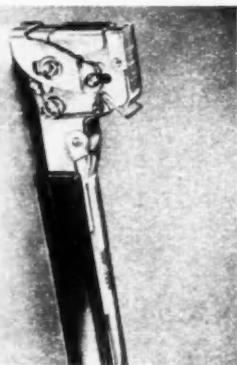
The main commercial area, when completed, will contain approximately 200,000 square feet of rentable space. There will be 600,000 square feet of

parking area to accommodate a peak load of 2,000 vehicles. Because of the size of the community, a secondary shopping center will be necessary along with two or three shopping "spots" for grocery or general stores.

The huge planning job for Park Forest is being done by Loeb, Schlossman & Bennett, architects, of Chicago. The board of directors of American Community Builders is as follows: Philip M. Klutznick, president; Jerrold Loeb, vice president; Sam Beber, vice president; Nathan Manilow, treasurer; Charles Waldman, engineer; Carroll F. Sweet, Sr., director.

To his own building company, Manilow is the dynamic spark, yet always the loyal, considerate "boss." To his business associates and friends, he is the resourceful and dependable cooperator. He is serving his second term as president of the Chicago Metropolitan Home Builders Association, after serving terms as treasurer and chairman of the finance committee. He has also served on the National Association of Home Builders emergency committee and is now a director of NAHB. Mayor Kennedy named him a member of his Chicago Committee for Housing Action.

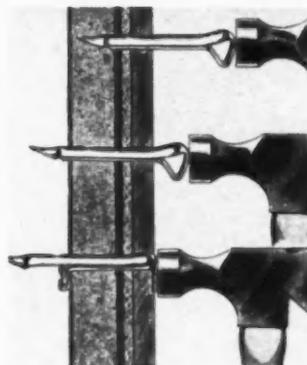
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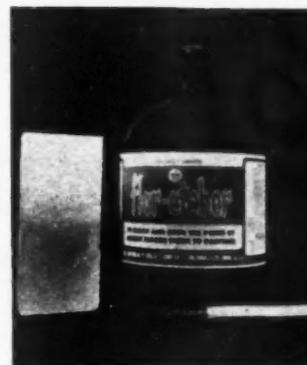
AB29150—Jiffy Jaw hammer tacker. Fastener Corporation, Chicago, Ill. This new unit can be installed on any model HT-550 and HT-750 Duo-fast hammer tacker now in use. It insures top performance of Tacker. Cleaning is easily done by slipping off a spring clip device. Access is gained to staple channel.



AB29178—Stanley-Carter J5 Plane. Stanley Tools, Div. of Stanley Works, New Britain, Conn. Uses a patented spiral cutter which gives a shear cut either with or across grain. One H.P. motor produces cutter speed of over 5,000 feet a minute. Easily adjusted for taper cuts or bevel cuts up to 45 degree angles.



AB29148—Es-nail shingle fastener. Elastic Stop Nut Corporation of America, Union, New Jersey. Used for attaching wood shingles to gypsum sheathing. Es-nail locks shingles to sheathing. Locking action takes place when shingle is secured to sheathing. Are easy to work. Can be driven at any point on the roof.



AB29128—Flor-Etcher. American Fluoresit Co., Cincinnati. Cleans and opens pores in concrete. Removes oils, greases, laitance, rust stains from concrete. Firm also markets Tub-Tite, resin-base plastic caulking for sealing cracks around bathtubs. Also makes Klee Sealant, material used between glass blocks.

Frank Homes, Inc.— Diversified Operations Fit Changing Market

This ...



Or This ...



Small house, or tailor-made large one—whatever demand or change in material supply—this builder's operations are geared to adapt to particular market

A RELATIVELY small, but flexible organization, employing modern building techniques and sales ability, permits the Long Island building firm of Frank Homes, Inc., to adapt its operations to changing conditions of market or material supply. A partnership team, the firm at present has a diversified operation under way—an economy house project in a small-sized subdivision and a luxury house development in an exclusive section of Long Island.

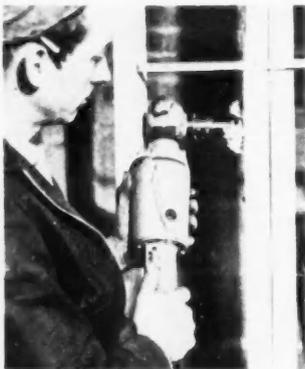
Leonard Frank is the construction man on the team, and his partner is Walter Stackler who handles the financial details. Operating from a small office in Hempstead, they retain a small key force of about a half dozen men and a flexible construction force of about 90 employees.

Economies in building methods are obtained through site precutting of the small houses, following a simple repetitive floor plan and design. The luxury house development is made possible through shrewd land purchasing and subdividing.

Frank has been very active in the Long Island Home

THE LARGE and small of Frank Homes, Inc., operations. Rear view of ranch house shows how straight-line bedroom arrangement is possible. Shed roof provides windows for future expansion

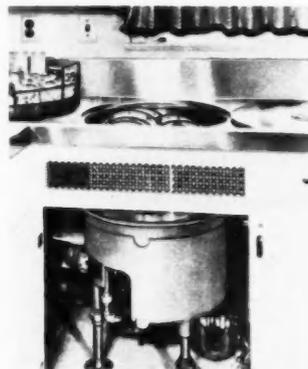
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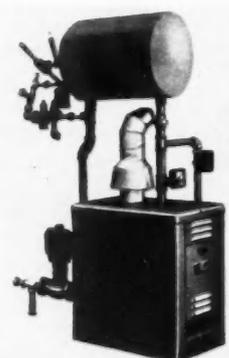
AB29370—A "Tall Reach" wood borer. The Kett Tool Co., Cincinnati, Ohio. A tool that drills holes at any angle, through any material. Requires less than 8-inch clearance, operates between joists and studs. Has extension for work above floor. Equipped with chuck will cut steel; with carbide bits bores concrete.



AB29185—Tabletop electric water heater. Rheem Manufacturing Co., New York 22, N.Y. Designed to meet space saving requirements of small home. Water temperature is maintained at pre-set level by automatic thermostatic control. Constructed for efficiency, economy, and durability. Features Fiberglas insulation.



AB29367—Built-in dishwasher. The Jackson Dishwasher Co., Cleveland, Ohio. When installed, only stainless metal cover shows. Cover flush with drainboard can be used as work surface with unit not in use. Can be installed in any 24-inch space including corner locations and under overhead cabinets. Attractive.



AB29362—Hydrotherm hot water heating plant. Hook & Ackerman, Inc., New York, N.Y. A combination unit that consists of gas-fired boiler and welded steel tank which serves as both hot water storage and expansion tank. Requires only 3x4 feet of floor space. Meets demand for low-cost quality heater for homes.

Builders Institute—having just been elected president of the organization—and his keen interest in finding ways to cut building costs is evidenced by the fact that he also is chairman of the Institute's special committee set up to find ways of doing this.

Besides Frank and Stackler, the key force includes the construction superintendent, Phil Frank, brother of Leonard, and Carl Roesinger, his team-mate. Sales are handled under the direction of Jim Hickman who has three salesmen under him. Peter McKenna handles a consistent program of newspaper advertising. There is an office force consisting of a bookkeeper, an accountant and one general office worker.

The construction crew, under a carpenter foreman and a cement workers foreman, number about 90 employees. The carpenter crew, which is kept fairly steadily employed with a minimum of turnover, includes several groups of specialized workers. There are a half dozen well-trained, drywall applicators—some trained by the Frank organization and some trained elsewhere. There is a roofing crew and some skilled finish carpenters. Five bricklayers also are kept on the skilled labor force fairly steadily.

There are about 30 cement workers, less highly skilled, and in this group most of the labor turnover occurs. The other tradesmen, although they may go to other jobs in a slack period, usually return to

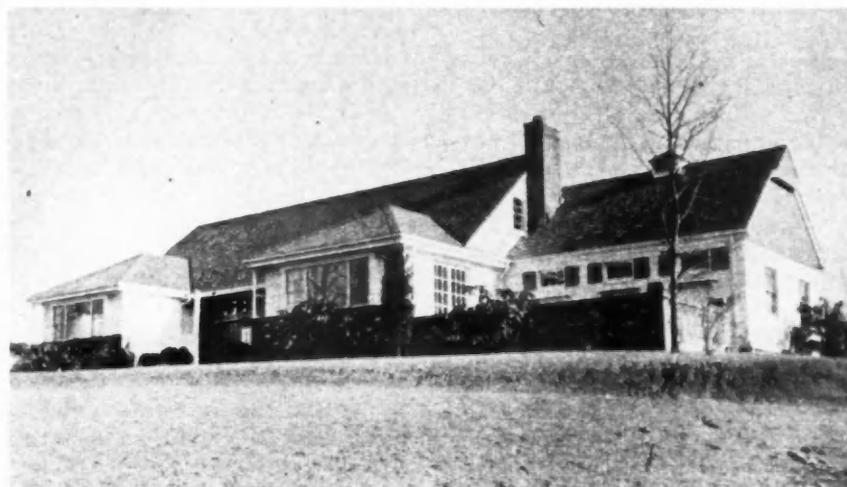
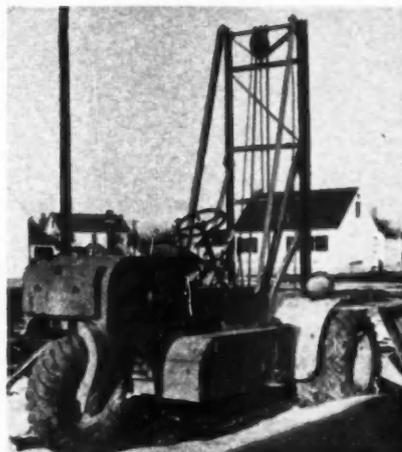
THIS RANCH style has three bedrooms with provision for future addition of two more. It was priced at \$45,000



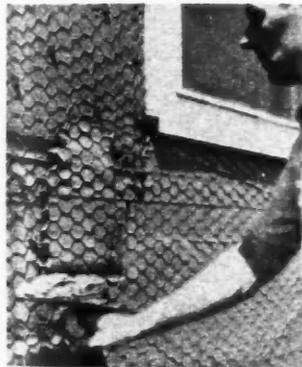
POWER wheelbarrow is popular with laborers, bulider reports. Scoopmobile speeds handling of foundation excavation and loading of other earth material. Large concrete mixer, two jeeps also are used

the Frank operations whenever they have an opportunity.

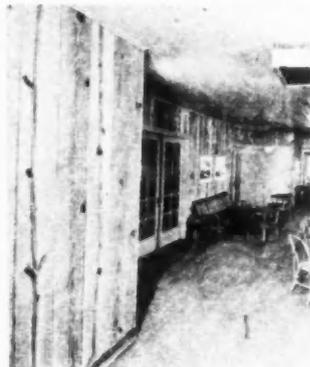
All electrical work, plumbing and painting is done by sub contractors. Virtually all materials, except heating equipment, is bought through local distributors with whom Frank has done business steadily. He has maintained good relations with the distributors and received fine cooperation from them when materials were scarce.



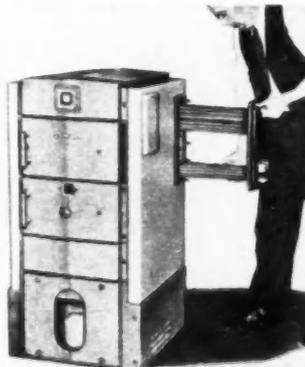
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AB29375—Keymesh reinforcement for stucco siding. Keystone Steel & Wire Co., Peoria, Ill. Unrolls flat and remains flat. Will not stretch or sag. Laps smoothly. Special Key-mesh furring nails hold Keymesh at predetermined distance from wall. Open mesh design permits scratch coat of uniform and proper thickness.



AB29372—Amerwood, a decorative wood paneling. Leewood Corp., South Bend, Ind. Produced from low-grade lumber, it offers custom-built appearance at low-cost. Comes in widths of 6 to 12 inches and lengths of 8 to 16 feet. Panels are delivered stained, lacquered and waxed, and are ship-lapped for easy installation.



AB29188—Herewith the latest addition to the Smith-Mills residential boiler series. H. B. Smith Co., Inc., Westfield, Mass. Known as No. 1500 Smith-Mills boiler. Is furnished jacketed and complete with a built-in tankless heater that supplies hot water instantly to fixtures. Boiler is finished in cream and black.



AB29363—"Waste King" incinerator. Incinerator Products Co., Detroit 17, Mich. A packaged unit that installs in chimney base flush with wall. Will burn most waste with scrap paper for fuel; is provided with gas hook-up for wet loads. Of welded construction, has cast iron grates and doors, is thoroughly insulated.



SOME of small houses recently completed by Frank Homes, Inc. Precutting methods were used, with simple floor plan

Stackler and Frank answer demand for economy housing with homes for less than \$9,000

Frank believes that relations between employer and employee are important, and he has consistently tried to encourage apprentice training to as full an extent as the unions will permit. He always employs his full quota of apprentices on the job and takes an active part in the builder association apprentice training program.

While it is not possible to pay bonuses for quality work, under the union requirement that wages be equal for all, the firm does try to recognize special effort in little ways among those of its crew who do a conscientious job. The use of power tools where possible, to lighten the physical labor required, helps a lot in this phase of the program.

Power equipment includes two gasoline-powered generators which supply current to operate three power saws. A gasoline compressor and an electric compressor, each with pneumatic hammers, are used in road and foundation work. A power scoop speeds moving and loading of excavation and loam for grading. Two jeeps are used for all-around utility.

Frank reports very good acceptance of two gasoline-driven wheelbarrows which result in greater production for the men who operate them with much less fatigue to the workers.

The two small house designs, which are being built in quantity in Hicksville, Long Island, definitely are in the economy price range.

There are two bedrooms, living room, bath and kitchen for each design. One, which sells for \$8,290, has no provision for future expansion. The other, selling for \$8,500 has an expansion attic so that two rooms can later be finished on the second floor. There are no garages.

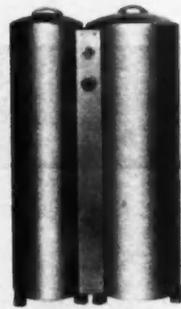
The lots are 60x100 feet on paved streets which are curving to take away the gridiron look so characteristic of many small house subdivisions. A model of each design is kept furnished, and selling is done from these.

The houses are frame, with exteriors of cement asbestos and on concrete foundations. Interior walls are dry wall construction. Sidewalls are not insulated, but the ceiling is insulated.

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AB29377—Newest addition to the Mall vibrating line. Mall Tool Co., Chicago, Ill. A universal electric motor-driven, one-man vibrator for use in tight spots. Will place concrete fast and efficiently with a minimum of operator effort. The complete line of Mall power tools are subject of booklet offered free.



AB29186—The Rheem series 2703 automatic soft water appliance. Rheem Manufacturing Co., New York 22, N.Y. Mechanism operates on principle of ion exchange. Appliance saves as much as \$200 a year for family of four by cutting down on soap wastage, fabric deterioration and detrimental effects of hard water.



AB29379—Caulking putty in cartridge form, a caulking gun, and caulking putty in new tan color. Johns-Manville, New York, N.Y. Cartridge contains approximately 1/10 gallon. Caulking gun takes either cartridges or putty in bulk form. New tan color for use with tan, red, brown shingles or exteriors.



AB29378—Devoe 87 Spar Varnish. Devoe & Reynolds Co. Inc., New York, N.Y. Outstanding features are the product's elasticity and resiliency. Will withstand frequent scrubbing with high concentrate alkali cleaning solutions, hot and cold water, alcohol, citrus juices. Has high degree of resistance to scuffing.

TYPICAL floor plan was designed by Alwin Cassens, Jr. Houses have attractive kitchens



FIRST FLOOR

Floors are of oak, except the kitchen and bath where linoleum asphalt tile is used. Double hung aluminum windows are easy to install, Frank reports. Heating is by oil or coal-fired, circulating hot air furnaces.

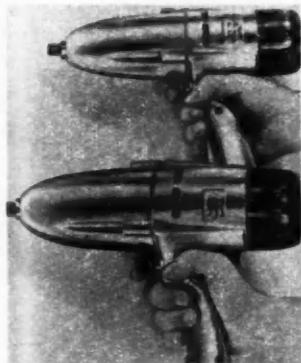
The kitchens are equipped with an electric range and combination sink. Plumbing is copper throughout. The lots are graded and landscaped.

The deluxe homes are being erected in Roslyn Harbor, L.I., on what formerly was a 75-acre estate. The first step was to make use of the facilities already existing on it. These included the main house, a butler's house, a large garage and a sizable stable, a swimming pool with bath houses.

The garage has been remodeled into a house in which the developers are living at present. The main house has been redecorated and



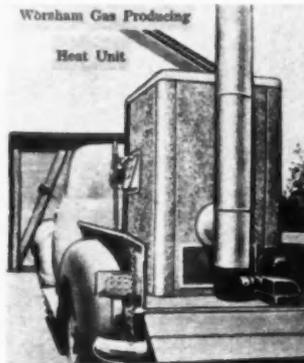
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AB29365—All-purpose electric impact tool. Ingersoll-Rand, New York, N.Y. Known as size 8U, it is a heavier model than its prototype. With standard accessories will run and remove nuts; drive and remove studs; extract broken cap screws and studs; apply and remove machine screws; run wire brushes; and drill steel.



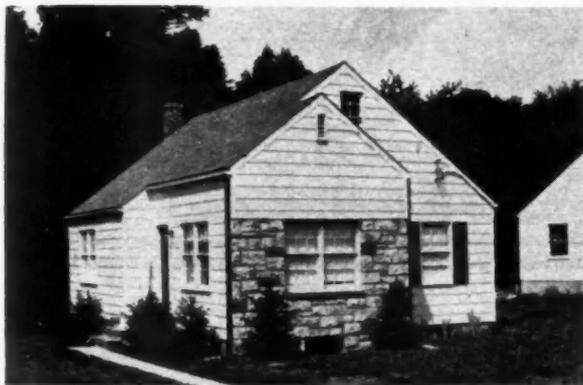
AB29371—Aluminum awnings. Kool-vent Awning Corp., Pittsburgh, Pa. A unique clip used in constructing 1949 model eliminates nearly all screws and rivets. A patented flashing strip allows for easy, convenient installation. Overlapping pans and special saw tooth frames hold the side louver firmly at correct angle.



AB29380—Worsham gas producing heat unit. Worsham Co., Inc., St. Louis, Mo. Smokeless combustion of high volatile coal scientifically and safely accomplished. Model A has approximate weight of 920 pounds. Rating, 40,000 to 120,000 B.T.U. Outside of casing, 41x51 inches. Height is about 61 inches.



AB29369—Safety ladder stage. Juniata Co., Huntingdon, Pa. Designed for use with extension ladder. Provides a safe working area of 26 inches by 24 inches. Weighs less than 9 pounds, is completely portable, easy to handle. Footboards are of seasoned, waterproof wood, slotted for easy width adjustment.



TWO-BEDROOM houses have stairs to expansion attic

Continental Village Three Way Development

Sales idea based on giving clients a place to live, and at the same time, a place to play



VILLAGE GREEN, community center, includes riding stable and other facilities



EXTERIORS are finished with stone veneer, wood siding, asbestos shingles and other materials. Space is available to add two extra bedrooms in the future. Heating ducts run to the attic and are capped so that heating can be conveniently connected. Interiors are dry wall construction. Prefinished oak or maple floors are used

CONTINENTAL VILLAGE is a community being built around a double-barreled sales idea—that people want year-round homes, but also a place to play close to home.

The shelter plus recreational features in this development makes it unique. The village nestles in a Westchester county valley convenient to New York. It is also accessible to a private lake which is community property.

A bus operates for commuters to churches and shopping in Peekskill, N.Y.

The development has a community center which includes a clubhouse, riding stable, restaurant, theatre and several connected cabins for unexpected guests of property owners. This is called the Village Green.

One part of the 2,000 acre development has been set aside for a local shopping area; another exclusively for summer cabins. A third section is for year-round homes.

The summer section is segregated from the all year-round homes but both will share equally all conveniences and improvements.

N. K. Winston is the developer.

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AB29368—Masonry drills. Kennametal, Inc., Latrobe, Pa. His high carbon steel shanks and a cutting blade of solid Kennametal. Blade has high resistance to wear and shock. Bit is used to drill tile, slate, stone, marble, brick, cement, plaster, asphalt, porcelain, micarta, and other nonmetallic materials.



AB29364—Ingersoll "88", a specialty gas furnace. Ingersoll Utility Unit Division, Borg-Warner Corp., Chicago, Ill. Unit is slim and tall being 88 inches high, 32 inches long, and 12 1/4 inches wide. Can be installed anywhere because it has inner-liner insulation. Handsome cabinet blends with any room decor.



AB29366—Food waste disposer. In-Sink-Erator Mfg. Co., Racine, Wis. Can be installed on any sink having 3 1/2 to 4 1/2 inch opening. Requires only 9 1/2 inches from bottom of sink to wall outlet and 2-wire line to switch box of unit. Features reverse action that assures long trouble-free operation.



AB29381—Certile, incombustible acoustical tile. Certain-teed Products Corp., Ardmore, Penn. Fine strands of inorganic, flexible glass fibers, superimposed in crisscross fashion offer high degree of sound absorption. Tile has high insulation value. Not affected by changes in the weather. Will not rot or decay.

Kaiser Homes—

**Building 8 Houses a Day
For 660 Days Establishes Record**

How a Master

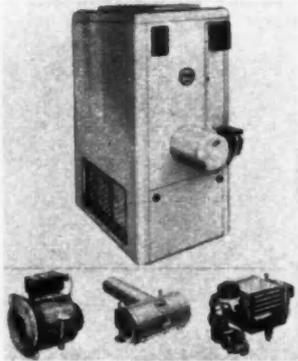


PANORAMA CITY will include 2,000 homes with commercial, recreational and educational facilities

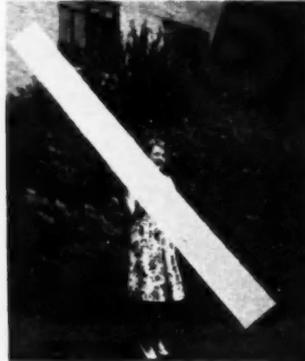
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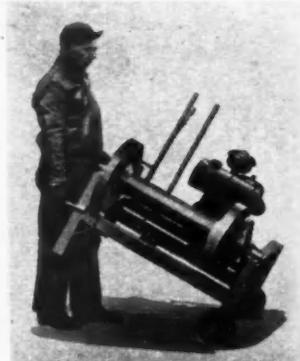
AB29107—Prespine panels. Curtis Companies, Inc., Clinton, Iowa. Door panels are cut and machined just like wood. Composed of sawdust mixed with a chemical compound, it comes out of heat press in large sheets resembling in color the natural wood. Material is used for all doors and kitchen cabinet panels.



AB29102—A triple-duty winter air conditioner. Conco Engineering Works, Mendota, Ill. The three models of series F units are engineered for gas or oil. Streamlined package, factory wired and assembled. No structural changes in unit is necessary to convert from gas to oil, only substitution of the burner. Economical to use.



AB29110—Styrofoam, low temperature insulating material. The Dow Chemical Co., Midland, Mich. Material is Styron, expanded 40 times. Expansion produces multicellular mass, foam-like, with low thermal conductivity, structural strength, resistance to moisture. Light weight. Material is easy to work with, easy to cut.



AB2993—Portable hoist. King Manufacturing Co., Chicago, Ill. Produced in four models, they are light enough in weight to be loaded and unloaded without difficulty. Handles like a barrel or bag truck. Are ruggedly built, compact, and easy to operate. Supplied with an air-cooled motor, economical and easy to run.

Builder Achieved Big Volume

THE COMPLETION of 5,319 two and three-bedroom dwellings in a period of 660 days is a record in new home construction. The time was from October 1946 to September 1948, and the job was done by the Fritz Burns organization operating as Kaiser Community Homes in the Los Angeles area. This is not only a record in completions. It is also a record in volume of sales and rapidity of occupancy. A total of 20,672 persons were housed—a number equal to the population of a good-sized city. These 5,319 homes constituted the second group of about 5,000 homes built by Burns. Before and during World War II, he built more than 5,000 units in the Los Angeles area, making a total of 10,000 in the last decade.

When Kaiser Community Homes (now Kaiser Homes) was organized in 1945, the housing shortage in Los Angeles had reached emergency proportions. Kaiser and Burns set out to build the largest possible number of houses for veterans in the shortest possible time. They felt this could best be accomplished by mass-producing wall, ceiling, floor panels and other parts of houses on a production line basis in a factory designed especially for that purpose. Burns had his misgivings about the economics of the venture and frankly stated that he did not expect to produce houses at less cost. But he did know that he could produce them faster. For that reason a plant was

erected covering about 16½ acres.

Today that plant is closed down. In speaking of it, Burns made the following statement: "We found that prefabrication enabled us to build houses in four months when the customary time was from ten months to a year. . . . However, we did find that this acceleration cost us money, and, therefore, we terminated our plant operations as soon as a more regular flow of conventional materials and labor was available. We learned a great deal in our prefabrication ex-



FRITZ B. BURNS

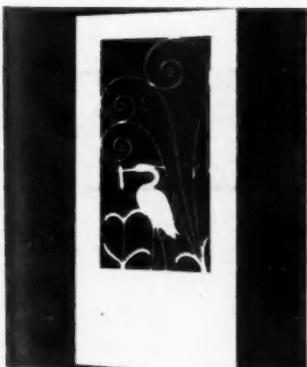
WESTCHESTER, another complete Kaiser Homes community, planned to include more than 4,000 low-priced small homes



SAN JOSE, a community of 700 homes. Note consistent land planning with curvilinear streets and large lots at the right



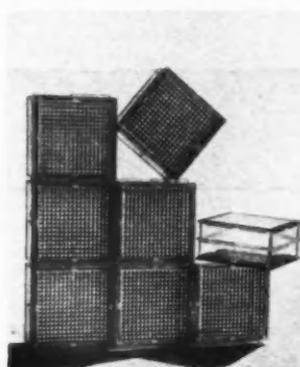
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AB2999—Ornamental iron screen door grille. The R. G. Coffman Co., Inc., Orlando, Fla. Hand wrought, packaged product, complete with all installation accessories, shipped and distributed throughout country. Product has been indolized to give long life and freedom from rust. It is finished in white enamel. Standard size.



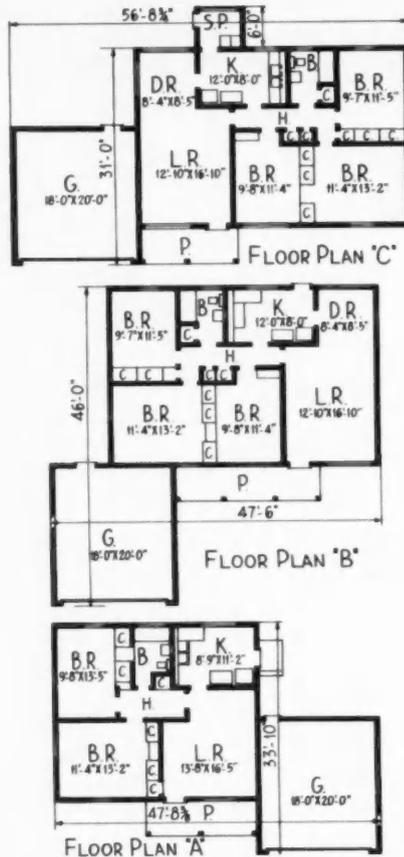
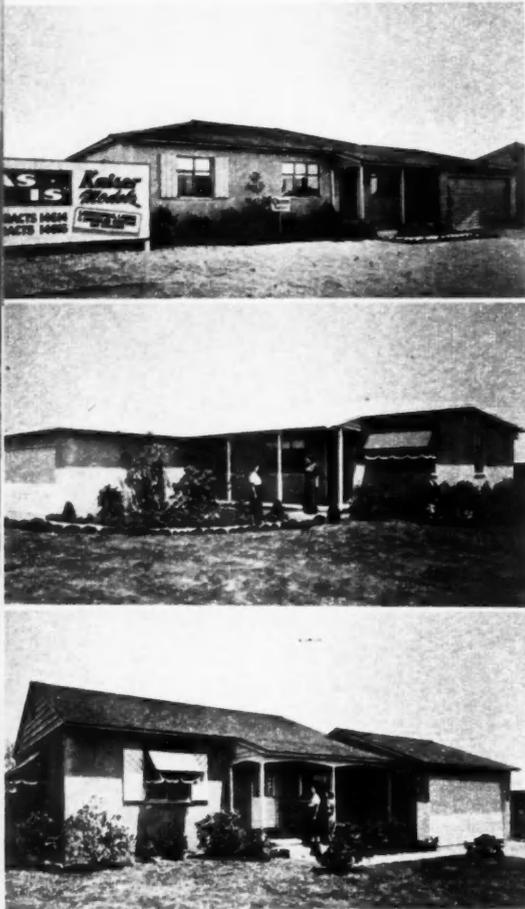
AB29109—The Triangle, automatic gas storage water heater. Day & Night Manufacturing Co., Monrovia, Calif. Boiler constructed of heavy gage steel. Fiberglass insulation. Standard equipment is Tanksaver, magnesium rod which delays or prevents boiler rust and corrosion. Positive snap action thermostat. No exposed parts.



AB29101 — Protektosite. Columbia Protektosite Corp., Carlstadt, N. J. Decorative plastic bricks are used to obtain an effect in interior partitions. Used for temporary or permanent interior panels. The bricks are available in colors or clear. Interlocking features on four sides for quick assembly. Attractive in all type homes.



AB2996—The Circulaire. Bryant Heater Co., Cleveland 10, Ohio. Gas fired radiant-panel heater is suitable for year round service or for auxiliary heating of rooms or offices. Fits flush against wall. No cutting of floors or coverings necessary. Venting only is required. It is 5½ inches thick. Three sizes made.



THE BASIC two and three-bedroom models shown here have an infinite number of exterior elevations to assure variety in appearance of all homes

perience and have retained in our conventional operations many of the prefabrication and sub-assembly shortcuts."

The factory operation was an impressive sight and while Burns himself never was misled, there were many who believed that at last the economies of assembly-line production so famous in the automobile field had arrived in the building business.

But the difficulty was that for every economy there was a counter-balancing extra cost. As Burns once remarked: "It seemed to be necessary to have a separate department head for every function and every department head had to have an assistant and both had to have good-looking secretaries."

Today all Kaiser Home projects are operated on the site-fabrication

basis. Practically all work except rough and finish carpentry is sublet. Lumber is purchased in carload lots and assembled at a central yard located on the tract. The yard man loads the exact quantity needed for a house on a Ross carrier and dumps it at the foundation. A portable saw is moved to the various foundations and lumber is cut to exact size whenever possible. Many of the mechanics are equipped with powered hand saws to facilitate cutting on the job.

Carpentry work is broken down into specialty crew operations. Crew No. 1 installs mudsills, posts and girders; Crew No. 2 lays and nails subfloors; Crew No. 3 consists of men who lay out partitions and openings; Crew No. 4 is the raising crew; and so forth. The raising crew lays out studs and headers on the sub-floor for an entire wall section and nails them. The entire wall section is then raised into position and propped while the other walls and partitions for that same house are similarly prepared. When all four walls are completed, they are tied together with a double plate at the tops and corners. This entire crew setup is a system which moves specialists past the work in contrast to plant operation where work is moved past the men.

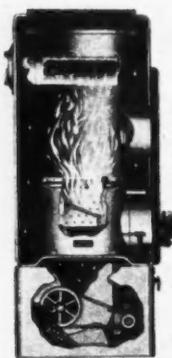
Another deviation from usual procedure is the "plank and girder" system used here. In place of floor joists, 4x6 girders are covered with 2x6 sub-floors, laid diagonally in place of the usual one-inch boards. In this area, joists have to be chemically treated against damage by termites and dry rot. This construction makes a very strong floor.

As soon as the foundation has been stripped, garage and porch slabs are

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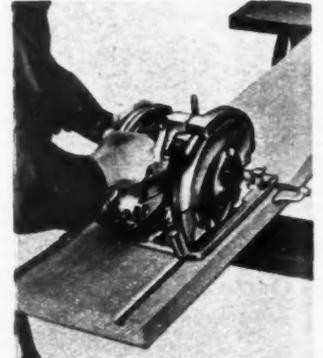
AB2997 - Hydrocrane. Bucyrus-Erie Co., South Milwaukee, Wis. Model H-3, 3 ton, 3/4-yard is fully hydraulic in operation. Boom telescopes and hoists hydraulically; load hoists hydraulically; deck revolves hydraulically; outriggers are set hydraulically; bucket digs hydraulically. Safe system. Simple to maintain and operate.



AB2988 - The Duo-Therm underneath-blower furnace. Duo-Therm, Div'n. of Motor Wheel Corp., Lansing 3, Mich. A forced-circulation furnace for a basementless house. Underneath blower filters circulate warm air throughout house. Constant, even temperatures maintained with Duo-Therm heat anticipating thermostat.



AB29100 - Master water heater. The Coleman Co., Inc., Wichita, Kans. Model 178-179 is the new automatic gas-fired economy line of heaters. It is finished in gleaming white plastic enamel. Construction is sturdy. Tank is made of heavy gauge galvanized steel. Insulated with fiber glass. Has full thermostatic control.



AB2989 - Electric hand saw. Fred W. Wappat, Inc., Mayville, N.Y. A multi-purpose saw with automatic cut-off switch and telescoping guard. All mechanical parts lubricated from a single point. Can be equipped to perform all types of operations through use of special blades and abrasive disks for tiles. Cuts costs.

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oured to permit immediate erection of porch posts with framing to eliminate the necessity of propping up porch roofs for an indefinite period. The Kaiser-Burns program includes the latest techniques in procurement, planning and development of land. Panorama City, the latest and largest, is a good example of a typical Kaiser Homes community project. The land is flat which permits low cost building. It is in the San Fernando Valley, only a short distance from Hollywood, and when a new highway is completed, it will be approximately 30 minutes from downtown Los Angeles. Shopping facilities, schools, churches, theaters are five minutes away in Van Nuys. When the tract is completed, it will have its own business center, recreational and educational facilities. There will be 2,000 homes in Panorama City including 97 duplexes. It is divided into 11 tracts, seven of which are completed or under construction. Commitments on the first two tracts were obtained before Title VI expired. The balance are being financed under Title II.

In this project, as in previous ones, Burns is concentrating on two floor plans—one two-bedroom and one three-bedroom—to achieve maximum speed and economy. Variety in elevations has been so painstakingly worked out that visitors to one of these subdivisions never get the feeling of monotonous appearance which labels many communities less adroitly handled. The houses being currently offered vary considerably from those which were put on sale just a few months ago. Ordinarily after building 10,000 houses, any company would be apt to conclude that the ultimate in standardization had been reached.

But Burns is never satisfied. He is a firm believer in the old adage that "unless you are going forward, you are sliding backward." That is why he retained Wurdeman & Beckett, A.I.A., a prominent architectural firm, to collaborate with his own architectural department on design and color treatment.

The two-bedroom houses in Panorama City contain 780 square feet and sell for \$9,150 to \$9,295 with down payments for veterans of \$500 plus escrow and impound charges. Monthly payments are \$59. Non-veterans pay \$2,000 down and \$52 per month, including interest and taxes. Three-bedroom houses contain 1,020 square feet and sell for \$10,150 to \$10,900 with the same down payments as above for veterans. Both the two and three bedroom models are available in "right" or "left-hand" plans and in many models, each varying from the other because of the "fundamental variables" worked out by the Burns organization. All houses have two-car 18x20 garages. Lots average 6,000 square feet or more in area, and the price includes walks and driveways. The prices above hold only in the first two tracts financed under Title VI. On the third tract, under Title II, down payments go as high as \$920 on some houses. Duplexes are priced at \$15,950 with \$500 required as down payment.

Kaiser Homes sales programs are centered around beautifully and tastefully furnished model homes which are kept open from 9 a.m. to 9 p.m., Sundays included. "Let the supper dishes go" is the suggestion in the firm's advertising urging people who cannot visit the models during the day to come in the evening. Attractive hostesses trained to answer ques-



FLOORS are of 2x6 t&g on 4x6 girders

tions concerning construction as well as furnishings and to put those interested in buying in touch with salesmen promptly.

Burns has found that in addition to the furnished models, it is necessary to have "as is" models to prevent prospects from becoming confused as to just what is included in the house when it is purchased. When visitors show enough interest to warrant it, salesmen conduct them to the "as is" models on the tract so there will be no misunderstandings as to what is included in a Kaiser Home.

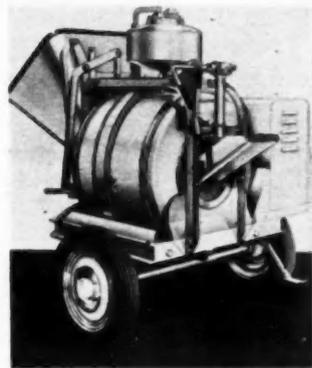


WORKMEN use power saws for trimming

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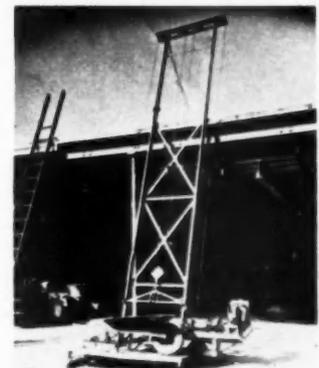
AB29105—Aluminum awning windows. Croft Steel Products, Inc., Jamestown, N.Y. Lemco, panoramic, solid-section, extruded aluminum windows of awning type. By a turn of the operator, the four vents tilt upward simultaneously, deflecting air currents to the ceiling. A flat screen is installed on interior.



AB29103—Non-Tilt small job concrete mixer. Construction Machinery Co., Waterloo, Iowa. Compact, well-balanced, end-charge design. Easily handled on job and trailed at high speed. Large hopper gives shovelers a good target. Batch can be made ready in hopper while first batch is being mixed in the drum.

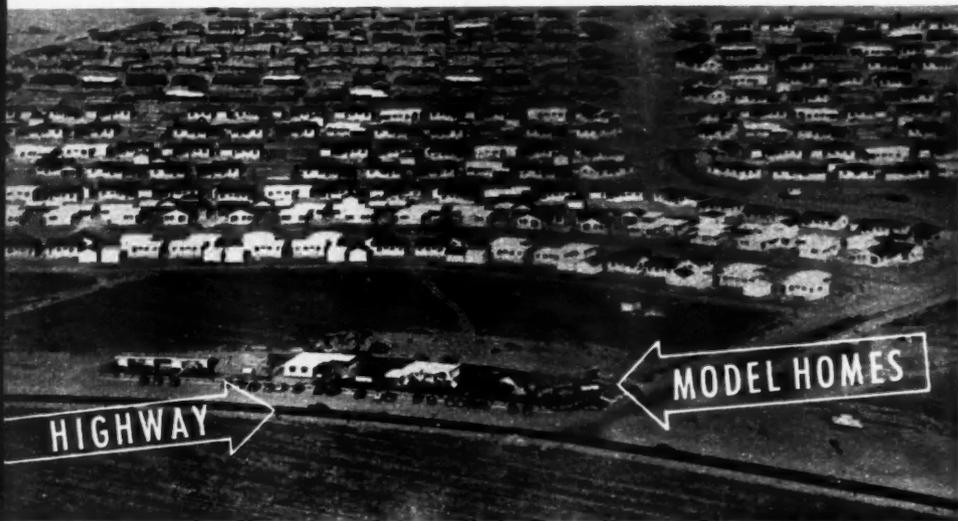


AB2992—Sectional aluminum lamp post. Swain & Bridge, New Britain, Conn. Easy to wire and install because of light weight, hollow construction. Packaged for ease in shipping by parcel post. Furnished in two sizes. Installed quickly. No cement base necessary because of the lightweight, sturdy construction.



AB29104—Roll-O-Hoist. Construction Machinery Sales Co., Waterloo, Iowa. Designed to save time and money. Is adaptable to many construction jobs. Can be set up easily and moved as job progresses. Operated from any level by remote control. Automatic stops eliminate an operator in loading and unloading.

Fred W.
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BURNS erects model homes, fully furnished and decorated, near busy traffic artery

The location, erection, furnishing and operation of model homes approach a science with Fritz Burns. Every effort is made to locate them as close to the main highways as possible to make them easily accessible and also to permit passing motorists to get a good view of the houses and the crowds milling around. Plenty of easily accessible parking space is always provided. At Panorama City three model homes are located at the main highway. When the tract is completed, the houses will be moved to residential lots, and the present sites of the houses will be occupied by commercial structures.

Burns has found that a model home can be a liability instead of an asset unless constant vigilance and painstaking care are exercised in the selection, training and supervision of attendants and in the maintenance of the houses. A careless, disinterested or even sometimes rude hostess can discourage a prospect and lose a sale.

An untidy house will give a negative impression and a house which is not open when people want to visit it will not do the job. Burns expresses the opinion that a builder is better off without a model house unless he is willing to maintain and manage it at all times to the extent necessary to keep it immaculately clean and with an atmosphere cordial to visitors.

Sales at all tracts are under the jurisdiction of a general sales manager who has been with Burns ever since he started selling homes on a large scale ten years ago. This man sets the policies together with Burns and supervises all selling work. Under him are individual sales managers for each tract and at the largest operation, Panorama City, the tract manager has crew managers, each of whom is responsible for the work of six salesmen. The crew manager trains his men and does the closing when necessary.

Every morning at 9:30, the entire

sales force is assembled for a sales meeting at which the previous day's work is discussed. Two or three times a week the meeting is handled by one of the top construction or technical men who answers questions and points out the features which will give the men selling ammunition. The salesmen work on a flat commission per house. The supervisory men receive overriding commissions on all sales.

The interest of Kaiser Homes in buyers does not cease when they move in the houses. This is evidenced by an attractive 28-page booklet entitled "Keeping Up With the Joneses" which was compiled and published exclusively for home purchasers. It is well illustrated with cartoons and the text is informal. It treats subjects such as planning and building fences; planting lawns; fixing faucets and caring for floors. The majority of purchasers are young couples, most of whom have never had the responsibility of maintaining a home before.

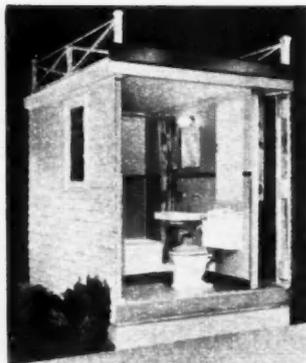


KITCHENS are well planned, well lighted

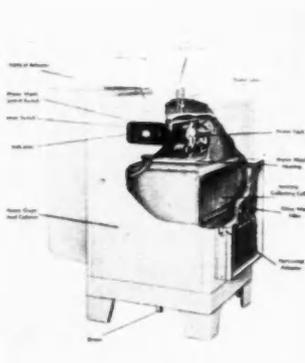
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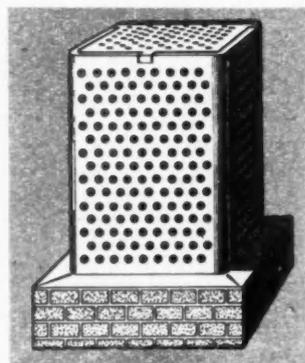
AB29106—Culligan soft water service unit. Culligan Zeolite Co., Northbrook, Ill. Soft water available on a service basis. Unit is installed to supply water in home. Exchanged by company service man at regular intervals for another unit of freshly regenerated zeolite. A monthly charge made for service.



AB2998—Ad-a-Bath. Builders Manufacturing Company of Bremen, Ind. Built as a self-contained unit, utilizing conventional materials and equipment, fixtures and fittings—including linen cabinet and electric heater. These are installed at factory. It is shipped ready for addition to farm, cottage or house.



AB2995—Trion electric air filter. Trion, Inc., McKees Rocks, Pa. Electrostatic cleaning and air purifier. Available in four sizes to handle air volumes up to 4,000 cfm. Units contain ionizing-collecting cell, power pack and automatic water wash spray system. Has simplified controls. Easily installed. Safe. No moving parts.



AB2990—Perma-Top, clay chimney tops. The Perma-Top Company, Pittsburgh 5, Pa. Provides a constant and steady draft in all kinds of weather. It is impervious to moisture, resistant to thermal or chemical reaction caused by combustion gases, and contributes greatly to efficiency of heating system. Is approved by FHA.

Research is a continuing operation at Kaiser Homes. Under construction at all times are from one to six models embodying the newest ideas and latest thinking in both materials and techniques. As rapidly as these new factors are established as practical and economical, they are injected into the actual program. As an example, one model has been built using the new Kaiser aluminum siding as the exterior surface. A careful study was made of construction detail to adapt this material to mass production. Public reaction is now being measured. In connection with research, three models of two-bedroom houses are now under construction embodying a new type of roof construction. These houses are also being built on concrete slabs. The low-pitch roofs—2 in 12—are constructed of 2x6 tongue and groove roof decking carried by purlins spaced as much as 6 feet apart. The underside of this decking is finished semi-natural and constitutes the exposed ceiling. For good appearance with such low-pitch roofs, wall heights have been dropped to approximately 7 feet, 6 inches at the plates.

Latest model houses have no service porches. Experience indicated that the public prefers a larger kitchen with space for an automatic washer. Additional storage space is provided with floor-to-ceiling broom closets, large linen closets and storage wall spaces in bedrooms. An overhead suspension "in-the-wall" sliding door is used between kitchens and dining alcoves.

The model homes erected by Burns have consistently drawn tremendous crowds. The reaction of visitors to new ideas and techniques has been an important factor in the firm's sales

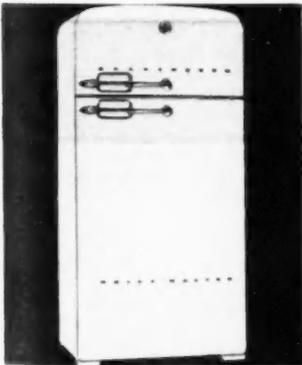


DINING areas are small but large windows impart feeling of spaciousness to occupants

program and its success. The famous Burns' "Postwar House," located on Wilshire Boulevard in Los Angeles, has been visited by more than 1,000,000 persons in the three years it has been open to the public. Along with model home promotion, other types of public relations* are carried out.

Last Christmas the firm sent greeting cards to all home owners in Panorama City as well as to prospective purchasers of homes there. In addition a huge candy cane was painted on plywood and mounted on two 40-foot telephone poles erected near the model homes.

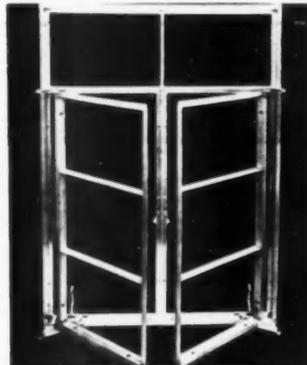
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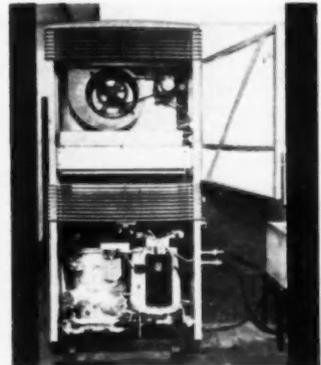
AB2991—Kelvinator two-door refrigerator. Kelvinator Div'n. Nash-Kelvinator Corp., Detroit 32, Mich. Full-width separate freezer compartment. Capacity: 80 pounds of frozen foods and ice. Double doors prevent loss of cold. Capacity of model is 9.5 cubic feet in shelf area, 1.5 cubic feet in fruit freshener. Attractive.



AB29108—Pre-kut ornamental iron railings. The Dallas iron and Wire Works, Dallas, Texas. This product is available in a number of designs and is packaged in conveniently-handled bundles. Assemblies made from standardized parts. Installation of columns on the job can be made quickly with aid of few tools.



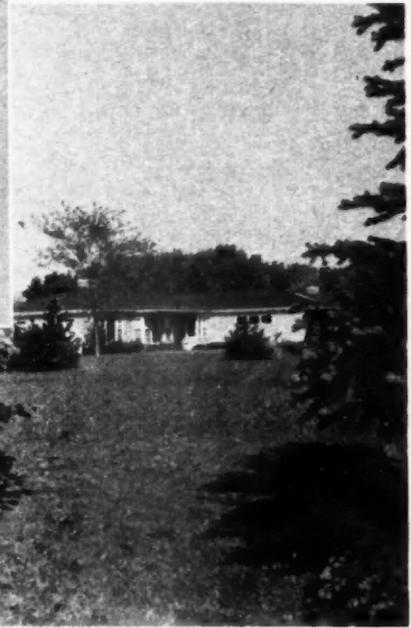
AB2994—Ware aluminum window. Ware Laboratories, Inc., Miami, Fla. Casement frame and sash. Lightweight, yet sturdy in construction. Sash operated from inside. Corners of frame are flash welded. Made with either butt or extension hinges. Stainless steel pins and washers. Butterfly or cam locking handles.



AB2987—Miraculair indoor climate control machine. General Engineering and Manufacturing Co., St. Louis, Mo. Electrically operated, this machine automatically heats and cools as required. Operates on the same principle as a refrigerator, utilizing the temperature of earth, then boosting to requirements. Fully automatic.

Irvin A. Blietz Operative Builder Caters to Seekers of Deluxe Homes

PINE TREE VILLAGE, development of 36 ranch-type houses during construction near Winnetka, Ill., downtown area



Recipe for sales is ingenuity and know-how, sprinkled with liberal insight into his client's demands



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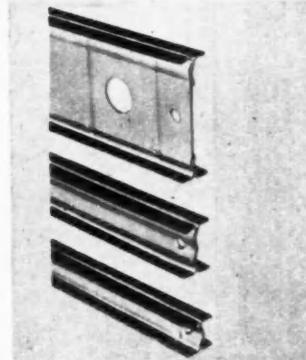
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AB29184—Herewith is illustrated the standard line of Richkraft papers. Included is 10-foot roll of Skuf-pruf. This is an unbroken sheet of paper 10 feet wide. Ideal for curing concrete and closing in since the 10-foot width covers 40 per cent more area than a 7-foot width. The Richkraft Co., Chicago 1, Ill.



AB29193—Dural aluminum tension screen. New York Wire Cloth Co., 445 Park Ave., New York 22, N.Y. Features unique tension design that eliminates side frames. On bottom bar a tension catch attaches to window sill and makes screen fit snugly. All metal. Never needs painting. Will not rust, streak or stain.

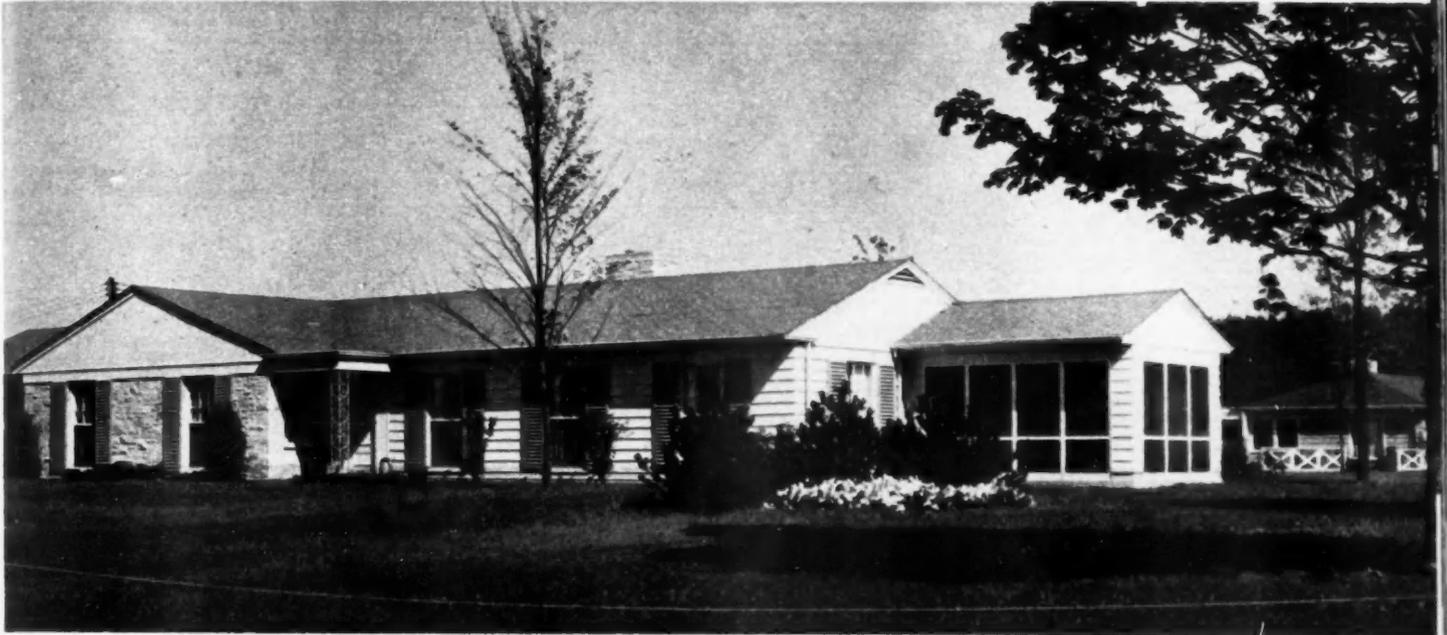


AB29217—Stran steel framing members. Great Lakes Steel Corp., Detroit, Mich. Joists for floor and roof rafters come in 6, 8 and 9 inch depths, and three gauges, 16, 14 and 12. Studs for framing walls are 3 3/4 inches deep, have 2-inch flange. Narrow studs for walls 2 stories high are 2-5/16 inches with 2-inch flange.



AB29222—H & A 14-inch band saw. Heston and Anderson, Fairfield, Iowa. Designed to permit operator 45 per cent more working area and 33 per cent more vertical clearance. Has 20x23-inch tilting table with 12 1/2 inch vertical and 13 3/4 inch horizontal clearance. Durable construction assures long life for band saws.

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STORAGE SPACE problem is eliminated in Blietz ranch-type houses through provision of ample closet space

"T TAKES good construction to make a good house, but to show its fullest dollar and eye value—convincingly—a house must be properly decorated and surrounded by proper landscaping."

This statement by Irvin A. Blietz, in general, explains his method of construction and sale of houses to home-seekers of deluxe dwellings in north side suburbs of Chicago, Ill.

Building homes that appeal to higher income groups means building to suit more exacting tastes. Knowing what these clients will likely demand is difficult, mainly because a clientele with more money can afford to be more particular—can afford to demand a home with more individuality.

Blietz is meeting these exacting demands. He is achieving sufficient

individuality in homes in two large subdivisions—by using only two basic floor plans in each. His homes are finding ready sale at prices between \$22,500 and \$45,000.

His subdivisions are Pine Tree Village, with ranch style houses near Winnetka, Ill., and Williamsburg Village with colonial houses near Skokie, Ill. How they are finding ready sale is answered in sales and construction techniques used by Blietz. His techniques form a carefully worked out plan, and revolve around the phrase, "dollar and eye value."

Each of his subdivisions represent a distinct theme, meticulously planned to accent appeal. The "theme" of Pine Tree Village, as the name implies, is uniformly sustained through the careful application of pine trees to the

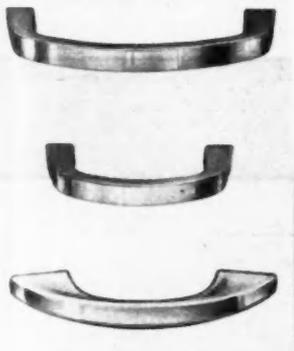
plat. The colonial atmosphere of Williamsburg Village is heightened by the application of shrubbery and trees. Landscaping at each subdivision was started the same time as construction of the houses, and by the time the houses were finished, the appearance of each was accented by its setting.

It is well worth the added expense, to Blietz. Landscaping is one of his most important methods of achieving eye-appeal in the high-cost market.

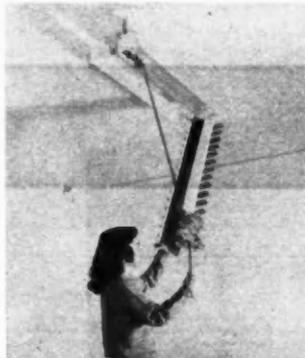
In order that Blietz may be assured that home owners in his subdivisions will retain the landscaping effect that has been achieved, he retains ownership of a strip of land 10 feet wide around the outer perimeter of the main street and entrances to the subdivisions.

Color combinations to be used on

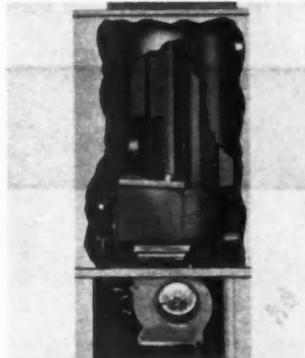
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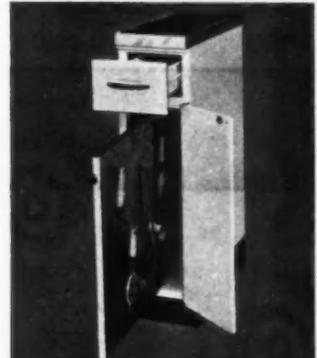
AB29213—Stanley cabinet pulls. The Stanley Works, New Britain, Conn. Smooth-flowing lines provide ample finger room. Chromium finish over steel will last a lifetime. Washer head screws hold pulls securely against woodwork. Pulls may be applied single or in pairs. Can be used on cabinets in any part of home.



AB29218—Fluorescent fixture called "Guth-Lite." The Edwin F. Guth Co., St. Louis 3, Mo. Equipped with "Jackknife" hinge which permits maintenance from floor. A maintenance rod releases latch which permits entire assembly to swing down on Jackknife hinge. Entire assembly can then be cleaned and repaired.



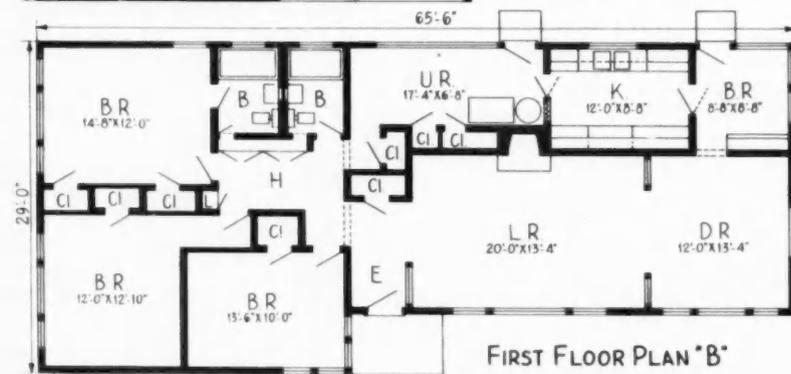
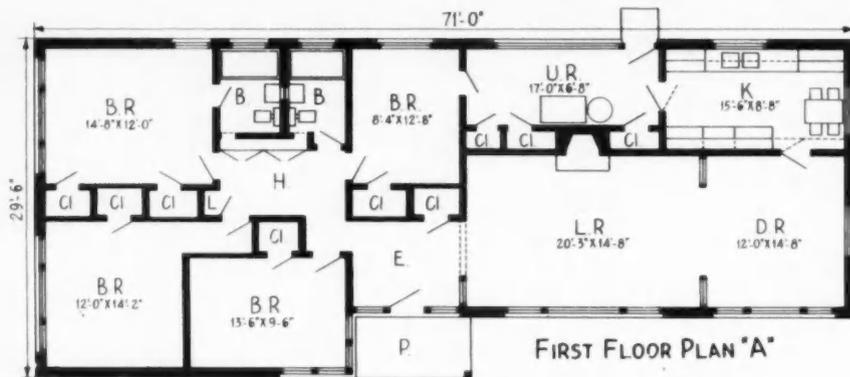
AB29214—High-boy model, forced warm air, oil-burning furnace. J. L. Gillen Co., Dowagiac, Mich. Is 25 inches wide by 31 inches long by 66 inches in height. Is a vaporizing type furnace. Features continuous warm air circulation, accomplished by three-stage flame which is controlled by Mercoid thermostat.



AB29212—Handy kitchen cabinet Geneva Modern Kitchens, Geneva, Ill. Only 9 inches wide, can be utilized for three different uses: for utensil cabinet, pictured; for tray cabinet with hooks from center panel removed; for storing can goods. This space-saving unit aids the kitchen planner who must utilize small space.



LANDSCAPING, well developed by the time houses are finished, add exterior "eye-appeal" and sales value



INDIVIDUALITY is achieved for more exacting clients—with only two basic floor plans

exteriors of houses are important to Blietz. He stresses the value of exterior color in achieving individuality in houses. Variations of houses in Williamsburg Village are achieved mainly by use of several basic floor plans and varied front elevations, but the value of subtle emphasis on exterior color, here, cannot be minimized. Few houses in Williamsburg Village have the same color exterior paint, but all exterior colors in the subdivision blend. The same applies to Pine Tree Village.

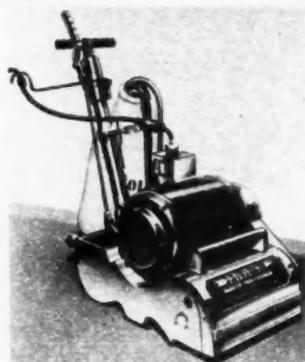
In achieving eye-appeal, Blietz does not believe in mixing single and two-story dwellings in the same subdivision. Irregular heights of houses in a subdivision, he says, detract from the appearance.

In addition to landscaping, Blietz provides interior decorating. Mrs. Blietz helps new home owners in the subdivisions to select wallpaper and interior paint colors. The owner's selections are used by Mrs. Blietz who directs the decorating.

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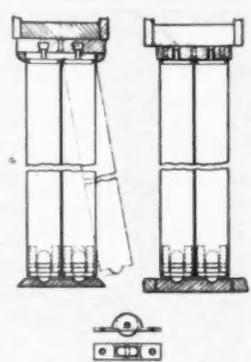
AB29196 — Pittsburgh Steeltex for floor lath. Pittsburgh Steel Products Co., Pittsburgh, Pa. Offers structural advantages and economies in light-slab concrete floor and roof construction. Gives maximum reinforcing value and facilitates proper curing of concrete through maintenance of water-cement ratio.



AB29224 — Holt NMPL 12 sander. Holt Manufacturing Co., Oakland, Calif. Features patented demountable drum cushion, motor speed selector switch, floating motor mount to eliminate chatter, self-adjusting drive belts to automatically take up slack. Motor is 2 H.P. Self-adjusting dust pan assures practically dust-free operation.



AB29216 — Waste King Pulverator. Given Manufacturing Co., Los Angeles, Calif. Low-priced, easy to install garbage disposer. Fits most double bowl sinks without lowering waste line. Requires two connections, a simple toggle switch and a waste line connection. Disposes of all food wastes including bones. Economical.



AB29223 — "Addy" rolling door hardware. A. J. Hofman Co., Narberth, Pa. Fits any stock door 1 3/4 inches thick or over. Sold with or without top and bottom tracks. Manufacturer will furnish print for track which any woodworking shop can produce. Guides per panel consist of two aluminum guides, two roller assemblies.

INTERIORS as well as exteriors must have "eye-appeal," according to Blietz who offers complete job of interior decorating. Mrs. Blietz, in charge of this job, achieves attractive interiors as this one above in Pine Tree Village home



By this system of landscaping and interior decorating, Blietz establishes and sustains a distinct theme in his subdivisions—eye-appeal that dresses up construction to show it to its best advantage.

Behind the dressed-up appearance in Williamsburg and Pine Tree is good construction, the part of Blietz' phrase which he calls "dollar value."

The ranch style houses in Pine

Tree Village are basementless. A trenching machine that digs a 6-inch trench to below the frost line is used first. This trench is filled with concrete as a frost barrier. A fill of sand and gravel is placed over this, which is puddled and tamped. Over the sand and gravel, 15-pound asphalt felt is laid, and covered with hot pitch. The purpose is to keep out moisture from the concrete slab.

The concrete slab for the ranch style houses becomes the foundation and footing. The trench wall is not relied upon to carry any weight. Over the slab, 2x3-inch sleepers and clips are placed; then Bruce streamline flooring. Between the flooring and the slab is an air space of 1-inch to 1½ inches. Air is taken from the rooms through metal grilles in the baseboards, drawn under the entire area under the floor to a central duct formed in the concrete slab, and brought to the heating unit in the utility room. Warm air is blown into the room through regular warm air ducts above the floor. Heat is supplied by Bryant forced air gas-fired units.

First floor construction of houses in Williamsburg Village is concrete joists on 33-inch centers with a 2½-inch reinforced concrete slab. Over the slab, Bruce block flooring is laid in mastic. The second floor is of wood joist construction.

Wall and roof construction, as



WIDE driveways with rolled asphalt tops approach double garages in Pine Tree Village

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AB29215—Cellulite cotton insulation for soundproofing. The Gilman Brothers Co., Gilman, Conn. Produced in blankets for use as sound deadener. Installation simple. Blankets are hung by weaving in and out between studs. In a staggered-stud test wall, 3-inch Type E Cellulite cut passage of sound to whisper.



AB29211—Radial saw No. 1 with saw cart. J. D. Wallace & Co., Chicago, Ill. Trailer mounted for portability. Angulator for rafter sawing alternately cuts plate and plumb angles with one set-up and one handling of material. High spindle speed gives fast, smooth saw cuts, better dadoing, shaping and rabbeting.



AB29200—Portable drum polisher and sander, Model 49. Portable Electric Tools, Inc., Chicago 20, Ill. Weighs 3½ pounds; overall length, 9½ inches. Can be operated with one hand on wood, metal, plaster, wallboard and concrete in any desired position. Handy work saver in polishing and sanding surfaces.



AB29221—Harrison kitchen cabinet unit. Harrison Steel Cabinet Co., Chicago 44, Ill. Unit pictured features "knee-zone" recessed sink front and such custom features as vegetable bin, bread board, and tray compartment. Company offers complete line standard cabinets or will manufacture any custom-made units.



FIREPLACES in Williamsburg Village living rooms have heavy molding around marble



TYPICAL home in Williamsburg Village. Doors for single-car garages were made on site

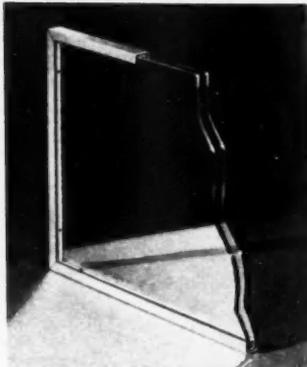
MATERIALS USED IN BLIETZ SUBDIVISIONS

Bruce block flooring,
E. L. Bruce Co.
Mueller forced, warm air,
oil-fired furnaces
General Electric steel
kitchen cases
U. S. Plywood, Stanley
door hardware in garages
Armstrong linoleum
Bird & Son 210-pound
asphalt shingles
General Electric dish-
washers, counter tops
Kohler bathroom
fixtures
Rockwool vapor seal batts
Bryant forced air, gas-
fired furnaces
Ceramic tile

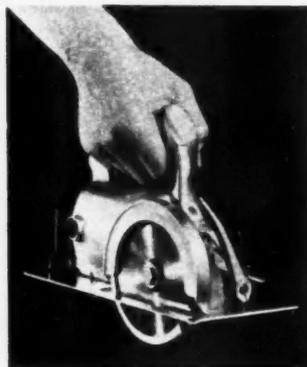
well as insulation of both Williamsburg and Pine Tree Village houses are generally the same. On the exterior surface, all types of materials are used; and all combinations of brick, stone, vertical siding, horizontal siding, and flush plywood siding. The exterior walls are insulated with Bildrite sheathing, with one-inch of Balsam wool between the walls for insulation. The interior walls are of dry wall construction, using two $\frac{3}{8}$ -inch sheets laminated with U.S. Gypsum adhesive. The second floor ceilings in Williamsburg Village are insulated with 4-inch Rockwool vapor seal batts. Roofs of houses in both subdivisions are asphalt shingles.

Houses in both subdivisions have wood-burning fireplaces. Oil-fired, forced warm air Mueller heating plants are installed in the Williams-

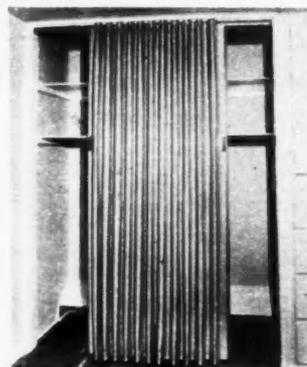
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AB29195—Tindow, a double-glazed window insulating unit, is now available in 43 standard sizes. Pittsburgh Plate Glass Co., Pittsburgh 22, Pa. Sizes range from $35\frac{1}{2} \times 36$ inches to $58 \times 116\frac{1}{2}$ inches. A feature is use of hollow aluminum tubing to separate and hold plates in position. Suited for use as picture windows.



AB29199—Guld Saw, Model A-4. The Porter-Cable Machine Co., Syracuse, N.Y. This $\frac{4}{2}$ -inch saw can be tilted for bevel or compound mitre cut. Has adjustable ripping guide. Uses include dadoing, cutting tenons, grooving and notching. Can be used for cutting overhang of house siding, roofing, floors; for cabinet work.



AB29192 — Modernfold doors for closet and wardrobe closures or for room division. New Castle Products, New Castle, Ind. Accordion type doors that offer a practical solution to space saving in small homes since they require no swing area. Available in a variety of fabric coverings. Shipped complete, for installation.



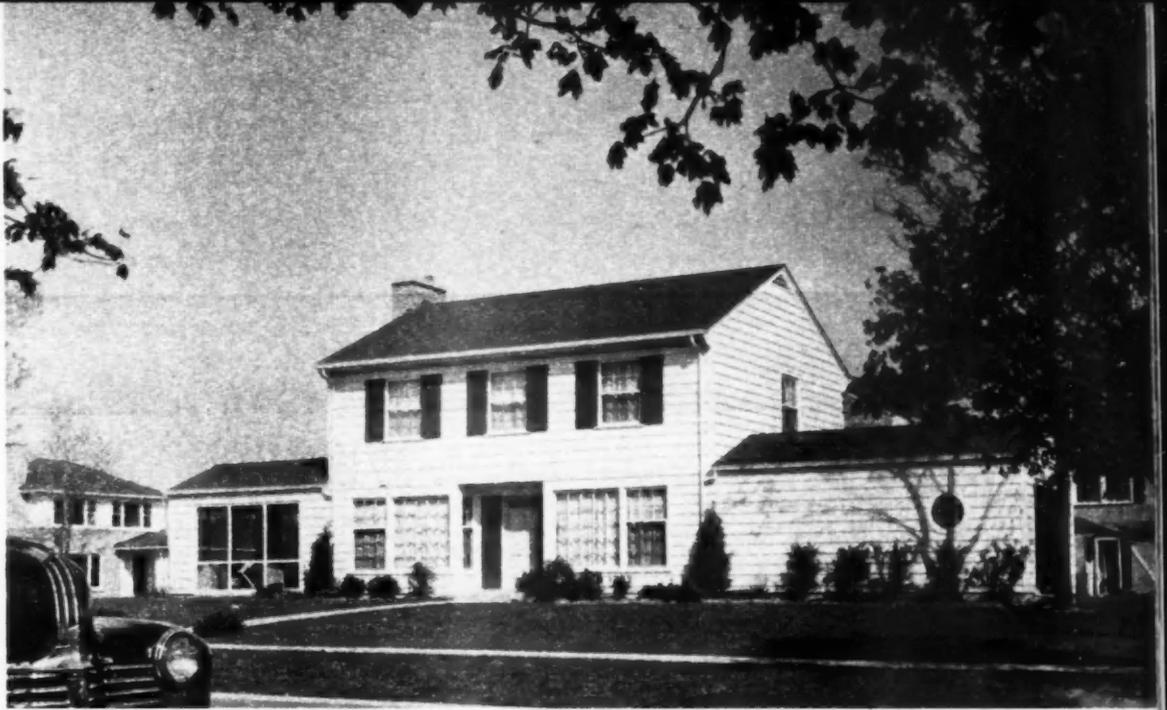
AB29220—Pictured is one of a new FD series of oil-fired, gas-fired and stoker-fired boilers. Federal Boiler Co. Inc., Midland Park, N.J. Designed for junior commercial use, steam ratings are 1,500, 1,800 and 2,200 square feet. Oil-fired bases are 12 inches high; stoker-fired, 16 inches high. Are S.B.I. rated.

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BLIETZ takes advantage of natural landscaping features, and augments them with additional trees and shrubbery at the time construction starts. This picture was taken shortly after home was occupied



burg Village houses. Stoves and refrigerators are not furnished, though General Electric steel kitchen cases with Textolite tops are supplied. Armstrong linoleum is laid over kitchen floors.

Bathrooms contain Ceramic tile for sidewalls and floors. Walls above the tile are papered.

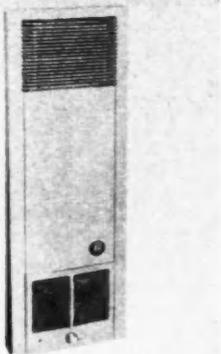
Garage doors are manufactured on the building site, using two 4x8 plywood, waterproof U.S. Plywood and Stanley garage door hardware.

With this kind of construction, Blietz attains the important objective—dollar-value. It is well done, and appeals to the home-seekers of deluxe dwellings. But to Blietz, the "dollar value" is no more important than the "eye value!" As he says:

"Even a diamond is hard to recognize—unless it's polished."



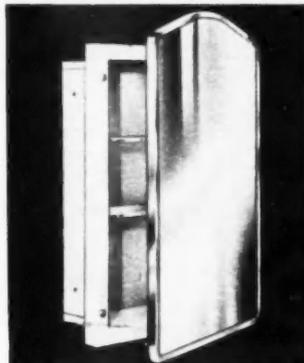
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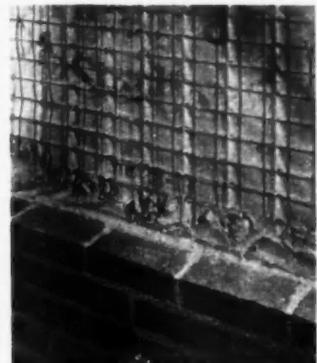
AB29225 — Circulating type single wall heater. Holly Manufacturing Co., Pasadena, Calif. New Holly "25" heater fits in standard 4 inch walls with studs on 16 inch centers. Louvers completely hide all internal heating elements and direct heat into room. The "25" will burn natural, manufactured or liquefied gas.



AB29198 — Leatherback all-purpose building paper. Protective Papers, Inc., Union, Ill. This product is a heavy base stock with an asphalt impregnation. Is lightweight, easy to handle and to install. Can be applied between wood sheathing and exterior materials, over sub-flooring, and to weatherproof buildings.



AB29219—Medicine cabinet No. 1420. The Hamilton Metal Products Co., Hamilton, Ohio. Features glass shelves, stainless steel frame. Is of 22 gauge bonderized steel construction, has sanitary, baked-white enamel finish, piano hinges, door stops, razor drops, and is resistant to rust. Size 11 1/2 x 16 x 4 1/4 inches.



AB29197—Steelex for brick or stone veneer. Pittsburgh Steel Products, Pittsburgh, Pa. The brick or stone is built into and thoroughly bonded to a 1-inch slab of cement mortar which is reinforced with a network of heavily galvanized copper-bearing steel wires. Produces solid wall without other sheathing.

W. P. "Bill" Atkinson Builds *Miracle* Midwest City

Midwest City was conceived and born by the exigencies of war but did not die with it. Development of city continues with first square mile due for completion in mid-1949 to house more than 11,000 low-income inhabitants

W. P. "BILL" ATKINSON of Oklahoma City, one of the Southwest's leading home builders, doesn't claim to be a miracle man. Nevertheless, many who have watched him build Midwest City into a lusty community of 11,000 inhabitants in the short period of six years have chosen to call his work miraculous.

Miracle or not, Bill Atkinson's "baby" was conceived in long hours over drafting boards and nurtured in a program of hard work and enthusiastic drive. Situated nine miles southeast of the center of Oklahoma City and four miles from the city limits, Bill's famed Midwest City now all but covers a full square mile, and with the completion by mid-1949 of blocks of homes now under construction, will have passed that first "square-mile"-stone.

This does not mean the job of building Midwest City is finished. It is only the first step. Plans for the expansion of home building adjacent to the present boundaries of Midwest City are as big or bigger than any in the past. Land has been acquired—hundreds of acres—to the north and west.

Atkinson is at the starting line of a major low-cost housing sprint. It will be his springboard for the

next square mile of home development for Midwest City—a community that has not "just grown" but one that has been "planned and built." He prefers to look ahead, not back. He likes to plan for greater deeds as a home builder. He is willing to review the past, but only as a means of setting his sights more accurately for the future.

In one phase of the Midwest City development, he led a group of 16 builders in a co-operative effort to meet the housing challenge. This program was carried out on 160 acres of the Midwest City site. A later joint phase with nine other builders developed another 160 acres of Bill's dream city. The other 320, he has built up alone.

"Bill" is now completing 256 duplex units. He is proud of the fact that he was able to use only one floor plan. Though the use of architectural design, varied color schemes, setbacks, and orientations on the lots, he obtained a pleasing and attractive street arrangement. All the duplexes are double-built with masonry veneer, dry walls, clear oak flooring, full vitreous tile bath and kitchen drain, heated with floor furnace, wood shingles. Each consists of 1,483 square feet, placed on lots valued at \$1,500 each, and

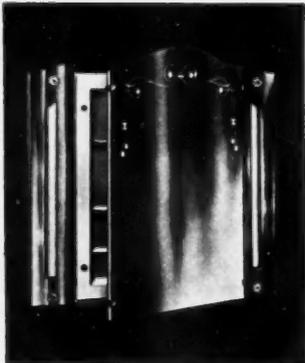
the total sales price of the property is only \$13,500. All interior walls are painted and much attention is being given to the interior and exterior use of color, for Atkinson believes that the proper use of color is one of the best sales features.

Atkinson also has under construction a project of 100 homes, 50 of which are two and three bedrooms, brick and stone veneer, which will sell from \$8,000 to \$9,500, and 50 of which will be two-bedroom, double built, asbestos siding economy homes consisting of 740 square feet, which he hopes to sell on a \$1,000 lot for less than \$7,000.

Midwest City was envisioned as a complete city in every phase, and has shaped the development accordingly. Modern, attractively designed shopping centers provide convenient services to the families of Midwest City, as well as to an immediate area in which 20,000 persons reside. The stores are well-equipped, well-lighted, attractive and stocked with a diversity of goods. There are now 49 tenants doing business in Midwest City including a bank, a postoffice, and theaters. Atkinson owns the buildings and leases them to the store operators.

The plan gives Midwest City the

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AB29173—Bathroom cabinet, Model No. 3000. Standard Steel Cabinet Co., 3701 Milwaukee Ave., Chicago 41, Ill. Plate glass mirror with 4x22½ inch wings. Side mirrors have cut-away in center to allow light for shaving and makeup without glare. Everything is enclosed in cabinet. Toothbrush holder is chrome plated.



AB29159—Forced air furnace that offers filtered warm air heat and summer air circulation and ventilation. The Utility Appliance Corp., 4851 S. Alameda St., Los Angeles 11, Calif. Compact design permits installation in closet or basement. Finish is baked enamel. Fully automatic thermostatic temperature control.



AB29167—Trip-L-Grip framing anchors. Eliminate toe-nailing in light wood frame construction. Recommended to home builders as joist hangers. Made in three types, both right-hand and left-hand, making six in all. Special nails are furnished with anchors. Product of the Timber Engineering Co., Washington 6, D.C.



AB29164—Type U "Windmaster" draft control. Skuttle Manufacturing Co., 4099 Beaufait Ave., Detroit 7, Mich. Can be used with either horizontal or vertical flue pipe. Outstanding feature is the square or rectangular body construction with vane mounted at an angle. This provides more intake area than a round opening.



W. P. "Bill" Atkinson

merchandising service of a large city, yet the convenience of the neighborhood store. Nine churches, three grade schools and a junior and senior high school, housed in modern brick structures, serve the religious and cultural needs of the community.

Bill Atkinson puts color and life into home building. There is an over-all symmetry to his operations, a continuous thread of plan and purpose. Unlike most home builders, he believes in applying good advertising and merchandising principles that have proved suc-

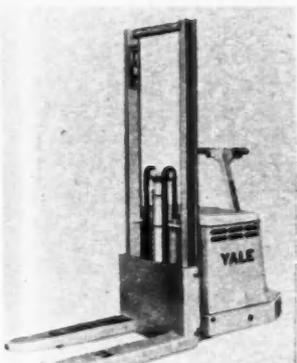


STREET SCENES in Midwest City, where 11,000 people have been housed in six years

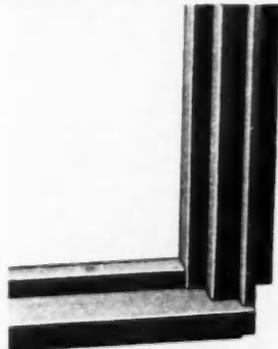


MAIN SHOPPING center with bank, postoffice and theater. Atkinson insists there be a grocery store every half mile

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AB29169—Low-cost high-lift Work-sever electric pallet truck. The Yale & Towne Mfg. Co., Philadelphia, Pa. Has 2,500 pound capacity. Is battery-operated both for travel and lifting loads. Is 39 by 31 inches in overall dimensions. Lifts pallets 66 inches for overhead tiering. Available for immediate delivery.



AB29156—Steel casings for use with residential steel casements. Truscon Steel Co., Youngstown 1, Ohio. Available in one depth of 4 1/2 inches. Applicable to all types of residential construction. Designed with concealed mortise and tenon system of assembly at corners. Bolted direct to casement.



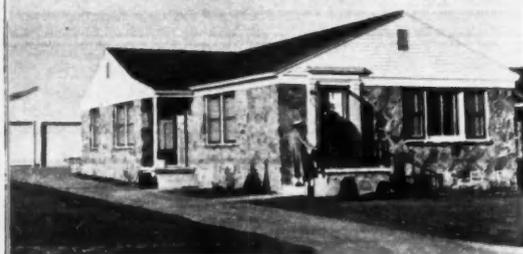
AB29165—Waterproof reinforced paper named Sisalkraft. The Sisalkraft Co., Chicago 6, Ill. Applied over fill in radiant heated floor job, as illustrated, it prevents small fingers of concrete from dropping down into the fill. These fingers carry moisture and cold up from ground into the concrete. Sisalkraft protects floor.



AB29161—New range ventilating hood for the modest home. Vent-A-Hood Co., Dallas 9, Texas. Hidden tube light across inside front provides indirect lighting of hood and range. Patented "magic lung" separates steam and grease before forcing heated air outside. Finish is baked enamel in white and colors.



THE DUPLEXES shown in this street view are selling for \$13,500 each on \$1,500 lots



TYPICAL duplexes being built by Atkinson. One floor plan with varied elevations, color schemes, setbacks and orientations on lots bring attractive street arrangements

successful in building other businesses to the home building business. For example, the first thing that he did when he went into home building was to adopt a trade mark, a slogan, and a color scheme which he has consistently used during his rapid rise in the business. Whether it be his personal card, letterhead, outdoor advertising, signs in front of homes, trucks, or newspaper advertising, his name and slogan is quickly and easily identified. He believes that this type of continuity in advertising and publicity is essential if a builder expects to get the maximum results for the dollar he spends.

Atkinson has carried his usual showmanship to his 250-acre Red Ranch near Midwest City where all animals and buildings carry out his red color scheme. For example, sorrel riding horses, sorrel Shetland ponies for the children, red cattle, red turkeys, chickens, dogs and every other type of red animal that can be found, and which are many, can be seen by those who visit the ranch.

In addition to the many small parties given on this ranch, there are two annual affairs which at-

tract upward of 400 people each year. One of them is the annual barbecue for all of the employees and their families, and the other is a barbecue for his business associates and their families, including state, county and city officials.

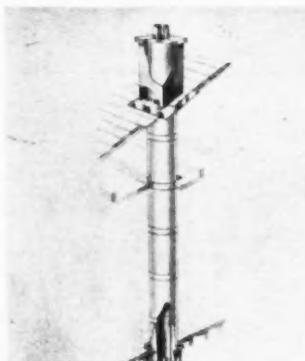
In the beginning of the development of Midwest City, Atkinson took the lead in organizing flower clubs on each of the streets. As an incentive to help beautify the yards and the streets, he offered substantial cash prizes each summer for the prettiest front yard, back yard, and the most beautiful street. As a result, Midwest City is known throughout Oklahoma as one of the cleanest, and most beautiful cities in the state. The prime reason for Atkinson being in the nursery business is to boost and maintain beautification of Midwest City. The nursery manager, J. A. Maddox, formerly headed the state department of agriculture nursery division.

In the first square mile of Midwest City, homes have been built from varied plans and elevations, in price ranges from \$7,000 to \$25,000. By late 1946, Atkinson had erected a large plant for assembly line pro-

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AB29171—An ingenious 3-way lock for cabinet, cupboards and drawers. The Yale & Towne Mfg. Co., Stamford, Conn. Lock has a patented rotating cylinder that permits it to be adapted to any one of three different uses. Can be used as a drawer lock or as cabinet and cupboard lock for right or left-hand doors.



AB29160—A tile-lined, insulated, reinforced lightweight masonry chimney. Van Packer Corp., 135 S. La-Salle St., Chicago 3, Ill. Features flashing plate that is adaptable to all roof pitches. Can be suspended from floor or ceiling. Carries U.L. and F.H.A. approval for use with coal, oil, wood and gas as the fuel.



AB29172—New Reese Cable Lok with aircraft-type flexible steel cable, and five disc tumbler key security. Reese Padlock Co., Lancaster, Pa. Especially suitable for small tools chests, sheds, gates, power tools and equipment. Regularly supplied with 36 inch cable but other lengths can be supplied on special order.



AB29157—Sash balance for counterbalancing double-hung windows. Unique Balance Co., Inc., 25 Bruckner Blvd., New York, N.Y. Comprised of a patented variable pitch spiral rod, coiled spring in metal tube, and metal fitting. Fastens directly to face of frame and bottom of sash. Easy to install. Assures trouble-free balance.

W. P. "Bill" Atkinson believes in developing and maintaining good public relations. He makes picnics, ponies and turkeys pay dividends in public good will and easy home sales

duction of houses. Economies of production and efficiencies of operation have been worked out all along the line, from the construction of structural sections in the factory, through the erection of houses in the field, to the point at which the key to good living is handed to the future occupants of the home. A surprising disclosure came recently in a survey which showed that 73 per cent of the homes in Midwest City are owned and occupied by families whose employment is in Oklahoma City rather than at the huge Tinker military aviation base adjacent to Midwest City, where 12,000 persons now work. This information has spurred the staff of Bill's architectural and engineering departments to a re-doubled effort in the interest of the economy home. The department has produced five sets of floor plans and the same number of elevation designs for substantially-built houses to sell for less than \$7,000. The first block of 50 of these homes will get under way this month. Their sale will be coupled with an inducement—a typical Bill Atkinson inducement to the buyer, again reflecting Bill's showman touch. He will have a Shetland pony, saddled and bridled, and tied in front of the home, waiting for a youthful master to take over as soon as dad completes the deal for the house. And Bill already has 87 Shetland ponies on Red Ranch, pending the time when the small ranch-type homes will

go on sale in Ranchett addition.

Bill's big pre-cutting and pre-assembly plant is located on a rail siding of the Oklahoma City, Ada and Atoka railroad, which serves Midwest City. The plant is all masonry-constructed, fireproof, with overhead forced-air heaters and air circulators. Four carloads of materials can be unloaded at once from the rail siding alongside the plant. Fork-lift trucks which handle 100 to 150 pieces of lumber at a time move materials from the storage yard into the building. Smaller loads move in on dollies.

"Bill" Atkinson encourages his men to find ways to increase efficiency and reduce costs. R. W. "Bob" Andruss, plant manager, constantly strives to achieve savings in operation. Fortunately, he has an ingenious young production manager, whose name is Norman Young. It was Young who originated a mass conveyor system in the plant. He also applied his production genius to the door section. There doors are hung in jams and frames and all hardware applied. Young speeded up the installation of locks by inventing an inexpensive electric drill press. He built it by taking one complete drill press and a drill press head, putting them together on a single drill press stand. The work of boring for the latch set and the spindle which goes through the door horizontally is performed in one operation. The operator pulls an overhead lever to make the hole for the spindle of the



TOP: One of picnics at Red Ranch. Center: Ponies included with ranch home sales. Bottom: Turkeys given to "Bill's" guests

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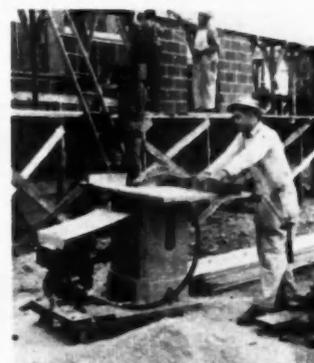
AB29162—Kem-Glo, a wall and woodwork finish that looks and washes like baked enamel. Product of Sherwin-Williams Co., distributed through retail outlets. Recommended for kitchen and bathroom walls, and fine woodwork. Gives solid one-coat coverage over most surfaces. Does not require primer or undercoater.



AB29170—Simplified compact door closer. The Yale & Towne Manufacturing Co., Stamford, Conn. Can be reversed for either right-hand or left-hand doors. One-third less bulky than conventional door closers. Simplified construction combined with compact size and light weight makes installation easy and fast.



AB29158—Vinyl-plastic floor tile comprised of a Tygon plastic laminated to a resin-impregnated cork base. U. S. Stoneware Co., Akron, Ohio. Trade-name is Plastile. Bonds easily to wood or concrete. Available in choice of colors. Can be repaired through individual tile replacement. Is durable and resilient.



AB29153 — Gasoline-powered, 12-inch tilting arbor saw known as Darra-James Model No. 97. Toolkraft Corp., Waterbury, Conn. Handles straight ripping, cut off, angular cutting, grooving, dadoing, shaping and rabbeting. Main table is 20x27 inches; extra aluminum extensions provided. Controls well placed for convenience.



ABOVE: R. W. Andruss, fabrication plant manager; Elmer J. Hedge, chief architect; Norman Young, production manager



MODERN, fire-proof clear-span masonry fabricating plant has 25,750 square foot area



FORK-LIFT trucks move materials from storage yard into plant. Smaller loads are moved to fabricating points on dollies



A SPECIALLY-BUILT drill press, designed by plant manager, bores holes in door for latch set in one easy, quick operation

lock set. At almost the same instant, by pushing on a foot pedal, he makes the bore for the latch set. Thus, with the aid of inexpensive equipment, the cost of this operation is reduced and the time element is held to a minimum.

The front loading dock is 50 feet in width. Nearby is the truss assembly section of the plant. Attached to the main plant is a cabinet shop, in which all brackets, porch columns, shutters and cabinets are built. Atkinson has his own architectural department, in which all of the drafting, blueprint work and modulation are performed. Elmer J. Hedge is the chief architect. Hedge is responsible for all of the plans laid out for prefabrication. With each house goes a complete set of erection drawings. Each part is numbered. This simplifies the erection of the house to such an extent that the work can be done satisfactorily by an unskilled mechanic.

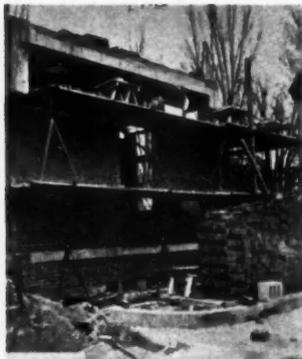
Andruss, Young and Hedge have spent much time lately on plans for low-cost homes. By using pre-cut methods and partial assembly, they have been able to figure out a double-built house containing 740 square feet of floor space with shingle roof and asbestos siding to sell for less than \$7,000, includ-

ing a \$1,000 lot. Their economy house will have oak floors, floor furnace, two bedrooms, and an insulated ceiling.

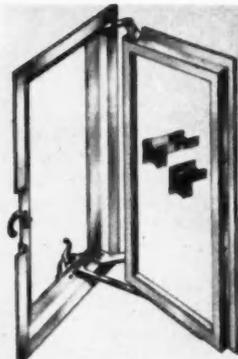
Five different exterior elevations give a varied change of appearance with a minimum of additional cost. Adequate variations of floor plans and designs will not change the cost of any house more than \$25 from that of another. With the aid of Atkinson's pre-cut and partial assembly method, the roughed-in structure of a 5-room house can be erected in 72 man-hours. The plumbing costs are held to a minimum by the operation of a plumbing and heating department, a separate Atkinson company, under the management of W. F. Lyons. Plumbing fixtures and materials are bought in carload lots, some directly from the manufacturer.

Atkinson is quick to point out that, although his factory operation has effected savings in carload buying, the minimum in waste of materials, and use of labor-saving devices and equipment, and other means, he would not recommend that a builder erect such a substantial building for the purpose of pre-cutting and preassembling parts of homes. He states that in view of his experience, these same savings can be effected in a temporary type

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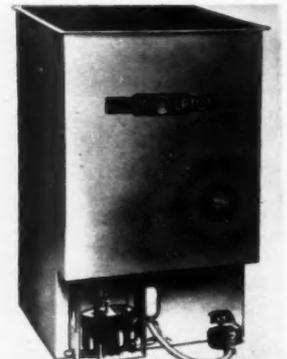
AB29148—New mason scaffold. Requires but one man per jack to install. Height is adjustable in 4-inch steps and manufacturer claims it is not necessary to level ground or back-fill. Equipment has been tested and received Industrial Commissions approval in several states. Wilson-Albrecht Co., Minneapolis, Minn.



AB29152—Aluminum casement with interlocking corner and optional muntins. Timm Industries, Inc., 5245 W. San Fernando Road, Los Angeles 26, Calif. Extra heavy extrusions and new interlocking patented tenoned joints increase strength and rigidity of windows. Muntins are used to create attractive design effect.



AB29154—Asbestos Siding and Shingle Cutter. Tri-States Building Materials Co., Ft. Worth, Texas. Equipped with two high-grade steel cutting blades 32 inches long. Has bolt adjustment for adjusting upper and lower blades. Cuts any thickness of asbestos siding or shingles. Weighs 37½ pounds; is 36½ inches long.



AB29194—Oil-fired floor furnace for low-cost housing. Northwest Metal Products, Inc., Seattle, Wash. Model FL-200. Output is 50,000 B.T.U. Features include electric draft booster fan as standard equipment, small register grill, easily removable burner pot. It is available with both manual and automatic controls.



LEFT: The W. P. "Bill" Atkinson Lumber Co. yard in Midwest City. Right: Modern plumbing shop is also operated by Atkinson

of structure on site location, and possibly to a greater advantage to most builders. He states that the reason he is willing to make such a substantial investment in his modern fire-proof, clear-span factory building consisting of 25,750 square feet, is that it was built as an all-purpose factory building to open up a new 160-acre industrial tract which is being developed by him and his associates. At the present time there are two additional factories—a furniture manufacturing plant, and a food-processing plant—located in this area. One of the prime considerations in building this modern plant three years ago for precutting and preassembling homes and building cabinets was

to expedite the building of homes as much as possible to meet the rapidly-growing demand in Midwest City. During the past three years, this plant has averaged two houses for every working day.

At present, Atkinson's field force, under Howard Thornton, field superintendent, and Clark Taylor, field foreman, is erecting a house a day. Thornton is credited with the introduction of valuable ideas for increasing production in the field. Practically every one of Thornton's craftsmen, except the erection crew members, holds the position of a sub-contractor—that is, he earns on a piecework instead of an hourly basis.

After a detailed study of costs,

Thornton proposed an incentive plan which the men readily accepted. Concrete blocks, for example, are laid for so much a block. The brick men work at a certain rate of pay per 1,000 bricks laid. The trim men get a building unit rate. The footings are dug at a unit price per footing, and so on. This method allows Thornton to figure his costs ahead more accurately. Also, the mechanics know there is a premium on results. They are inspired to be more diligent and efficient.

Atkinson places a great deal of importance upon the selection of his key personnel. He takes delight in telling about his field superintendent. Contrary to the belief of most builders that it is necessary to get an old experienced superintendent, two years ago Atkinson brought into his organization one of his proteges, a 36-year-old university professor, who—Bill says—is now one of the best home building field superintendents in the business. He says it can be proved with facts and figures. All key employees are on a percentage or profit-sharing basis.

Such methods have enabled Bill Atkinson in nine years to build an organization that is recognized the nation over as one of the most efficiently operated in the country.



A SPECIAL roller conveyor arrangement makes it easy to load completed house sections from the fabricating plant to a truck with special roller-conveyor equipped bed

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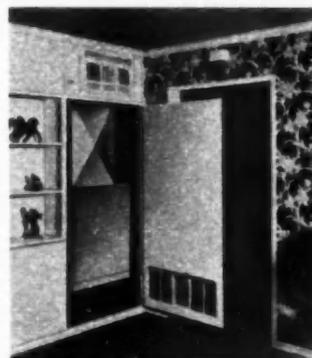
AB29166—A new line of Kem-tone shades is announced. Designed by Sherwin-Williams decorating stylists, the new shades are known as Kem-Tone Vogue Deep Colors. They include blue, red, yellow, green, sienna, burgundy, umber and brown. In most cases a single coat will cover a wall surface, even old wallpaper



AB29155—High grade steel tapemaster with adjustable belt. Du Brack Manufacturing Co., P.O. Box 805, Fort Worth, Texas. Hangs conveniently at side of worker, always within reach, never in way. Facilitates application of the tape to the wallboard. Is lightweight. Size is 2½ by 2½ by 12 inches overall.



AB29151—Thor Automagic Washer, Model 222, Thor Corp., Chicago 50, Ill. A combination dish and clothes-washer. Measures only 24x24 inches and is of counter-height. Separate, quickly interchangeable tubs perform each operation. Unit can be installed anywhere. Is lightweight. Does not require bolting down.



AB29163—Complete in one package heater. Royal Heaters, Inc., 1024 Westminister Ave., Alhambra, Calif. Unit may be placed in closet or set in corner of room. Masonite cabinet can be papered or painted to match interior decoration. Warms the average-size home with a minimum of temperature differential.

Crawford Corporation— From Forest to Home Complete Building Service

Firm not only manufactures houses but offers a dealer and builder service that includes planning, financing, business counsel and intensive promotion

A HOME BUILDING organization with operations extending all the way from company-owned timber tracts to the presentation of keys to house owners is making it easier for the American public to purchase low-priced dwellings. In addition to the manufacture of houses and house parts, the Crawford Corporation services to builders and dealers include project development advice, mortgage service, architectural and engineering help and business counsel. Although the main offices and plant are located at Baton Rouge, La.,

operations are being extended to serve home builders and dealers in all sections of the United States.

Founded in 1934 by W. Hamilton Crawford, the firm first entered the building field exclusively as a conventional builder. It was steadily expanded to include precutting, job site fabricating, timbering, sawmill operation, central plant operation, house manufacturing and finally a supplier of house parts and complete builder service. For ten years Crawford has produced factory-made houses. Volume production of modern houses,



AFTER subfloor is laid, erection of various Crawford-Built house sections can be accomplished with few men in short time



CRAWFORD Corp. management personnel. Around table, left to right, are E. B. Hammack, manager of lumber department; T. R. Walker, office and credit manager; H. J. McMillan, plant superintendent; Carl Walters, vice president, Builders Service Div.; R. A. Toups, secretary-treasurer; W. H. Crawford, president; E. G. Clark, secretary; L. R. MacTaggart, sales manager; H. H. Harris, vice president, Construction Div.; L. L. Tyson, executive assistant; J. M. Powell, executive assistant; J. R. Carruth, manager, mortgage loans. Not shown, T. W. Pond, traffic manager, J. H. O'Neil, purchasing agent

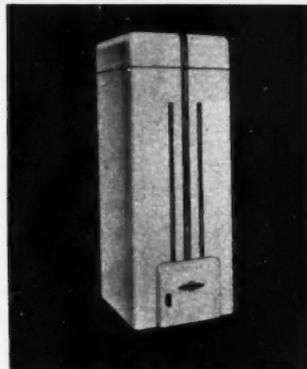
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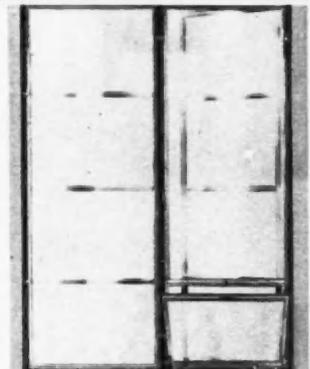
AB29124—Portable electric sander-polisher. Clarke Sanding Machine Co., Muskegon, Mich. Now offered with 21 accessories for quick change to grinder, drill, steel wooler, buffer or wire brusher. All accessories easily interchangeable. Operates in horizontal, vertical and overhead positions in close quarters.



AB29125—Wall-Tax fabric wall coverings. Columbus Coated Fabrics Corp., Columbus, Ohio. Noted for control of plaster crack nuisance in new and remodeled construction, soap-and-water washability, and as permanent wall-canvas base for paint. New line comprises about 200 patterns, colors and finishes for '49.



AB29119—Superfax gas burning water heater. Perfection Stove Co., Inc., Cleveland, Ohio. Available in two models. Its rectangular design is finished in baked white enamel. Adaptable for kitchen installation. Tank is extra heavy metal surrounded by fiberglass insulation. Lines are copper with brass fittings. Efficient.



AB29114—Inside metal storm window with open-in sill ventilator. Detroit Steel Products Co., Detroit, Mich. Sash has frame of formed steel. For use with steel casement sash. Ventilating unit provides draftless fresh air. Windows are installed easily from inside of room. Rubber gasket attached to frame seals window.

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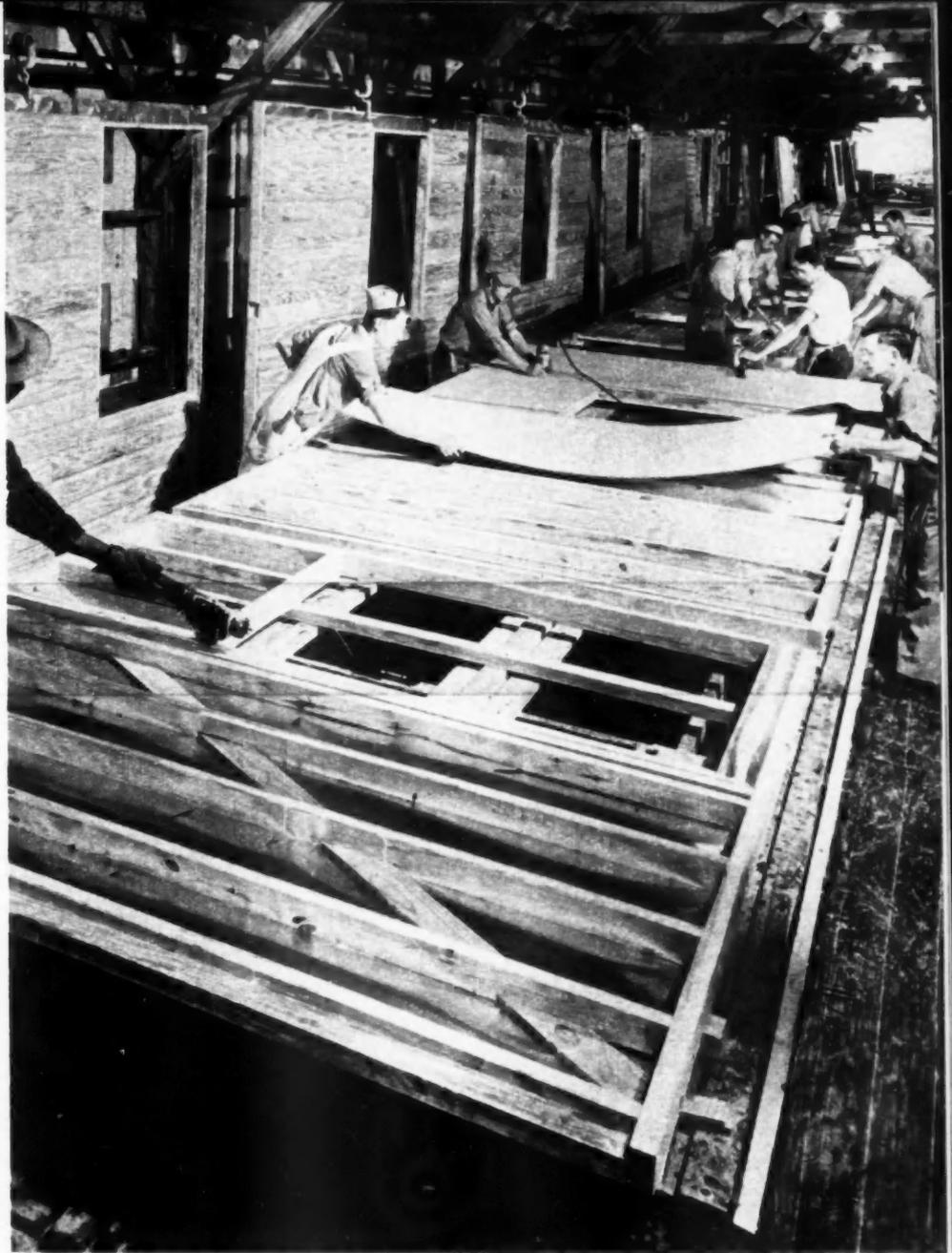
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W. HAMILTON CRAWFORD

garages and other buildings of conventional size and appearance was started in February of 1946. The Baton Rouge plant, located adjacent to timber tracts and sawmills, contains more than 150,000 square feet of floor space and is capable of processing millions of feet of lumber, plywood wallboard, millwork and other essential house components annually. The plant is so established that at almost any processing stage material can be removed from production lines for shipment to builders, or the components of a complete house can be assembled at the plant and shipped as a single package.

Crawford features a variety of prefabricated houses similar in design, construction and appearance to those built by conventional on-site methods. House models now range from a two-bedroom economy house selling for as low as \$4,500, without land, to an attractive six-room ranch-type home priced to sell between \$8,500 and \$14,000, depending on style and special features. Between the low-priced house and the ranch-house, are three other distinctly different types. There is a wide variety of elevations for every Crawford home, even on the economy house. This makes it possible to erect an entire subdivision of

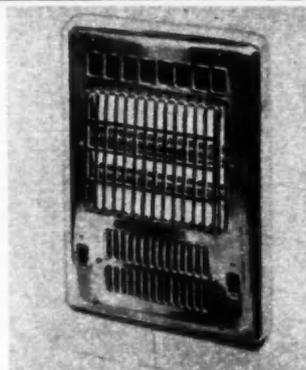


ONE of the production lines in the Crawford Corporation plant at Baton Rouge, La. Here men do specialized tasks in assembling precision-cut lumber and other parts into complete wall sections for the houses

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AB29130—Plastic, air-tight, liquid-tight container for storing paint brushes. Merryweather Products Co., Akron, Ohio. "Brushaway" is made in three sizes—small, medium and large. Brushes may be placed in containers with or without cleaning. Hung up and kept without damage. Elastic band keeps the unit air tight.



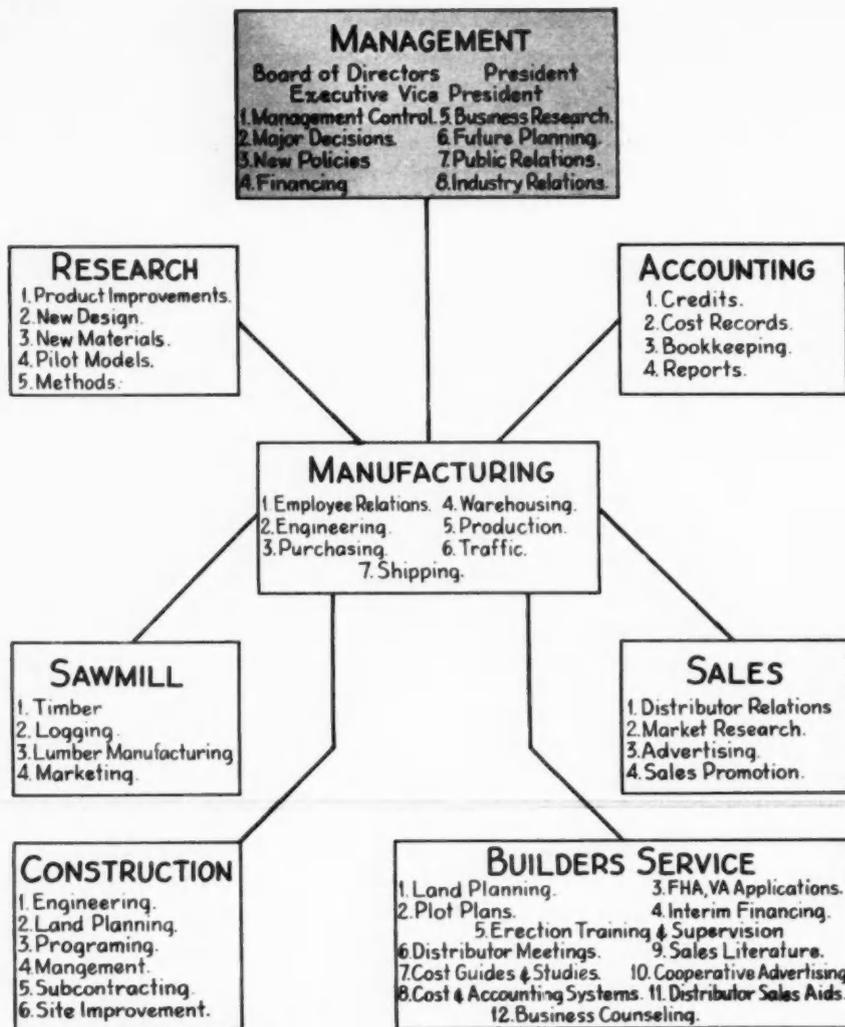
AB29135—Built-in electric wall heater. Market Electric Products, Inc., and LaSalle Lighting Products, Inc., Buffalo, N.Y. This series 230 Heetaire is now supplied with thermostatic controls, with temperature range from 56 to 84 degrees. Supplies both infrared rays and fan-forced warm air. Approved, Underwriters' Laboratories.



AB29117—Ball bearing window glide. East Side Tool and Die Works, Portland, Ore. The device consists of a non-ferrous metal strip with half-inch holes punched at regular intervals, laying in the side channels, and a ball bearing which is mounted in side of sash. The bearing seats itself in the holes as the sash is lifted.



AB29141—Incinerator. Kerner Incinerator Div'n., Morse Boulger Destructor Co., New York, N.Y. Made in two designs—bricked-in or portable. May be self-fired or gas-fired. Portable units may be set anywhere in basement and connected directly to chimney flue. This firm specializes in the making of incinerators.



ORGANIZATION chart showing how the various activities of the firm are delegated to special groups centered around the manufacturing operations

these houses and still maintain good variety in appearance for both the two-bedroom and three-bedroom models.

At present the line of house designs is being expanded along with an ex-

pansion in the degree of factory fabrication. This improved plan of operation is based on the manufacture of standard size house panels which can be converted into houses of an almost unlimited variety of sizes and

designs. The possible variations will range from a simple square or rectangular structure to a multiple number of "L," "T," "H" and other plans. By using standard Crawford panels and house parts, houses can be erected according to plans furnished by the firm's engineers or can be erected according to individualized plans, subject to modest limitations.

As part of its plan of operation, this house manufacturer keeps the feel of the home building business by maintaining his own building company in home territory. Shortly after the end of World War II, Legion Village, comprising 283 low-priced houses for veterans was completed in Baton Rouge. A large-scale project of two and three-bedroom houses to be available for low-income groups is now under way in Baton Rouge. Brookstown, as the project is known, is laid out for 400 homes to be completed in 1949 to sell at prices of \$5,000 to \$6,750, including lots. The firm has, of course, supplied thousands of houses for other builders in all sections of the nation, although the company's principal activities have been centered in the Gulf and Southern Atlantic states.

Although the house manufacturing phase of Crawford's activities has received most emphasis in the past, another phase now being expanded rapidly is the "house parts" department. This is an adjunct to the house manufacturing division. Material such as siding, precut studs, joists, moulding, trim, complete door and window units and other components are fabricated for delivery to builders. In some cases, builders erecting Crawford houses combine their operations to include both the construction of conventionally-built houses as well as the erection of the factory-

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AB29137—Hardboard products. Masonite Corp., Chicago. New products include Panelwood—3/16-inch material for walls and ceilings; Leatherwood—Spanish leather design on face; Craft-pak—handy package of hardboard for handy man. Panelwood was removed from Masonite line early in the defense program.



AB29112—Fresh-Aire fireplace unit. Bennett-Ireland, Inc., Norwich, N.Y. Unit is hidden within the masonry of conventional fireplace. Does not interfere with fireplace design. Fresh air from outdoors is heated and circulated throughout room. No loss of heat up the chimney. No cold floor drafts or smoke with the unit.



AB29115—Bedroom window with hopper ventilator at sill. Detroit Steel Products Co., Detroit, Mich. Protects from drafts by deflecting air toward ceiling through use of in-tilting sill vent. Frames and sash are of steel. Cam action lock draws vent tight shut. Precision fitted at factory. Has complete safety features.



AB29140—Fuelless incinerator. The Majestic Co., Huntington, Ind. Inner lining may be removed for occasional removal of non-combustible materials. Unique down-draft system draws air from the top through refuse, which dries as it burns. Two-bushel capacity. Unit fits well into a basement or a utility room.

made houses. Crawford dealers are not required to confine themselves to the erection of Crawford-Built houses, except that they are not permitted to associate themselves with a competitive manufactured house line. The expansion program calls for establishment of fabricating and distributing plants in strategic locations throughout the country.

The firm is most widely known as a producer of factory-made houses but actually its activities are far more diversified. The Crawford Builders Service division, primarily established to serve its dealers, is also offered in its entirety or in part to all builders. This service falls roughly into four main divisions: (1) project development; (2) mortgagee service; (3) architectural and engineering service; (4) business counsel. The project development help includes such work as investigating sites for proposed development, land planning, cost analysis, topographic and property surveys, planning and coordinating the installation of public utilities



A PORTION of the modern millwork plant where house parts are fabricated



BATHROOM in one of factory-built houses

and arranging for contract placements.

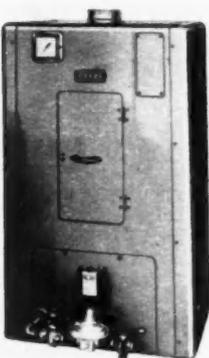
The mortgagee service includes processing FHA and VA loan applications, assisting builders in their relations with FHA and VA, providing interim construction funds, preparing progress inspections for lending institutions, handling progress payments, providing speedy closings of permanent mortgages, servicing permanent mortgages and providing a complete insurance program to builders.

The architectural and engineering service includes such aids as preparing renderings, explaining fabrication techniques, writing specifications, landscaping and interior decorating and others. The business counseling service includes installing cost control systems, preparing work progress

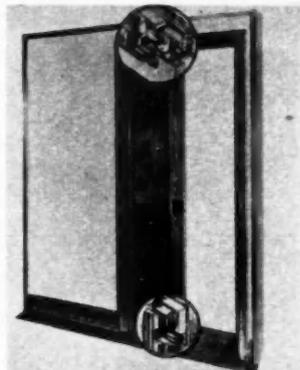
charts and reports, technical training and providing selling and advertising services.

The Crawford Home Loan Corporation and the Crawford Operative Builder Corporations operate as separate units of the parent company. The Builders Service Division is a part of the Crawford Corporation, working with and supporting the sales and construction divisions. Under the Builders Service Division, the departmental setup includes dealer service, project development, architecture, product engineering and construction contract sales. The Manufacturing Division includes such departments as personnel, sawmill, purchasing, warehousing and yarding, plant engineering, production traffic and shipping. The Construction Division supervises

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AB29123—Gas or oil-fired domestic boiler, fully automatic. Bryan Steam Corp., Peru, Ind. Seamless copper tubing circulates water over flame, giving rapid transfer of heat from flame to water. Unit enclosed in green synthetic enamel cabinet. All parts factory assembled making installation efficient and economical.



AB29111—Huttig gliding door unit. Huttig Sash and Door Co., St. Louis, Mo. Primarily for general home building. For standard 2x4 stud walls. Assembled on job, without using rule, in about 15 minutes. Installed in studding with pocket portion covered with same material as wall surfaces. Unit easily installed.



AB29136 — Self-priming centrifugal pump. Marlow Pumps, Ridgewood, N. J. The 10EV series have but one moving part. With 35 foot total head will deliver 34 gpm with 1/2-horsepower motor. Made in three sizes—1/5, 1/2, and 3/4 HP. Does a score of pumping jobs with minimum of attention. Positively self-cleaning.



AB29121—Portable electric hand saw. Skilsaw, Inc., Chicago. Now available in nine different models with cutting capacities up to 4 3/8 inches. In addition to cutting lumber, used for grooving, cutting, scoring stone, tile, marble, slate, glass, asbestos cement, and for cutting all types of metals. Economical. Lowers costs.

ILLUSTRATIONS of one of the models manufactured by Crawford Corp. Models range from two-bedroom economy house priced as low as \$4,500, without land, to six-room ranch-type marketed in price range between \$8,500 and \$14,000. There are three other distinctly different types between lowest and highest priced models. Wide variety of elevations permits individuality



field erection work, primarily as an aid to builders of Crawford houses. It undertakes housing project construction where not in conflict with, but sometimes in cooperation with, its dealers. This division also handles local building activities. The Sales Division encompasses sales, customer service, sales administration and advertising and publicity. Crawford-Built Home dealers are given exclu-

sive territories. District sales managers cover the various states in which the corporation operates to maintain close dealer contact and service.

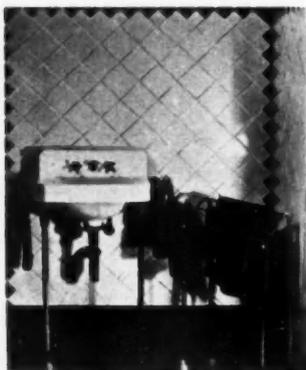
Management personnel of the Crawford Corporation includes W. Hamilton Crawford, president; Raymond A. Toups, vice president and treasurer; J. M. Powell, Jr., and L. L. Tyson, executive assistants; Carl A.

Walters, vice president in charge of Builders Service Division; Homer H. Harris, vice president in charge of Construction Division; H. J. McMillan, plant superintendent; L. G. MacTaggart, sales manager; Julian R. Carruth, manager of mortgage loans, and T. R. Walker, comptroller.

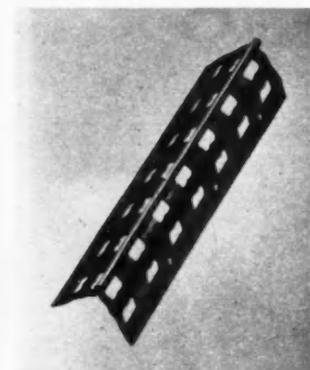
When measured on a cost-per-man-hours basis, about 25 per cent of the Crawford "product" consists of service to builders, dealers and customers. The balance of the time goes into production of tangible products such as the houses, house parts, and other factory products.

The firm, under the direction of W. Hamilton Crawford, takes an active part in the activities of the National Association of Home Builders, and the Prefabricated Home Manufacturers Institute. Membership is also maintained in the Mortgage Bankers Association, National Retail Lumber Dealers Association, Associated General Contractors, National Association of Real Estate Builders, and the

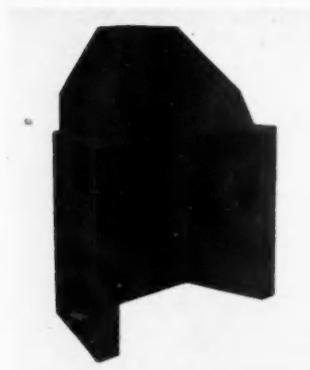
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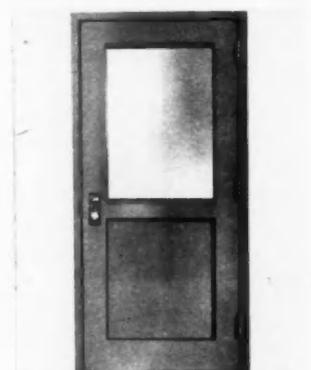
AB29142—Aluminum wall tile. Metal Tile Products, Inc., Hastings, Mich. "Alumitile" made in a variety of shapes and sizes in 14 colors. Special finish is highly resistant to household acids. Easily applied to any smooth wall surface with a special waterproof mastic. Special process assures a good control of all color.



AB29122—Truss-Wing corner bead. Bostwick Steel Lath Co., Niles, Ohio. Corrugations run lengthwise to provide rigidity. "BB" perforations easily snipped for curves, arches. Made of tightly-coated galvanized steel, perfectly straight. Comes in 8, 9, 10 and 12-foot lengths in strong cartons for easy storage and handling.



AB29139—Circulator fireplace. The Majestic Co., Huntington, Ind. Made to fit any mantel design. Will heat like a warm air furnace and air may be piped to other rooms. Built in one unit, assembled at factory and shipped complete. When used, guesswork is eliminated in proper proportioning of all the fireplace parts.



AB29116—Standard hollow metal door. Detroit Steel Products Co., Detroit, Mich. Made in standard sizes. Stocked by local dealers complete with frame and hardware. Installation is quick and easy. Upper panel may be glass or metal. Doors provide fire safety between house and garage. Prime painting in factory.

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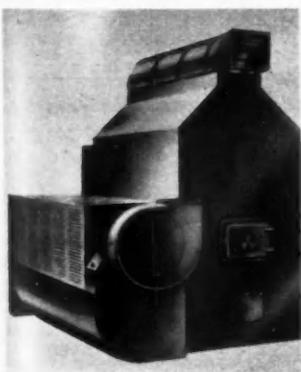


firm has worked closely with the Division of Housing Research of Louisiana State University, and other such institutions.

During World War II, the company was engaged in producing essential war needs such as pontoon bridges, barracks, hospital buildings and multiple dwelling units—plus 1,300 bungalows for Britain under Lend-Lease. In addition to other extensive home building activities since the war, the firm has worked with a number of its dealer-builders to develop several sizable factory-employee housing projects. Whitmor Homebuilders, Inc., of Tulsa, Okla., has completed housing for the Cities Service Gas Co., the Kansas Power & Light Co., Kerr-McGee Oil Industries and Stanolind Oil & Gas Co. In less than six months, a sizable village of prefabricated houses along with schools, shopping and recreational centers was erected on a Kansas prairie where there had been no roads, no trees and no utilities.



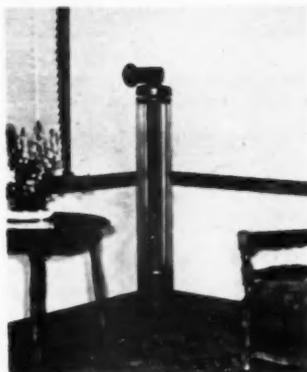
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AB29127 — Commercial, industrial warm air space heater. Dravo Corp., Pittsburgh, Pa. Coal-fired but easily converted to gas or oil. Combustion chamber is stainless steel. Available in two output capacities: 1,250,000 B.T.U. per hour and 1,500,000 B.T.U. per hour. Hopper model bituminous stoker standard equipment.



AB29126—Home freezer. Deepfreeze Div'n., Motor Products Corp., North Chicago, Ill. Model B6 shown. One of many models and sizes available. Features of model shown include temperature control; counter-balanced lid; "kicker" toe space at cabinet base and metal storage dividers for easy separation of foods.



AB29113—Vented Panelray "F." Day & Night Manufacturing Co., Monrovia, Calif. A "heat trap" heating element applied to space heating. Model "F" stands free in corner of room with full body height advantages. Vent pipe at top of unit extends into wall. Panelray heats like sun with infra-red rays. Easily cleaned.



AB29118—Modular building units. Durisol, Inc., New York, N. Y. This material provides insulation, fireproofing, sound absorption and structural rigidity. It is a lightweight, precast concrete slab moulded in special shapes and sizes for sheathing and exterior veneer. Building time is cut through use of slabs.

Frank Corace— "Organization Is Key" To Successful Operation

Changing times are met with changing techniques in home building. Assembly line methods, the answer

RIGHT: Corace, in center, discussing operations with group of his superintendents. Weekly evening meetings with all superintendents present, where costs, production and distribution are analyzed, is a feature of this firm



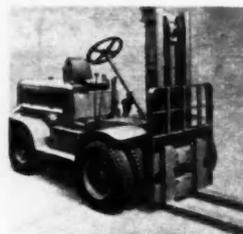
THOMAS GABRIELLI, left, of Gabriel Plan Service, has worked together with Frank Corace, right, for fourteen years. Both are specialists in low-cost housing. Below: Part of office force in conference



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AB29300—Bishop Venta-Glass. Nu-Air-Wa Co., Port Arthur, Texas. May be opened to any desired degree or tightly closed to keep out rain and weather. No-draft ventilation. Screens on outside. Fingertip control. More than 250 sizes for any type installation.



AB29357 — Yardlift 60, fork truck. Clark Equipment Co., Battle Creek, Mich. Equipped with 112-inch lift, 42-inch standard forks, side shifter, pneumatic tires and condensing muffler. Gas-powered, machine has 6,000 pounds capacity. Firm has many sizes.



AB29345—Unit Construction. Unit Structures, Inc., Peshigo, Wis. Production-line techniques, mass purchasing, modern factory methods in conventional construction. Many interior, exterior layouts. Number of rooms and room sizes varied with house.



AB29180—Stanley-Carter hinge butt router. The Stanley Works, New Britain, Conn. Cuts out for butts six times faster than manual labor. Used with T3 templet it produces a flat right fit for hinges. Special bit produces corner with 1/4 inch radius.



AB29349 — Round window. Webb Manufacturing Co., Conneaut, Ohio. Many styles. Inside sash rotates on stainless steel track, making tight window. Sugar and ponderosa pine, dipped in wood preservative. Can be taken apart easily by screw driver.

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A SUCCESSFUL large scale building operation is predicated on a well-knit and smoothly functioning organization.

This fact was forcibly brought to the attention of Frank Corace of Baldwin Homes, Inc., one of the younger subdividers and builders in the Pittsburgh area, when he attempted to pick up where he had left off at the beginning of the last war.

In 1946 when Corace started building activities again, he found that all his former skilled employees were in the army or war plants. It was then necessary to start developing his organization again from scratch.

With the prevailing shortage of manpower, this was not easy. An attempt was made to re-organize using the same methods that were in vogue in 1942. This could not be done, as the skilled mechanic continued to stay on his job in the war plant.

Later, men who had been trained in war plants as bricklayers, carpenters and plumbers began to be available. Their training prepared them for service along definite lines. Therefore, they could not be considered as skilled building craftsmen.

This created a difficult situation for Corace. He realized that if the men could not be adjusted to the job, it was evident that the job had to adjust itself to the men. He chose those men who were mechanically minded and who could be trained to do a single job well. Thus, when one man became an expert in hanging doors, he did nothing else. Another would be chosen to hang cornices and downspouts, becoming a specialist in this line. Carrying through with this thought in all phases of the work, a smoothly running organization was soon established.

It was not the type of organization that was operating before the war, when skilled carpenters and plumbers were available, but the changing times were met with changing techniques. The answer was assembly line methods.

Among the permanent employees of Corace's organization are seven superintendents who are well-versed in the application of the assembly line method to the low-cost house field. Each of these men are specialists in their own line. They have been taught efficiency on the job. It is their re-



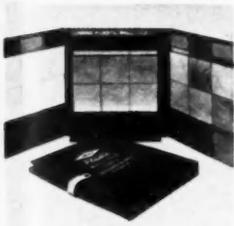
SEVEN 6-wheel drive trucks with winches are used to transport finished sections of houses from the plant to job site

sponsibility to see that materials and time are not wasted; and, to insure the proper and exact distribution of all supplies. They have developed into excellent teachers. The workmen, through these superintendents, are taught to do one thing, and to do it well, whether it is laying floors, hanging doors, or assembling a wall section on a "jig." The entire organization becomes one of specialists where each one does his own job well.

PARTIAL street view of the 1947 project. Sloping terrain permits garage to be placed in basement with access at rear



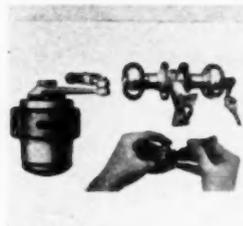
REVIEW BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB29341—Hako plastic wall tile. Hachmeister-Inc., Pittsburgh, Pa. This firm also manufactures factory-waxed tile. Attractive, varied colors and color combinations. Suitable for effective application to modern bathrooms and kitchens for many uses.



AB29359—Atlas Speed Forms. Irvington Form & Tank Corp., Irvington, N.Y. Concrete forms for foundation, four walls, inside and outside, may be picked up by crane when concrete is set and walked to next site, ready for next pour. Use 300 times.



AB29355—Yale heavy duty tubular lock and door closer. The Yale & Towne Manufacturing Co., New York, N.Y. Key-in-the-knob type lock in 9 different models. Compact door closer designed for wide applicability and for easy installation. Smooth operation.



AB29354—Crystal, masonry water repellent. Wurdack Chemical Co., St. Louis, Mo. Contains Silicone. Transparent. One coat stops water capillary action. May be applied with wide brush or by spraying in any temperature. Will not freeze. Is durable.



AB29351—Wesix corner cabinet water heater. Wesix Electric Heater Co., San Francisco, Calif. Stainless steel top, 725 square inches work surface with automatic, 50-gallon heater underneath. For kitchen corner usually called "dead space" in work area.



ARCHITECT, center, and group of superintendents discussing methods of procedure in large assembly room of prefabricating plant. Woodworking machinery in background

While delegating full authority to all key assistants, Corace maintains close contact with all phases of the work. When planning a new subdivision, this builder gets together with Thomas Gabrielli, architect, for two

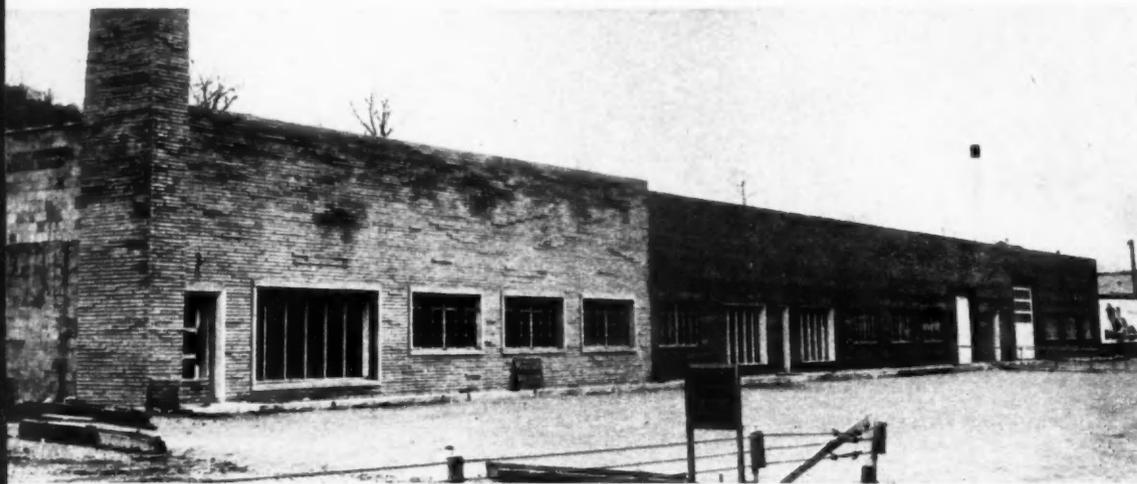
or three days of intensive study, after which the drafting of plans are quickly completed.

A basic plan is used for each project with a number of variations for the exterior treatment. This type of

set-up simplifies the cost and work distribution. Corace acts as his own purchasing agent. He goes direct to the manufacturer and buys in carload lots. When Corace first resumed operations, it was only by personal contact and delivery that supplies were brought to the job. Every possible method was used to obtain short items, so that construction delays could be avoided. Now, however, permanent contacts have been established, and a free flow of materials is assured.

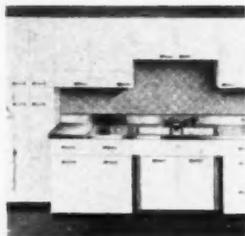
In 1946-47, site fabrication methods were used. Wherever possible, power tools were employed on the site for cutting, excavating, grading and hauling. In the Pittsburgh area this type of operation is rather limited, due to weather conditions which discourage all-year-round building. Construction in the field between the months of November and April are very costly.

In 1948 this builder erected a large structure to house all his activities, including a prefabricating plant. In a large unobstructed area in the building, permanent "jigs" are set up together with heavy machinery and a large space for storage of rough material. Jigs are manned by un-



EXTERIOR view of prefabricating plant and general office. Face brick and stone on front with cement block facing on rear and sides. Abundant parking space provided between curb and building

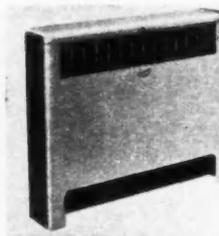
BUILDING PRODUCTS ON REVIEW - BUILDING PRODUCTS ON REVIEW - BUILDING PRODUCTS ON REVIEW



AB29343 - Tracy Customized kitchens. Tracy Manufacturing Co., Pittsburgh, Penn. Style of cabinets harmonize with Tracy stainless steel kitchen sinks. Stainless steel radius panels built into center section of undersink cabinets. Concealed ventilation.



AB29340 - Hough Payloader, HM, tractor-shovel. Frank G. Hough Co., Libertyville, Ill. Four wheel drive. Powerboosted steering mechanism. Bucket capacity, 1 1/2 cubic yards. Static loading capacity, 6,000 pounds. Engine, 76 H.P. Also has large tires.



AB29356 - Convactor-Radiator, Type F. Young Radiator Co., Racine, Wis. Warm air circulated by convection, augmented by radiation. No wall recess required. One of line which includes four standard and two special styles in wide range of different sizes.



AB29342 - Thrift homes, prefabricated. National Homes Corp., Lafayette, Ind. Two, three bedrooms. Oil heaters, kitchen-dinettes with wall cabinets, divided sink with laundry tray, base cabinets. Utility room with automatic water heater, central hall.



AB29344 - Saw sharpening fixture. Treycos Products, Buffalo, N.Y. Holds and turns saws to insure precision sharpening, keeping saw perfectly round. Self-contained unit. Sharpens three types of circular saws with two grinding wheels. Index grips.



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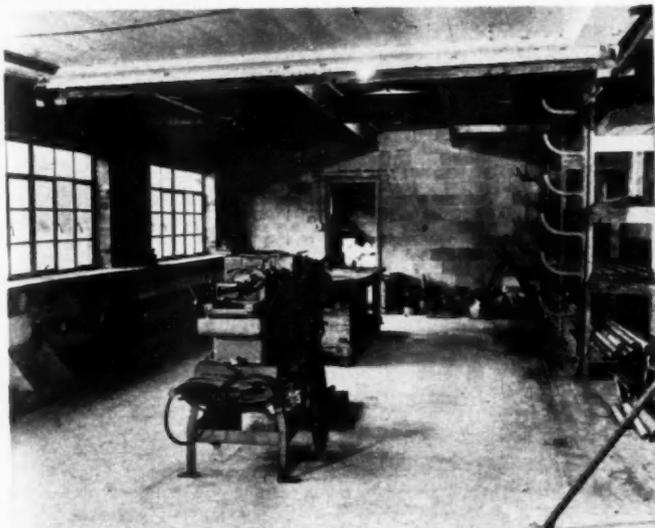
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INTERIOR of plumbing shop, part of large assembly room



INTERIOR view of large assembly room showing "jig" tables

skilled laborers, who fabricate the necessary wall sections required for the houses planned for the current project. Corace has recognized that labor wants steady jobs. By the assembly line method, year-round employment can be assured, with an hourly wage rate under the amount required for spasmodic or irregular employment. With sixty per cent of the workmen unskilled, this method produces a considerable saving in costs.

A crew of seven men in the fabricating plant can turn out one house per day regardless of the weather. A crew of five men can erect and close in completely in one day a unit in the field, regardless of the weather. These units can be protected from weather conditions effectively, and are easily stacked on the site.

The type of houses built by Corace are one-story, brick veneer homes. Sixty per cent of the job is done in the factory. The organization is streamlined and set up to produce 290 \$9,000 houses a year. When all work on a group of houses is completed in the warehouse, the sections

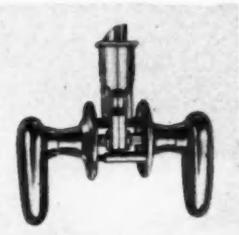
LARGE stock piles of lumber with woodworking machinery conveniently located



REVIEW BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB29294—Muller plaster mixer. Muller Machinery Co., Metuchen, N.J. Six cubic foot capacity. Driven by Briggs & Stratton engine through heavy roller chain drive. Equipped with bag shelf and bag splitter. Telescopic towing bail provided.



AB29353 — Wright tubular latch. Wright Products, Inc., St. Paul Park, Minn. For inside doors. Four working parts. Elongated oval-shaped knob. No locking features. Operates with one simple action. Wright latches with lock sets unlock by pushing knob.



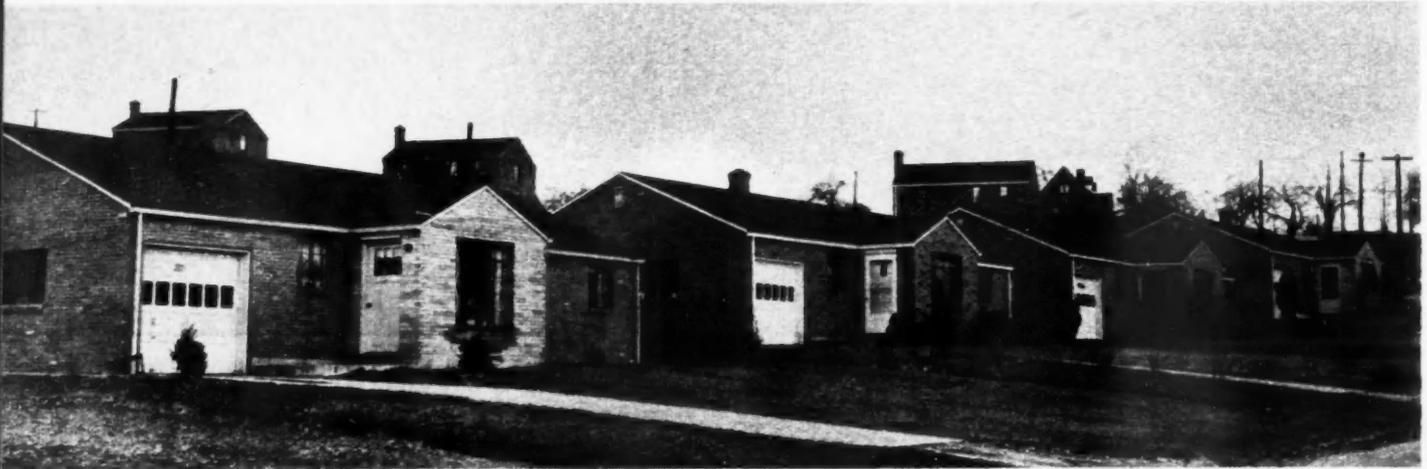
AB29358—Bilt-Well basement window. Carr, Adams & Collier Co., Dubuque, Iowa. One product of compete Bilt-Well wood work line for apartments, residences, or large-scale housing projects. Modular standards production. Kiln-dried Ponderosa pine.



AB29361—Bruce finished flooring. E. L. Bruce Co., Memphis, Tenn. Hardwood strip, available in all standard sizes. Filled, finished, waxed, polished at factory, ready to use. Infra-red ray heat is used to set and toughen the finish. Fine resistance to wear.



AB29347 — Vikon metal tile. Vikon Tile Corp., Washington, N.J. Original individual metal tiles. Lightweight steel, aluminum or stainless steel. Available in 27 colors. Durable synthetic enamel surface. Fire-resistant and waterproof. Seal against insects.



PARTIAL street view of the 1948 project. All rooms including garage are placed on one level. Basementless construction

are taken out to the job site on a truck. There are three truckloads per unit. The units are so designed that they are easily handled by not more than four men. No handling precautions are necessary during transit because the finishing process on panels is done on the job. Each project on a job is completed before the next one is started.

The time schedule of operations coincides with the weekly payroll distribution. Costs, production, and distribution are analyzed and set up at a weekly evening meeting with all the superintendents present. This system has proved most effective. In a system of this type, weather conditions must be considered. A typical weather report could be drawn up from a scrutiny of the time sheets. For instance, the unit cost for plumbers during a rainy week may run double the cost of work done during clear weather. The additional cost in time and labor is charged against the individual unit in process of work.

In the selling of these homes, Corace maintains a sales organization within his own company. This consists of two persons. These employees interview prospective home buyers and gather statistics for a

market analysis. Statistics are kept on every house built and sold. In this manner Corace knows how much the buyer can reasonably be expected to pay for a home. He also knows the size that the home should be, and the type of environment in which the buyer wishes to live. With these figures as his guide, he can know with assurance the type of house to build that will sell easily and quickly.

To qualify the above statement, the builder cites the example of the present project now under construction, located in an industrial area. He has found that a three-bedroom house is a necessity, because the statistics tell him that there are two and a half children per family in the project area. The average weekly income of the prospect is \$61.50. This allows \$60 to be made as a reasonable monthly home payment. Thus, the company does not need an outside sales organization, because they have analyzed the market to determine the most popular type of house, and the most popular price on that house.

Corace's organization builds specifically for the industrial worker of the Pittsburgh area. From statistics, he finds the average saving of the industrial worker is \$750 per family. He

gathers from this, that the down payment must be kept low. This builder has found it important to consider the financial condition and possibility of the area's potential prospects, before starting the planning of a project.

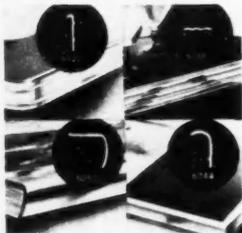
Working upon the facts that had been gathered, Corace, immediately after the war, started building homes with a 1,071 square foot area, plus 250 square feet for the garage. These were sold for \$8,900. The second group were built in 1947 with an 875 square foot area, which sold for \$8,800.

Confronted with the round of wage increases in 1947, the third and present project was reduced in floor area to 837 square feet. This was considered the minimum size to meet the industrial worker's requirement. In spite of the area reduction, the builder was forced to increase the price \$200 per unit, making the sales price of the 1948 house \$9,000.

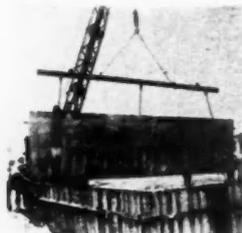
Corace supervises the work of both the productive and non-productive departments. The superintendents are directly responsible to the builder. Each superintendent employs, dismisses and trains his own men.

Plans for 1949 include a 290 unit project to be built in the same manner.

BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB29350 — Chromtrim line, metal trim. R. D. Werner Co., Inc., New York, N.Y. Twelve metal moulding shapes designed for quick, easy installation by average home mechanic. Screw-type fastenings. High lustre finish. Wide flanges. Basic design.



AB29360 — Bulldog concrete forms. Bulldog Concrete Forms, Inc., New York, N.Y. Basic form, 2x4 feet steel panel, set horizontally or vertically to assemble pattern of footing, tie beam, column or other structure. Wide variety of other widths available.



AB29346 — Strong-Bilt full-wall panels. The Upson Co., Lockport, N.Y. Six-ply, 3/8-inch laminated wood fibre. For walls and ceilings. Permanently crackproof. Can be installed any month of year by same carpenters who erect the framework. Floating fasteners.

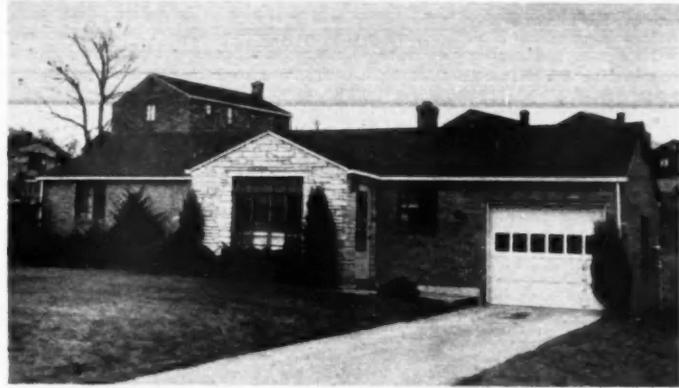
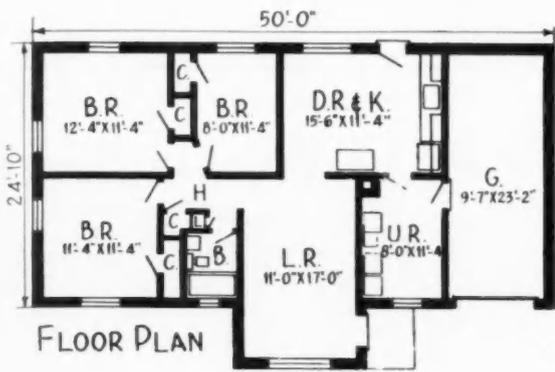


AB29295 — Muller 3 1/2-S mixer with power loader. Muller Machinery Co., Metuchen, N. J. Automatic water measuring tank. Large skip, wide throat permit fast clean discharge. Water tank mounted on discharge side. Pneumatic-tired disc wheels included.



AB29352 — Wiremold's No. 1900 Plumgold, electrical outlet. The Wiremold Co., Hartford, Conn. Plug in anywhere. Thickness of standard baseboard. Becomes integral part of trim when installed on top of baseboard, molding added, and all painted to match.

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THIS HOUSE built in 1946 contains 1,071 square feet plus 250 square feet for garage. The sale price is \$8,900. Plan of house at left



THIS HOUSE built in 1947 contains 875 square feet complete with basement and garage. The sale price is \$8,800. Plan of house at left



ARCHITECT'S rendering of the 1948-49 version of house now in process of construction. This house contains 837 square feet and will sell for \$9,000. Basement under house contains garage with space for utilities



ANOTHER version of the 1946 house with all features on the ground floor. For comparative purposes refer to 1948-49 version at left

BUILDING PRODUCTS ON REVIEW - BUILDING PRODUCTS ON REVIEW - BUILDING PRODUCTS ON REVIEW



AB29348 — Hettinger's Triple Seal combination sash balances and weatherstripping. The Weatherproof Products Corp., Kansas City, Mo. For double-hung sash not exceeding 40x32 inches, glass dimensions. Also bulk purchases for mill installation possible.



AB29299—Nolan Router-Planer. Nolan Corp., Rome, N.Y. For woodworking. Routs, planes, bevels and rabbets by substituting correct cutting tool. Two models available. RP-3 standard machine has 20x41-inch work table, and 1/4-H.P. Universal motor.



AB29296 — Standard Youngstown Kitchensider cabinet sink, 42-inch model. Mullins Manufacturing Corp., Warren, Ohio. Double bowl sink top. Sliding drainboard which can be moved to cover either bowl and provide work space. Undersink storage.



AB29298—Zern Door Jig now Neapco Portable Door Jig. Neapco Products, Inc., Pottstown, Pa. Incorporates hinge template clamps. Holds jamb and door together in correct relationship. Hinge recesses cut in door and jamb simultaneously. Packaged in case.



AB29297 — Zephyr All-Season awnings. The National Ventilated Awning Co., Dallas, Texas. Beauty, ventilation and protection for homes or commercial buildings. Aluminum or California redwood. Variety of sizes, shapes and colors immediately available.

Mills and Sons Sunset Park

They Make the Most of SHORT CUTS



LEFT TO RIGHT, L. H. Mills, president of Mills and Sons firm, and his two sons, Jack and L. H., Jr., who supervised construction. Roy Tuchbreiter, right, president of first insurance company in Illinois to finance housing

HOW TO achieve quality low-cost housing, one of the builder's number one 65-dollar questions, has recently been answered, by this firm. It is explained, mainly, in three words: short cut methods.

In every detail of construction, from basement to roof, this firm takes advantage of short cuts. The firm, Mills and Sons, recently completed the 191-house Sunset Park

project, in Elgin, Ill., the first housing project in the state financed by an insurance company. Low-cost housing was a must here, since the project primarily was for G.I.'s and their families. Mills and Sons had the opportunity to employ most of their short cut methods on the project.

Impetus for this subdivision came from the Mayor of Elgin, Walter E. Miller, who appealed to

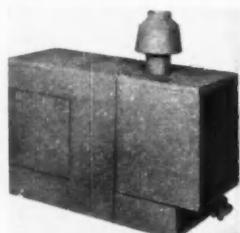
Illinois' Governor Dwight H. Green to stimulate insurance company interest in financing housing in that state. Governor Green went to Roy Tuchbreiter, president of one of the largest financing organizations in the state, the Continental Assurance Co. The company financed the project.

Mills and Sons completed and sold the houses for \$9,325 and \$11,750. Why they were selected for

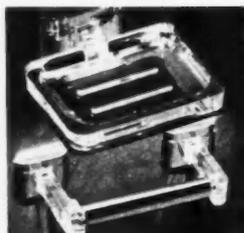
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AB2978—"Space-Saver." Kelvinator Div., Nash-Kelvinator Corp., Detroit 32, Mich. Package includes a 6-foot capacity refrigerator, and electric range with complete cooking facilities. Both designed for maximum utility within limited floor space. Easy operation.



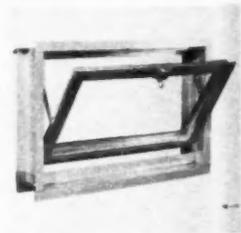
AB29288—Mechani-Core Model 100 furnace. Mechanical Home Systems Co., Dallas, Texas. Used with all gases. Input, 90,000 B.T.U.'s. Output, 72,000 B.T.U.'s. Width is 18 inches. Height, 30 inches. Length, 48 inches. Built-in plenums. Propeller type fan.



AB2952 — Crystalchrome bathroom accessories. Hall-Mack Co., Los Angeles, Calif. Accessory units in crystal and polished chrome, surface and recessed fixture types. Towel bars, soap holders and tumbler holders forged from solid brass, chrome plated.



AB2983—Cuprinol wood preservative. Cuprinol Div., Darworth, Inc. Simsbury, Conn. A liquid rot-preventative, applied by brush, spray or dip on job. A few gallons will treat all members on a house that are subject to rot. Preservative can be painted.



AB29290—Ventilating window for glass block openings. Modern Electric Laboratory, Chicago, Ill. Stainless steel. Head and jams have ample strength to support load. May be furnished with tubular stainless-steel screen frame and a plastic screen.

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the job is partially explained by the long building reputation of their firm. Mills and Sons Construction Co. was started in 1887. The firm is now represented by second and third generation members, who combine 60 years of home building experience in working out short cut methods.

Coordination of men, equipment and materials to take advantage of time is represented in their work. Because of the rolling nature of the ground at the Elgin project, about 80 per cent of the area had to be gone over with heavy dirt-moving equipment. Immediately afterwards, the first major short cut method was employed in Sunset Park—the construction of all foundations before any other progress. This was done to take advantage of favorable weather.

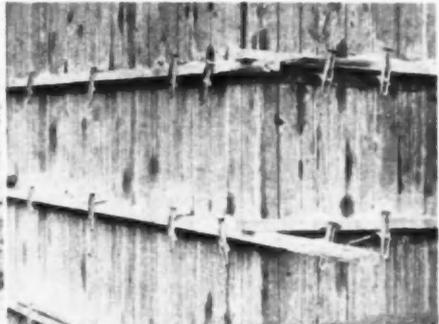
Concrete forms were made on the building site at a centrally located mill or shop that was set up immediately after the ground was cleared. The forms, specially made from directions supplied by a concrete form manufacturer, were equipped with factory-made accessories. Half of the concrete was ready-mix; the remainder, mixed on site. Six sets of forms did the complete job. They were made of 2x12 clear-grade fir, scored down and back to prevent tendency to curl from moisture. Salvage value of the forms was 20 per cent.

Streets were "roughed-in" after the foundations were completed. Here an economy was achieved by laying pit-run gravel, and allowing it to be used for teaming and trucking, so that by the time the project was almost completed, the streets were well compacted. The streets were the last to be completed. Pavements were provided, with rolled curbs and sidewalks.

All framing for the project was done in the central shop. This



SIX sets of forms made on building site were used to complete 191-house project. Forms had 20 per cent salvage value



FORMS, made of 2x12 clear-grade fir, were scored down back to prevent tendency to curl. Accessories were factory-made



TWO LARGE portable generators on trucks were used to run total of 18 power saws. At this shop, centrally located in Sunset Park, precutting made greatest time-saving



SMALL trailers saved costly tie-up of trucks. Load of materials can be left in front of house where needed until trailer is empty, then one truck can pull trailers back

REVIEW BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW



AB29293—Modine convactor radiation. Modine Manufacturing Co., Racine, Wis. New line incorporates four enclosure styles, three in heavy-duty institutional line. All dimensioned in modular units. Curved outlet air grille within enclosure. Attractive design.



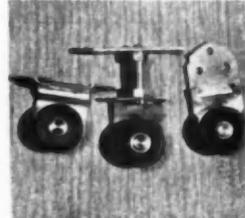
AB2980—Series "900" unit interior latch set. P. & F. Corbin Div., The American Hardware Corp., New Britain, Conn. For interior doors in residences and small apartments. Operation by knob from either side. Each set a complete unit. Easy to use.



AB2957—Grounding type duplex convenience outlet and caps, No. 5262 line. Bryant Electrical Co., Bridgeport, Conn. For grounding exposed metal parts of portable appliances. Outlet, 3-wire, has two current-carrying outlets. Available in brown and ivory.



AB2977—Spee-D-Dri enamel. Central Paint & Varnish Works, Inc., Brooklyn 1, N.Y. For use on interior and exterior surfaces. An all-purpose, quick-drying enamel that contains Permalene, a film conditioning ingredient. One coat covers most surfaces. Dries fast.



AB29287—Har-Vey rolling door hardware. Metal Products Corp., Miami, Fla. Rust-proof. Oilite bearings, stainless steel roller pin. Track of aluminum, hanger and doorplate of bronze. Hardware fits any rolling door for residential use. Attractive.



TWO basic floor plans, 27 front elevations were used. Lot sizes, 50x135 feet

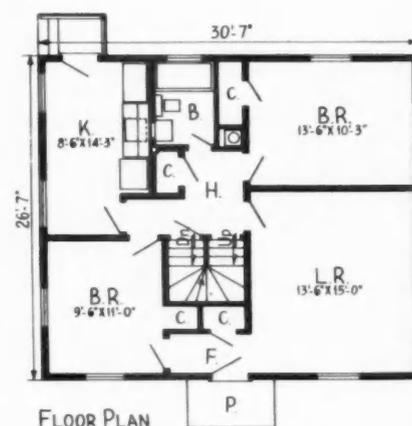
major time-saving procedure was done by power saws run from portable generators mounted on trucks. One large generator powered twelve power saws; another smaller unit, six. Besides cutting all framing members, the shop also turned out all back porch stair assemblies and basement stair assemblies.

A short cut method was used to prevent tying up trucks on the job. Small trailers, pulled behind trucks, transported all materials from the shop to the building fronts. A trailer with materials needed at a particular house was unhooked, and the truck pulled the next trailer on to the house where it was needed. Later, when trailers were empty, one truck could go back to

pull them all to the shop. The result, fewer trucks needed, and a lower height for workers to reach in unloading and loading, and the resultant savings in time.

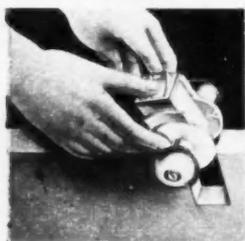
To streamline the job of house framing, one carpenter crew for Mills and Sons assembles the first floor framing, while another crew follows up by finishing the roof. As much as possible, all labor crews worked on the Sunset Park project in this manner. The theory, of course, that greater specialization means greater skill and more speed. In other words, another short cut method.

Flooring for bathrooms and kitchens in Sunset Park are linoleum. The remainder of the floors are Bruce pre-finished streamline.



FLOOR PLAN FULL basements, as well as area for additional rooms in attic are provided

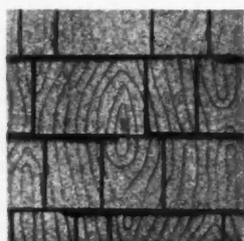
BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB2979— Series "900" cylinder lock exterior door set. P. & F. Corbin Div., The American Hardware Corp., New Britain, Conn. This unit lock is designed for use on better class residences and apartments. Automatic latch deadlocks against forcing.



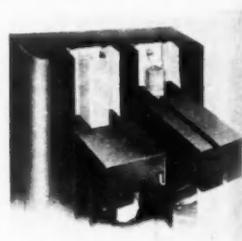
AB2984— Dianol Insecticidal paint. Dianol, Inc., St. Petersburg, Fla. An effective method for treating walls and woodwork. Recommended for use where food is handled. Dianol paint is a ready-mixed, flat interior wall finish applied with brush or spray.



AB29291—Shingle design insulating siding. Insulite Division of Minnesota and Ontario Paper Co., Minneapolis, Minn. Manufactured on core of Graylite insulation board. Granules form exterior surface. Silver or golden blend colors are now offered.



AB2986—Screen Door Catch. The Yale & Towne Manufacturing Co., Stamford Div., Stamford, Conn. Catch made of drop forged, solid bronze, has easy push and pull operation. Button on inside locks handles for extra protection. Both attractive and practical.



AB29289—Bronze spring cover for Milwaukee combination sash balance weatherstrip. Milwaukee Stamping Co., Milwaukee, Wis. Cover, which is optional, conceals steel balance springs that otherwise are seen when windows are placed in down position.

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Exterior wall finish is cedar siding; interior, two coats of plaster, sand float finish.

Roof covering is 210 pound asphalt shingle. Standard wood sash windows are installed, and white pine 6-panel doors.

Insulation material used in the houses is Sisalation, by Sisalkraft. In preparing this material, a special jig, used to cut the Sisalation, speeded up application. The jig is another short cut device.

Gas-fired, gravity warm air furnaces were installed, as well as modern kitchen and bathroom equipment. All hardware is solid brass finished.



JIG, made at on-site shop, is used to speed up application of special sheathing-insulation material. Exact lengths of the material can be quickly cut, without necessity of measuring. Material feeds across jig table from roll on one end

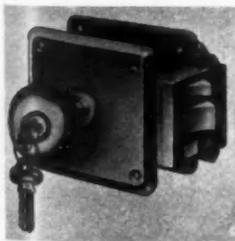


POWER saws, with power supplied from generator mounted on truck, were used anywhere on the site they were needed. The men worked in specialized crews

MATERIALS USED IN SUNSET PARK PROJECT

- LeTourneau dirt moving equipment
- Sisalation reflective insulation and Mineral Wool batts
- Flintkote, 210-pound asphalt shingles for roofing
- Skilsaw power saws
- Bruce Streamline, prefinished flooring
- Bryant gas-fired, gravity warm air furnaces
- Youngstown kitchen equipment
- Crane, Kohler, and American Standard bathroom equipment

REVIEW BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB2981 — Commercial Unit lock. P. & F. Corbin Div., The American Hardware Corp., New Britain, Conn. Sets are shipped assembled. Frame is one solid piece. Lock is adjustable to different thicknesses of doors. Can be masterkeyed when required.



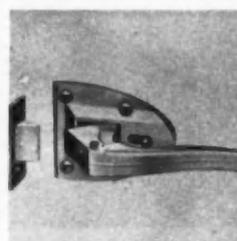
AB2922 — One-pipe steam heating system. Modine Manufacturing Co., Racine, Wis. Quiet-Seal unit causes steam, condensate and air to flow in one direction. Heat output modulated by built-in damper. Convectors available in 10 lengths and four heights.



AB2982—Little Wonder dual prime centrifugal pump. Construction Machinery Co., Waterloo, Iowa. A necessity for dewatering small excavations, sumps or basements. Powered with 1 H.P. air-cooled engine. Fast priming, large capacity, fewer parts, easily portable.

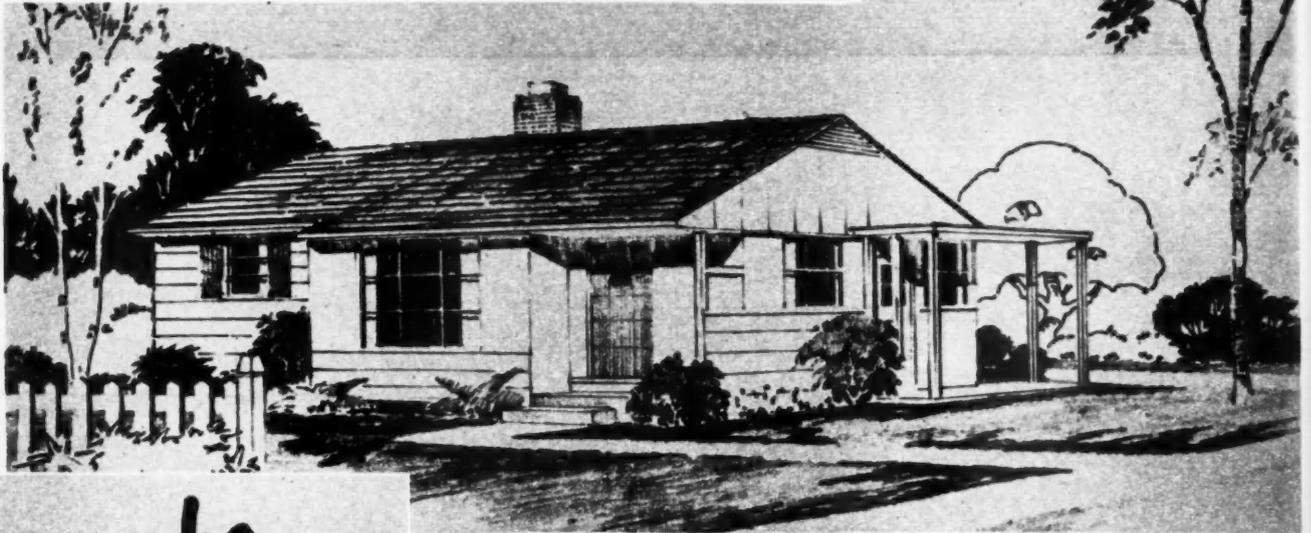


AB2985—Floor seal. American Floor Surfacing Machine Co., Toledo, Ohio. A new fast-drying sealer and finish for floors, made only in a clear natural finish. Entire job of surfacing, sealing and waxing can be done in one day. A time saver for owner.



AB29286—Mauro double hung safety window. Mauro Safety Window Co., Inc., Brooklyn, N. Y. Lower sash can be tilted inward to any desired degree. Easy indoor cleaning of window. Full height movement of both sashes. Air-tight weatherstripping.

AMERICAN BUILDER'S Low-Cost House



Anicka
Blueprint
House No. 25

THE SIMPLE lines of the basic low cost house design, are further enriched through its well-balanced proportions. Standard building materials are effectively employed

One Basic Plan With Five Variations

BUILDERS and architects everywhere recognize the fact that the year 1949 will usher in a period of building, where the emphasis will be definitely placed upon low-cost housing. All efforts are being pointed toward producing a house that will offer the maximum livability for the minimum cost. While prices still remain at a high level, the builder is encouraged to attempt a solution, through the return of the competitive market, as it applies to both labor

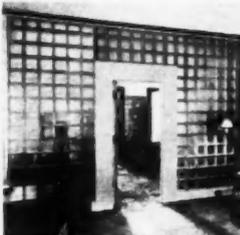
and materials in various markets.

Presented with the challenge of designing a house to meet these demands Architect Walter T. Anicka, Ann Arbor, Mich., responded with one basic plan and exterior, with three alternate plans and four exterior arrangements. The alternate plans do not in any way change the basic room layout. They supplement the original design through the addition of garage or porch and garage. These elements are placed in various posi-

tions with relation to the body of the house, thus creating a group of inexpensive yet interesting exteriors. In the original and two of the alternate designs, the living room faces toward the front of the property. In the other two designs, the kitchen side of the house, together with the garage, is oriented toward the street.

With these simple changes in the alternates, Anicka has been able to produce four distinctly different de-
(Continued to page 161)

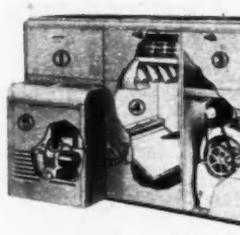
BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB29302 — Set-in-Wood glass block panels. American Structural Products Co., Toledo, Ohio. Wood strips as alternative for mortar. Doors, windows and other standard openings can be set into panels. Portable. May be taken down, reused.



AB29317 — Sargent 4500 line, Precision lock sets. Sargent & Co., New Haven, Conn. One lock case can be applied to any door regardless of swing or handling of that door. No knobs or rose screws used. Aligning tube prevents faulty application.



AB29306 — Climatrol heating, air conditioning equipment. L. J. Mueller Furnace Co., Milwaukee, Wis. Winter air conditioning furnace and summer cooling unit. May install basic Modular unit, then expand to add rest of unit as desired. Gas or oil-fired.



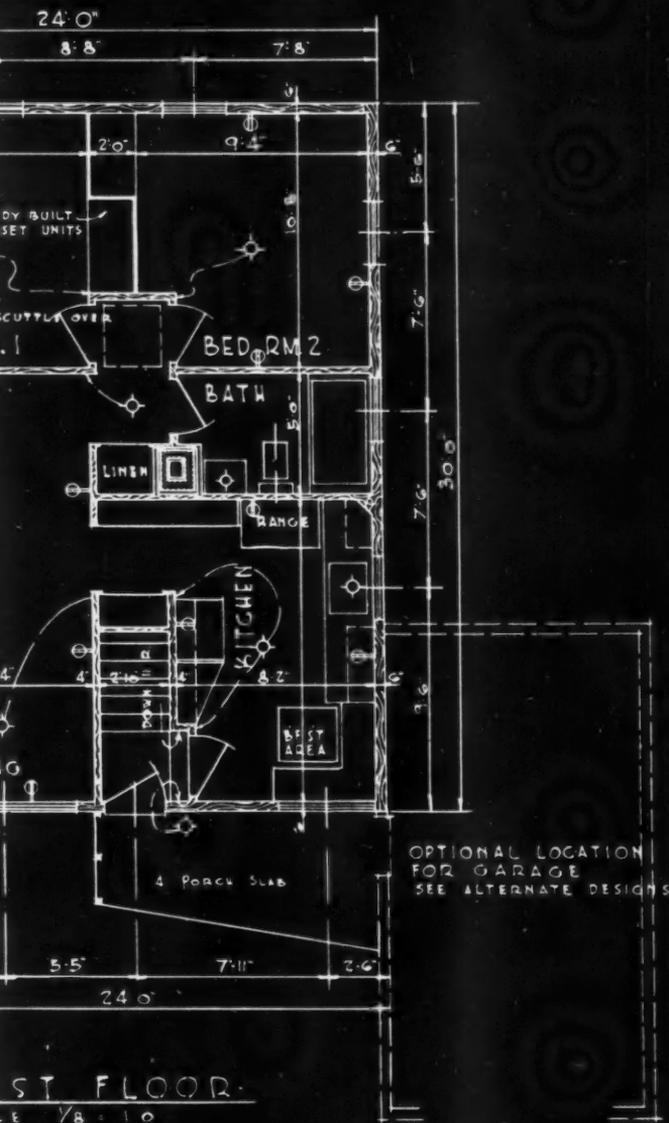
AB29305 — Pearson asbestos board cutter. C. Pearson Manufacturing Co., Lake Villa, Ill. For cutting 4x8 feet asbestos sheets or shingles of any kind. Serrated tempered steel blade. Length is 24 inches. Weight is approximately 4 1/2 pounds.



AB29310 — J-D kitchen cabinets. J-D Products Co., Des Moines, Iowa. Continuous shelving for maximum utilization of kitchen space. Row of cabinets with wood end panels applied on exposed end of row. All units individually packed with the hardware.



FRONT ELEVATION



FIRST FLOOR

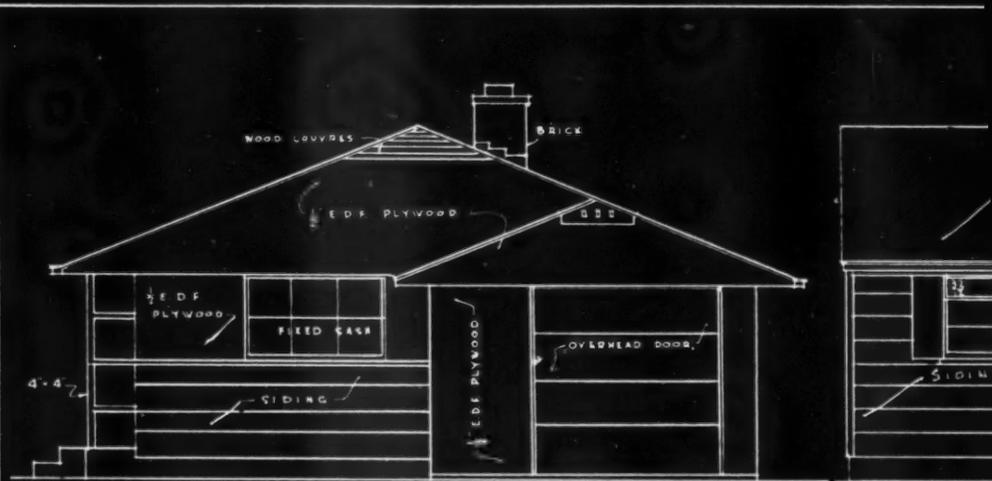
OPTIONAL LOCATION FOR GARAGE
SEE ALTERNATE DESIGNS

DESIGN No. AB 138

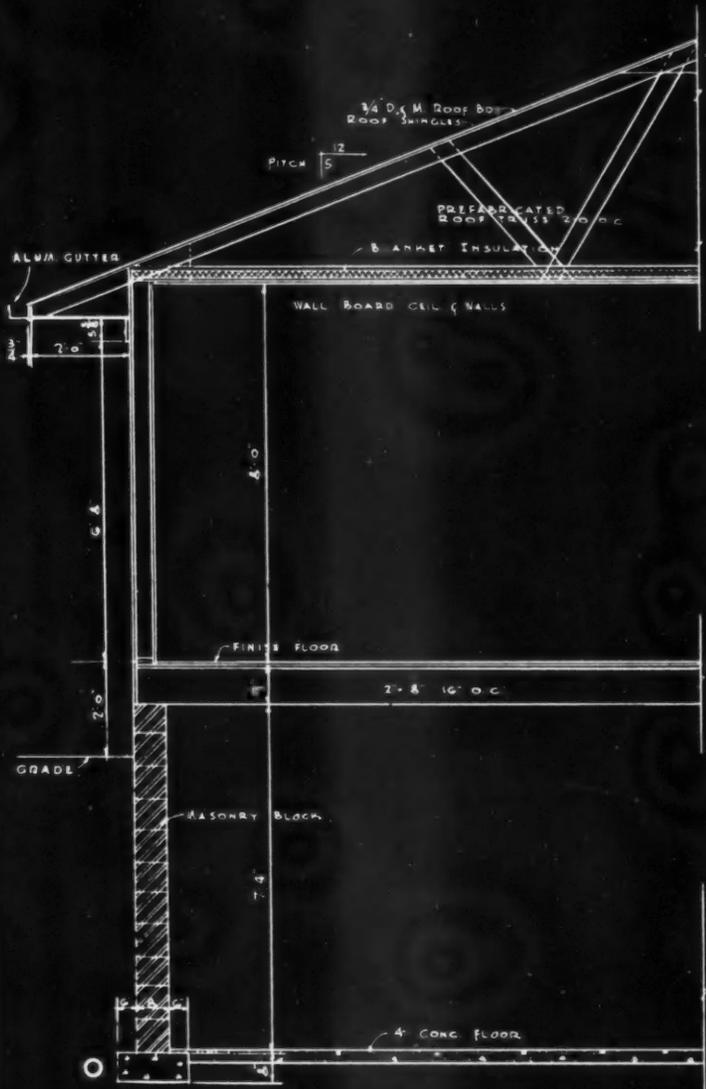
AMERICAN BUILDER BLUE PRINT SERIES
Designed By

WALTER T. ANICKA, ARCHITECT.
Ann Arbor, Michigan.

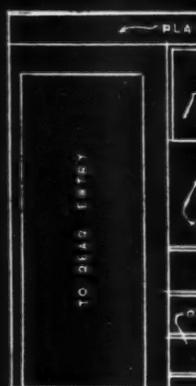
Simmons Boardman Pub. Corp. 105 W Adams St. Chicago, Ill.

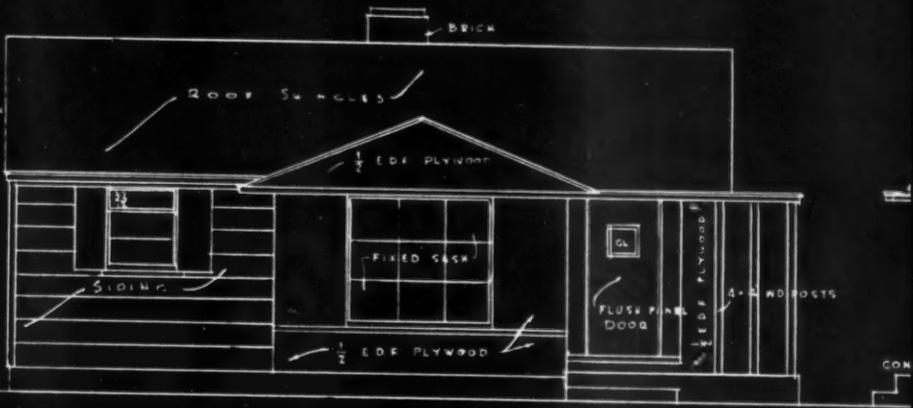


DESIGN - 2

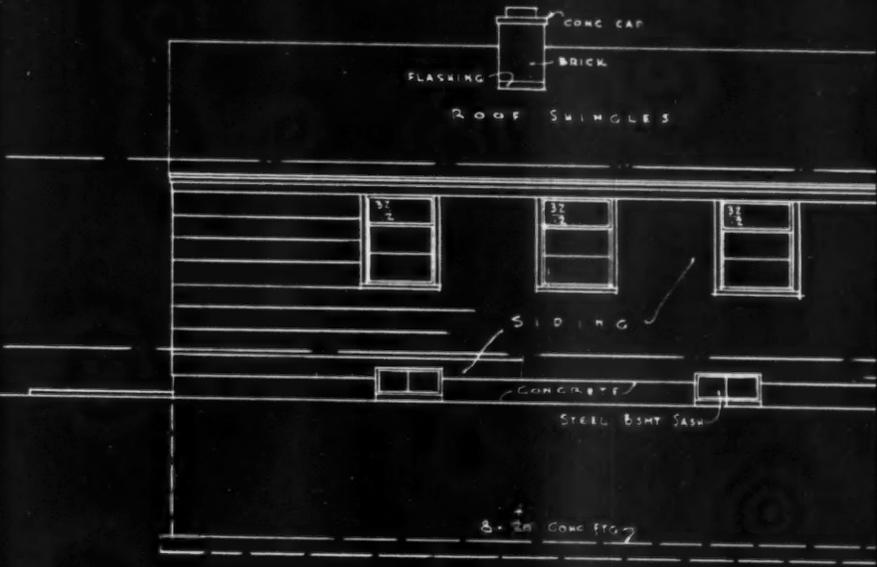


TYPICAL WALL SECTION
SCALE 3/4" = 1'-0"



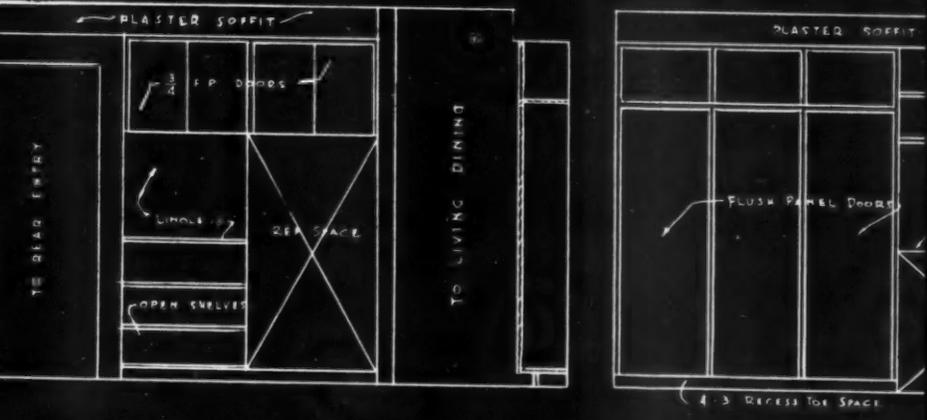


DESIGN - 3
ALTERNATE ELEVATION

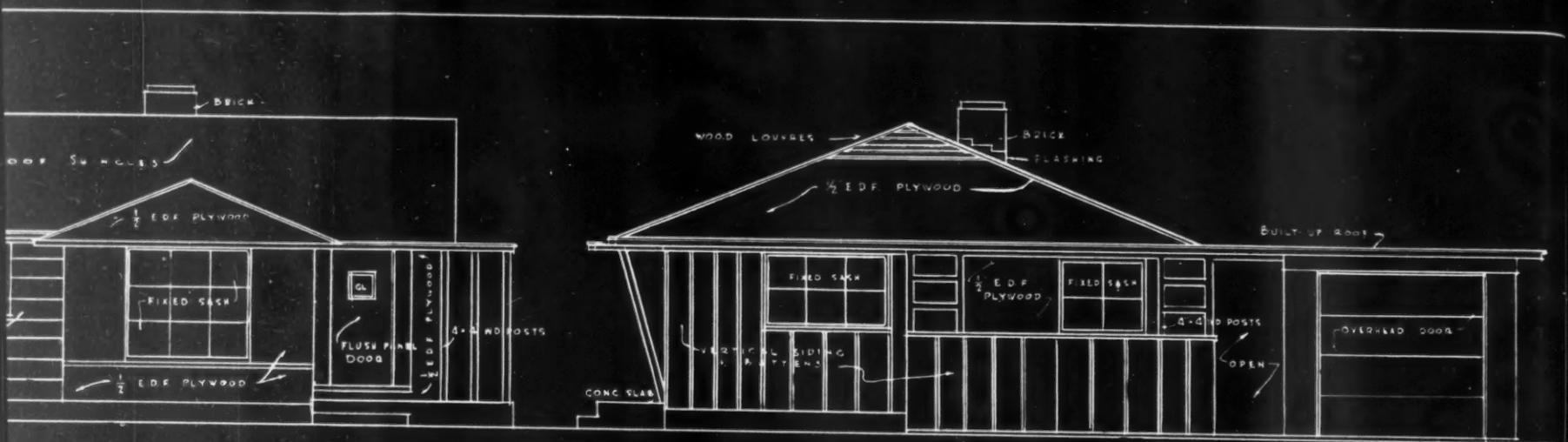


RIGHT ELEVATION

50

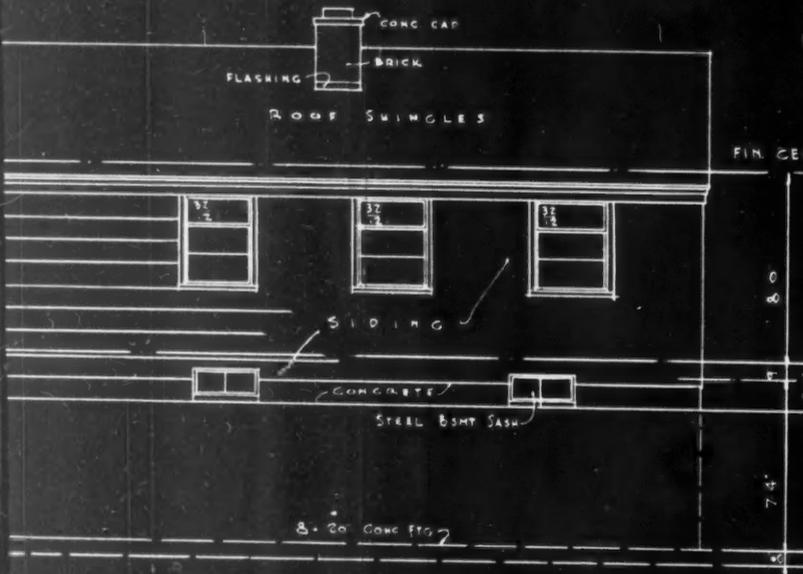


KITCHEN CAB
SCALE 1/4" = 1'-0"



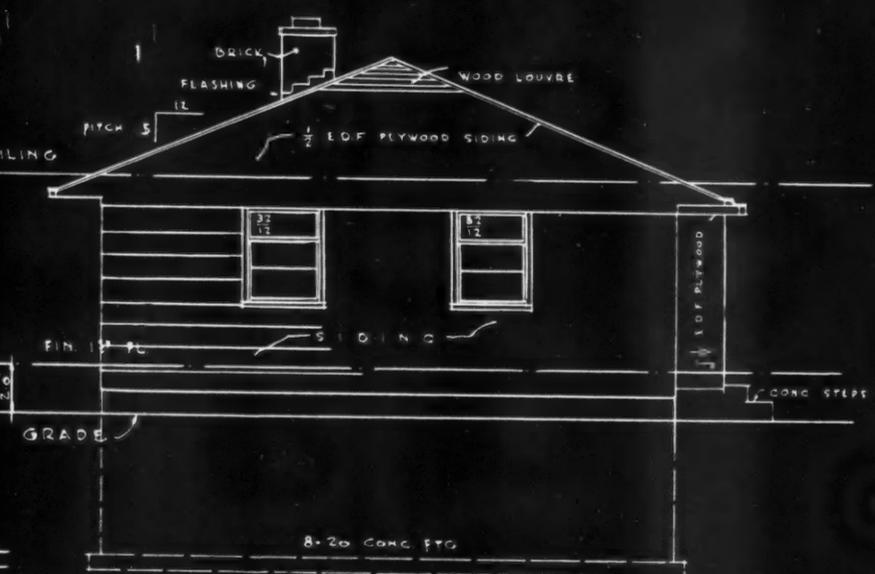
DESIGN 3
ALTERNATE ELEVATIONS

DESIGN 4

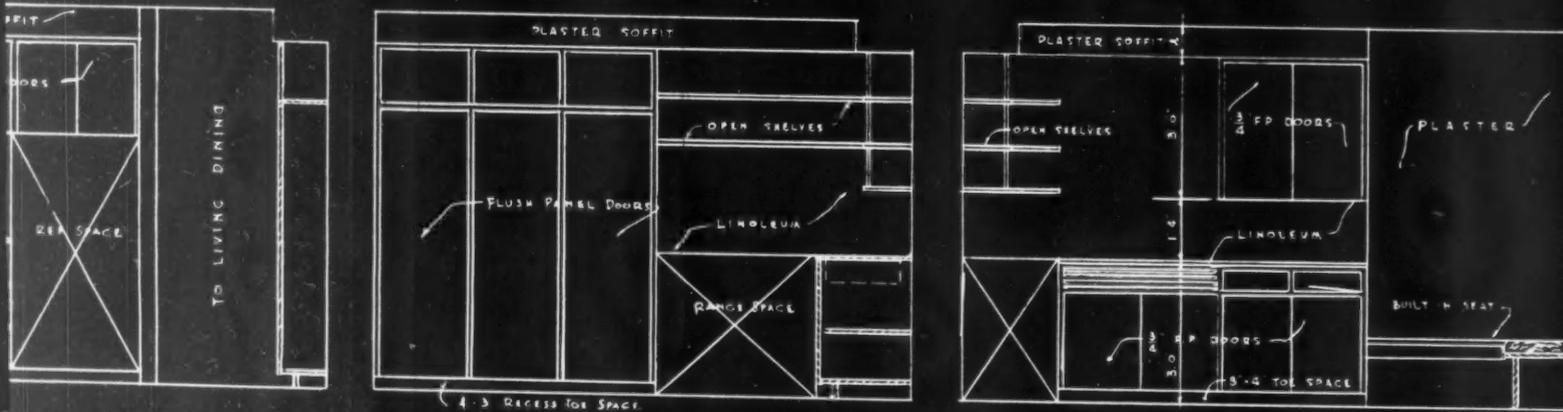


RIGHT ELEVATION

SCALE 1/8"=1'-0"

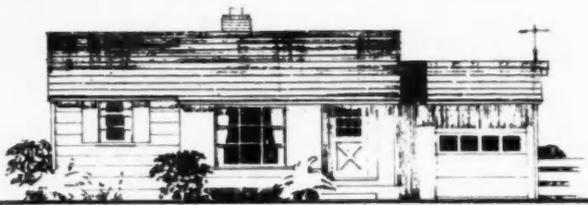


REAR ELEVATION

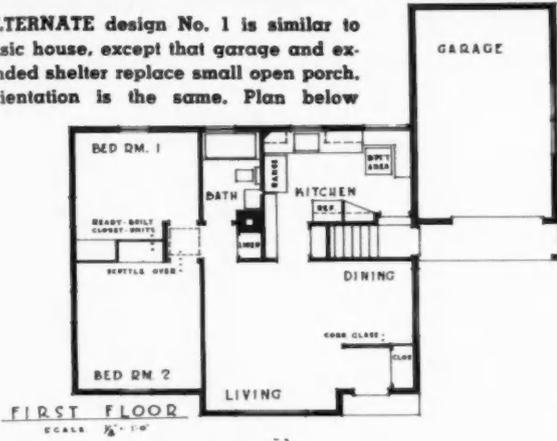


KITCHEN CABETS
SCALE 1/4"=1'-0"





ALTERNATE design No. 1 is similar to basic house, except that garage and extended shelter replace small open porch. Orientation is the same. Plan below



FIRST FLOOR
SCALE 1/8" = 1'-0"

IN ALTERNATE design No. 2, kitchen and dining room side-wall is oriented to street with garage extended. Roof arrangement is same. Plan above



FIRST FLOOR
SCALE 1/8" = 1'-0"



FIRST FLOOR
SCALE 1/8" = 1'-0"

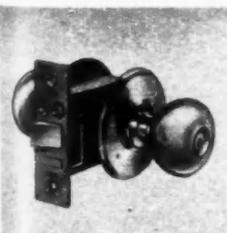
ALTERNATE design No. 3 not shown, is same as basic house, except for gable over bay. Treatment of garage and porch alter design No. 4

(Continued from page 156)
signs, all springing from the same basic plan. This has been accomplished by changing the character of the roof, the nature of the weatherboarding, and the alternate positions of the garage and porch. A feature that indicates good, sound planning, and one that produces economy in building, is the fact that in all the designs the windows and door fenestration remain the same, yet avoid a sameness in appearance.

Typical of the Anicka houses, are the economies built into the structure, such as the use of standard joist dimensions with a minimum of cutting, fabricated roof trusses, and dry wall construction.

Complete flexibility is contained in this 720 square foot house. Rooms are of average size.

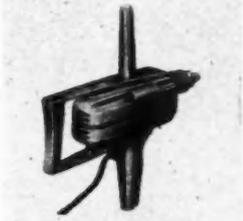
BUILDING PRODUCTS ON REVIEW - BUILDING PRODUCTS ON REVIEW - BUILDING PRODUCTS ON REVIEW



AB29318 - Sargent Integral Lock, AR design. Sargent & Co., New Haven, Conn. Mortise lock with small compact lock case. Key in the knob control. Offers decorative harmony through many different, attractive finishes and the use of a small round rose.



AB29313 - Speed control for No. 210 Deluxe Blo-Fans. Pryne & Co., Inc., Pomona, Calif. Provides selection of eight positions. Blo-Fan, in three sizes, combines breeze fan and blower principles. Speed control provides regulation for proper ventilation.



AB29309 - Model .510 Hi-Power, 1/2-inch electric drill. Portable Electric Tool, Inc., Chicago, Ill. Balanced armature. Lightweight. Universal AC-DC motor. Blower-type fan for air cooling. Removable side handle for easy close quarter drilling.



AB29314 - Raynor Graduated Seal for Up and Over wood sectional doors. Raynor Manufacturing Co., Dixon, Ill. Used in conjunction with tapered track. Seals each section of the door against jamb or molding when the door is in a closed position.



AB29301 - Clearview Visors, outside venetian blinds. Outside Venetian Blind Co., Dallas, Texas. Effective as storm shutter during cold months. Reduce inside temperature during hot months. Made in any style or size. Wide choice of colors. Blend with any type.

Home Is the Average Man's Most Important Possession

Building Code Problems Are Up for Discussion in Gotham

HOME BUILDERS ORGANIZED FOR AREA'S BENEFIT



Say Legislation Blocks Progress in Housing



East Side . . . West Side . . .
VISIT THESE MODERN HOMES
 built by
Progressive Cleveland Builders

Each home is equipped with a
MODERN GAS WATER HEATER
 Automatic . . . Underfired . . . Insulated

Chicago Home and Home Furnishings Festival
 Chicago Sunday Tribune

GREAT HOME FESTIVAL OPENS TODAY

MILLION HOMES IS 1948 GOAL OF PRIVATE INDUSTRY



52 PRIZE WINNING ROOMS, 71 COMPLETE HOMES ON DISPLAY

BY LAWRENCE BRAD
 (Special Tribune Staff Writer)

WASHINGTON, Sept. 15.—(AP)—A record number of new homes were built in the first nine months of 1947, according to a report issued today by the Federal Housing Administration.

Unfolding the Story of a Home

BY EDWARD DUBOY
 The month long Cleveland Home and Home Furnishings Festival which opens today, and the home "festival" which is being held in Chicago, are the greatest home building events in the history of the United States.



SECTION IV Newark Sunday News NEWARK, N. J., SUNDAY, SEPTEMBER 15, 1947

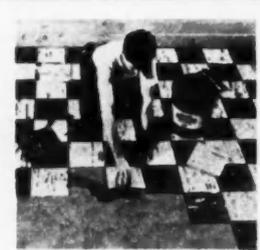
Jersey Builders Mark Home Week, Citing Progress



Display of Models In Demonstration State's Developers See Biggest Year in Dwellings Completed

Leaders See Dent In Homes Backlog

BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



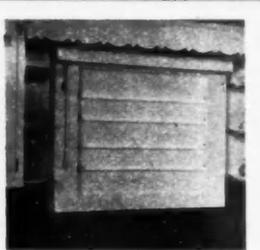
AB29323—Koroseal floor covering. Supplied by B. F. Goodrich Chemical Co., Akron, Ohio. In 18 solid colors, 18 marbled designs with matching or harmonizing extruded cove base. Non-porous. Installed on wood, concrete, steel, other surfaces.



AB29332—Janitrol, redesigned winter air conditioner. Surface Combustion Corp., Columbus, Ohio. Two horizontal, cabinet-ventilating scoops in cabinet front direct air over all controls. Six sizes, 40,000 B.T.U. input to 180,000 B.T.U. Attractive appearance.



AB29334—Ins-Cotton. Taylor Bedding Manufacturing Co., Taylor, Tex. Flame-proof, fire-retarding. Two new types added to line. Reflective type in double-coated envelope reflects radiant heat. Enclosed Envelope-type has complete vapor-proof barrier.



AB29330—Cold cathode fluorescent lighting unit. Sterling-Freeland Industries, Inc., distributors, Chicago, Ill. Instantaneous lighting. No flicker. Shadowless light, 10,000 hours life expectancy. Six foot cord. Fits flat against wall. Is easily transferable.



AB29328 — Streamline panel radiant heating. Streamline Pipe and Fittings Div., Mueller Brass Co., Port Huron, Mich. For homes, churches, offices, auditoriums, swimming pools, garages. Eliminates welded and screwed joints. No expansion cracks.

HOME WEEK *Is Paying Off*

Programs carried at local levels developed surprising publicity—everything from newspaper ads to radio broadcasts. Plan now for 1949

AN EXHAUSTIVE review of such statistics as could be collected on the results of National Home Week, held in September of 1948, reveal that what was originally expected to be a "pilot plant" operation turned out to be much more than that. Despite a much-too-late start in undertaking the program—due to the fact that the idea was only suggested to the National Association of Home Builders in February—the NAHB public relations department got the formal effort going in early spring and secured a remarkable amount of support from its local chapters.

The overall effect of the National Home Week programs, even though they were carried out only at local levels, was to develop a surprising amount of newspaper advertising and editorial space, scores of radio broadcasts, thousands of exhibit homes and hundreds of thousands of visitors to these homes.

The quantity of statistics, incomplete though they are, is impressive. And the quality is significant. Reports from 40 cities and towns where observances were held reveal that approximately 3,000 homes were exhibited in those communities. These were visited by just about one million people, based on actual counts in the majority of cities and conservative estimates in others.

That means that just about 3 per cent of all the homes built in 1948 were on display during National Home Week, some complete and furnished, some complete and unfurnished, and the others in the construction stage.

An estimated 19 per cent of the completed homes were furnished with furnishings whose value totaled around two millions of dollars. The value of the houses themselves is estimated to have exceeded 35 million dollars.

No accurate figure is available on the total amount of newspaper editorial and advertising space used, but there are accurate figures on these two items from 36 cities which reported. In the Sunday papers alone, approximately 50,000 column inches of editorial and advertising space was used. This does not include space used in the daily papers, both in advance of the week and during the week.

In addition to this newspaper publicity, only a small fraction of which was paid for by the builders themselves, there were about 60 radio broadcasts and two television shows.

These are the statistics that indicate that the first National Home Week was more than a small success. And instead of the mistakes pointing the way to improvement next year, as some had predicted would be the case, it is the suc-

cesses that hold the key to greater effectiveness.

For, so far as can be learned, the only errors were those of omission—things which might have been done, but were not. Apparently none of the efforts that were undertaken developed anything adverse to the industry, the public or the promotion.

At least 25 mayors issued proclamations for National Home Week, and so did the governors of nine states.

Examination of the individual efforts behind the statistics yields a fund of information on why the successes were achieved. This information combines into a pattern that can lead to an immeasurably more effective National Home Week in September of 1949.

There can be no question but that the Chicagoland Home and Home Furnishings Festival was the biggest single effort of all. The association gives the support of the Chicago Tribune the credit for this fact. The results in Chicago, therefore, are of great interest to home builders in other parts of the country who want to increase the effectiveness of 1949 programs.

Martin C. Huggett, executive vice president of the Chicago Metropolitan Home Builders Association, reports that the Festival was the most gigantic public relations program ever staged for the en-

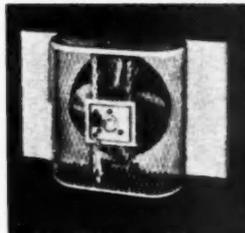
REVIEW BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW



AB29327—Gold Bond fibre insulation products. National Gypsum Co., Buffalo, N.Y. Insulation wallboard reduces noise. Available in 4-foot wide panels, 1/2-inch thick, in different lengths. Insulation file and plank has new interlocking edge. Easy to use.



AB29325—Anystream shower head. Speakman Co., Wilmington, Del. Model No. 1, Commander, incorporates self-contained adjustable joint which permits shower head to be moved into almost any position. Complete range of spray selections.



AB29320—Seco window fan. Seco-Lite Manufacturing Co., St. Louis, Mo. May be removed from window position, placed on floor, plugged into handy outlet. Serves as standard air circulator in any part of home or office. Fan completely enclosed.



AB29333—Plastic-coated plywood concrete forms. Symons Clamp and Manufacturing Co., Chicago, Ill. Waterproof fir plywood with layers of paper and plastic bonded to both surfaces provides face that concrete does not cling to. Resists abrasion.



AB29322—Sliding ultra-violet glass panels with Lumite plastic screen. Self Storing Window Co., Inc., Minneapolis, Minn. Three channel jambs permit two-thirds open area at three levels. Optional door location. Glass areas set in rubber. Five sizes.

couragement of home ownership, the promotion of confidence in the home building industry and the actual mass selling of homes. The effects of the promotion still are being felt—both by the builders and by the furniture and department stores who participated. According to Huggett, the results also revealed a lot of misconceptions about advertising of materials and equipment going into new homes. It showed that much national advertising of such products in consumer publications was ineffective at the local level where the builder controls material selection.

Four significant facts emerge from the analysis, which Huggett has stated as follows:

1. "Complete cooperative efforts are far more effective than those thinly scattered for the alleged purpose of producing the illusive 'public demand.'"

2. "This is an age of Operative Builders. They buy where and when they please and the public takes what reliable and responsible builders hand them without question because such builders possess public confidence."

3. "It is far more potent and effective to support home builders through advertising in their local newspapers, in the trade journals that serve them direct and in builders' local home shows."

4. "In such a practice, advertising and publicity are brought to the doorstep of sales, the builders are gratified and befriended and the advertisers wares are used, visibly displayed as preferable and sold to the ultimate consumer, knocking the 'consumer demand' idea into a cocked hat."

Huggett then sets forth some sales suggestions for the consideration of national advertisers. He points out that there are approximately 40 good home shows con-



SIGNS, similar to this one held by Mrs. Neva Wash, executive secretary of the Memphis Home Builders Association, were used by virutally every association which had exhibit and demonstration homes

ducted throughout the country by builder organizations each year. The population centers where these are held, he states, include about 80 per cent of all the non-farm housing built in the nation, and the builders buy every brick, stick and stone that goes into these houses.

National advertisers, he holds, should take these facts into consideration when they make up their budgets, and should plan participation in these events to concentrate advertising effectiveness.

The teaming up of builders and furniture dealers in the Chicagoland festival was one of the things that made the effort more productive for both groups. It indicates the wisdom of this kind of joint endeavor to other associations who can use a similar plan next year. And the tremendous advertising secured by the Chicago Tribune should help other associations to make more effective bids for newspaper support in 1949. The Tribune experience is in startling contrast

to that of the New York metropolitan newspapers which scarcely recognized National Home Week, and whose real estate sections looked no different than usual.

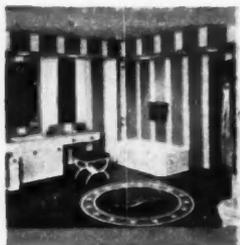
Equally good jobs in following out the "Parade of Homes" idea was done on a smaller scale in many of the smaller cities. Notable among these were Indianapolis and Fort Wayne, Ind.; Cleveland and Cincinnati, Ohio; Rochester and Albany, N.Y.; Detroit, Mich.; Amarillo, Texas; Sacramento and Los Angeles, Calif.

A number of associations took National Home Week as an opportunity to let their public officials find out what the building industry really was doing in their communities. They arranged bus or auto caravan tours of the various projects, explaining operations as they went along.

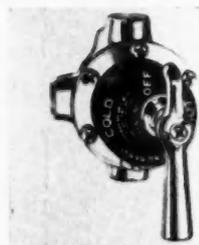
Such tours were reported very effective by Jim Funaro of the Cleveland Home Builders Association, by Joseph Entress of the Rochester (N.Y.) Home Builders Association and C. G. Yagel of the Richmond Home Builders Association. In Rochester, a local radio station made a recording of interviews during the bus tour for rebroadcast at a later time. The bus tour idea for officials and the press had been used successfully before National Home Week in California and Ohio efforts in 1947. Tours were held also in Salt Lake City and Shreveport, La.

Another effective stunt that was used advantageously in several cities was to enlist the cooperation and support of the building tradesmen in making the demonstrations a success. This made the builder's employees a definite part of the programs—as they had a right to be. In Rochester, each tradesman was given a printed pamphlet, explaining the purpose of National

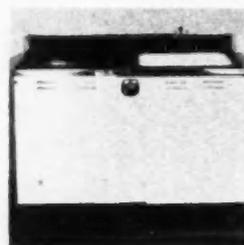
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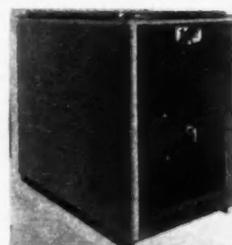
AB29336 — Flexachrome, for floors. Mura-Tex for walls. Tile-Tex Co., Inc., Chicago Heights, Ill. Laid tile-by-tile with waterproof cements over most smooth-solid surfaces. Sizes from 4½-inch squares to 18x24-inch. Extra units for stripping in widths.



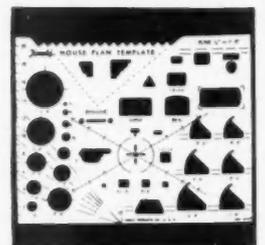
AB29324 — Sentinel valve. Speakman Co., Wilmington, Del. Balanced pressure shower mixing valve maintains water temperature at level set by bather. Works on water pressure. Working parts easily accessible and renewable from face of wall.



AB29337 — Thor Automatic sink combination. Thor Corp., Chicago, Ill. Clothes washer, dishwasher, sink. Operation of clothes and dishwasher regulated by one manual control. Tubs are changed to convert unit from clothes to dishwashing phase of unit.



AB29336—A-204 oil-fired winter air conditioning unit. Thatcher Furnace Co., Garwood, N.J. Has vaporizing burner. Capacity, 65,000 B.T.U. at register. Automatic. Height, 36 inches. Width 23½ inches. Length, 39¾ inches. Humidified. No. 1 or 2 oil.



AB29339—Timely House Plan Template. Timely Products Co., Columbus, Ohio. Speeds up and simplifies drawing conventional symbols for plumbing and electrical detail, door swings, moldings, gutters. Made of green-tinted and transparent plastic.

50,000 Column Inches in These 36 Sunday Newspapers Devoted to Editorials and Ads for National Home Week

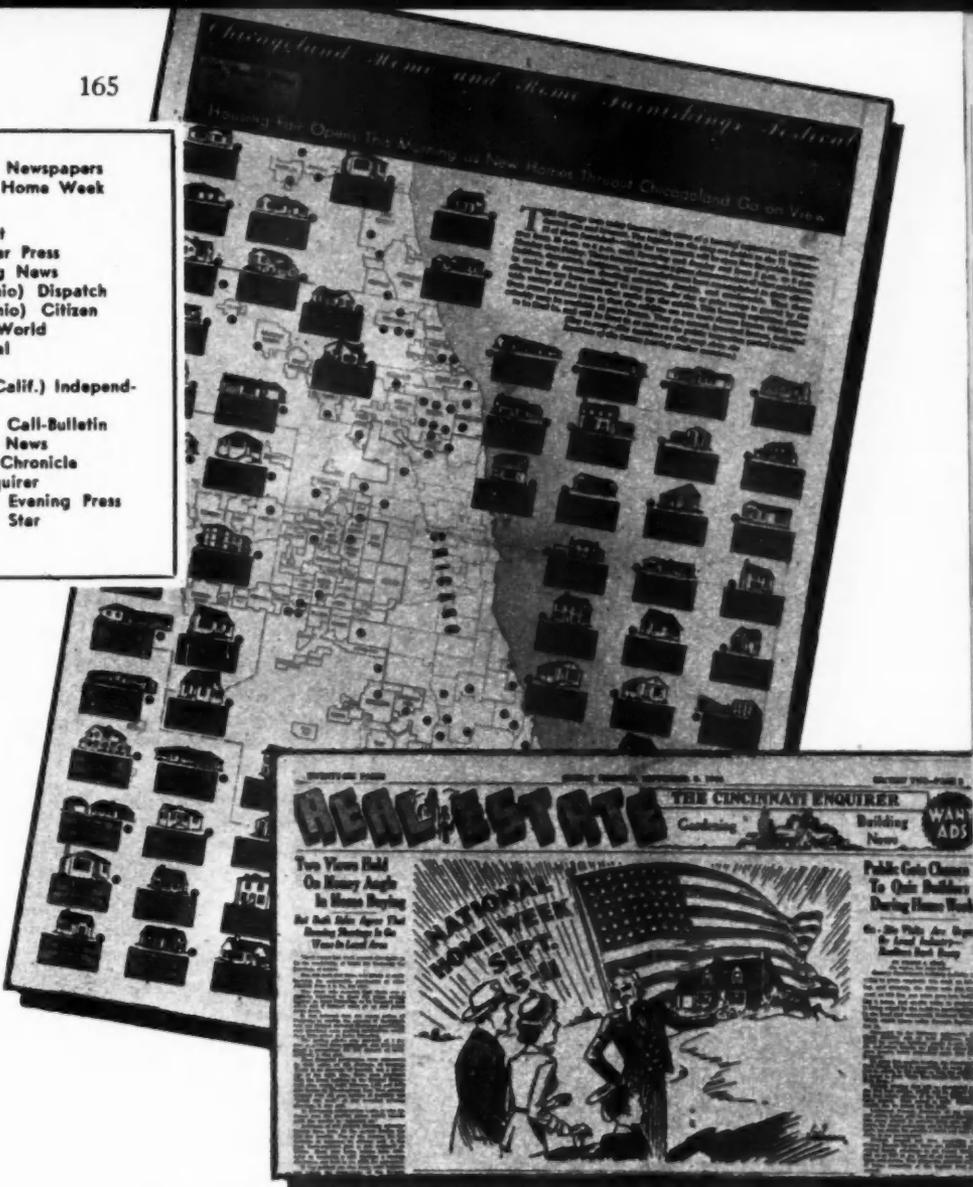
- | | |
|--------------------------------|----------------------------------|
| Chicago Tribune | Boston Post |
| Albany (N.Y.) Times-Union | Cincinnati Post |
| Indianapolis Star | St. Paul Pioneer Press |
| Indianapolis Times | Dallas Morning News |
| Newark (N.J.) News | Columbus (Ohio) Dispatch |
| Salt Lake Tribune | Columbus (Ohio) Citizen |
| Deseret (Utah) News | Tulsa Sunday World |
| Ft. Wayne (Ind.) Gazette | Oregon Journal |
| Ft. Wayne (Ind.) News-Sentinel | Detroit News |
| Cincinnati Times-Star | San Raphael (Calif.) Independent |
| Worcester (Mass.) Telegram | San Francisco Call-Bulletin |
| Dayton (Ohio) Journal | San Francisco News |
| Dayton (Ohio) Herald | San Francisco Chronicle |
| Amarillo (Texas) News-Globe | Cincinnati Enquirer |
| Sacramento (Calif.) Bee | Muncie (Ind.) Evening Press |
| Niagara Falls Gazette | Muncie (Ind.) Star |
| Rochester (N.Y.) Democrat | |
| Rochester (N.Y.) Chronicle | |

Home Week and asking this co-operation. The response was very gratifying, association officials reported. In Memphis, Tenn., the building trades held similar demonstrations of roofing, plastering, and plumbing.

Tulsa, Okla., which exhibited 25 homes, to some 4,000 persons, also held a "Public Affairs Forum" which attracted 600 people. Memphis, Tenn., conducted an essay contest to arouse public interest. In Pittsburgh, the week was tied in with the Free County Fair.

The variety of newspaper treatment of National Home Week was interesting. In nearly every city where special sections were printed in the Sunday papers, real estate and building materials dealers ran advertising along with that of the builders.

In a few cases, however, the papers did more than this. The papers in Fort Wayne, for example, each had a full page of short articles about various features in a home, each feature relating the progress and improvement made in the particular item with which it dealt. There were full pages of similar items about paints and var-



MANY newspapers devoted special sections to National Home Week, or prominently identified the week in their regular real estate sections

nishes, storm-doors and other items.

Some newspapers showed construction techniques in pictures—others showed how power tools and equipment are used in modern building. Two newspapers had special pages dealing with subdivision planning and zoning. A number of papers went into some detail con-

cerning local building codes, and whether they were, or were not, considered obsolete by builders.

The Public Relations Division of NAHB, for which Walton Onslow is consultant, already has sent out announcements about the 1949 dates, together with initial suggestions to locals of NAHB.

VIEW BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW



AB29321—Dumb waiter doors. Sedgwick Machine Works, New York, N.Y. Steel. For use with electric or hand-powered dumb waiters or for protecting landing openings of conveyors, chutes, and other floor-to-floor transportation equipment. Durable.



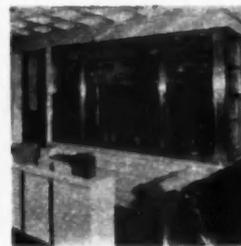
AB29335—Tayco 1949 Model semi-automatic upward acting garage door. L. S. Taylor Manufacturing Co., Atlanta, Ga. Light construction. Riveted throughout. No spot welds. Continuous hinge. Steel lock bars engage steel rails near center point.



AB29331 — Kitchen-Aire domestic exhaust fan. Stewart Manufacturing Co., Indianapolis, Ind. Stamped aluminum impeller. Motor mounted on rubber grommets. Angle mounting post to eliminate motor shifting. Counter-balanced back-draft damper.



AB29329—Stanley W-9 Safety saw. The Stanley Works, New Britain, Conn. Tilting base permits making bevel cuts up to 45 degrees in 2 1/4-inch stock. Safety stationary and swinging guards cover cutting edge of blade. Cutting capacity is up to 3 1/2 inches.



AB29326 — Par-Fit windows. Spickelmier Industries, Indianapolis, Ind. Aluminum. Method of hanging screens and storm sash for picture windows accommodates single plate glass or double-sealed insulated units. Used with a flexible glazing strip.

California in Retrospect

By Martin C. Huggett

Executive Vice President, Chicago Metropolitan Home Builders Association

The following impressions of California building operations and techniques were noted by Mr. Huggett while participating in conducted tours as part of the program for visiting builders attending the annual fall NAHB Board of Directors meeting in Los Angeles

CLIMATE AND local materials exert a determining influence upon construction methods in the State of California. Wood is the predominant factor in practically all housing structures and stucco the chief external embellishment. Every school of design, every classic renaissance and modern motif, every color combination, and every building and construction material find expression and simulation in external plaster work, until the countryside with its setting of flowers, takes on the appearance of enchanted villages built to house the people of fairyland.

Striking Contrasts

This impression is made the more emphatic at this time of the year because that part of the entire area which remains untouched by man and water is one vast desert seared and baked by a tropical sun until all semblance of life is obscured. The state, particularly the south-

ern portion, appears like an unending series of man-made oases, built to house, employ, educate and entertain the fastest growing population in the world.

Los Angeles a City Made of Cities

Los Angeles, whose population is now approximately two million, sprawling over an area of 488 square miles, and containing within its city limits at least two complete mountain ranges, is a creature of the automobile age, and private motor cars and public busses constitute its chief means of transportation. It is an unending series of smaller cities, villages and population centers each more or less independent and self-sufficient, with shopping centers, churches, schools and places of amusement, each contributing to its own community. In the newer sections, many shopping centers, scientifically and beautifully planned to care for parking and all other public needs and facilities, have been developed. These centers and their surrounding residential areas executed in bold modern design with an eye to attractive display and public

"WE TOURED, inspected and studied hundreds of homes and apartments of all types in all price classes being built by large and small builders in this section"

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AB29265—Monel sheet for roofing. The International Nickel Co., Inc. New York, N. Y. May be cut, formed, joined and soldered into standard roofing parts with regular tools and methods. Nickel-Copper, .018-inch thick, corrosion-resistant.



AB29229—Easy reciprocating electric sander. Detroit Surfacing Machine Co., Detroit, Mich. Straight-line, back and forth action permits sanding up to moldings. No ring or swirl marks on surface. Two handles incorporated, with a well-balanced body design.



AB29226—Remote radio control for power operators on upward acting residential garage doors. Crawford Door Co., Detroit, Mich. Driver presses button on dash when approaching driveway. Marvel-lift door opens, yard and garage lights go on at touch.



AB29259—Homelite 1 1/2-inch self-priming centrifugal pump. Homelite Corp., Port Chester, N. Y. Built-in gasoline engine. Capacity, 5,000 gallons per hour. Weight, 45 pounds. Handles mud and sand without clogging or damage to the pump. Operates easily.



AB29278—Concrete, for concrete coating. Lowebco, Inc., Chicago, Ill. Also for painting plaster, porous masonry, exposed metal. Heavy duty synthetic with abrasion-resistant, moisture repellent finish. Dries in three or four hours. Easy to apply and is durable.

convenience, provide food for those whose thoughts are bent upon converting our large cities into appropriate neighborhoods as well as builders whose projects are located in suburban areas away from the city shopping facilities.

Wood the Chief Building Material

Everything in the housing line is put together with wood. Dig below the surface of the most monumental structure and you find wood. Apartment houses, up to three and four stories in height and housing up to eighteen or twenty families are framed in wood, while the nobility of exterior stucco transforms them, in appearance, into massive and substantial structures.

Foundations and Under Structures

Practically all single family and duplex residences are of similar construction. Basements are a rarity and a curiosity. Some homes are built on concrete slabs which appear to be gaining in popularity, but most have floors of wood construction with ventilated crawl spaces underneath. To guard against the inroads of termites all floor supporting members must by law be Wolmanized. Supporting concrete floors and footings are buried not to exceed 12 inches in the ground. Standard joists, 16 inches at centers, supporting one inch subfloors are usually found, but one progressive builder spans, wall to wall, with 4x6 girders, spaced approximately 6 feet apart, resting at intervals, in the span, on small concrete piers. Over the girders, he lays a 1½-inch tongued and grooved subfloor.

Super Structure

On such platforms the house structures are quickly built of 2x4 studs and plates, braced, not more



ONE BUILDER uses tongue and groove 2x6 sub-flooring over 4x6 girders for his floors

nor less than required in our own area. The difference lies in the fact that no houses in California are sheathed. Instead the entire structure is covered with asphalt saturated fifteen pound felt. If stucco is to be the exterior finish, the felt is covered with chicken wire for reinforcement. If wood siding or molded batten boards are to be utilized, either in combination with stucco for design variety or as complete finishes, they are nailed through to the studs or blocking is provided where joints appear in open spaces.

Roof Construction

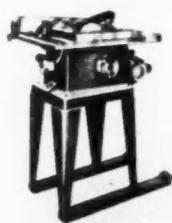
Almost without exception, new homes are ranch-type one-story in height, and roofs rest on the double plates of the outside walls. Rafters are usually 2x4's but supported at right angles midway in their span from wall to ridge by a single 2x4 or 2x6 resting on posts

going to the tops of internal partitions or by additional 2x4's running across the attic space and spiked to the rafters on each side of the pitch, thus forming a sort of improvised truss. No snow load need be calculated with these roofs. Cedar shingles laid on spaced roof boards are quite prevalent, but asphalt shingles on tight sheathing are also used. For roofs of very low pitch, insulating granules are sown on hot asphalt.

Insulation and Heating

In the better homes, ceiling insulation is provided and often the south and west walls are similarly treated as protection against the sun's rays. In the less expensive homes little or no insulation is provided. Heating plants are usually floor furnaces or wall furnaces, using gas as fuel, though in some more elaborate construction, forced-air furnaces rated as high

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AB29232—H & A tilting arbor table saw. Heston and Anderson, Fairfield, Iowa. Eight-inch. Table top, 20x27½ inches. One-piece roller-glide fence extends full length of table, rides on rollers. Miter guide shifts for use on either side of blade. Simple to use.



AB29250—Grillcraft barbecue unit. Grillcraft Co., St. Paul, Minn. Broils, roasts, fries, barbecues. Heat control by crank which raises or lowers fire basket. Spit can be set in any one of six positions. Steel cabinet dimensions overall are 22x22x23½ inches.



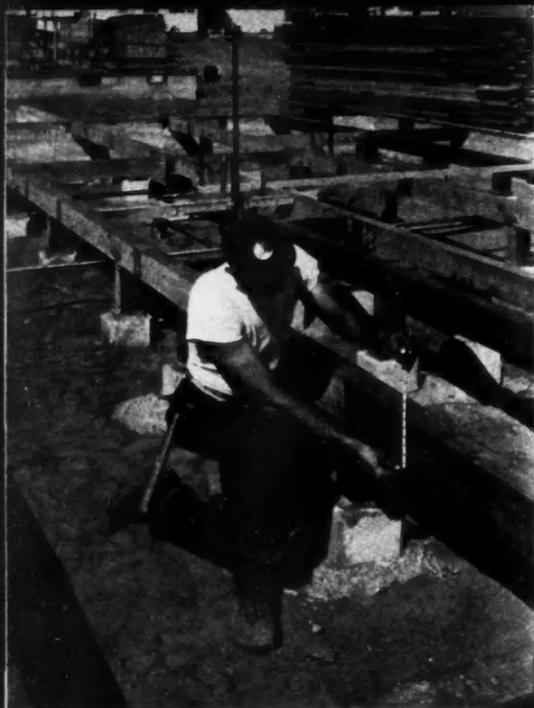
AB29235—Dole No. 20 Automatic hot water air valve. Dole Valve Co., Chicago, Ill. Eliminates air from convectors, radiators, mains, baseboard radiators and panel heating units. Requires no preliminary soaking. Adjust quickly with a screwdriver.



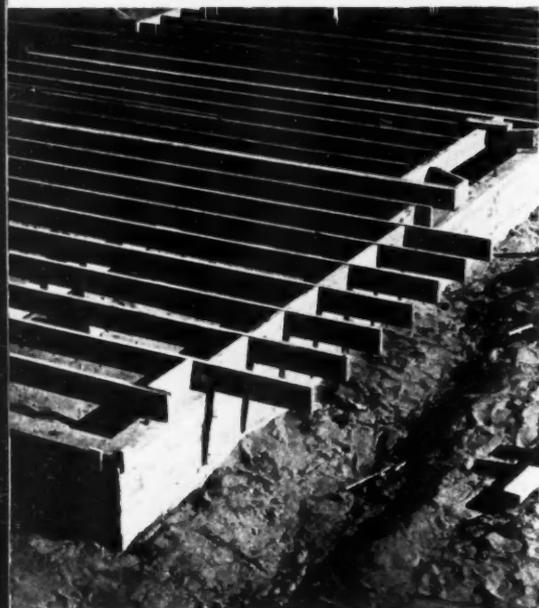
AB29268—Giant strip asphalt shingles. Johns-Manville, New York, N. Y. Felt base saturated and coated with refined asphalt. Granules imbedded in coating mineral, then second coat of asphalt and second coat of mineral granules are added next.



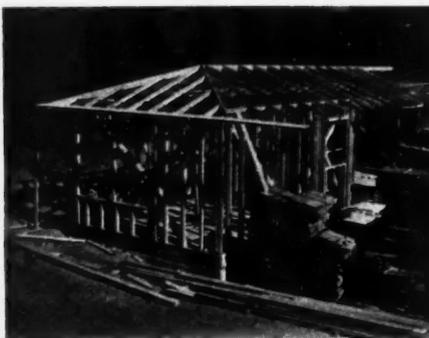
AB29244—Flush Wall radio. Flush Wall Radio Co., Newark, N. J. For kitchen, bathroom, playroom, bedroom. Wall becomes part of speaker-baffle. Five-tube, AC-DC. Adjustable slotted hinges attached. Steel box with single receptacle, 6½x9½x3½ inches.



THE 4x6 girders and the 2x6 t&g subflooring used on this job are chemically treated as insurance against termites



OTHER BUILDERS use conventional floor joists and framing with good success for low-priced houses



EVEN THOUGH climate is mild, framing for both one and two-story dwellings is of exceptionally good material, well braced. Basements are rarely included in this section



as 95,000 B.T.U.'s are utilized. These are vented with insulated flues except in cases where fire-place chimneys are provided.

Interior and Exterior Finishes

Drywall is the usual interior finish though many new houses still adhere to two-coat plaster. Exterior stucco is all put on in three coats and runs from 3/4 to one inch in thickness.

Kitchens

Kitchens are usually well equipped with cabinets, but here again wood, and not metal, is the usual material utilized. Counter tops are of ceramic tile, linoleum and formica, floors of linoleum, with sinks and other utilities up to the minute in design, equipment and color treatment.

Bathrooms

Bathrooms are variously treated with ceramic tile throughout or with linoleum floors and simulated tile of various kinds, according to the price class of the particular house.

General Floors

General floors are of hard wood over subfloors and asphalt tile where concrete slabs form the base member.

Decoration a Fine Art

Then come paint pots and wallpaper, and in respect to the final touches, California has taken a leaf from the studio books or studied color and decoration or just naturally been inspired, for in this regard the builders step ahead of all others, the country over.

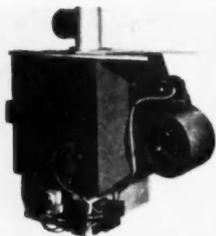
Prefabrication

In construction methods California has given as much or greater consideration to volume production than other parts of the nation. One prominent builder of national repute built a prefabricating plant at a cost of approximately a half million dollars, ran it for a spell and then converted it into a mill for cabinets, trim and the cutting of framing members. It was found that houses could be put together by carpenters on the job with less expense than the handling of sections by truck and cumbersome machinery. However, street grading and the handling of earth in general is still the work of bulldozers and large equipment.

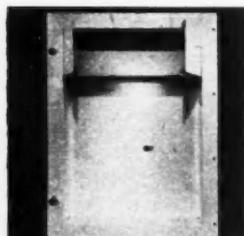
City of San Francisco

In the city of San Francisco, quite another problem is presented. The city and county have the same

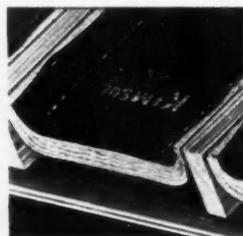
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AB29277—Suspended automatic oil-burning ceiling furnace. H. C. Little Burner Co., Inc., San Rafael, Calif. Capacity, 175,000 B.T.U. input. Blower driven by 1/2-H. P. motor. Warm air through adjustable louvers. Unit includes thermostat and oil pump.



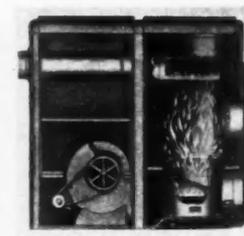
AB29241—Mirro-Glo medicine cabinet. Mirro-Glo Cabinet Co., Chicago, Ill. Features "safety chamber" compartment for poisons or medicines that may be harmful if wrongfully taken. Opened by hidden "presa-lock," located at top center of cabinet.



AB29271—Kimsul insulation. Kimberly-Clark Corp., Neeah, Wis. Also acoustical material. Made of many individual plies, each one a layer of soft, creped asphalt-treated cellulose fibers. Held together with strong stitching. Resists fire, vermin and mold.



AB29283—Magic Mirror door detective. Magic Mirror Associates, Inc., New York, N. Y. Home occupants may see callers without being seen, while caller sees only his own reflection. Invisible built-in speaking slots for two-way conversation.



AB29238—Duo-Therm DeLux furnace. Duo-Therm Division of Motor Wheel Corp., Lansing, Mich. Blower-filter unit in streamlined rear compartment. Installed in basement. Minimum floor space. In three sizes and capacities. Features flexible oil burner.

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BUILDING

limits and are confined within boundaries at the point of a rocky peninsula eight miles long and five miles wide. Construction within the city proper is confined almost exclusively to row type houses on lots that appear to be from 20 to 25 feet wide and are said to be from 50 to 60 feet deep. As in Los Angeles, wood construction prevails. The usual masonry party walls between dwelling units are omitted. Each house has a separate wood frame side wall standing *one inch* away from its adjoining neighbor.

One Low-Cost Project

One project in the Oakland-Berkeley area that comes nearer to qualifying as low-cost housing than anything else seen by our group, should be given special mention, since it involves methods heretofore unused, so far as we know, by any builder in the nation.

The Under Structure

The exterior foundation of the structure is 12 inches wide in the ground and 12 inches high with a 4x8 shelf formed on the inside to hold the edges of a concrete slab. Eight by twelve footings are then formed to support interior partitions. Gravel is dumped in and leveled to the top of the shelf and footings. Over the gravel, shelf and interior wall footings is laid 15-pound saturated felt, mopped down with hot asphalt. A four-inch concrete slab is then poured, reinforced by a six-inch steel mesh. In the platform layout, the center across from side to side is one inch higher than the two opposite ends.

Super Structure

The house is then framed on the site with pre-cut lumber in the usual manner with a double plate at the top. Across each room,



SHEATHING is rarely used on houses in California. Stucco is a popular exterior finish and is applied directly to studs over felt paper and chicken wire for reinforcing

spaced for proper design and approximately 6 feet apart are 4x6 beams supported by blocking between studs, the tops of which are level with the tops of the plates. At right angles with the beams are laid 2x6 or 2x8 dressed, V jointed, kiln-dried planks, also spaced so that the V joint pattern forms a proper ceiling design. *These planks are the roof structure and the undersides are the room ceilings.* Over them is laid 5/8-inch, fibre insulation board covered with saturated felt, wiped with asphalt and sown with gravel or insulating granules. The rise of one inch

across the center of the floor provides an equal pitch to the roof to drain it front and back.

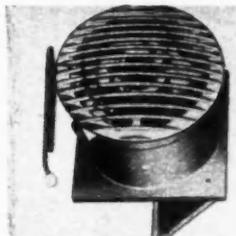
The exterior walls are covered first with Kraft duplex and then with matched siding. The interior is drywall finish, painted or papered with wood beams, ceiling stained.

The two-bedroom house containing 870 square feet sells for \$7,300. The three-bedroom house containing 1,000 square feet sells for \$7,800. All houses have been sold to veterans. We are advised by the builder that FHA appraisals on these houses ran slightly over the actual selling price.

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AB29253—Hais trough conveyor and car unloader. George Hais Manufacturing Co., Inc., New York, N.Y. For unloading coal, coke or aggregates from hopper bottom cars. Supplied with electric or gasoline engine. Mounted on 30x4-inch all-steel wheels.



AB29262—Eight-inch built-in louver, electric ventilator. ILG Electric Ventilating Co., Chicago, Ill. For small kitchens. Easily installed in walls of new or remodeled homes or apartments. No vibration, quiet operation. Weather-tight door. Cabinet in French grey.



AB29254—Hasko block flooring. Haskelite Manufacturing Corp., Grand Rapids, Mich. Multiple plies of veneers cross-grained to produce block 12 inches square by 3/8-inch thick, of Northern oak. Tongue and groove. Applied over concrete or wood.



AB29274 — Kresky fireplace furnace. Kresky Manufacturing Co., Petaluma, Calif. Casing fits into fireplace opening, with oval hole on top of casing for running stove-pipe up fireplace chimney. Two sizes, deliver 40,000 or 60,000 B.T.U.'s per hour.



AB29247—Manville Dishmaster, dishwasher. Gerity-Michigan Corp., Adrian, Mich. Chrome faucet unit. Suds flow through nylon brush for scrubbing dishes. Clear rinse by fingertip control on brush handle. Easy to charge with normal household detergents.

Let Electrical

Combination of adequate wiring, reserve circuit capacity and installed appliances make a potent appeal to home buyers



FULLY-equipped laundry area in a house designed to sell for \$23,500 includes an "electrical package" worth \$1,342

CAN a builder make it easier for his customer to buy a house by increasing the cost of that house?

It is being done by careful planning and use of the package mortgage. The idea can be expanded beyond its present scope in the opinion of some of the electrical appliance manufacturers—and they have facts and figures that merit study by the builder. Especially do they deserve study now when the need for stronger merchandising tools is being felt.

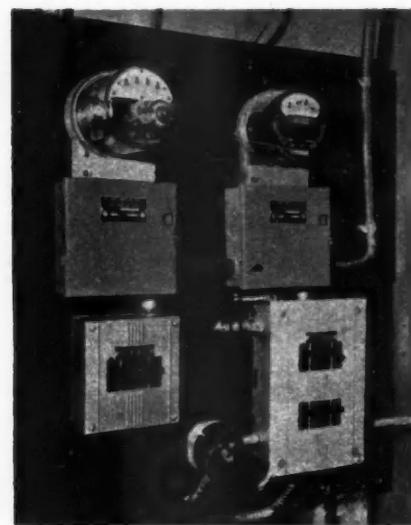
The new theory is just the reverse of the one under which a lot of builders have been trying to meet a price market by putting up a "stripped house."

Those who favor slightly higher costs to encourage package mortgage selling point out that trying to get

people to buy a new house, stripped of a lot of present-day essentials, is a lot like trying to sell a horse and buggy instead of an automobile. And it is just about as hard to get lending institutions to finance purchases of the stripped house as it would be to get an automobile finance company to lend against the purchase of a horse and buggy.

Few home buyers want or expect to go back to living in homes without closet doors, with open shelves and sinks instead of closed-in kitchen cabinets, and without a provision for mechanical refrigerators, washing machines and modern cooking ranges.

Recognizing this fact, some builders already have been meeting a known demand by selling a pre-equipped house with a number of

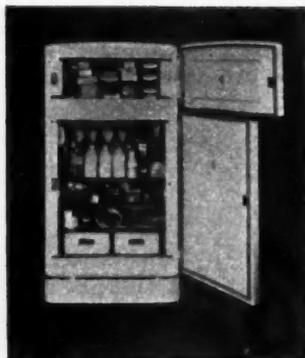


ELECTRICAL control board for ideal home serves 17 circuits with 123 outlets, including outdoor receptacles. No fuses

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AB29202—Zinc panel. Chromite Co., Chicago, Ill. Practical wall covering for both commercial and residential purposes. Panel is 12x16-inch sheet on which a hard, durable finish is formed through special lithographic processes. There are twelve rich colors from which to choose. Panel is flexible, durable.



AB29208—Combination refrigerator home freezer. General Electric Co., Bridgeport, Conn. Upper compartment is 2 cubic foot home freezer, with own door. Lower compartment is 8 cubic foot refrigerator. High humidity prevents uncovered food from drying out. Defrosting is completely eliminated in refrigerator.

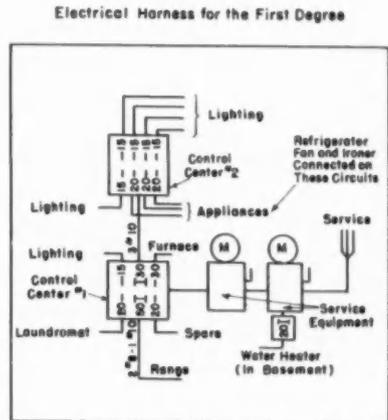
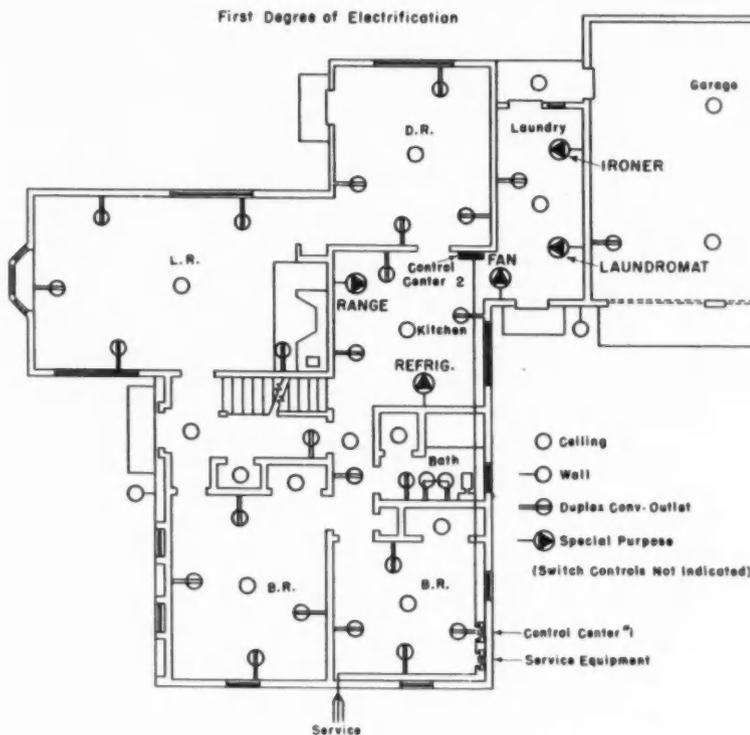


AB29201—Twin-cushion weather strip. The Macklanburg-Duncan Co., Oklahoma City, Okla. Strip is solid unit side jamb cover that slips into place without special machinery or equipment. Usable with any type sash balance. Used with T-12 weather strip, as pictured, no grooving or machining is necessary to fit.



AB29203—Portable electric tool. The D-6. Porter-Cable Machine Co., Syracuse, N. Y. A 5-in-1 tool that will sand, polish, cut, drill, and stir paint by simple attachment changes. Will drill wood, plastics and compositions up to 1/8 inch hole, metals up to 1/4 inch hole. Weight 5 pounds 13 ounces. Used overhead or vertically.

Installation Serve as SALES TOOL



Photos and chart courtesy Westinghouse Electric Corp.

TYPICAL home is adequately served for first degree of electrical living. Careful analysis of wiring diagram indicates that builder has used advanced planning in wiring harness, which will enable prospective purchaser to utilize three basic essentials of electrical living—preservation and preparation of food, laundering and cleaning, and good lighting. Second, third and fourth degrees may be added for families that can afford them

the kitchen appliances included in the purchase price and financed in the mortgage. But the sales possibilities of the idea have not been realized to the full because merchandising new homes has not been a problem in the last few years. Many builders looked on the package mortgage as just a device to sell appliances for manufacturers.

The fact is, that many of these appliances are going to be sold anyway to the home builder's customers. Moreover, the installment purchases

on the appliances will compete with the home mortgage finance charge for a share of the monthly pay check.

The package mortgage idea is very similar to the old idea of removing the competition from a field by buying out the competitor. But there are important differences.

Including appliances and conveniences in the mortgage does remove the competition for the builder's portion of his customer's pay check. But it does not put his competitor manufacturer out of business, nor take over

the business of the manufacturer's distributor. Here are the reasons:

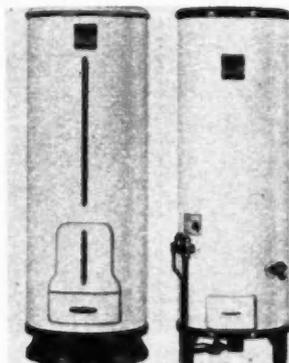
1. The home builder can buy the appliances from the manufacturer's distributor at a price lower than the retail price, taking his normal builder's markup. He still sells them to the home buyer cheaper than at retail.

2. The distributor can afford to sell to the builder at a dealer discount for several reasons. He is assured of faster turnover, he cuts out sales expense, and in many cases saves handling and storage cost

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AB29174—A two-way hydraulic pump incorporated with a standard trap. Telnor Products Corp., 1910 W. Lake St., Chicago, Ill. Named Drainmaster, it acts to dislodge obstructions that form in piping adjacent to the trap or in the trap itself. May be installed on septic tank systems as well as in bathrooms and kitchens.



AB29176 — Gas water heaters by Serval Inc., Evansville 20, Ind. The Headliner, on left, is a low-priced model for homes with 1 bath and 2 to 3 persons. The Highliner is a medium-priced model for homes with 1 bath, conventional washer, 4 persons. Both feature non-sag fibre glass insulation, silent burner.



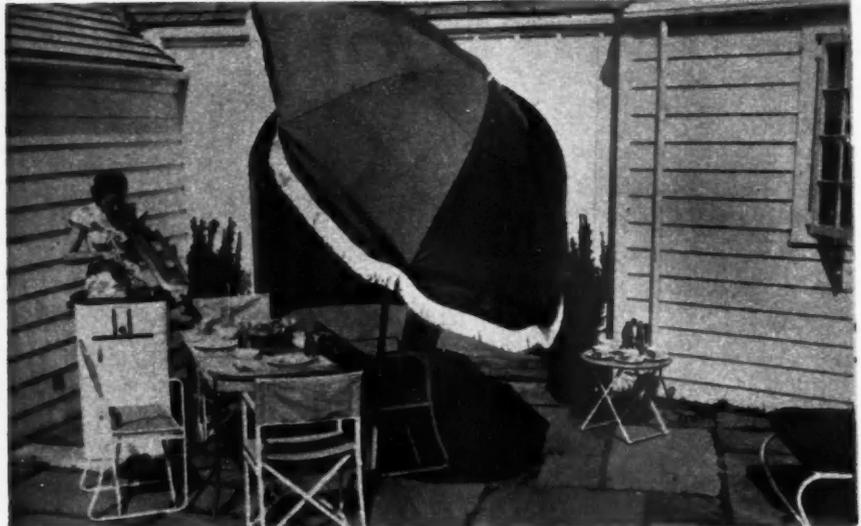
AB29205—A flooring material named Terraflex. Johns-Manville Co., New York, N.Y. is extremely flexible. Slightly heated, it can be curved to form stair nosings and coved bases. This quality permits floor to conform to any uneven surfaces and provides unusual resilience and comfort under foot. Offered in varied colors.



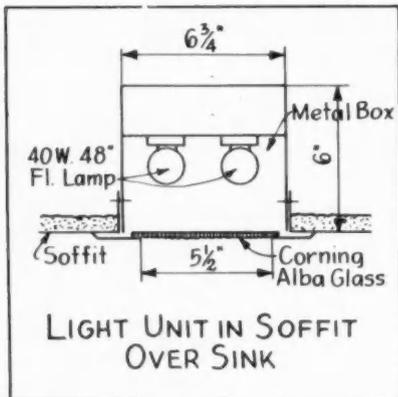
AB29210—Electric Telehome, Webster Electric Co., Racine, Wis. Intercommunication system to save steps in home. Master unit and door speaker are flush-mounted, all wiring concealed. Master unit has hardwood face plate, white enamel finish, heavy metal wall box. Door unit has lacquered brass face plate.



PART of kitchen in a \$17,000 house included in \$1,100 electrical package. Note provision for plug-in of small appliances and undercabinet lighting, which is supplied by portable fluorescent units that plug into convenient units



BUILDERS of higher priced homes should not neglect sales appeal of outdoor electrical convenience. Outlets on terrace demonstrate outdoor living possibilities to buyers



CROSS SECTION detail shows typical installation for effective soffit lighting over sink, as shown in kitchen photo

by delivery direct to the builder's site without passing his appliances through his warehouse.

3. The distributor also gets an advertising value from the new home installations by an increase in demand for similar appliances to bring older homes up to the standard of the new homes. Thus, his salesmen are not cut out of their commissions, but have a better chance to sell similar appliances to home-owners who purchased houses on a lower price market and are better able to afford high installment payments than the new home purchaser.

The benefit carries back to the manufacturers of the appliances and to their employees—and some of those employees are sales prospects for new homes.

It could carry back in this way, if adoption of the package mortgage were adopted in widespread fashion

by the builders all over the country.

1. Spreading out the installments on the appliances over 15 or 20 years in the mortgages means a very small monthly payment per appliance, in contrast to what that installment would be on an 18-month plan, such as the buyer has to use when buying appliances at retail.

2. The home buyer, therefore, can include more appliances in his home immediately than he would be likely to do if each one were bought on the installment plan at retail.

3. That means an immediate increase in the demand for the total number of these appliances from the manufacturer and comes at a time when their inventories are piling up and they are having to think about cutting back production.

4. This, in turn, prevents production cutbacks and insures the continued steadiness of the jobs of the

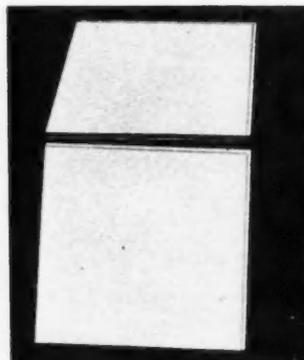
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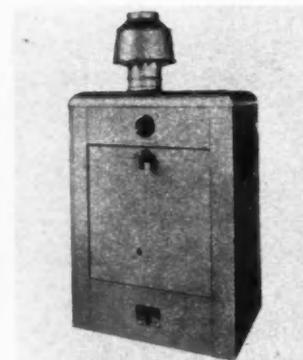
AB29204—Power saw. The Kett Tool Co., Cincinnati, Ohio. Has three interchangeable cutting heads. One cuts hard metallic; another, materials like carpeting; the third cuts rigid objects like plywood and plastics. Can cut to a hairline, straight or contour shapes speedily and easily. Leaves edge that requires no filing.



AB29175—New Servel W-700 gas refrigerator. Servel Inc., Evansville, Ind. Features frozen food storage compartment, 3 ice cube trays, 1 dessert tray, 3 large shelves, 2 porcelain vegetable pans. Same size cabinet as 6 cubic foot refrigerator but provides an excess of 6½ cubic feet of storage. Smooth operation.



AB29190—A new ceiling tile named Roxceil. Roxdale Building Products Corp., New York, N. Y. Made by laminating insulation board to treated hardboard and spraying with enamel paint. Will not crack, chip, craze or peel. Requires no repainting. Unique tongue and groove design permits permanent interlocking.



AB29189—Gas-fired hot water boiler for small dwellings. A. O. Smith Corp., Milwaukee, Wis. Will operate on any type of natural, manufactured or liquefied gases. Is 3 feet high, 2 feet wide, and 18 inches deep. Especially suitable for radiant heating, it operates equally well with other systems.



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BUILDING

AB29209—wood Co rugged Patented scientific provide hardwood to standa ming. E



COST of electrical package in this kitchen, \$950, included range, refrigerator, washer, ironer, ventilator, water heater

workers of appliance manufacturers.

How much could this amount to? There is no way of telling exactly, but suppose there are 900,000 new homes built in the United States in 1949. Suppose that in half of these, builders felt they could profitably install—not just a refrigerator and range which are appliances many home buyers already possess—but an electric garbage disposal unit, a water heater, a ventilating fan for the kitchen, an automatic laundry and an automatic dishwasher.

This would mean a guaranteed market in 1949 for 450,000 of each of these units in addition to an increased demand for similar products in homes already completed.

If all this looks academic, let us look at some specific figures that tell the builder whether or not it is just high sounding mathematics or something he can use practically. The

NINE "ELECTRICAL PACKAGES" THAT HELP SELL							
Pkg. No.	Waste-Away	Ventilating Fan	Laundromat	Water Heater*	Dryer	Approximate List Price	Monthly Payment Based on 15 Year Amortization at 5 Per Cent Int.
1	X	X				\$160.00	\$.80
2		X	X			335.00	1.53
3	X		X			425.00	2.30
4			X	X		450.00	2.30
5	X	X	X			465.00	2.30
6			X		X	530.00	3.06
7			X	X	X	690.00	3.83
8	X	X	X		X	690.00	3.83
9	X	X	X	X	X	840.00	4.59

*Based on 52-gallon capacity heater

CHART above lists five electrical appliances that can be selected in nine combinations and included in monthly payments on the house

particular figures used are supplied by Westinghouse Electric Manufacturing Co. and are used by that company to show how the whole electric installation can be used as a sales tool. They serve to illustrate the practicability of the package mortgage idea, and it will be obvious to the builder that the same principles can be applied to other than electrical conveniences.

Since refrigerator and range are two appliances that the home buyer often has already, other appliances are used for the purpose of the illustration. If the customer desires, or the builder thinks it practical, he can also install a refrigerator and range and use them as sales tools in addition to the less commonly installed items mentioned in the illustration following.

The accompanying chart lists five electrical appliances which can be

used in various combinations to form a number of different electrical packages—nine combinations are shown in the chart.

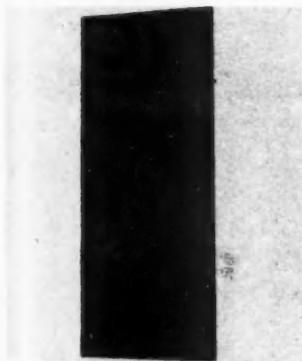
The chart makes it clear that a minimum of two of these appliances can be added at a cost that will add from 80 cents to \$2.30 to the monthly payments on the house—based on a fifteen year amortization. All of them can be added for a monthly carrying charge of only \$4.59.

What does this mean to the builder as a sales tool?

He can find out the things that home buyers want most—want badly enough to figure on paying for them in installments in addition to paying for the house—or that they would buy on installments if they could afford these items.

The highest cost package cited, which includes all built-in units that
(Continued on page 238)

BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW—BUILDING PRODUCTS ON REVIEW



AB29209—Flush doors. General Plywood Corp., Louisville, Ky. Combine rugged durability with lightness. Patented interior construction uses scientifically spaced cylinders to provide overall support for 3-ply hardwood faces. Doors are pre-cut to standard sizes but allow for trimming. Easy to handle and install.



AB29207 — Deluxe electric range named Stratoliner. General Electric Co., Bridgeport, Conn. Features pushbutton controls that simplify cooking operations and provide direct control of surface, oven and broiler units. Is a single-oven range with built-in pressure cooker. High back control panel easy to see.



AB29191—Hardwood flooring made in squares that fasten to gum without nailing and create a parquet effect. Newcastle Industries, Inc., 300 West 54th St., New York 19, N.Y. Apply over concrete sub-floors or over radiant heating in concrete sub-floors or over old floors. A square foot can be laid each minute.



AB29206 — Wood awning windows. Gate City Sash & Door Co., Fort Lauderdale, Fla. Windows are furnished complete with hardware and glass already installed, and screens semi-prefit and wired with Lumite. Wood stool and apron included. Vertical weather stripping included. Sash operates smoothly by a crank.



SMALL display room, sales and architectural office is maintained by L. C. Andrew

Giving Customers What They Want Is the Best Way to Sell

HOW MANY dealers can report an increase in sales every year for 23 consecutive years, through boom and bust, and in war and peace?

How many dealers with that record also can say they have nurtured a business, destroyed by fire in 1925, into an enterprise with sales exceeding a million dollars in 1948?

There is at least one. His yard is in South Windham, Maine; a town of 2,300 people, about 15 miles from Portland. His name is L. C. Andrew. That is also the name of his firm—"L. C. Andrew."

Lean and hard, L. C. Andrew appears even taller than his 6 feet, 2 inches. Erect, military in carriage, he moves swiftly and with precision. One quickly notes a de-

termined jaw, and almost as quickly the kindly twinkle in his eyes. L. C. Andrew is warm, human and understanding; a man who expects hard work from his employees, but who demands far more of himself.

He grew up in a family of lumbermen, and decided to go into an allied line, the box business, and built a small factory in South Windham in 1915. It was not until 1923 that he made a start in the dealer business.

It happened this way, according to Andrew. "I was hiring truckers to go out 40 and 50 miles into the country to pick up lumber for my box factory. The trucks went out empty and came back loaded. This was one of the factors that helped me decide to sell a limited line of building materials—lumber, asphalt

roofing, and wall board. I went after rural business, built up country trade, and soon had the trucks carrying pay loads both ways—building materials going out and lumber coming in. Trucking costs increased a little, but profit increased a good bit. That was my start in the building material business."

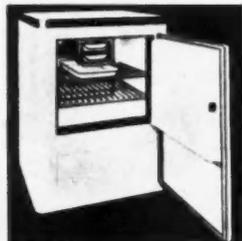
After fire destroyed the box factory in 1925, L. C. Andrew rebuilt the planning mill and warehouses and concentrated entirely on the handling of lumber and building materials.

Today, L. C. Andrew owns a fleet of 14 trucks which are constantly engaged in delivering building materials to nearby Portland, which accounts for 50 per cent of his sales, and in a trading area extending 60 or 70 miles from South Windham. These same trucks are just as busy hauling rough lumber into his mill where he turns out 35,000 board feet of finished lumber a day. He has seen his business grow into an organization of about 90 employees with gross sales running well into seven figures. And he has done all of this with no help other than that provided by the system of free enterprise. He is still "L. C. Andrew," an entrepreneur.

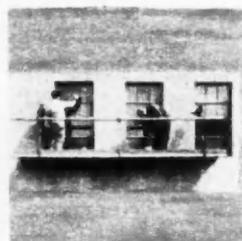
What are the important factors in his success? Ask, and Andrew will explain, "Twenty years ago, lumber dealers weren't merchandisers. An order was for so much lumber, so many squares of asphalt shingles, or so many bags of cement. It was an order to be filled, and that was that. All I did was to add selling and merchandising technique to the usual dealer operation.

"For example, I was ready to estimate how much lumber, cement, roofing or nails a customer

BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW — BUILDING PRODUCTS ON REVIEW



AB29316—Refrigerette, porcelain table-top electric refrigerator. I. R. Rozett and Associates, Chicago, Ill. Unit, 34½ inches high, contains 3½ cubic foot capacity. Holds almost 85 pounds of food-stuffs. Two shelves. One cut-away for tall bottles provided.



AB29304—Gold Medal Midget safety swinging scaffold. Patent Scaffolding Co., Inc., Long Island City, N.Y. Suspended from S or L hooks by means of 75 feet of ¼-inch plow steel wire rope. Raised and lowered by light, compact, speedy Midget machine.



AB29382—Adjustable panel-type window fan. Chelsea Fan & Blower Co., Inc., Irvington, N.J., Type WP, portable, has direct drive, three-speed fan, extension cord, three-speed switch. For homes, apartments, offices. The finish is baked enamel.



AB29319—Quality house unit package. Sargent & Co., New Haven, Conn. Lock and latch sets for two average small homes contained in one unit package. Inside master carton, lock and latch sets packed as complete house units. Are all suitably labeled.



AB29307—Fast-Est building materials price calculator. William Piehl, Jr., Seymour, Wis. System figures any type lumber in any construction through wide range of prices. On 30x42-inch board, covered with glass, equipped with parallel rule. Easy to work.



SEVEN of a fleet of 14 trucks which deliver building materials in a radius of 60 or 70 miles from South Windham, and which bring back rough lumber for the mill. Pay loads both ways played big role in building L. C. Andrew's business



L. C. Andrew, building material dealer

would need to build his home or barn. And I was ready to give him a guaranteed price for all of his requirements, down to the penny.

"In other words, when a customer came in with a plan, he left knowing how much and what kind of materials he would need and how much his materials would cost. That was new in merchandising building materials in Maine.

"Did my competitors like it? Not at all, but the customers did, and still do. Today, of course, we go even further. We do no building or contracting, but we do keep two architects busily employed the year around, designing new homes, working on remodeling plans, and other types of light load construction. It's a good way to give customers what they want, which is always the best way to sell.

"Another thing," Andrew continued, "we went out after the business, and didn't wait for it to come in to us. For example, take roofing. In normal times, rapidly returning in my opinion, we don't wait for a

customer to tell us his roof leaks, or for a carpenter or contractor to give us an order. We make calls and sell the jobs ourselves. Then, we give the business to carpenters we know will do a good job of application. We know that it takes two men to make a good roof; the manufacturer and the carpenter or contractor who applies it. We control jobs better and earn the carpenter's business when we go to him with a job. Outside of Portland, our business is largely rural and farm.

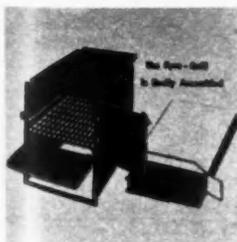
"Percentage-wise, there's been a complete reversal of our roofing business in 20 years. People in this area have become highly conscious of the danger of fire. Forest fires, such as those of a couple of years ago, have been reminders of the importance of fire resistant roofing."

L. C. Andrews lists "pay loads," advertising and a reputation for fair dealing" as three other factors he considers important in the growth of his business. "Milling lumber and selling building materials makes a natural team in

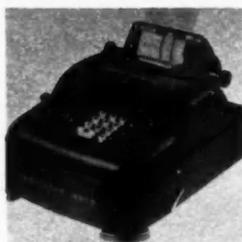
Maine. One helps sell the other. Our trading area is far greater in radius than it would be if we didn't need rough lumber for the mill, and it would cost much more to truck the lumber into South Windham if we didn't deliver building materials enroute to the logging sites."

L. C. Andrew spent \$25,000 on advertising in 1948, and points with particular pride to his catalog. "We distributed 40,000 copies last year. We printed our first edition during the war when we couldn't get to see customers frequently. We found it paid then, and it continues to pay today, largely, I think, because we display our prices in the catalog just as prominently as we do our merchandise."

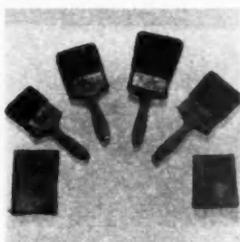
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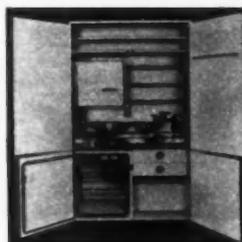
AB29312—Fyro-Grill, outdoor fireplace form. Price Fire-place Heater & Tank Corp., Buffalo, N.Y. Complete unit, around which construction desired may be used. Heavy gauge steel. Removable steak grill. Two position grate used 6 inches from grill.



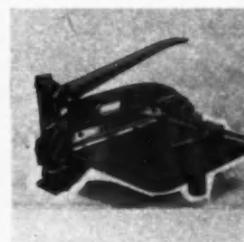
AB29315—Model 97 printing calculator. Remington Rand Inc., New York, N.Y. Advantages of calculator and adding machine plus printed proof of accuracy. Answers recorded on tape. Short-cut multiplication system. Clears the keyboard automatically.



AB29308—Neoceta brushes. Pittsburgh Plate Glass Co., Pittsburgh, Pa. Man-made bristle resists softening effect of water. Absorbs less than 3 per cent of its weight. Retains elasticity and snap. New Neoceta bristles are now finer gauge. Are uniform.



AB29303—Pureaire 1949 model kitchen. Parsons Co., Traverse City, Mich. Modern eye-level oven, 5 1/2-cubic-foot refrigerator, no-splash faucets, steel-grip assembly detail, full-control gas burners, ventilation, hermetically-sealed freezing system, and range.



AB29311—Cutting machine. J. M. J. Products Co., Bellville, Ill. Cuts asphalt, rubber, plastic, linoleum and cork floor tile. No adjustments necessary except for asphalt tile. Weight, 18 pounds. Blade, 14-inch. Table furnished with machine.



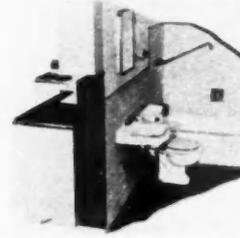
AB29246—Model FC-101, light duty pick-up truck. General Motors Corp., Truck & Coach Div., Pontiac, Mich. One of a line of light, medium and heavy duty GMCs which provides a model for every type hauling operation in the home building business.



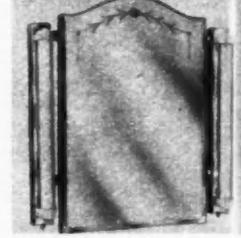
AB29284—Marlite wood and marble patterns. Marsh Wall Products, Inc., Dover, Ohio. Plastic-finished, high-heat-bake process. Panel sizes, 48x72 inches and 49x96 inches for wood patterns, 32x48 inches and 96x48 inches. Many types.



AB29261—Automatic electric dishwasher. Hotpoint, Inc., Chicago, Ill. Simplified drain system at front. Dial control. Self-sealing aluminum door, one-piece wrap-around cabinet. Work surface area, top spray, front opening, electric drying are some of features.



AB29263—Ingersoll panel utility unit. Ingersoll Unit Division of Borg-Warner Corp., Chicago, Ill. Provides plumbing, cooking, refrigeration and hot water facilities, plus all basic accessories and fixtures. Built around narrow, low-wall core. Economical.

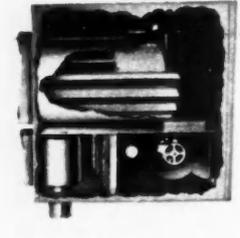


AB29243—Fluorescent medicine cabinet. Fluorescent Lighting Co., Monticello, N.Y. Chrome finish, with plate engraved Everlast mirror. General Electric equipment. Plastic caps. Underwriters' approved. Convenience outlet. Sufficient light for bathroom.

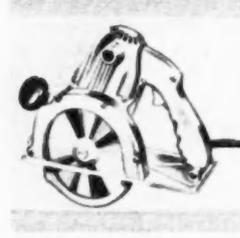
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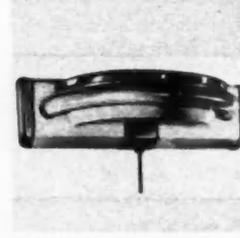
AB29237 — Dumpcrete for ready-mix delivery. Dumpcrete Div. Maxon Construction Co., Inc., Dayton, Ohio. Also hauls sand, water, and gravel. In 2, 3 and 4-yard sizes. Discharge regulated by positive cutoff gate, fingertip control. Has watertight body.



AB29249—Vaporizing, forced-draft, oil-burning furnace. J. L. Gillen Co., Dowagiac, Mich. Constant warm air by three-stage flame which is controlled by Mercoid thermostat. Width, 25 inches. May be moved through average door without uncrating.



AB29227—Cummins Balansaw. Cummins Portable Tools Div., Cummins Business Machines Corp., Chicago, Ill. Balanced so that weight is on work. Good visibility. Model 600 has 6-inch blade. Model 700, 7-inch blade. Overall length, 12 inches. Lubricant furnished.

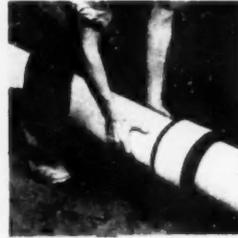


AB29258—Homecraft sidewall fixture. Homecraft Electronic Products, Chicago, Ill. Westinghouse "Circlarc" bulb. Fits flush to wall. Length, 14 1/4 inches. Residential or commercial use, above medicine cabinets, sinks, or for side light. Easy to clean. Sturdy.

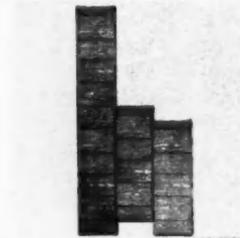


AB29282—Red Diamond hardwood plywood. M and M Wood Working Co., Portland, Ore. Unselected birch panels, plain striped mahogany panels, vertical grain fir panels and others. Three-quarter, 7-ply panels for cupboard doors and built-ins.

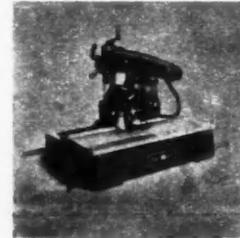
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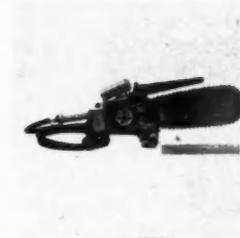
AB29267—Transite house connection pipe. Johns-Manville, New York, N. Y. Made of asbestos fibres, Portland cement and silica. Resists chemical attack from corrosive soils. Withstands super-imposed loads, will not break during handling. Is resistant.



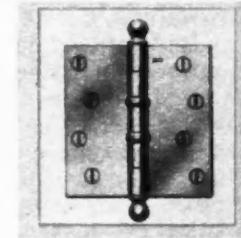
AB29269—Mastic Asphalt's panel-type, shingle design siding, Inselwood. Distributed by Jones & Brown, Inc., Pittsburgh, Pa. Fourteen-inch panels overlap, give appearance of real shingles. Self-sealing metal corner is panel high and needs no nails.



AB29231 — All-purpose machine. DeWalt, Inc., Lancaster, Pa. Cut-off saw, miter saw, rip saw, tilting arbor saw, double miter saw, all in one. Motor, 1 H.P. Saw blade diameter, 10 inches. Designed for small shops for accurate speedy variety woodworking.



AB29260 — One-man electric chain saw. Homelite Corp., Port Chester, N. Y. For cutting heavy timbers, felling or cutting up trees. Weight, 17 pounds. High-cycle electric motor. Homelite High-Cycle dual purpose generator, AC or DC. Compact, powerful.

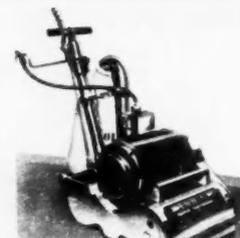


AB29252—Ball bearing butt hinges, No. BB 1241 Non Template. C. Hager and Sons Hinge Manufacturing Co., St. Louis, Mo. For heavy doors or doors receiving high frequency service. Door weight hangs and rides on ball bearings. Dimensions, 4x4 inches.

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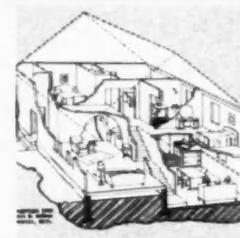
AB29254—Hardwick Challenge or automatic gas range. Hardwick Stove Co., Cleveland, Tenn. Oven and broiler placed for easy, upper level cooking. Time and temperature automatic control when specified. Porcelain finish. Deep spill-over tray included.



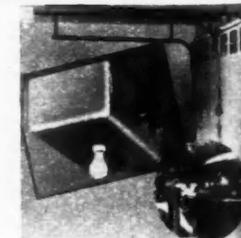
AB29234—Master Professional lever-controlled sander. Holt Manufacturing Co., Oakland, Calif. Model 12 powered with 2-H. P. motor, Model 8 with 1 1/2-H. P. motor. Motors detachable for easier portability. Finger tip motor speed selector for ease in operation.



AB29273 — Moto-Bug, power wheelbarrow. Kwik-Mix Co., Port Washington, Wis. Powered through "V"-belt drive, 3.9 H.P. gasoline engine. Enclosed gears. Capacity, 10 cubic feet, or 1,200 pounds. Finger-tip control of speeds. Also has pneumatic-tired wheels.



AB29279 — Panelized precast quality homes. Lumber Fabricators, Inc., Detroit, Mich. Three bedrooms, three floor levels. Tri-level has exterior dimensions of 26x30 feet. Bedrooms and bath on upper level. Excavation required, 3 1/2 feet. Is easy to erect.



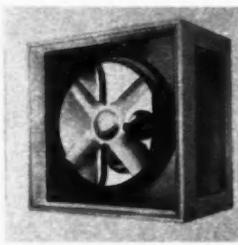
AB29242 — Driv-Rite-In automatic garage door opener. Era Meter Co., Chicago, Ill. Operates single or double width upward acting sectional doors or one-piece tilting doors, residential or commercial. Fool-proof outside key switch control optional.



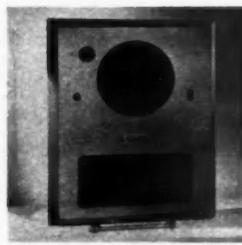
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AB29230—Model GR builder's saw. DeWalt, Inc., Lancaster, Pa. Possible to set up six to eight 2x4 studs, on edge, and make multiple cut in one stroke. Single phase, 2-H. P. motor. Operates on 115 or 220 volts, 60 cycles, A.C. Voltage relay starting.



AB29228—Fan-Pac attic fan. DeBothezat Fans Div., American Machine and Metals, Inc., East Moline, Ill. Insulated for quiet operation. Non-overload power characteristic. Complete unit, ready to install. Welded steel fan wheel. Noise-free operation.



AB29240—Electromode Built-In-Wall heater. Electromode Corp., Rochester, N. Y. Automatic, portable. No wiring or cutting into wall required for installation. Down-flow principle. Air fan-circulated at 125 to 160 cubic feet per minute. Thermostatic control.



AB29245—Built-in cooking top, SU-3. Thermador Electrical Manufacturing Co., Los Angeles, Calif. Consists of three Thermo-Klean heating units, 35 inches long, 17 1/4 inches wide. Rough-in box, including drip trays, is 10 1/4 inches deep. Separate oven.



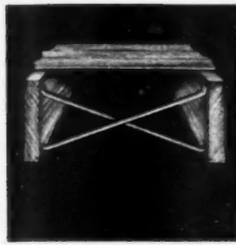
AB29255—P&H prefabricated houses. Harnischfeger Corp., Houses Div., Port Washington, Wis. One-story, 24x32 feet, two or three bedroom, with or without basement. Living room, 11 feet, 7 inches by 17 feet, 4 inches. Panelized and insulated throughout.

REVIEW

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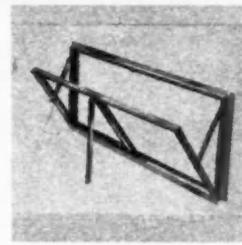
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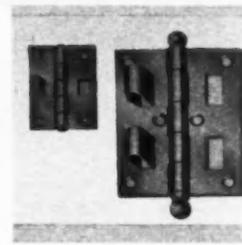
AB29236—Sta-Tite steel brace for wood joists. Beloit Steel Industries, Inc., Rockford, Ill. Flanged-grip ends simplify installation, holding nail in place while it is driven. One nail required at each end, as 7/8-inch flange grips joists. Braces hold firmly in place.



AB29257—Hoe-Type mixer. Construction Machinery Co., Waterloo, Iowa. Handles lime and cement mortars and patent plasters with hair or fibre. Mixes foundry sand, feeds and similar aggregates. Six cubic foot, mixed capacity. Low shoveling height.



AB29270—Aluminum basement window. Kewanee Manufacturing Co., Kewanee, Ill. Three standard sizes. Positive acting cam latch forces vent firmly against frame. Sill and jamb construction prevents fouling vent with mortar while installing the window.



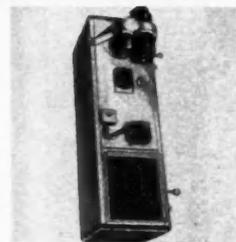
AB29281—Self-latching hinge. Latching Corp., Detroit, Mich. Also self-aligning. Leaves slotted to permit insertion of cam-like tempered spring which is anchored in door jamb and hinge slot. Spring releases and latches by manual closing of door.



AB29280—Lustron homes, Lustron Corp., Columbus, Ohio. Five rooms, 31x35 feet overall. Porcelain enamel on steel through fusing process that makes enamel part of metal base. Insulated between interior and exterior panels. Has built-in utilities.

REVIEW

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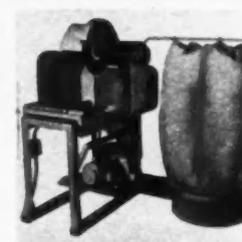
AB29248—Suspended oil-fired furnace. Gilbert & Barker Manufacturing Co., West Springfield, Mass. For service station buildings, garages, stores, small homes. Two sizes, 100,000 and 200,000 B.T.U.'s. Counterflow principle of heat transfer is used.



AB29275—Doorknob lock. La-belle Industries, Oconomowoc, Wis. Tumbler-type cylinder lock built into outer knob. Spins when locked. Cannot be jammed or sprung. When outer knob is locked, it remains locked even after door is opened from inside.



AB29272—Factory-built homes. Knox Corp., Thomson, Ga. Dimensions, 24 feet, 8 inches by 32 feet, 8 inches. Four rooms. Panels, cut to exact dimensions, are assembled on jigs to supply basic structural components. Three floor plans are available now.



AB29285—Fireproof, dry-cut masonry saw. Martin Fireproofing Corp., Buffalo, N.Y. Incorporates vacuum that collects dust from rotating saw blade. Individual 1 1/2-H. P. electric motors power saw blade and dust-collecting vacuum. Easy to operate.



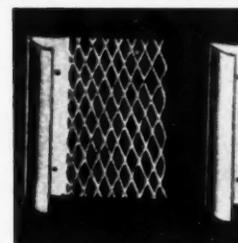
AB29276—Model D Roadster Tournapull. R. G. LeTourneau, Inc., Peoria, Ill. For small yardage projects. Self-loading, one-man operated. Powered by 100 H.P. diesel or gas engine. Speed, up to 25 m.p.h. Used with the E-9 Carryall Scraper. Easy to use.

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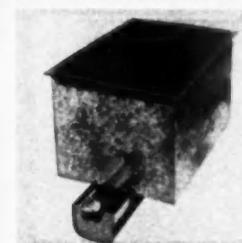
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AB29239—Three-purpose roof plank. Durisol, Inc., New York City, N.Y. Provides roof decking, insulation, sound absorption. Lightweight. Fire-proof, it resists termites, fungus, moisture and rats. May be installed easily by two men. Cuts costs by 20 per cent.



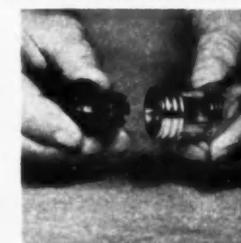
AB29264—Milcor flush plastered-in type casings. Inland Steel Products Co., Milwaukee, Wis. Slight ridge in nailing flange creates tension when casing is nailed, holds nose of casing tight against the jamb. Made of steel. Firesafe and highly durable.



AB29233—Stubby, flat-type floor furnace. Holly Manufacturing Co., Pasadena, Calif. Input, 57,000 B.T.U. Natural, manufactured or liquefied petroleum gas. Requires no basement or pit. Suspended beneath floor. Operating parts fully housed.



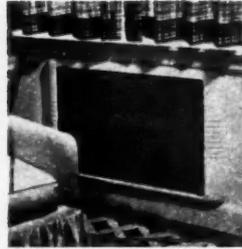
AB29266—I-XL kitchens. The I-XL Furniture Co., Inc., Goshen, Ind. Complete line of hard wood units, factory finished in white enamel and fully equipped with necessary hardware ready to install. Line includes cabinets along with sink and counter tops.



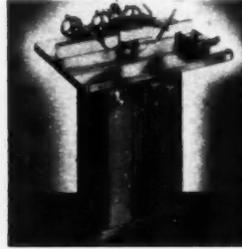
AB29251—Five-in-one plug fuse. H-R Electric Co., Dearborn, Mich. Fifteen ampere. Selection of new links by rotation of outer glass shell. Bronze contact spring acts as ratchet and contact. Strong spring. Inner units replaceable. Contains five fuse links.



AB2961—Bilt-Well line, part of complete line of woodwork. Carr, Adams and Collier Co., Dubuque, Iowa. Line includes every item from basement windows to attic louvers. Kiln-dried Ponderosa pine, prefabricated or K.D. semi-assembled for handling.



AB2971—Radiant heat panel. Continental Radiant Glass Heating Corp., New York, N. Y. For home or commercial use. Aluminum element fused into tempered glass. Emits infra-red rays. "Zone" controlled to heat separate rooms. Underwriter approved.



AB2914—Boice Crane spindle shaper. Boice-Crane Co., Toledo, Ohio. Two models for 7,200 and 10,000 r.p.m. operation. One-inch spindle handles 3/4-inch bore cutters to 6 inches diameter. Large table opening, nested fillers for safety. No adaptors.



AB2954—Ventaphone door grilles. Gray Manufacturing Co., Compton, Calif. Mirror to visitor outside. Inside is window to see through without being seen. Easily installed in any type door. Polished brass finish. May talk through unit. Attractive modern design.

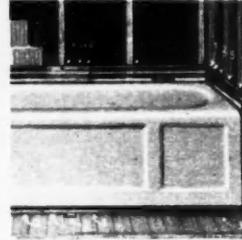


AB2912—Milk and package receivers. B&H Manufacturing Co., Inc., Northport, Mich. Door locks automatically when opened and closed from outside. Unlocks when inside door is opened and closed. Steel. For frame and masonry walls. Easy working.

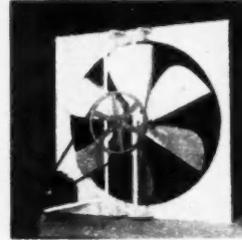
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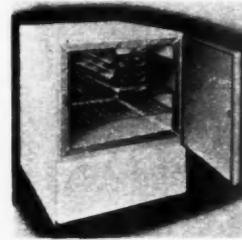
AB2908—Kaylo structural insulating block. American Structural Products Co., Toledo, Ohio. High dimensional stability. For use as core for doors or partitions. Can be laminated with wood, metal or plastic. Fire resistant. Cubic foot; weight, 20 pounds.



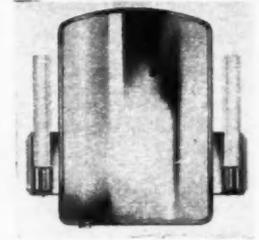
AB2941—Lucke Leak-Proof bath tub hangers. William B. Lucke, Inc., Wilmette, Ill. Bath built into wall. Will not settle or creep. Bathtub made integral, leak-proof unit with building. Leak proof filler acts as water seal. Easy to install.



AB2904—Acme ventilating fans. Acme Equipment Co., Muskogee, Okla. All-welded construction. Available in range of sizes, 28 to 72-inch. Vertical models for window, wall, or attic. Horizontal models to fit in areas where space is limited.



AB2948—Lo-Boy refrigerator. Moss-Atlas Corp., Brooklyn, N. Y. Storage capacity, 3 1/2 cubic feet. Automatic temperature control adjustable to 9 freezing speeds. Formica top. Splash board. Removable top. Height, 3 feet. DC or AC current is used.



AB2953—LSF-264 is representative of full line of lighted and unlighted bathroom cabinets by Grote Manufacturing Co., Bellevue, Ky. One piece, seamless. Rounded inside corners, bulb edge glass shelves. Electrical fixtures, one-piece steel stampings.

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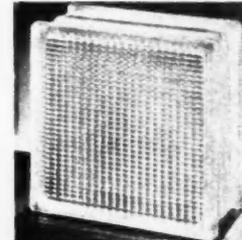
AB2932—Kitchen Maid cabinet. Kitchen-Maid Corp., Andrews, Ind. Flo-line design. Blends well with all major appliances permitting buyer to select appliances of his choice. Wood. Made to fit needs of any size kitchen. Adaptable to arrangements.



AB2931—Packy, Thor 3/8-inch universal electric impact wrench. Independent Pneumatic Tool Co., Aurora, Ill. Six pounds. Compact design. For driving nuts, bolts, cap screws up to 3/8-inch thread size, driving studs and many other uses.



AB2926—Monarch Uni-Point Model X36AF radial saw. American Saw Mill Machinery Co., Hackensack, N. J. Blade does not have to be raised and lowered when changing angles. Ripping gauge on telescoping ram. Fitted with adjustable pointer.

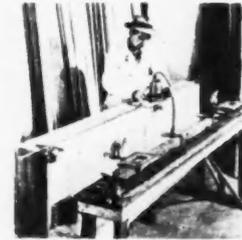


AB2946—Prismatic light directing glass blocks. Pittsburgh Corning Corp., Pittsburgh, Pa. For exposure to direct sunlight. Minimizes brightness contrast. Uniform diffusion of light by redirecting light to ceiling and rear of room. Available immediately.

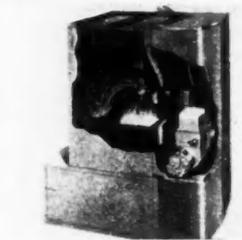


AB2976—Tub-Tite caulking compound. The American Fluoresit Co., Cincinnati, Ohio. A resin-based plastic caulking applied direct from tube, then smoothed with applicator. Tub-Tite dries within an hour. It remains flexible, expands, contracts with joint.

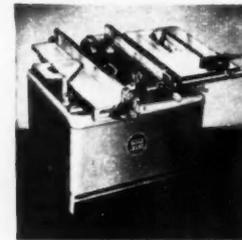
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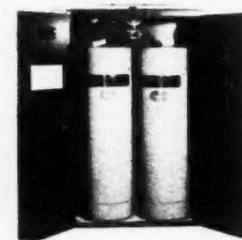
AB2938—Zern door jig. Universal Specialties Co., Pottstown, Pa. Fitting of doors to installed frames eliminated. Doors can be jambed, hinged on job or in shop. Easy installation. Hinge recesses cut simultaneously in door and jamb. Easy to use.



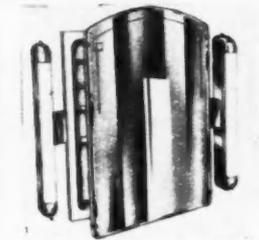
AB2964—Winter air conditioner. Airtemp Div. of Chrysler Corp., Dayton, Ohio. Oil fired. Output, 90,000 B.T.U. Rigidly formed from heavy gauge sheet steel. Bonded surfaces, inside and out. Heats average three or four-bedroom house. Economical.



AB2943—Saw-jointer. Boice-Crane Co., Toledo, Ohio. Tilting arbor saw and 6-inch jointer combined on steel cabinet stand. One motor. Jointer planes or rabbets 1/2 inch deep. Saw cuts stock up to 3 inches thick, and rips up to 21 inches wide.



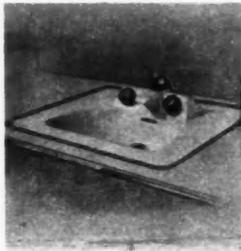
AB2959—Cabinet for Pyrox gas cylinder installations. Type A. Carbide and Carbon Chemicals Corp., New York, N. Y. For use where fully enclosed cabinet is desired. Dimensions, 36 x 59 1/2 x 17 1/2 inches. May be painted as builder chooses. Attractive.



AB2905—Fluorescent lighted bathroom cabinet. The F. H. Lawson Co., Cincinnati, Ohio. Light fixtures designed for and attached to cabinet. One-piece drawn-steel body. No. 2199-70 mirror-door is 16 x 24 inches. Inside box depth, 4 1/4 inches. Has three shelves.



AB2950—Ideal B-X armor cutter. Ideal Industries, Inc., Sycamore, Ill. Eliminates spoilage. Cuts cleanly, quickly without injuring wire insulation. Pocket size, 10 inches long. Cuts No's. 10, 12 or 14 cable. Shipping weight, 14 ounces. Saves time if used.



AB2974—Marcia and Elayne counter-top lavatories. Crane Co., Chicago, Ill. For counter tops of tile, linoleum, glass, formica, wood or other materials. Vitreous china. Chromium-plated brass controls. Marcia, above, is 24x21 inches overall. Color choice.



AB2970—Wonder "3" trailer mixer. Construction Machinery Co., Waterloo, Iowa. Half-bag capacity of any mix up to 1:2½:4. Electric welded frame, cantilever springs, pneumatic tires for high speed trailing. Engine, 1½ H.P., air-cooled, housed.



AB2936 — Glued-laminated structural members. Timber Structures, Inc., Portland, Ore. Trusses, arches, beams, and other specialized members. Curved, circular, elliptical, parabolic, or any prescribed curvature. Cross-sections normally square or rectangular.

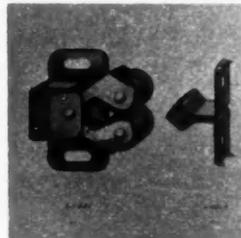


AB2919 — Magic Chef gas range. American Stove Co., St. Louis, Mo. One-piece top burner. Sheet steel, it combines drip tray, two complete burners, lighting equipment—all welded into one piece. Same burner operates on all fuel gases. Attractive design.

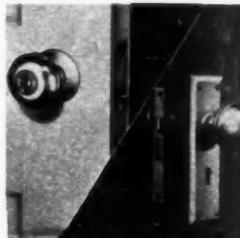
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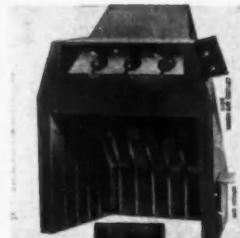
AB2929—Model RC-9 rotary switch electric range. Hotpoint, Inc., Chicago, Ill. Tilting backsplash, one-piece, wrap-around body, oven timer, utility clock. When 11½-inch backsplash tips forward for servicing, current is off automatically. Economical.



AB2921—Rubber-Roller spring catch and strike ensemble. National Lock Co., Rockford, Ill. Mainly for wood kitchen cabinets. Housing, spring and pawls made of steel. Rollers of rubber. Catch mounting holes elongated for ease of application.



AB2949—Doorknob lock. LaBelle Industries, Inc., Oconomowoc, Wis. Keyhole in doorknob. Tumbler-type cylinder lock in outer knob. When locked, outer knob spins without drawing latch, while inner knob is not affected. Prevents accidental locking.

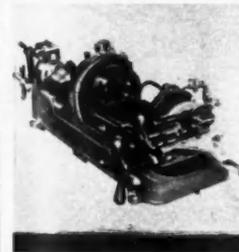


AB2935—Heatform, circulating fireplace. Superior Fireplace Co., Los Angeles, Calif. Guide around which masonry is built. Circulates warm air uniformly throughout room. Ribbed, reinforced firebox, upper and lower heating chambers incorporated.



AB2940—Automatic clothes washer. Hotpoint, Inc., Chicago, Ill. Single dial. Patented agitator on clothes washer permits use of small amount of water. At setting of dial, washer operates automatically through entire cycle in about 30 minutes.

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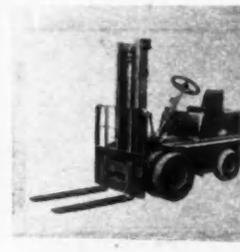
AB2923—Model B portable pipe and bolt threading machine. Beaver Pipe Tools, Inc., Warren, Ohio. Threads ¼ to 2-inch pipe, ¼ to 1½-inch bolts, and with drive shaft and geared tools will thread up to 8-inch pipe. Weight is 225 pounds.



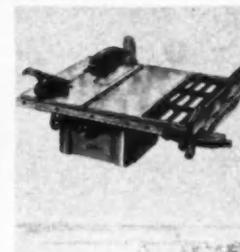
AB2906—Model A Ventura Propeller Fan. American Blower Corp., Detroit, Mich. Square mounting panel, streamflow motor enclosure. Terminal box without exposed wiring. Aero-curve 3-blade propeller. Exhausts bad air, fumes or odors. Easy to clean.



AB2944—Spray-O-Bond, concrete sealer. Spray-O-Bond Co., Milwaukee, Wis. For treating concrete block surfaces. Film resists penetration of moisture. Dry hydraulic cement composition. Effective above or below grades subject to water penetration.



AB2965 — Yardlift-40. Clark Equipment Co., Battle Creek, Mich. Wide drive axle, dual tires. For high lifts more than 144 inches. Easily attachable fenders included. Smooth operation over soft ground and surfaces unsafe for solid tired machines. Easy to use.

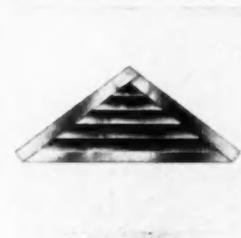


AB2920—Atlas 10-inch Tilt/Arbor bench saw. Atlas Press Co., Kalamazoo, Mich. Table, 25x33¼ inches. Maximum distance right of blade to fence, 24¼ inches; 8-inch table surface to left of blade; and 12¼-inch table surface ahead of blade; 191 pounds.

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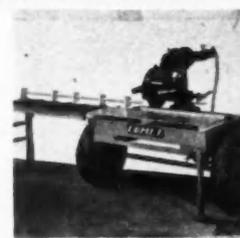
AB2958—All-metal buildings. Butler Manufacturing Co., Kansas City, Mo. Sixty foot wide building, bowstring truss is recent addition to complete line. Rigid frame types have no trusses in roof area, have straight side-walls, large interior space.



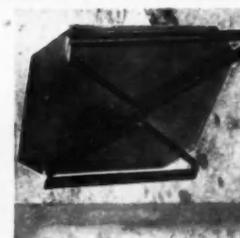
AB2916—Leigh triangle ventilator. Air Control Products, Inc., Coopersville, Mich. For 9-12, 8-12, or 10-12 pitches. Heavy gauge aluminum, riveted. Louvers full depth with water deflecting baffle. Insect screen included. Easy to install. Requires no cutting.



AB2909 — Dish-A-Matic dish washer. Apex Rotarex Corp., Cleveland, Ohio. Washes, rinses and dries. Sink, 48 inches, standard depth and height. Dryer is 30 inches wide, 24¼ inches deep, 36 inches high. Interior, porcelain enamel. Sealed bearings.



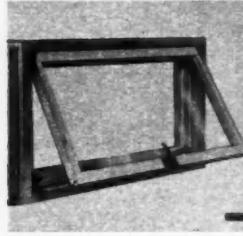
AB2968—Comet Clipper model, trailer radial saw. Consolidated Machinery & Supply Co., Los Angeles, Calif. Short section ball bearing roller feed table. Stop gauge assemble, cold rolled steel. Each trigger supported by solid steel block. Accurate.



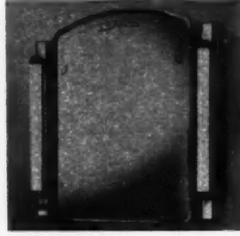
AB2930—HT mortar board stand. Hurlbert Thomson Co., Drexel Hill, Pa. Compact unit can be quickly set up or taken down. Light, portable. Two wingnuts lock four steel legs in place to support any size mortar board. Height, 29 inches. Two sizes.



AB2910—Armstrong Lumber Jack. Armstrong-Jones, Inc., Tipton, Ind. Insures tighter flooring, does not mash tongue or groove, fits warped boards, straightens crooked studding. Can carry in tool box. For laying floors or for placing siding. Is attractive.



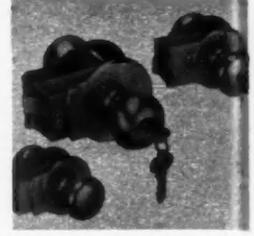
AB2915—Basement-utility window unit. Andersen Corp., Bayport, Minn. Prefabricated, delivered carton-packed. Frame, glazed sash, hardware, chemically treated wood parts, weatherstripping and storm sash (optional). Standard sizes. Available now.



AB2942—Park Lane fluorescent-lighted medicine cabinets. The Bennett Manufacturing Co., Alden, N. Y. Equipped with full-length, chrome-plated, brass-light brackets and 18-inch fluorescent bulbs. Diameter is 1 1/2 inches. Operated from wall.

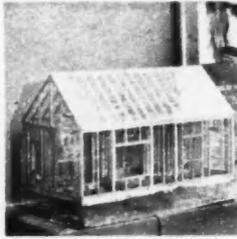


AB2975—Marvel-Lift, upward-acting, residential, commercial or industrial garage doors. Crawford Door Co., Detroit, Mich. All hardware cadmium plated. Die-cast, zinc alloy, rustproof cable drums grooved to guide cable so that it winds flat.

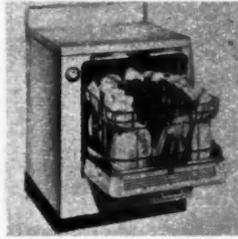


AB2972—Locks, latches, "900" series. P. & F. Corbin Div., The American Hardware Corp., New Britain, Conn. For light commercial buildings, small apartments, homes. One-piece assembly. Two saw cuts needed to make slot in door. No mortising.

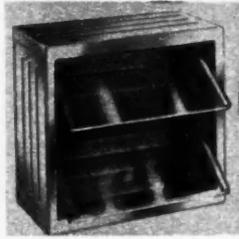
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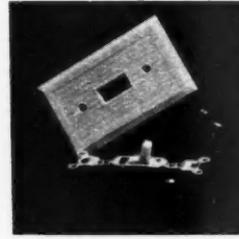
AB2928—Hill Termite Control Systems, Memphis, Tenn. Installed at time of construction. Slotted pipes installed in inaccessible areas. Perforated pipe inserted into slotted pipe to chemically treat areas. Exhibit, above, shows termites' activities on model.



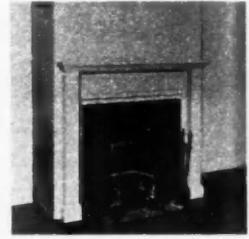
AB2951—Automatic electric dishwasher. Hotpoint, Inc., Chicago, Ill. Simplified drain system at front. Dial control. Washes and rinses dishes twice, sprays them four times, and electrically dries. Incorporates newly designed plastic impeller. Smooth operation.



AB2917—Weather-Bloc, glass block ventilator. Air Rectifiers, Inc., Chicago, Ill. Size same as standard glass blocks. Easy to install. Glass diffusers deflect wind, rain and snow. Inside glass louvers control ventilation, direct air current. Attractive appearance.



AB2955—Silent mercury switch, switch plate. General Electric, Bridgeport, Conn. Ten-ampere T-rating at 125 volts. Replaces 5-ampere originally developed. Silent, smooth operation. Handle in ivory or brown plastic. Distinctive appearance. Completely tested.



AB2903—Firedaire. Anderson Stove Co., Inc., Anderson Ind. Mantel, fireplace and circulating heater fits against wall. Connects to ordinary stove chimney. One man can install. No damage to walls or woodwork. Heats up to 7 rooms on one or two floors.

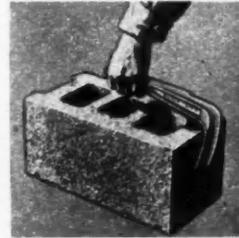
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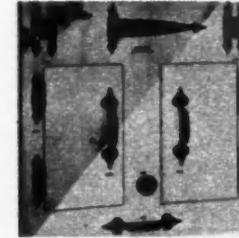
AB2969—CMC Handi-Hoist. Construction Machinery Co., Waterloo, Iowa. For lifting, loading, unloading or moving bulky, heavy equipment or supplies. Counterbalancing method utilizes weight of towing vehicle. Boom raises objects to height of 15 feet.



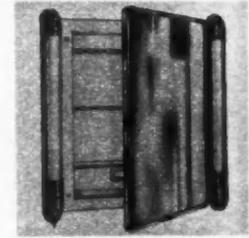
AB2973—Genuine Crab Orchard Stone. Crab Orchard Stone Co., Crossville, Tenn. Numbered, registered certificate covers each lot shipped from quarries, as well as name of buyer, railroad line, car number, date of shipment, detailed listing of stone.



AB2913—Block-Lift. The Block-Lift Co., Mt. Vernon, Ohio. For handling building blocks. Sturdy cast aluminum. Weight 32 ounces. Acts as handle to lift, place, and true up blocks. Jaw grips when handle is raised. Provides leverage. Permits easy handling.

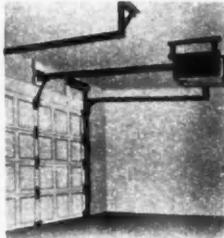


AB2918—Colonial cabinet hardware. American Cabinet Hardware Corp., Rockford, Ill. Amerock push button type catch, semi-concealed hinges for flush or offset doors, reversible HL hinges for right or left hand doors. Matched American patterns.

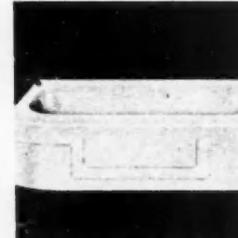


AB2960—Bathroom cabinet with fluorescent light fixtures. Philip Carey Mfg. Co., Middletown, Ohio. Available in several cabinet styles and mirror designs. Operation does not disturb radio reception. Single electrical outlet box cuts installation costs.

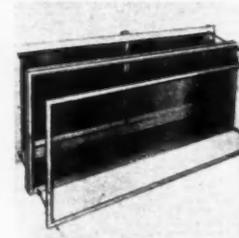
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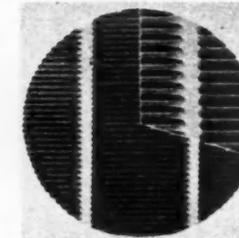
AB2924—Model MR electric operator for upward acting garage door. Barber-Colman Co., Rockford, Ill. Motor of instantaneously reversing type, 110 volt, 50 or 60 cycle, three phase. A.C. size depends on door to be handled. Locks open or closed.



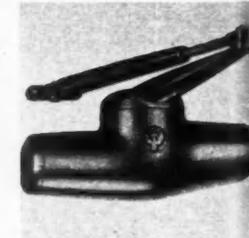
AB2922—Model BA5 bathtub. Allianceware, Inc., Alliance, Ohio. Panelled apron. Wide seat integral part of outer rim. Height, 15 1/2 inches. Heavy gauge steel. Porcelain-on-steel surface. Shipping weight, 179 pounds. No brass goods supplied with bathtub.



AB2927—Coeconomy basement window with screen and storm panel. Ceco Steel Products Corp., Chicago, Ill. Window, screen and panel, one unit. Double contact weathering. Fin and masonry guide to simplify installation. Hot rolled steel screen frame.



AB2947—Kaiser Aluminum shade screening. Permanente Products Co., Oakland, Calif. Cools, shades, protects against insects. Made of aluminum alloy. .0065-inch thick, cut into louvers .988-inch wide, spaced 1/18 inch apart. Screen also included.



AB2939—Universal hydraulic door closer. Eagle Lock Co., Chicago, Ill. Packaged with everything needed for installation. Weight, 6 1/4 pounds. Height, 4-3/64 inches. Width, 3-7/16 inches. Length, 8 1/4 inches. Double crank type. 2 pistons and 2 springs also.

AB2956—less steel ing for flat rim Briggs Detroit, For cou seal bet or comp

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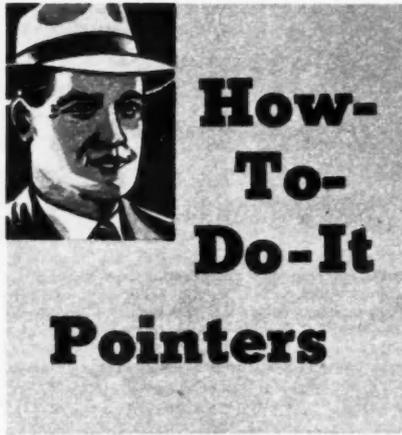
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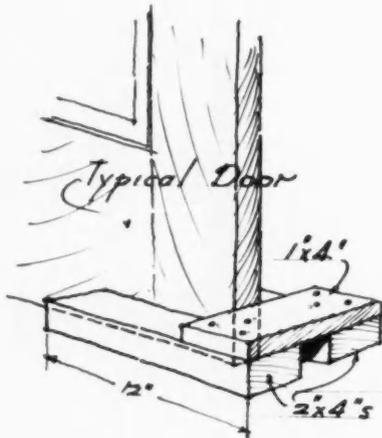
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How to Make a Door Holder That Makes Boring Rails For Locks Easy

THIS little gadget makes a hard job easy. Submitted by **BATSELL MOORE**, Waco, Texas. Door holder is made of two 2x4's held together



by a 1x4 piece nailed to blocks at the top. By placing foot on the 1x4, door is held in position by workman when boring the rail for locks.

How to Install Wood Thresholds

THIS suggestion is submitted by **ERWIN SCHWATT**, Atlantic City, N.J.

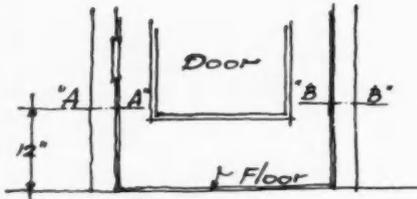


FIG. 1.

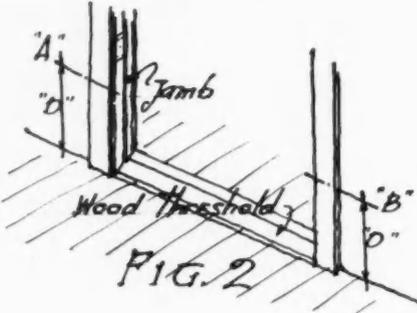


FIG. 2.

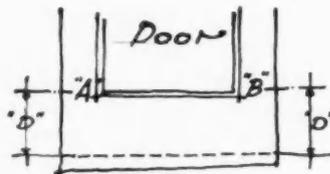


FIG. 3.

Figure 1 shows door hung with bottom edge unfinished. Mark off a short line one foot above floor at "A-A" and "B-B". Remove door and lay threshold.

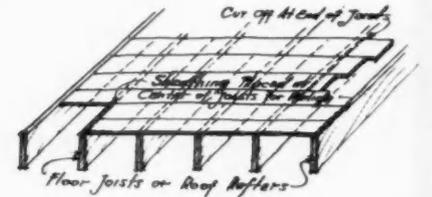
Figure (2): Measure down from line "A and B" on jamb to the threshold, and transfer this distance "D" to the "A and B" mark on the door.

Join these points as shown by

dotted line in figure (3), and cut off bottom of door.

How to Cut Sheathing to Size

THE METHOD used by **JOHN A. ZOLLINGER**, Sayreville, N.J., in cutting floor and roof sheathing, has been found to be simple and effective.



The end of three or four sheathing boards are butted against one of the joists or rafters. The trimming of the end of the boards is made against the succeeding joist where the board will be placed. After the cut is made the boards will fit center to center on both end joist.

How to Remove Asphalt From Concrete Surface

JESSE H. SHELTON, Lake Wales, Fla., has used this method successfully in removing either pitch or asphalt from the finished surface of concrete floors. Place a piece of ice upon pitch or asphalt and let it freeze. When either of these substances become frozen, they can be lifted directly from the concrete surface and will not leave a stain or mark of any kind. Methods that employ the use of gasoline or other fluids will always leave a stain.

Roughing-in for Interior Stairs

By **R. J. Alexander**

THIS MONTH'S detail sheet is to acquaint the designer and builder with some of the essential information required when a finished stairway is ordered from a manufacturer.

Finished stairs are sometimes made on the job, but more often they are made at the mill from specifications furnished by the builder.

The stairway is one of the most difficult and technical jobs encountered in residential building. Therefore, the manufacturer must have complete and detailed information if he is to set up the finished stairs to fit the rough framing.

When the manufacturer furnishes the millwork from a set of plans, it is customary for him to submit details of the work to the builder for dimensions. This informa-

tion is best obtained after the building is plastered. Because of the time required for the manufacture of the millwork, it may be necessary to take measurements as soon as the rough framing is completed.

When stock items are used, such as newels, railings and balusters, the catalog number of each item should be given to the mill. The manufacturer should know if easings and goosenecks are to be included.

The type of starting tread should be noted. The manufacturer should know if square, quarter circle, half circle or volute type are to be used. If stringers are to be housed and risers and treads rabbeted, then this should be clearly indicated. Thickness and width of base, kind of wood to be used, information as to finish of the stair should also be included.

DEALER REVIEW



NEWS OF NRLDA AND STATE AND REGIONAL ASSOCIATIONS

30-Day Dealer Training Courses Are Announced for Balance of 1949 Term

THE 30-DAY training course program for retail lumber yard personnel sponsored by the various regional and state associations is a continuing valuable feature of the industry's plans to improve the calibre of its people and their work. During the 1948-49 school terms 23 classes were scheduled in various colleges and universities all over the United States.

Generally, the 30-day courses cover four main topics, with variations in the individual schools offering the work. These topics are building products, general business procedures, construction and estimating, plus some miscellaneous subjects.

The building products group includes courses in plywood, shingling, paints and finishes, cement and con-

crete, insulation, glass, roofing, and siding, brick and tile, hardware, floor and wall coverings. Among the business subjects are advertising, business law, transportation, purchasing, pricing, accounting, salesmanship, telephone selling and insurance. Courses in construction and estimating include blueprint reading, and preparing bills of materials. The miscellaneous subjects include FHA regulations, trade associations, business papers, store and yard arrangements, sanitation, and new ideas and trends in the lumber and building materials field.

Two of the most notable features of the courses have been the enthusiasm of the students and the tremendous interest of industry in the success. (Continued to page 186)

Shingle Bureau Lays Plans to Expand Market

THE DEVELOPMENT and expansion of markets for red cedar shingles in the United States was the theme of the 32nd annual meeting of the Red Cedar Shingle Bureau in Seattle, Wash. First announcement was made at the meeting of the Bureau's plans to promote on a national scale during 1949 an attractive all-shingled house design, known as the Certigrade National Home. R. V. Winters, vice president of National Plan Service, Chicago, described the program to the 200 Pacific Northwest shingle manufacturers assembled for

the convention. Winters presented an attractive model of the home to W. W. Woodbridge, secretary-manager of the Bureau.

Officers of the Bureau, elected at the meeting, are: E. R. Scott, Edmonds, Wash., president; W. W. McLallen, Vancouver, B.C., vice president; W. W. Woodbridge, Seattle, secretary, and Virgil G. Peterson, Seattle, treasurer. Woodbridge estimates that about six million squares of shingles were manufactured in 1948. Headquarters of the Shingle Bureau are in Seattle, Wash.



RED CEDAR SHINGLE BUREAU officials examine model of the Certigrade National Home, which will be featured in national promotion in 1949. Shown, left to right: E. R. Scott, president; Virgil G. Peterson, treasurer; W. W. Woodbridge, secretary-manager and W. H. McLallen, vice president. Bureau offices are in Seattle

The President's Column



By C. B. SWEET
President, NRLDA

Government financing and budget balancing is completely over my head—guess I was born 30 years too soon to understand modern methods.

Just recently I made a trip through a very rich agricultural area, one that is famous for its fine potatoes—the big potatoes that you like baked. The crop this year was one of the largest this area has ever produced. But alas, the market was weak, a condition anyone in the lumber business will understand. However, at that point the comparison ends. The potato grower, instead of selling his crop at the current market or holding his crop for better prices, called on his benevolent Uncle in Washington. The result of this call was that the potato grower sold his crop to the government for \$2.53 per 100 pound sack. The government then proceeded to sell the same potatoes back to the growers for 10¢ a sack, the potatoes never leaving the growers' warehouses during these transactions.

The theory back of this transaction was that the potatoes were to be fed to livestock. Wonder if anyone knows whether cows like their potatoes baked or hash-browned? This same area also has a big hay production, but then maybe modern cows demand a more varied diet. I rather suspect there are millions of human beings in the world who wouldn't be too particular just so long as they had something to eat.

From the time the potato crop was harvested in late October, up to December 9, the growers in this region (Continued to page 186)

Here's the Answer to the "64-DOOR Question"



When it came to the question of 64 doors for its 700-foot inbound freight terminal in Kansas City, Missouri, the Santa Fe Railway found the answer in Ro-Way Overhead Type Doors.

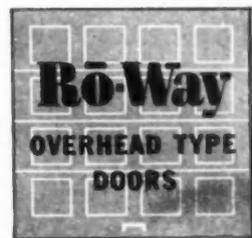
It's easy to see why. Ro-Way Doors are made to order for commercial and industrial installations. Scientifically engineered for smooth, easy operation. Ruggedly built to take the continuous "ups and downs" of punishing service.

On large sizes, for example—or for extra hard service—Ro-Way uses heavy duty, friction-reducing track, 3" wide and 1/8" thick...husky 2 3/4" ball bearing track rollers

with double-thick tread...spring hookup of two or four power-metered springs...sections reinforced with U-Bar stiffener or U-Bar truss...bottom rails made from 8" stock, with end stiles, muntin bars and meeting rails proportionately heavy.

All this brawn, and beauty, too. For every Ro-Way Overhead Type Door—commercial, industrial or residential—is designed with clean, simple lines to blend with any style of architecture.

For a single door... or 64... specify Ro-Way. You'll find it the answer to everything you want in an overhead type door.



There's a RoWay for every Doorway!

ROWE MANUFACTURING COMPANY • 747 Holton Street, Galesburg, Illinois, U. S. A.

Equitable Life's
"CLINTON HILL"

Brooklyn, N. Y.—11 buildings
— 1160 apartments. Architects:
Harrison Follhoux and Abramowitz;
General Contractors: Starrett Bros.
and Eken, Inc.; Kitchens by
Kitchen Maid Corporation.



Kitchen Maid Cabinets in famous Clinton Hill are of modern Flo-Line design—flush panel doors, gently rounded door and drawer edges. Solid hardwood construction, quiet, aluminum drawers and many other features.

Much is Gained

WHEN KITCHEN MAID IS CHOSEN!



Kitchen Maid Cabinets include many convenience features.



Exclusive aluminum drawers—non-chipping, quiet, slide easily.

More and more architects, builders and owners are learning the many advantages of Kitchen Maid Cabinets of Wood. The warmth and friendliness, the modern Flo-Line design, the flexibility, durability, and economy of wood; aluminum drawers, cushioned door action—these and many other features make Kitchen Maid rank high wherever kitchens are discussed. Kitchen Maid representatives are generally the oldest and most experienced in their localities, and are able to render valuable service to architects and builders. Consult them regarding your requirements.

KITCHEN MAID
FIRST AND BEST IN
KITCHENS

THE KITCHEN MAID CORPORATION
592 Snowden Street, Andrews, Ind.

Please send new booklet containing 10 practical kitchens with floor plans and details. I am an Architect Builder Dealer.

Name _____

Street _____

City _____ State _____

Dealer Review

The President's Column

(Continued from page 184)

shipped, on the open market, 2,727 car loads of potatoes. At the same time they diverted 1,906 carloads to livestock. Assuming a minimum car to be 60,000 pounds, or 600 sacks of potatoes, this means that 1,143,600 sacks of good healthful potatoes went to the cows. That would certainly make a lot of CARE packages, to say nothing of helping to feed our own hungry families. Perhaps this \$2,893,308 expenditure for cow feed is one of the reasons that taxes account for such a large part of the construction dollar.

Do you suppose it would be possible for the lumber dealers of the country to make arrangements with the government to buy their lumber inventories when the market drops, and then be able to buy it back as stove wood? It might be one way to keep warm and at the same time not show an inventory loss.

As stated at the beginning, I guess I just don't understand government financing and budget balancing.

30-Day Training Courses

(Continued from page 184)

cess of the classes. One observer stated that the industry segment of the faculties reads like a "Who's Who" of the lumber and building material industry.

The courses are open to veterans and non-veterans alike. Most of the students have been veterans, although in many instances men who have been working in yards have taken the courses with interesting results. One experienced yardman reported that a newcomer to the business can learn as much in one of these 30-day training courses as he would ordinarily learn working around the average yard for three years.

The 30-day training courses scheduled for the balance of the 1949 school term, together with the name of the sponsoring association, are as follows:

City College of New York—February 14 to June 6 (evening); February 14 to March 21 (day). New York Lumber Trade Association and New Jersey Lumbermen's Association.

Georgia Tech—January 31 to February 25. Lumber & Supply Dealers Council, Atlanta, Ga.

Michigan State College—February 14 to March 11. Michigan Retail Lumber Dealers Association, Lansing, Mich.

Ohio State University—February 7 to March 4. Ohio Association of

(Continued to page 188)



Note the attractive appearance of this suburban home protected with #57 "Century" Asbestos-Cement Siding and #30 "Century" Side Lap Roofing Shingles.

Build customer good will
with K&M "Century" Asbestos-Cement Siding

The building material that resists fire, weather, rot and termites, and at the same time retains its attractive appearance. It's easy to apply on new construction or for renovations. Never needs protective painting.

You'll appreciate the convenient labor-saving large units, 12 x 24 inches. Your customers will appreciate the long-lasting quality of "Century" Asbestos-Cement Siding and the pleasing effect of the cypress grain finish.

"Century" Asbestos-Cement Siding is available in shell white, graytone or mottled graytone to blend in every setting. For complete information get in touch with your K&M dealer... or write directly to us. We'll attend to your inquiry promptly.

*Original manufacturers
of Asbestos-Cement Shingles
in this country.*

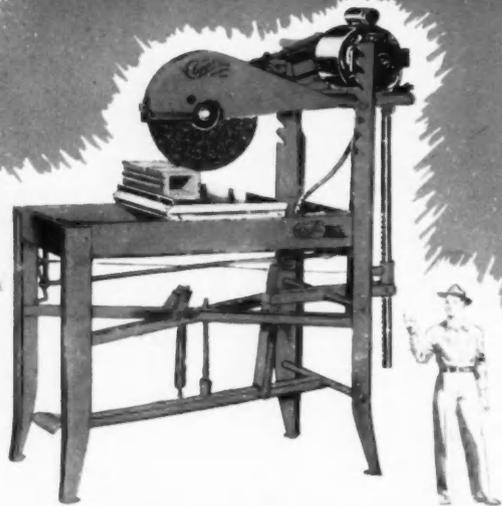


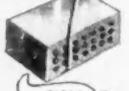
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COMPANY • AMBLER • PENNSYLVANIA

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Clipper
"SAILS RIGHT THRU"
FREE TRIAL
 OFFER Now I

For All
 Masonry
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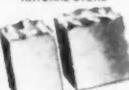
SAVE TIME and MONEY on Every Job!



GLAZED TILE

 CUT IN
21 SECONDS
 BY CLIPPER

ROOFING TILE

 CUT IN
14 SECONDS
 BY CLIPPER

NATURAL STONE

 CUT IN
12 SECONDS
 BY CLIPPER

CONCRETE BLOCK

 CUT IN
19 SECONDS
 BY CLIPPER

Cuts Quickly—With Ease and Economy. Slices the hardest material in seconds.

Contractors Agree . . . 1949 Features Make CLIPPER More Outstanding than Ever Before!

Yes, builders everywhere are choosing the 1949 Clipper Masonry Saws with their faster than ever cutting action—you too will be amazed when you see them perform. The Model HD will answer requirements for DUSTLESS Wet and Dry cutting all in one saw! Really the 100% Answer to ALL Masonry Cutting. The HD and all of the 1949 Clipper Models FEATURE . . . "ADJUST-A-CUT" Control; "STREAM-LINED" Ball Bearing Conveyor Cart; "PRESSURE EQUALIZER" Spring; and the Improved "SNAP-ON" Blade Cover.

NINE NEW CLIPPER MODELS

You can have any one of the nine 1949 Clipper Models on FREE TRIAL . . . each designed with outstanding features and within a price range convenient for you. Problems of masonry cutting are a thing of the past with CLIPPER on the job. New and better features combined with "Multiple Cutting Action" make CLIPPER'S superior on jobs of Skyscraper complexity and on jobs with the simplicity of cutting brick and marble for Fireplace trim.

Contact your nearest Factory Branch, located from COAST to COAST, and ask for a 1949 CLIPPER on FREE TRIAL. Priced from \$195...write for descriptive literature!

Clipper
"SAILS RIGHT THRU"
MANUFACTURING CO.
 2808 WARWICK • KANSAS CITY 8, MO.
 PHILADELPHIA • ST. LOUIS • CLEVELAND • AUSTIN, TEX. • SAN FRANCISCO

NATION-WIDE DIRECT FACTORY SERVICE

Dealer Review

(Continued from page 186)

Lumber Dealers, Xenia, Ohio.
 Southern Methodist University—February 7 to March 4. Lumbermen Association of Texas, Houston, Texas.

University of Massachusetts—February 21 to March 23. Northeastern Retail Lumbermen Association, Rochester, N.Y.

New York State College of Forestry—February 14 to March 16. Northeastern Retail Lumbermen Association, Rochester, N.Y.

University of Illinois—February 16 to March 15. Illinois Lumber & Building Material Dealers Association, Springfield, Ill.

University of Kansas City—February 15 to March 19. Southwestern Lumbermen Association, Kansas City, Mo.

Pennsylvania State College—January 31 to February 25. Middle Atlantic Lumbermen Association, Philadelphia, Pa.

University of Wisconsin—February 21 to March 19. Wisconsin Retail Lumbermen Association, Milwaukee, Wis.

Federal Grand Jury Indicts Kansas City Coal Dealers

A FEDERAL GRAND jury at Kansas City, Mo., recently returned an indictment against 15 retail coal dealers, five of their officers, a coal dealers' trade association and its executive secretary, all doing business in the Kansas City area.

The indictment charges the defendants with having fixed prices and suppressed competition in the coal business in the greater Kansas City area. It also charges that the defendants have enforced their plan by preventing dealers who refuse to adhere to the conspiracy from obtaining supplies of coal.

In announcing the action taken by the grand jury, Attorney General Tom C. Clark said: "Inasmuch as coal is an essential commodity for heating a large percentage of homes and various public and private institutions, it has a direct effect on the cost of living. This case has been brought in connection with the program of the anti-trust division to prosecute illegal conspiracies which affect the cost of living."

In addition to the 15 dealers and five of their officers the indictment covers the Greater Kansas City Retail Coal Merchants Association, Inc., and Burdette Yeo, its executive secretary and manager.

(Continued to page 190)

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EASY
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THEY'RE
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boosters



**We mean Convection Heating*

Thanks to the heating contractor who recommended *Convection Heating . . . and Tuttle & Bailey Recessed Convectors!

A combination that meets every requirement home owners demand from heat distribution equipment . . . efficient heat transmission that means real comfort . . . economical operation that saves on fuel costs . . . appearance that harmonizes with modern furnishings.

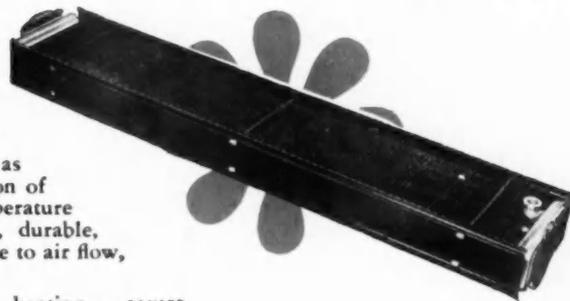
And a plus value to you, Tuttle & Bailey Standardized Convectors (Recessed or Cabinet Types) are stocked for quick delivery . . . conveniently packaged for easy handling on the job.

**ALL-COPPER HEATING ELEMENT
MAKES A DIFFERENCE!**

Fins, tubes, headers . . . Tuttle & Bailey heating elements are constructed entirely of copper. With conductivity approximately seven times faster than iron, twice as fast as aluminum, copper means quicker transmission of heat from boiler to rooms, raising room temperature levels faster. Elements are light in weight, durable, sturdy . . . engineered for minimum resistance to air flow, maximum contact with fins.

"Inside facts" that mean *better* heating . . . assure lasting customer satisfaction.

**TUTTLE AND BAILEY, INCORPORATED
NEW BRITAIN, CONNECTICUT**



ASK YOUR JOBBER TODAY

TUTTLE & BAILEY inc

Standardized COPPER CONVECTORS



If you want
EASY LAYING get—

BERMICO[®]

SEWER PIPE

YOU GET LIGHTNESS. Faster-laying BERMICO Sewer Pipe is 2/3 lighter than other types. Economical 8-foot lengths are easy to handle on the truck and at the job.

YOU GET SPEED. BERMICO joins tight—for keeps—with a few quick hammer blows. No joining compound needed. And you can back-fill immediately.

YOU GET TOUGHNESS. BERMICO is corrosion-resistant, built for a lifetime of trouble-free service. Stays tight, leak-proof, root-proof. Stands up under temperature shifts and soil settlements.

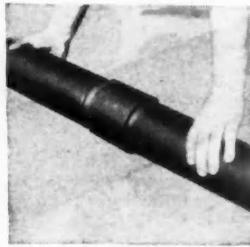
FOR HOUSE-TO-SEWER OR SEPTIC TANK Specify BERMICO. Made in a full range of sizes, connections, bends, reducers, adaptors, etc. Nationally advertised. Use BERMICO Perforated pipe for drainage purposes. For further information write Brown Company, Dept. A-12, 500 Fifth Avenue, New York, N. Y.

EASY TO INSTALL



8-foot lengths reduce number of joints to be made.

EASY TO JOIN



Root-proof, machine tapered joints require no packing.

EASY TO HANDLE



2/3rds lighter than other types of sewer pipe.

BERMICO meets with an ample margin all requirements of Commercial Standards CS 116-44 as issued by National Bureau of Standards, U. S. Department of Commerce.



BERMICO—A PRODUCT OF BROWN COMPANY

Dealer Review

(Continued from page 188)

Lumber Manufacturers Elect A. J. Glassow President

LUMBERMEN representing all sections of the United States gathered in Washington, D.C., in December for the annual meeting of the board of directors of the National Lumber Manufacturers Association, board of directors of the Timber Engineering Co., and board of trustees of the American Forest Products Industries. One of the resolutions passed asked that the government immediately lift all export controls on lumber.

Officers of NLMA elected for the coming year are: A. J. Glassow, Bend, Ore., president; H. M. Seaman, Houston, Texas, first vice president; John B. Veach, Washington, D.C., vice president and treasurer; Homer B. Jarison, Fresno, Calif., vice president; C. W. Ingham, Marcola, Ore., vice president; Omar Hilton, Warren, Ark., vice president; R. A. Colgan, Jr., Washington, D.C., executive vice president; Henry Bahr, Washington, D.C., secretary.

Oklahoma Group Officers And Directors Meet

OKLAHOMA Lumbermen's Association new officers and directors conducted their first meeting in late December in Oklahoma City to set the legislative objectives and projects for 1949.

The officers and directors heard of the progress OLA, an independent state association, made during the first two years as an organization, from the secretary, Bill Morgan. During the first two years 315 members have joined the Association and new members are being added every month. The Association has set an objective of 400 members as its goal by the third anniversary of its organization.

Dates for the 1949 convention will be October 18 and 19 in Oklahoma City. Walter Kelly, the new president, presided over this first meeting of the board.

Tennessee Convention Dates Changed

THE TENNESSEE Lumber, Millwork and Supply Dealers Association has announced that the 1949 convention of that group will be conducted at the Andrew Johnson Hotel in Knoxville, March 28, 29 and 30. The dates had been previously announced for early in April. There will be manufacturers' exhibits.

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READY-MADE SASH FOR *Thermopane*

DOUBLE-HUNG

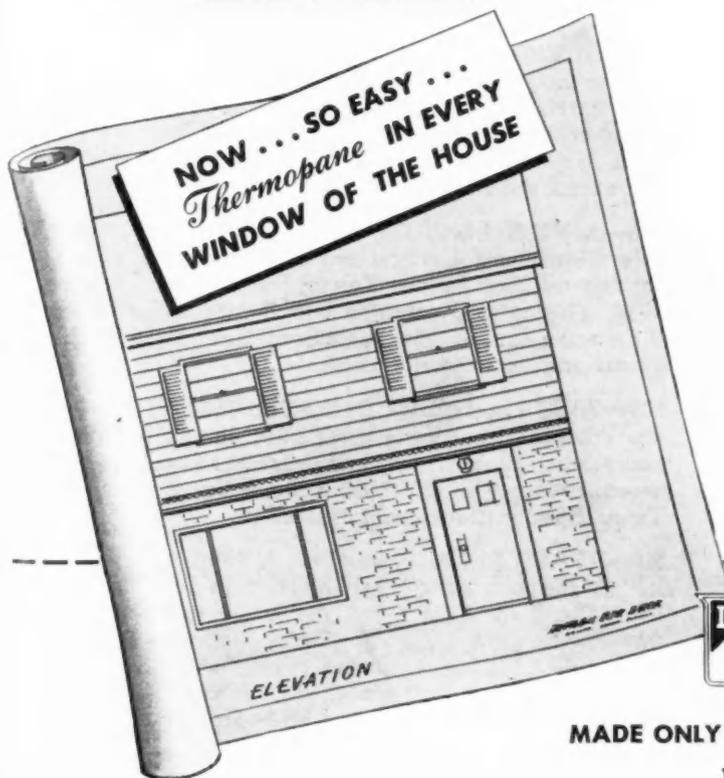
—Offered in a wide choice of standard sizes in wood, steel or aluminum.

CASEMENT

—*Thermopane** offers the easiest way to insulate casement windows.

PICTURE

—Made in a wide selection of standard sizes. Best insulation for big glass areas.



You get the sash complete, in wood or metal, either glazed or ready for glazing with *Thermopane*. You install it in the regular way.

SEE YOUR DEALER—30 manufacturers are now making standard sash for *Thermopane*. More manufacturers will soon be in production to meet the demand. If your dealer does not yet have ready-made sash for *Thermopane*, urge him to stock it or write us for a list of sash manufacturers.

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For **PERMANENT Beauty**
Radiiluxe
STAINLESS STEEL SINKS
ARE FIRST CHOICE

Architects and Builders of Quality Homes know that

Radiiluxe **STAINLESS STEEL SINKS**
 by *Just* meet the most exacting requirements of
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Custom built of heavy gauge solid stainless steel
 and electrically welded throughout, *Radiiluxe* Sinks

not only add a final touch of charm and beauty to
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 B-2 and send us your specifications

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 4610-20 W. 21st Street, Chicago 50, Illinois



Catalogs and HOW-TO-DO-IT INFORMATION

Information on any of the printed matter listed here will be sent FREE on request. Please use coupon on page 194

502—RESINS AND PLASTICS—37-page, four-color catalog is informative guide which describes forms, properties and uses of Vinylite. Illustrations and charts are included. Distributed by Bakelite Corp., 30 E. 42nd St., New York 17, N.Y.

503—SECTIONAL UNIT CABINETS—for multiple use are described in an eight-page catalog issued by Carr, Adams & Collier Co., Dubuque, Ia. "Nu-Style" cabinets, the new line of Bilt Well Wood Work cabinets, are fully illustrated.

504—METAL WEATHERSTRIPS—catalog No. 46, issued by Zegers Inc., 5617 Harper Ave., Chicago 37, Ill., presents detailed drawings and illustrations of the "Dura-Seal" window and door weatherstripping. Specifications are given, as well as explanations of cross-section drawings presented in the six-page catalog.

505—INSULATION FOR LOW TEMPERATURES—The Pittsburgh Corning Corp., 632 Duquesne Way, Pittsburgh, Pa., has issued a four-page brochure on the use of Foamlas cellular glass insulation for low temperature work. Application recommendations are included, plus illustrations.

506—"DREAM KITCHENS FOR A SONG"—is the title of a 19-page, four-color catalog issued by Mullins Manufacturing Corp., Warren, Ohio, describing Youngstown kitchens and kitchen equipment.

507—"INSULATION AND LIGHTWEIGHT AGGREGATES"—is title of an eight-page catalog issued by the Zonolite Co., 135 S. LaSalle St., Chicago, Ill. The catalog describes new methods of construction with vermiculite lightweight aggregates. Subjects covered are insulating fill, insulating concrete, plaster, and acoustical plastic.

508—A NEW LINE OF HEATERS—called circular "Vertiflow" unit heaters, are described in a 16-page catalog released by the Young Radiator Co., Racine, Wis. The catalog contains complete descriptive and illustrative data on the "Vertiflow" line; includes diagrams and performance data.

509—CAST IRON BUILDING SPECIALTIES—fire-place dampers, ventilator grates, ash dumps, bell traps, and others are illustrated and described in a four-page brochure issued by the Vestal Stove Co., Sweetwater, Tenn. Specifications are included.

510—BRASS FITTINGS—"For A Lifetime of Service" is the title of a small booklet just released by Eljer Co., Ford City, Penn. Typical group of Eljer's complete line is attractively illustrated and interestingly described. Plumbing fixtures described feature "renewable units" of two types, one for concealed body fittings, the other for exposed body fittings.

(Continued to page 194)

CONCO Means...

THE PRACTICAL ANSWER TO HOUSING PROJECT Heating



Model VF

The thrifty CONCO-BREESE vaporizing oil burner. Bonnet output, 100,000 B.T.U.



Model TF

The exclusive Magic Spray oil burner uses less costly No. 3 oil Bonnet output, 100,000 B.T.U.



Model VU-1

Designed for utility room, closet, hall or basement installations. Cabinet is 25" wide, 26" deep, 69" high.



The CONCO Stainless Steel vaporizing oil burner. Bonnet output, 73,000 B.T.U.

CONCO Series F WINTER AIR CONDITIONERS

The CONCO series F in one unit, 25" wide, 43" deep and 57³/₈" high, engineered for oil or gas. No structural changes necessary to change a VF unit to either TF or GF—just change burner and controls.



Model GF

The economical Mono-Flame gas burner, readily adaptable to natural, manufactured, mixed or L. P. gases.



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CONCO BUILDING PRODUCTS, INC.
BRICK—TILE—STONE

royal jet-flow

outperforms heating units
costing three times
as much*



HENRY I. FLINN JR.

says: "The Royal Jet-Flow is doing a stupendous job . . . The unit has far exceeded our greatest expectations. We have had nothing but praise from each one of the 200 tenants . . ."

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1024 WESTMINSTER AVENUE
ALHAMBRA, CALIFORNIA

Catalogs

(Continued from page 192)

511—STEEL ROLLING DOORS—of many different types and uses are described and illustrated in 27-page catalog issued by The Kinnear Manufacturing Co., 820-870 Fields Ave., Columbus 16, Ohio. Six sections include discussions of service type doors, fire doors and shutters, Rol-TOP doors, hangar doors, steel rolling grilles and special doors. Complete construction details and operating methods are included.

512—ONE HUNDRED FIREPLACE IDEAS—handsomely illustrated, including types from old to modern in catalog by that title issued by Price Fireplace, Heater & Tank Corp., Buffalo 7, N. Y. Ideal book of information for builders, regardless of what architectural design he employs.

513—BUILDER'S HARDWARE LINE—by H. B. Ives Co., New Haven, Conn., is displayed in color in small brochure recently issued by that firm. New type casement window operators that control outswinging casement windows without removing screens are featured, showing detailed methods of installation. Other hardware of Ives's complete line is shown.

514—THIRTY-ONE PAMPHLETS—are available on request, plus a new 32-page two-color catalog on the Weldwood fire door and fire-resistant door, Plankweld, Weldwood moldings, Honeycomb; several new wood species, Korina, American elm, and Vertical grain cedar and two new finishing materials, Firzite and Satinlac. Issued by United States Plywood Corp., Weldwood Building, 55 West 44th St., New York 18.

515—FACTORY-WAXED ASPHALT TILE FLOORING—Bulletin presents accurate Hako tile colors in 8-color printing process used. Installations, and possible tile designs, including calico-weave, eight-to-one, basket weave and others are shown. Bulletin is available to architects and builders by writing to Hachmeister-Inc., 2332 Forbes St., Pittsburgh, Pa.

516—BRICK AND TILE CAVITY WALLS—Much information is presented in a short, amply-illustrated amount of space in catalog by that title published by Structural Clay Products Institute, 1756 K Street, N. W., Washington 6, D. C. Properties of cavity wall construction; construction requirements, and details are discussed.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department
American Builder,
105 W. Adams St., Chicago 3, Ill.

(February, 1949)

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

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Name.....

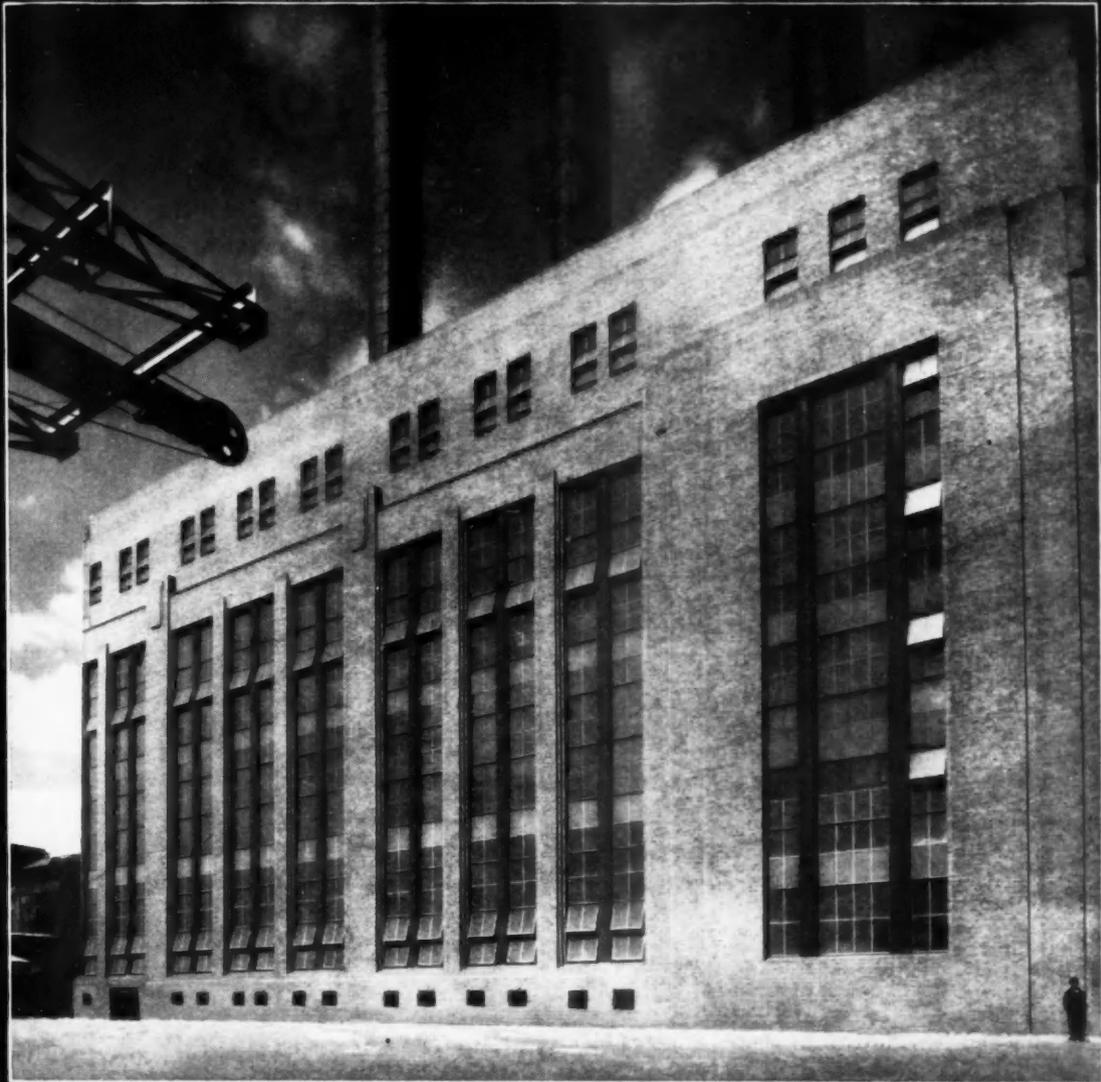
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City..... State.....

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1818 HOPE'S 1949



THE HOPE'S *LOK'D BAR* FACTORY SASH recently installed in this Power Station building are made to special size and layout. Their height, 63', 0", is indicated by the size of the figure in the lower right foreground. The mullions are 10 gauge pressed steel reinforced by structural members. Hope's *LOK'D BAR* Catalog describes, with full-scale drawings, the exclusive principle of their design, and Hope's Engineering Department will be glad to submit details for similar installations on request.

HOPE'S WINDOWS, INC., Jamestown, N. Y.

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

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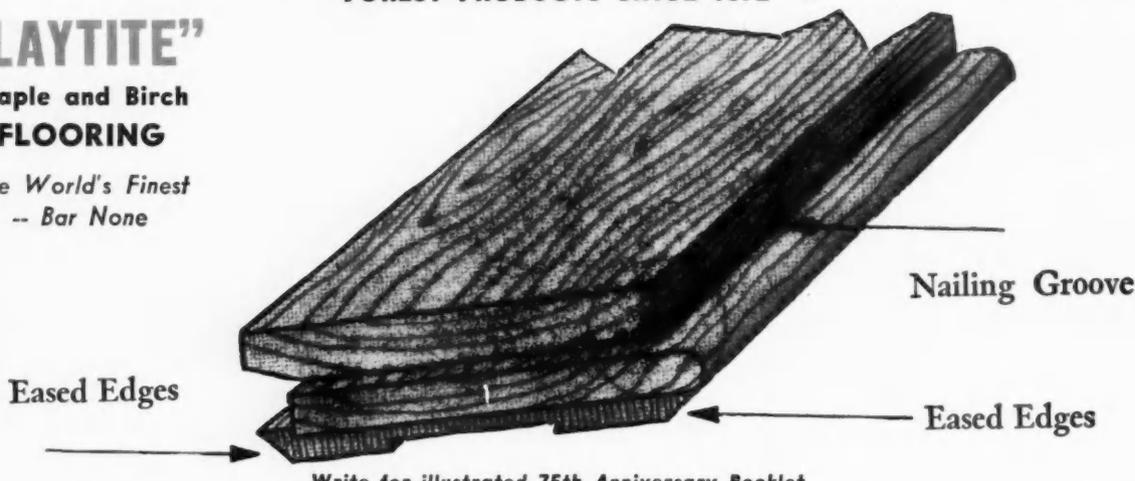
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Behind The Mills—The Connor Timber Stands

How to ECONOMIZE WITH LUMBER

By H. V. Simpson

Executive Vice President
West Coast Lumbermen's Association

SOMETHING big is happening in the lumber industry. We are witnessing a change as fundamental as the adoption of grading rules or the introduction of power machinery.

What is happening is that we are no longer taking lumber for granted. Because economic circumstances compel us to, we are beginning to examine lumber for what it is and for what it can do. We are becoming scientific about lumber. This is not, of course, because any of us have suddenly seen a great white light. It is something we must do if lumber is to maintain the competitive position it has enjoyed, free of charge, for so many years.

This change that is taking place centers in a relatively small percentage of the lumber industry's production. Roughly 25 per cent of this production is low grade lumber. It is this 25 per cent that

has become more or less abruptly important.

In the Douglas fir region of Washington and Oregon, for example, our annual production is approximately 8½ billion board feet. Of this about 6½ billion feet is top quality, high grade lumber. About 2 billion feet is lower grade lumber.

Those 2 billion feet are important because they stand for a basic change that is taking place in every major lumber producing region of the United States.

They are important because they stand for economy in home building and for conservation of our forest resources.

Since the first settlers landed in America, standing timber has been in surplus, and lumber has also been almost without exception in surplus. It has been at all times a cheap building material.

Increased values, however, now



(Continued to page 198)

WHY THIS Galvannealed STEEL DOOR IS AMERICA'S GREATEST GARAGE DOOR VALUE



THE PROTECTION OF GALVANNEALING, added to the strength of steel, assures lifetime durability and makes this door an unequalled value (see illustration at right). Galvannealing provides a hot galvanized zinc coat for rust protection, PLUS high temperature heat treating that effects a perfect, permanent bond between base metal and zinc coat. Assures a smooth, uniformly coated surface and a clinging base for paint, without the need for a special priming coat.

BUILT FOR STRENGTH—welded all-steel one piece door leaf, and welded all-steel frame and braces, provide outstanding strength for a lifetime. (Steel will never sag, warp, shrink, swell or rot.)

OPERATES EASILY. A child can open the Strand Door. Simple, efficient hardware is designed for trouble-free service.

INSTALLED QUICKER—an experienced man can install the Strand Canopy Door in a prepared opening in *minutes*; the Receding (track-type), too, is quickly and easily installed.

AMERICA'S GREATEST GARAGE DOOR VALUE—Give your customers the durability and performance of this galvannealed steel door—at an amazingly low price. This is the result of volume production in one plant and standardization on two models.

Strand Doors are available without waiting and without limit. Order today from your dealer, or mail the coupon, giving dealer's name.

Galvannealed
.. RUST PROTECTED

First — A Hot Galvanized Zinc Coat

Then — High Temperature Heat Treating

Provides Clinging Base For Paint

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No Prime Coat Needed!

A Fenestra BUILDING PRODUCT — produced by Strand Garage Door Division of Detroit Steel Products Co.

ALL STEEL GALVANNEALED • OVERHEAD • ONE PIECE

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TWO TYPES . . . RECEDING (TRACK) AND CANOPY

STRAND GARAGE DOOR DIVISION
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Please rush literature with detailed descriptions of Strand all-steel Garage Doors.
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A note to builders
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when they see it

PAINÉ
REZO
DOORS

are
Guaranteed

*and over three million
installations prove that
guarantee is right*

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Chicago

The record of Paine Rezo doors is countrywide — in buildings of every type, everywhere. From the arid plains to the humid sea shore, these 1¾" flush doors perform . . . perform because their patented, ventilated interlocking air cells check warping and shrinking, while they add great strength to lightness in weight. Back of this best-engineered construction is a guarantee of trouble-free service by America's largest exclusive producers of flush doors — a company that has over three million installations to prove that these time-tested doors are the best flush doors of all.

Your dealer is now getting more Paine Rezo doors. Order from him, and write for an informative engineering bulletin.

U.S. Pat. 1,887,814
The exclusive interlocking grid core within the Rezo door allows constant air circulation, adds extra strength, and provides greater rigidity.

Manufactured by the

PAINÉ LUMBER CO., LTD. Oshkosh
Wisconsin

ESTABLISHED 1853

Lumber Economies

(Continued from page 196)

prevail on timber lands. Lumber is no longer available in such large surpluses, with the result that it fits into its competitive position on a higher level.

Lumber has always been used extravagantly. Generally too much lumber of too high quality has been used in construction. This was a natural result of the low price at which it was sold. The higher values of today do not reflect a lumber shortage now or foreshadow one in the future. Nor do they indicate that unsuitable lumber is to be employed. They mean simply that for the first time in American history, lumber must be properly used.

We began to work on this problem more than a year ago. We studied scores of houses, old and new. We enlisted the talents of engineers, lumber grading experts, builders and building inspectors.

We came up with some startling findings. I am reminded of the story of the time Henry Ford switched from a metal knob to a plastic knob for his gear shift lever. "But is the plastic knob as good?" inquired a friend. "No," replied Ford, "but it will outlast the car."

Too much of our lumber has been outlasting the house. A common example is to be found in houses—50 or 100 years old, or older—which are being torn down. It is ordinary practice for the lumber to be carefully sorted and piled for re-use. There is only one conclusion to draw. That lumber was better than it needed to be to give full and satisfactory service for the life of the structure.

In our study of present day home construction, we found that there are plenty of places where low grade lumber can render completely adequate service. This means economy for the lumber user. It places us, curiously, in the position of promoting a loss item, for there is no manufacturing profit in low grade.

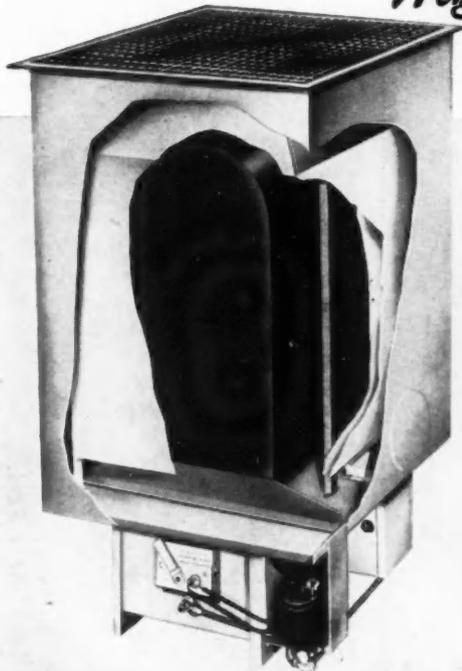
Still, if no cheaper lumber were produced, the overall supply would be short, and the higher priced lumber would be even more expensive. And some markets now existing for the better grades would be lost. Thus, proper utilization of low grade would seem to benefit both the industry and the public, in addition to being a prime conservation measure.

The increased value of lumber

(Continued to page 200)

H.C. LITTLE—THE ONLY OIL FLOOR FURNACE THAT AUTOMATICALLY LIGHTS ITSELF!

A big sales asset in new homes—provides carefree comfort without attention—at low cost. An exclusive, patented principle—no pilot light to waste oil!



"We're buying the house with the H. C. Little oil floor furnace that LIGHTS ITSELF. None of the other houses we looked at had this feature, and in the end it was a deciding factor." So, another family settles down to a life of carefree comfort, and another builder has his investment back quick—and with a nice profit!

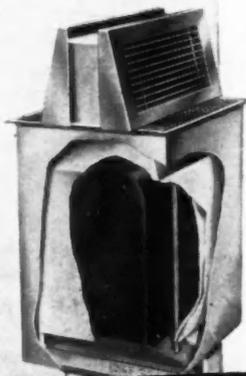
DO THIS—In the next house you build, install an H. C. Little oil floor furnace that automatically LIGHTS ITSELF. You'll be amazed at the magic sales appeal this furnace transmits to the entire house. In fact, we'll rest our whole case on the results you get from your first H. C. Little installation.

P.S. Another BIG sales feature — the exclusive H. C. Little Catalytic Heat Control is now standard equipment on all units, for greatly improved performance with low cost catalytic furnace oil.

FACTORY REPRESENTATIVES IN 18 PRINCIPAL CITIES
For full information, write for literature No. AB-2

Many builders say, "the finest, low cost heating unit available for small homes"—"a big asset in selling the house."

Dual registers are available for installation under a partition.

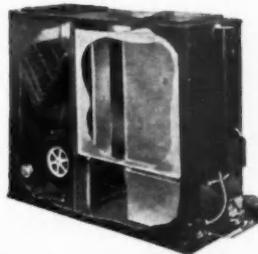


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OTHER H.C. LITTLE UNITS THAT FEATURE Automatic SELF LIGHTING



WALL FURNACE—Registers on both sides of the partition. 42,000 BTU. Output.



WINTER AIR CONDITIONERS—Size A, Type AC-2, 84,000 BTU. Output; Size B, Type AC, 125,000 BTU. Output.



FORCED AIR UNITS FOR FIRST FLOOR—Type A-UC, 84,000 BTU. Output; Type DU-46, C.I.B.L. 120,000 BTU. Output.



Hasko

THE HARDWOOD BLOCK FLOOR

that has *Everything* builders want

BEAUTY—The rich brilliance and natural beauty of fine northern oak provides, in Hasko block floors, a fitting setting for modern or period furnishings. 12-inch square Hasko Blocks create a floor with fewer joints. Each block has a smooth, unbroken surface — no unsanitary dirt-catching crevices. The blocks, laid with their grains running in alternate directions create an unusually attractive patterned effect. Hasko Floors are available in golden oak or the new dark oak . . . the two finishes may be combined to make a unique checkerboard pattern.

PERMANENCE—Each Hasko block is laminated of three plies of veneer permanently bonded with phenolic resins . . . they are guaranteed not to delaminate. There are no butt joints in a Hasko floor. Instead, Hasko's exclusive tongue-and-groove feature interlocks each block with adjacent blocks. This assures floor flatness, prevents buckling, and forms a tight seam that eliminates the danger of mastic extrusion. Hasko blocks are factory finished with an exclusive process which impregnates the wood fiber with varnish, forming a scratch and mar resistant surface. They are thoroughly waxed and polished before shipment.



LOW - COST INSTALLATION—Factory-finished Hasko blocks are designed for laying with a minimum of labor, waste and cost. They may be set in Mastic over concrete without the use of costly screeds or wood subfloors. Over old wood floors or new subfloors they may be blind nailed in the conventional manner. They are ready for use as soon as laid since all sanding, sealing, varnishing and waxing is done at the factory.

For full information regarding Hasko block flooring write for complete bulletin or see Sweet's Architectural File.



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New York Chicago Detroit St. Louis Philadelphia Los Angeles

Lumber Economies

(Continued from page 198)

has been accompanied by a wider spread in the price relationship of various grades. Number 3 Douglas fir, for instance, has recently sold at from \$20 to \$30 per thousand feet less than No. 1, whereas the prewar spread was only \$3 to \$7. There was little incentive to use low grade lumber since the economies it made possible were relatively unimportant. With the spread in price recently quoted, proper utilization of the lower grades would obviously make a substantial saving in all construction.

It will be noted that we have consistently emphasized the "proper" use of low grade lumber. Where strength requirements demand them, the higher grades should continue to be used. These higher grades, of course, are given stress ratings. A stress grade is desirable for floor and ceiling joists as well as for rafters.

On the other hand, the builder who wishes to take advantage of all possible economies may wisely use lower grade lumber in many places. As an example in house construction, No. 3 boards adequately serve as sheathing and sub-flooring. In its Wood Handbook, the Forest Products Laboratory remarks: "No. 3 boards are used in construction for concrete forms, sheathing, sub-floors, roof boards, barn boards and temporary construction. They fill a demand from builders of less exacting type of buildings for a cheaper material than No. 2."

According to the Minimum Property Requirements of each of the 53 FHA districts, boards for sub-flooring, sheathing and similar uses may be of No. 3 grade of the four major West Coast species, Douglas fir, West Coast hemlock, Sitka spruce and Western red cedar.

The primary requirements of boards uses for these purposes is that they be stiff and straight. Strength is secondary. Of considerable importance, in the colder climates, is their insulating quality. Low grade lumber contains the fine insulating qualities inherent in all grades of wood.

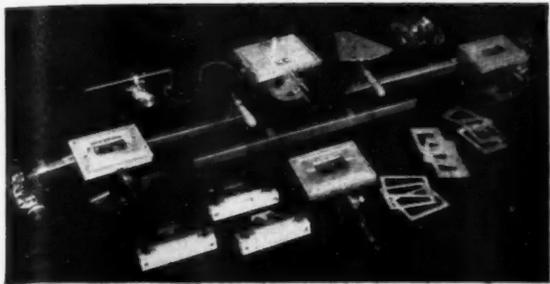
Number 3 Douglas fir dimension lumber may properly be used in one-story dwellings for studs, and also for such low-strength requiring pieces as plates, fire stops and bracing. In its Wood Handbook, the Forest Products Laboratory

(Continued to page 202)

NEW

PORTABLE DOOR JIG CUTS COSTS

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- Speeds Installation
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- Simple to use
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- Left or right hand doors
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Door and Jamb recessed for hinges at the same time!

(No other device has this Patented feature)

Now...hinge doors on the job or in the shop with precision and speed never possible before! Hinge recesses in door and jamb are cut at the same time, match perfectly. Handles doors up to 7 feet long, 1 3/4" thick. Simple, easy to use. Sets up in a few minutes. Can be used for hanging wood doors in metal bucks. Packed in compact carrying case. Router included.

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A roof is no better than its shingle . . . and unless it's a *good* shingle, the effort and skill you put into your building is wasted.

Bird Masterbilt Thick Butt Shingles stand the test of time . . . a Bird roof is a better roof. *Extra* layers of asphalt and deeply embedded mineral granules give tough lasting protection *where it counts* . . . on exposed tabs. The rugged surface defies weather . . . and fire resistance is greatly increased for the long life of the shingle. Narrower cut-outs and heavier shadow-lines give added massive beauty . . . and a wide range of handsome lasting colors and blends is available.

Test Bird Masterbilt Shingles yourself . . . compare them. They are your assurance of years of extra wear, of lasting beauty.

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Bird helps you build better homes in many ways. Neponset Black Vapor Barrier guards against costly damaging in-wall condensation, yet costs approximately \$20 for a \$10,000 house. Investigate it today.

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Mass.

BIRD & SON, inc.

Established
1795

New York

Shreveport, La.

Chicago

Lumber Economies

(Continued from page 200)

says: "It (No. 3 dimension) is used for studding in low-priced and temporary light-frame construction. In small buildings where the members are short, No. 3 dimension may be cut and used with considerable economy."

Only 7 of the 53 FHA districts specify the grades for framing: Iowa, New York City, Oklahoma, Pennsylvania-Western, and Seattle-Spokane, Washington, require that all framing lumber be No. 2 Common or better. Pennsylvania-Eastern and Delaware and Virginia-Richmond require that all studs be No. 2 Common and better. Washington-Seattle and Spokane require No. 1 Posts and Girders. California-North and South require that sills and plates bearing on foundation or masonry walls shall be "Foundation Grade" all heart redwood or No. 2 Common grade of any species treated with a preservative. What grade is acceptable in the other districts is not specified and may be open to a determination by the Chief Underwriter. Until such has been determined, it may cautiously be assumed that No. 3 will pass.

It should be emphasized that the use of No. 3 as specified above is by no means experimental. Properly employed, it has given excellent service for many years, particularly in the manufacturing areas of the Pacific Northwest.

Nearly all low-cost housing can use a large percentage of low grade lumber. By the substitution of No. 3 for No. 1, where the former can be used, in most of these houses the cost of the lumber will not be 216 per cent over prewar as suggested by Bureau of Labor Statistics figures, but will probably be about 100 per cent, which is certainly not out of line with the increase in other materials.

The most recent issue of the grading rules for West Coast lumber (Rules No. 14) reflects the manufacturing industry's realization that lumber's place in the construction field has changed. Much thought was given by the committee which revised the rules to the final utilization of the material—the grades were written with the purpose of making the grade suitable for its ultimate use. Stress values, for example, were added to both the No. 1 and No. 2 dimension grades, and some construction grades which contained no stress

(Continued to page 204)

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The Superior Heat Circulating Fireplace

• most efficient and durable of all •

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THE BEST**

The HEATFORM is a perfect guide for the masonry walls (hearth to flue). It has all the worthwhile features of any other fireplace PLUS THESE EXCLUSIVE advantages which deliver more heat and give more years of service:

- More heating surface per size unit
- Air chambers surround firebox and upper throat
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BUILD CUSTOMER GOOD-WILL by recommending HEATFORM
 —nationally advertised to millions of prospective home-builders
 —thousands of satisfied users everywhere
 —80,000 home-owner builders will see 8-page HEATFORM literature in DODGE CORP. HOME OWNERS' CATALOG.

SOLD EXCLUSIVELY THROUGH building supply and lumber dealers—now available from our two factories—Baltimore and Los Angeles and through nationwide network of distributors.

WRITE, WIRE OR PHONE for name of distributor nearest you and complete information on HEATFORM

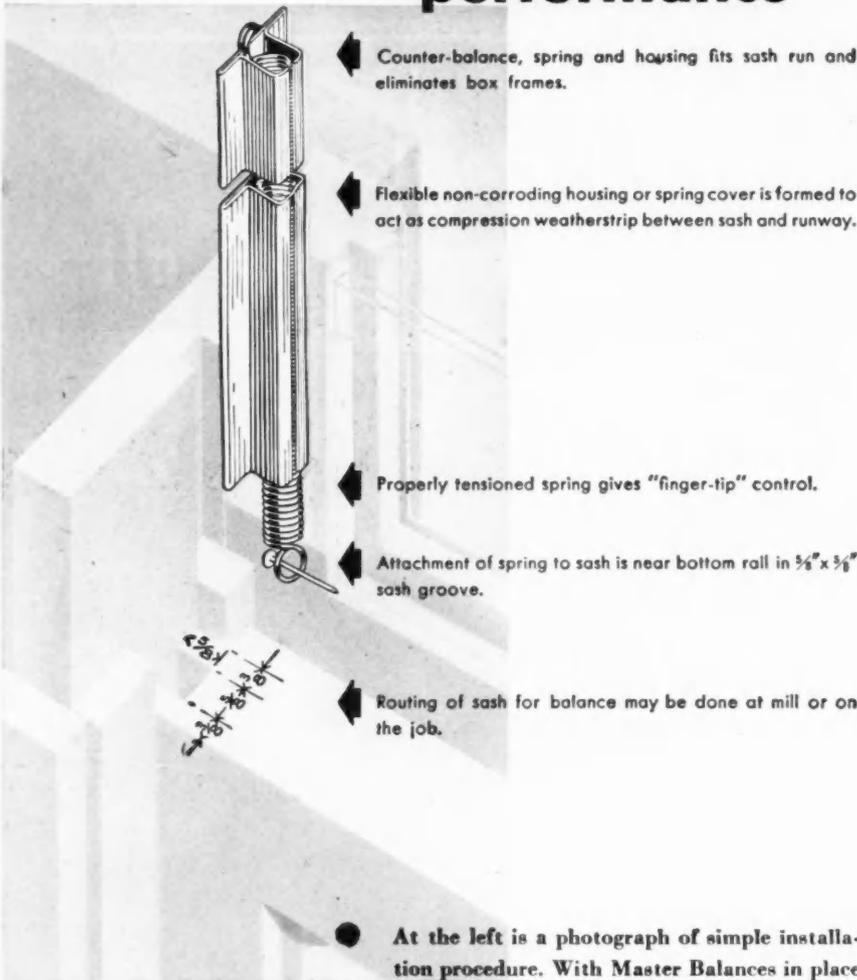
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FORM DAMPERS • FUEL GRATES • ASH DUMPS • CLEANOUT DOORS • DRAPE SCREENS • LINTEL BARS • SEPTIC TANKS

MASTER NO-DRAFT sash balance performance



- ← Counter-balance, spring and housing fits sash run and eliminates box frames.
- ← Flexible non-corroding housing or spring cover is formed to act as compression weatherstrip between sash and runway.
- ← Properly tensioned spring gives "finger-tip" control.
- ← Attachment of spring to sash is near bottom rail in $\frac{3}{8}$ " x $\frac{3}{8}$ " sash groove.
- ← Routing of sash for balance may be done at mill or on the job.

At the left is a photograph of simple installation procedure. With Master Balances in place each sash is easily put into frame and fastened.

Economy in building: With simple plank frames the cost of window units comes down. Maintenance is practically nil. Weatherstripping is required only across the window. With metal cap for parting bead or complete metal bead, painting is not needed.

Satisfaction in use: Finger-tip control of sash is certainly a sales feature to every woman — so is the cleanliness that non-leaking windows provide. And any homeowner will be definitely interested in fuel savings up to 25% per year with properly weatherstripped windows.

Write today for complete information about this modern window balance combination.

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MASTER NO-DRAFT SASH BALANCE

Please send me without obligation, complete information about Master No-Draft Sash Balance.

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

Lumber Economies

(Continued from page 202)

values were eliminated entirely. In this connection it is worth pointing out that the appearance of a piece of lumber is not always the best guide to its usefulness. To the casual eye, for example, a certain piece of lumber may look like select structural, yet if it is curly- or cross-grained it will not be worth a pail of sawdust so far as a structural use is concerned. By the same token, a piece of No. 3, with knots, wane and shake may present a poor appearance and still have ample qualifications for specific uses.

The West Coast industry is well aware that the changing of status of lumber in the competitive field has sharpened the need for accurate grading. The West Coast Bureau of Lumber Grades and Inspection has enlarged its field staff from 58 men in 1941 to more than 360 today. Altogether there are 2,000 men capable of grade-marking lumber produced in the Douglas fir region.

It is the industry's aim to encourage the most intelligent use of all lumber grades. It has, of course, the most to lose by the misuse of lumber.

Report on Requirements

The following is a report by the West Coast Lumbermen's Association on FHA "Minimum Property Requirements" for properties of one or two living units.

This report is a summary of requirements found in the specifications of 53 district FHA offices which involve the uses of wood. A copy of "Minimum Property Requirements" (hereafter referred to as MPR), for each district is on file in the WCLA Association office, or may be obtained from FHA.

MPR's follow a fixed pattern. For instance, "Wood Construction" is specified under Section 408 with similar topical sub-sections the same in each. For simplicity, comments on each item will be referenced with the same numbering as used in the MPR's.

The accuracy of this study is not guaranteed for requirements are ambiguous in some cases and would be subject to interpretation by the Chief Underwriter of the District. Furthermore, changes from the published requirements are often made permitting alternate or revised methods of construction.

(Continued to page 206)



See Why Chicago Home Festival Builders Chose AMERICAN KITCHENS Over All Other Kinds!

Every day builders are passing the word along—that houses sell *faster* when equipped with AMERICAN KITCHENS! Because AMERICAN KITCHENS have more easy-to-see advantages than any other line—features women can instantly recognize as being desirable advantages.

Surveys Show More Women Want Them!

That's why more builders entering houses in the giant 1948 Chicagoland Home Festival chose American Kitchens than any other kind. They knew that independent surveys show that more and more women want American Kitchens—that American Kitchens make any house more desirable and, therefore, more saleable! Follow their lead and women will pick *your* houses over your competitors' too! (Include a new American Kitchens Disposer and Ventilator for an extra de luxe touch your competition may be overlooking!)



SEE IT!

Be sure to see American Kitchens' amazing new automatic Miniature Theater with four suggested kitchen arrangements. On display throughout the show—Booth 184, Stevens Hotel Mezzanine.

Only American Kitchens Offer All These Easy-to-See Benefits!

- Rounded drawer interiors
- Concealed door and drawer pulls
- Double-action spring hinges
- Modern lever-type faucets
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Accepted by architects and builders for windows, porches, doors, and breezeways. CLEARVIEW VISORS are custom made for any structure . . . three models: STANDARD—brake-formed to be attached to screen frame; two new 1949 models, with heavy extruded frames. (Attached screens optional.)
Over 300,000 installations in 12 years

THE ORIGINAL, PATENTED 5-IN-1 COMBINATION MADE OF RUSTPROOF & STAINPROOF ALUMINUM

Outside Venetian Blind • Ventilation and Light Control • Jalousie (Storm Shutter) • Coolest Awning • Prowler Guard

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Complete Manufacturing Plants
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Engineering and Specification Manual . . . Self-Survey Form will be sent on request

BRANCHES: HOUSTON, CORPUS CHRISTI, SAN ANTONIO, OKLAHOMA CITY, NEW ORLEANS, N. LITTLE ROCK, MEMPHIS, JACKSON, MISS., ATLANTA, MIAMI, WEST PALM BEACH, ST. PETERSBURG, AND ORLANDO

Lumber Economies

(Continued from page 204)

While these changes are public information, they have not been determined by the Association. 408-A.

1. Softwood framing and board lumber must comply with American Lumber Standards and Association grading requirements. Only five districts require grade-marked lumber. They are: California-Northern, Michigan, New Jersey, New York City, Pennsylvania-East and Delaware.

2. All softwood species are acceptable for framing with maximum spans for floor joists, flat roof joists, ceiling joists and rafters given in Appendix A in the MPR's. This will be discussed further.

Only seven regions specify the grades for framing: Iowa, New York City, Oklahoma, Pennsylvania-Western, and Seattle-Spokane, Washington require that all framing lumber be No. 2 Common or better. Pennsylvania-Eastern and Delaware and Virginia-Richmond require that all studs be No. 2 Common and better. Washington-Seattle and Spokane require No. 1 posts and girders. California-North and South require that sills and plates bearing on foundation or masonry walls shall be "Foundation Grade" all heart redwood or No. 2 Common grade of any species treated with a preservative. What grade is acceptable in the other districts is not specified and may be open to a determination by the Chief Underwriter. Until such has been determined it may be cautiously assumed that No. 3 will pass.

3. In every district, boards for sub-flooring, sheathing and similar uses may be of No. 3 grade of the four West Coast species. The specification reads:

"A. No. 3 Common or better Douglas fir, Sitka spruce, Southern cypress, West Coast hemlock, California redwood, cedar, Eastern hemlock, tamarack, and Southern yellow pine.

"B. No. 4 Common or better for white fir, Western larch, spruce (except Sitka), Ponderosa pine, sugar pine, Idaho white pine, Northern white pine, and Norway pine."

4. Moisture content requirements are broad. The stock paragraph for all except Hawaii reads:

"All lumber shall be well seasoned. Lumber 2 inches thick and less shall have moisture content

(Continued to page 208)

Rely on Rheem, World's Largest Maker of Automatic Water Heaters



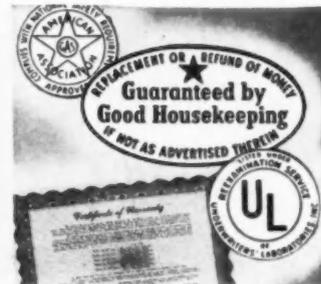
The New Look... talk about good looks? The new Rheem automatic water heaters have been completely redesigned to stand out in your new homes like '49 Cadillacs on a used car lot. They make Mrs. Customer point to the Rheem and say, "Papa, look, a Rheem!"



Open The Package... and you'll find that Rheem beauty is more than skin deep. Dependable Grayson Control; heavy Fiberglas insulation; Dow Magnesium Anode Rod; high efficiency, streamline-flow burner; and the tank, that's a story in itself...



Patented* Process Tank... all steel, made by the Patented* Rheem Process and hot-dipped by the world's most modern automatic galvanizing process. Exclusive rust and leak protection. Supported by a long-life warranty. *Pat. No. 2444833.



Backed by "Big Names"... every Rheem product is backed up by reputable testing authorities—Good Housekeeping Institute, A. G. A. for gas, U. L. for oil and electric models. And Rheem supplies a written guarantee with every unit.



Rheem Helps You Sell... biggest national advertising program pre-sells Rheem product advantages. The name Rheem is a merchandiseable asset that can help you promote your new homes, Rheem gives you service manuals, consumer literature, floor displays.



World's Largest... you can always rely on Rheem, for fast factory shipments... a complete range of water heaters in all sizes for all fuels; warm air heating equipment, oil tanks and septic tanks... technical service in the field... and real selling support.

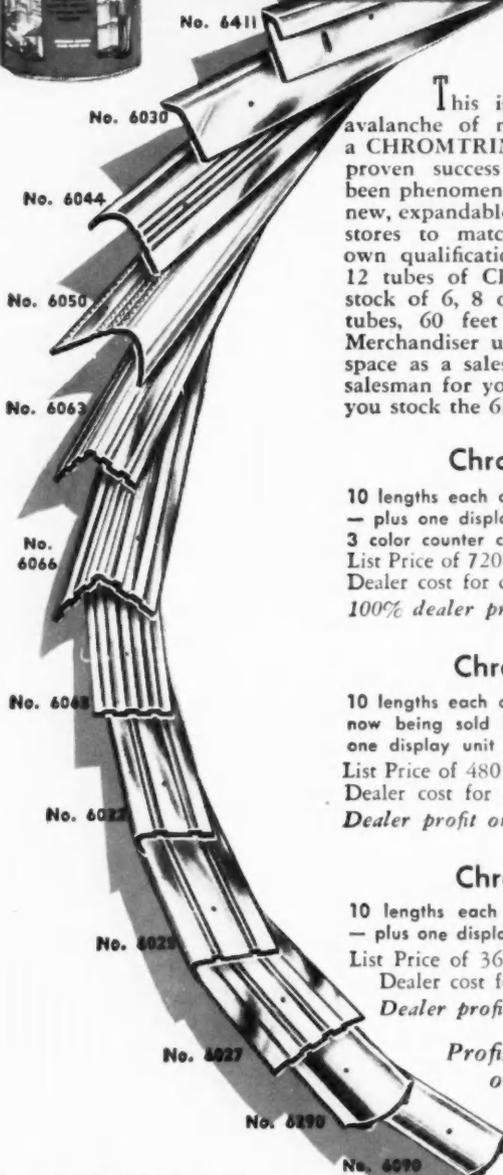


Silent Salesman included in all 3 deals.

OPEN YOUR DOOR TO EXTRA METAL MOULDING SALES!

PUT **Chromtrim**

EXPANDABLE MERCHANDISERS To Work In YOUR Store!



This is it, Mr. Dealer! Plow into an avalanche of metal moulding profits . . . put a CHROMTRIM "silent salesman" to work! The proven success of the 8/60 Merchandiser has been phenomenal — now, CHROMTRIM offers a new, expandable Merchandiser unit which permits stores to match their sales program to their own qualifications. All new units accommodate 12 tubes of CHROMTRIM; Start with a small stock of 6, 8 or use the maximum stock of 12 tubes, 60 feet to the tube. This eye-catching Merchandiser unit takes up about as much floor space as a salesman . . . and it's a hard-hitting salesman for you every hour of the day, whether you stock the 6/60, 8/60 or the 12/60 assortment.

Chromtrim 12/60 Deal

10 lengths each of the complete line of 12 T-I-Y shapes — plus one display unit and promotion aids including a 3 color counter card
 List Price of 720 ft. of stock **156.00**
 Dealer cost for complete 12/60 deal **78.00**
 100% dealer profit on 12/60 deal **78.00**

Chromtrim 8/60 Deal

10 lengths each of the original selection of T-I-Y shapes now being sold by more than 15,000 dealers — plus one display unit and promotional aids
 List Price of 480 ft. of stock **105.00**
 Dealer cost for complete 8/60 deal **59.50**
 Dealer profit on original 8/60 deal **45.50**

Chromtrim 6/60 Deal

10 lengths each of 6 popular Chromtrim T-I-Y shapes — plus one display unit and promotional aids
 List Price of 360 ft. of stock **69.60**
 Dealer cost for complete 6/60 deal **39.95**
 Dealer profit on original 6/60 deal **29.65**

Profits ahead! 100% dealer profit on all Chromtrim refills.

Sold only through a nationwide distributor organization.

R. D. WERNER CO., INC.
 295 Fifth Avenue New York 16, N. Y.
 Please ship me, through my regular distributor, _____ complete 12/60
 8/60 6/60 Chromtrim Deal(s).
 Also send FREE copy of "Trim Ideas" and additional information on Chromtrim's Deals and mat service.
 Name _____
 Firm _____
 Address _____
 City _____ State _____
 My Distributor is _____

Write To Division AB-2

R. D. WERNER COMPANY, Inc.
 295 Fifth Avenue New York 16, N. Y.
 Manufacturers of **Chromtrim**
 In Canada: R. D. WERNER COMPANY LTD. PORT DALHOUSIE, ONT.

Lumber Economies

(Continued from page 206)

not to exceed 19 per cent at the time dwelling is enclosed."

Hawaii specifies the following: "All lumber shall be well seasoned."

408-B

3. Firestopping is required at first floor and attic in all regions except Puerto Rico. In addition, both Northern and Southern California requirements call for firestops at mid-height of studs.

408-C

4. Sub-flooring is required in some districts and not in others. In some, sub-flooring requirements are so worded that whether sub-flooring is required or not would be determined by the interpretation of the Chief Underwriter. Thirty-eight districts require sub-floors, of which three require it on first floor only. Ten are open to interpretation. Five do not require sub-flooring. Six districts require diagonal sub-floors. In three districts the sub-floor must be diagonal except under parquet and in one district it must be diagonal, if under strip flooring. In California-Southern the sub-floor must be diagonal if the finished floor is perpendicular to joists and in California-Northern it must be diagonal if more than one story and floor joists are supported by wood underpinning.

408-F

1. Maximum spacing of studs for one-story construction is 24 inch and for the first floor of two-story construction is 16 inches in all districts. California-Northern further specifies 2x6 inch studs at 16 inch centers for first floor of three-story.

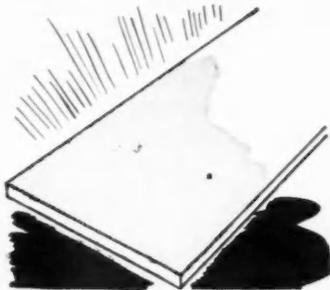
3. Let-in corner bracing is almost universally required. Both California districts and Massachusetts will accept cut-in bracing as an alternate. No bracing is required in any region when diagonal sheathing is used.

4. Tennessee does not require sills to be anchored. Four states require sills to be anchored if required by Chief Underwriter and in all other districts the sills must be anchored.

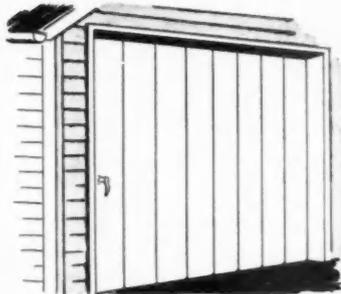
8. Wood bearing partitions in basements are not allowed in 41 districts and may be used with limitations in 11 districts.

9. Balloon frame construction is required when exterior has stucco finish in all but California-Northern and Southern, Massachusetts, Michigan, New Mexico and Washington-Seattle and Spokane.

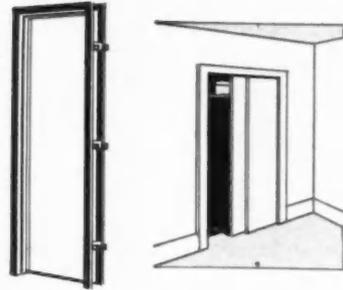
WHY GALVANITE IS THE BUILDER'S STEEL



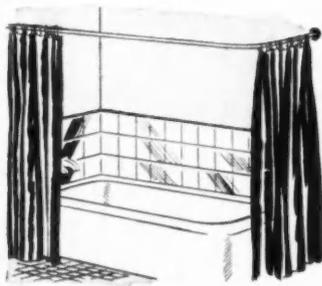
ZINC COATED — Galvanite is a special zinc coated product. The protective Galvanite coating is perfectly bonded with the quality Sharon strip steel that forms the base.



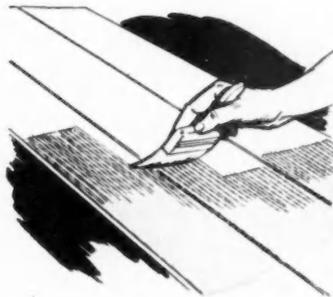
GALVANITE LIKES THE WEATHER TOUGH — Rain, snow — sleet and slush cannot penetrate the bonded zinc coating — and the strong steel base offers a lifetime of wear even under the hardest usage.



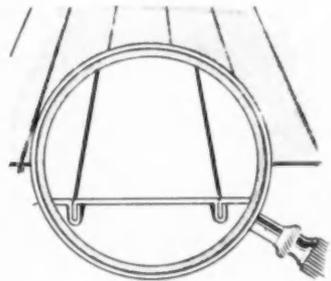
APPROVED BY LEADING CODES — Galvanite has been given the green light under the strictest of building codes. A recent test in an area plagued with oceanic salt spray proved Galvanite resistant to salt corrosion.



WHERE DAMPNES PREVAILS — Where water and dampness are an every hour occasion Galvanite can't be beat. And products made of Galvanite can be produced at lower costs — because Galvanite — for all its advantages — is truly inexpensive.



IDEAL FOR PAINTING — Galvanite provides an ideal "mat" base for painting, and baked enameling. It withstands temperatures up to 750° without deteriorating.



SEVERE FORMING and DRAWING — Galvanite will not peel, flake or powder during difficult fabrication. It is especially suitable where a coated strip must withstand severe forming and drawing.

SHARON STEEL CORPORATION
Sharon, Pennsylvania



PRODUCTS OF SHARON STEEL CORPORATION AND SUBSIDIARIES: THE NILES ROLLING MILL COMPANY, NILES, OHIO; DETROIT TUBE AND STEEL COMPANY, DETROIT, MICHIGAN; BRIMHARD STEEL COMPANY, WARREN, OHIO; SHARONSTEEL PRODUCTS COMPANY, DETROIT, MICHIGAN, AND FARRILL, PENNA.; CARPENTERTOWN COAL & COKE CO., MT. PLEASANT, PENNA.; FAIRMONT COKE WORKS, FAIRMONT, W. VA.; MORGANTOWN COKE WORKS, MORGANTOWN, W. VA. Hot and Cold Rolled Stainless Strip Steel—Alloy Strip Steel—High Carbon Strip Steel—Galvanite Special Coated Products—Cooperage Hoop—Electrical Steel Sheets—Hot Rolled Annealed and Deoxidized Sheets—Galvanized Sheets—Enameling Grade Steel—Welded Tubing—Galvanized and Fabricated Steel Strip—Steel Strapping, Tools and Accessories.

DISTRICT SALES OFFICES: Chicago, Ill., Cincinnati, O., Cleveland, O., Dayton, O., Detroit, Mich., Indianapolis, Ind., Milwaukee, Wis., New York, N. Y., Philadelphia, Penn., Rochester, N. Y., Los Angeles, Calif., San Francisco, Calif., St. Louis, Mo., Montreal, Que., Toronto, Ont.

Advertising that sells

ARE YOU

IT'S WONDERFUL— NEVER HAVING GARBAGE!

It's wonderful having the G-E DISPOSALL*

There's everything wonderful about a garbage-free home. Your kitchen always clean. Your kitchen work so much easier. No more germ-y garbage can.

Wonderful having all food waste disposed of immediately right in the sink. Just see—in these pictures—how the General Electric Disposall ends the pesty nuisance of garbage:



1. Scrape all food waste—pits, peelings, fruit rinds, even chop and fish bones—into the drain opening. That's the last you see of them.



3. Turn on cold water. This automatically starts the Disposall action. Food waste is shredded into tiny particles, flushed into sewer or septic tank. The Disposall works perfectly with either sewer or septic tank.



2. Lock protect twist to the left the cover for clean enter the Dispos



4. Throw You'll never agree with "My kitchen is a mess." "The plumber."



Imagine! Time on your hands... instead of greasy dishes! Dishes washed cleaner than by hand... with General Electric Dishwasher!



Make dishwasher? Never touch it—ever again! G-E Automatic Dishwasher thoroughly washes and dries your dishes in water hotter than hands can stand. Covers automatically opens to allow dishes to dry in their own heat. No bygone!



Loathe kitchen clutter? You won't have to put up with stacks of soiled dishes in your kitchen. Just place them out of sight in Dishwasher right after meals. It will store and wash a whole day's dishes for a family of four in one time!



Careful of your china? G-E Dishwasher is extra careful. Holds china, glasses, silver safely in convenient racks. Nothing moves but the water. Dishwasher cleans pots and pans too. Even clean itself also.



Can you turn a knob? That's all you do to operate the Dishwasher. Simply to load... dishes to rack on... easy to forget, while it does the dishes itself. Dishwasher is self-cleaning work surface, too, and provides additional work surface.

The G-E Automatic Dishwasher is available in separate models for clean. It is also available as an individual model for use in conjunction with the counter-top or custom built kitchen. And in

the famous G-E Electric Sink, with provision for installing the Disposall* as well. Wherever you choose... you can put your Dishwasher in General Electric General Electric Co., Bridgeport 2, Conn.

GE AUTOMATIC DISHWASHER
DOES THE DISHES BY ITSELF



GENERAL ELECTRIC

SEE YOUR RETAILER TODAY!

He'll be happy to give you a demonstration of how easily and efficiently the Disposall works. He'll show you how simply it can be installed in your kitchen—how it fits most every sink. Ask, too, about the All-Electric Sink that teams up a General Electric Dishwasher with the Disposall! General Electric Co., Bridgeport 2, Conn.

*Trademark Reg. U. S. Pat. Off.

GENERAL ELECTRIC

DISPOSALL
DISPOSALL MEANS
GOOD-BY TO GARBAGE
AUTOMATICALLY!

YOU CAN PUT

the "G-E WAY OF LIVING" LETTING IT SELL FOR YOU?

YES!

If your homes include the greatest laborsaving appliances the modern kitchen can offer . . . the General Electric Dish-washer and Disposall!*

Today's home-hunters are hunting for freedom from kitchen slavery. Today's home-hunters are learning that General Electric gives them this luxurious new way of life at a price that is easily within their reach.

That's the dream-kitchen story G.E. tells in these advertisements read by millions. That's the *selling* story that gives you greater profit and prestige, quicker sales and higher resale values, when you include these features of the G-E Way of Living in new homes and renovations.

COST TO YOU?

Zero! You include the price of these appliances in the price of the house—and profit *more*.

TROUBLE TO YOU?

Zero! General Electric offers you the facilities of its Home

Bureau in planning your G-E dream kitchens. Installation problems are no problem when the Home Bureau is on the job.

RED TAPE TO YOU?

Snip! None—because of the convenience of the "packaged mortgage" plan. The "packaged mortgage" plan *includes* the cost of the appliances in the *same monthly payments*, and conveniently stretches out the cost to the home buyer over a long period of time.

SELLING HELP TO YOU?

Proved selling help! It's part of Home Bureau's service to builders . . . a complete program of advertising and merchandising helps to speed the sale of your new homes!

. . .

Write to Home Bureau, General Electric Company, Bridgeport 2, Connecticut.

Today! The G-E Way of Living is gaining fast!

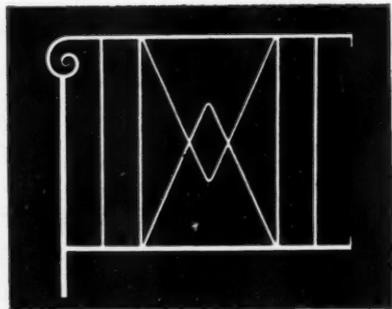
*General Electric's registered trade-mark for its food-waste disposal appliance.

MILLIONS OF HOME HUNTERS
ARE READING THIS DREAM-KITCHEN STORY
IN 7 NATIONAL MAGAZINES!

YOUR CONFIDENCE IN GENERAL ELECTRIC

GENERAL  ELECTRIC

ORNAMENTAL IRON
BY *Coffman*

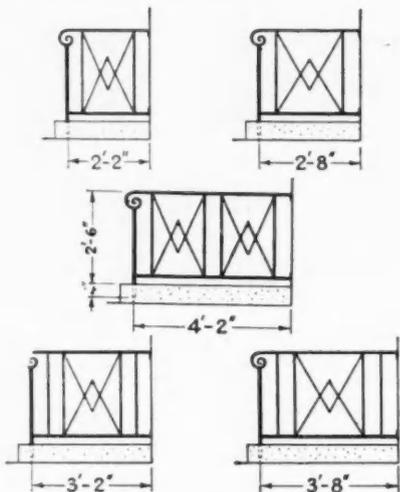


Low Cost

ENTRANCE OR STOOP RAILS

... In 5 Stock Sizes

INEXPENSIVE — distinctive entrance rails, ideal for front and rear doorway platforms. Available in 5 stock sizes, at low cost, from building supply dealers. They are decorative practical, and an investment in safety.



So Easy to Install!

Illustration shows extended newel post and conventional attachment knee on top and bottom rail for easy installation. Rugged, solid construction, with distinctive Coffman hand-wrought inside scroll at newel post.

All types "custom" railings made to your dimensions. Have your local BUILDING SUPPLY DEALER secure our "Blue Print Service" and quotation on your current jobs.

Write Department AB, P.O. Box 259, for free catalog of designs, sizes and prices.

Manufacturers of the Original "Complete Builders Line" of Hand-Wrought Ornamental Iron



How-To-Do-It

(Continued from page 182)

A NEW METHOD of installing dropped ceilings is illustrated by these photos.

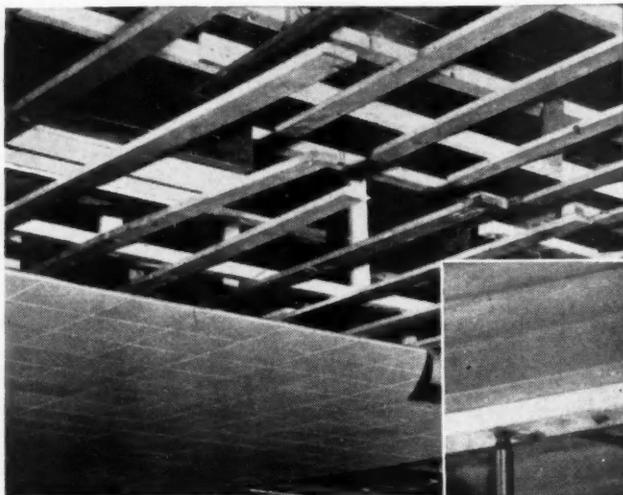
In one picture, a carpenter is shown fastening 2x3-inch joists to an 8½-inch reinforced-concrete ceiling by using a powder-actuated tool developed by Mine Safety Appliances Co., Pittsburgh, Pa.

This tool drives a metal stud

New Way to Install Dropped Ceilings

it has interchangeable barrels to permit the use of studs with two different diameters, 3⁄8-inch and 1⁄4-inch.

Officials of the company say that every conceivable precaution is "built-in" the tool to minimize hazards. Possibility of accidental discharge is negligible because the firing pin is not in position to contact the cartridge primer unless the operator rotates a



CARPENTER fastens 2x3-inch joists to 8½-inch reinforced concrete ceiling

through the wood joist into the concrete, holding the joist securely. The operation can be accomplished in five seconds in contrast with about a half hour that would be required if a star drill was used.

Furring strips are nailed to the joists to drop the ceiling 2 feet. Nailing strips then are attached for fastening acoustic ceiling board as illustrated in the other picture. Sheet metal air conditioning ducts run between the furring strips and are nailed to the joists.

Mine Safety Appliances Co. Velocity-Power tools were also used on an office remodeling project to install electrical switch boxes, conduit and heating pipe hangers in the ceiling, and steel frames for glass block windows in the concrete block exterior walls.

Operating with blank cartridges, the tool embeds studs of various lengths and shapes into concrete or metal. Weighing less than five pounds,



spring-loaded safety arm and holds it in position. If the tool is dropped the safety arm instantly pulls the firing pin out of reach of the cartridge. The stud is discharged when the barrel is held solidly against the material and pushed in sharply.

The cartridge is fastened to the stud by a piston-like arrangement that holds the stud firmly until it penetrates the material. This, plus the fact that there is very little clearance between the barrel opening and the stud, virtually makes it impossible for the stud to ricochet. Recoil is negligible. It can be operated with one hand.

(Continued to page 214)

GIVE BASEMENT FLOORS BEAUTY and HARDNESS
 with **ART-ROC** *Built-in* **COLOR**



SEND FOR FOLDER

Add the Eye-Appeal and Sales-Appeal of Beautiful Concrete Floors . . . at Low Cost

Concrete is a grand material—but who would choose an ordinary, uncolored, concrete floor in their basement if they could have a richly colored, super-hard surfaced floor at almost no extra cost! That is exactly what you can give clients with Truscon ART-ROC. Dusted on before finish troweling, ART-ROC will take all kinds of punishment because it is much harder than ordinary concrete. Any basement, terrace, porch, sun room, sales-room, store, restaurant, with such a floor has eye-appeal and sales-appeal which will gratify owners and prospects alike and will give your work colorful distinction. We invite your inquiries. Write Dept. AR-12, Truscon Laboratories, Division of Devco & Reynolds Co., Inc., Detroit 11, Michigan.

TRUSCON
ART-ROC
 AGGREGATE
 Supplied Ready-to-Use
 GIVES
Built-in **COLOR**
HARDNESS
DURABILITY
 Costs So Little
 Adds So Much

TRUSCON *Laboratories*



Reg. U. S. Pat. Off.

Save time in your building operations with a portable

KOHLER Electric Plant

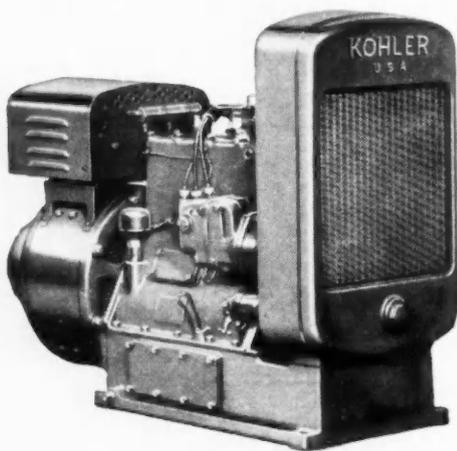


A Kohler Electric Plant is used in constructing modern homes by Sid Dwyer & Associates, Inc., Milwaukee, Wis.

The time-saving value of a rugged, reliable Kohler Electric Plant has been demonstrated by building contractors again and again. With a convenient, easy-to-handle source of electric current, your men can move rapidly from one

job to another without waiting for power line connections—using electric hand saws, floor sanders, wood-working machinery and various power tools.

Sid Dwyer & Associates, Inc., Milwaukee, report: "Our Kohler Electric Plant is an indispensable piece of equipment in our building operations. It soon paid for itself." Available in sizes from 750 watts to 10 KW. A Kohler field representative will gladly advise you as to the most practical electric plant for your needs. Write for our illustrated folder E-5, Kohler Co., Kohler, Wis. Established 1873.



Kohler Electric Plant 3A21, 3KW, 115 Volt AC. Automatic start and stop. Length, 41"; Width, 16"; Height, 28"

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS

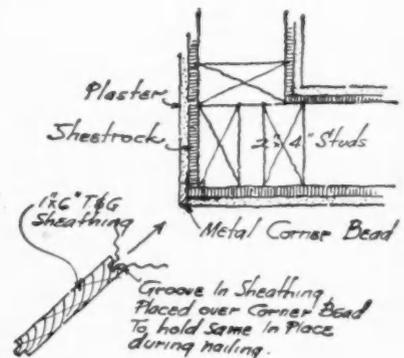


(Continued from page 212)

How to Put Corner Beads on Straight

TO ASSURE a straight application of corner beads, CARL WALTERS, Church Hill, Tenn., suggests the use of the following method:

Obtain a straight piece of 6-inch T&G sheathing the same length of

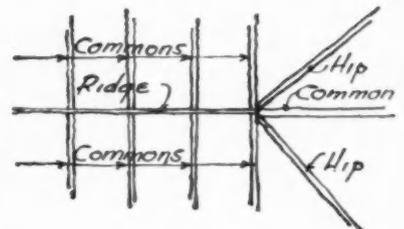


the corner bead to be installed. Nail each end of the corner bead to hold in position. Then place the groove of the board on the bead of the corner bead. Press against board at one third of the distance from each end until the board is tight against the bead. Then nail corner bead. The board will hold the corner bead straight.

How to Simplify Roof Framing Calculations

A SIMPLE method of determining the length of the ridge in roof framing is submitted by NORMAN HANSON, Middletown, Conn.

To get the correct length for the



ridge, subtract the width of the building from the length. Add the thickness of the ridgeboard to this dimension.

This will give a perfect fit where the three common rafters meet at the junction of hips and ridge.

(Continued to page 216)

NOW!

**ALL THE *Marlite* YOU NEED
FOR BEAUTIFUL, PRACTICAL WALLS AND CEILINGS**

Marlite production is up! Now you can get all you need of these beautiful, practical plastic-finished wall and ceiling panels. New interiors stay new with Marlite, and Marlite goes up just as quickly over old walls to transform dark, dingy interiors into rooms of sparkling beauty.

Marlite is practical for any interior use. A wide selection of colors and

patterns makes it ideal for bathrooms, kitchens, utility rooms, stores, hotels, service stations, institutions, hospitals, restaurants, theatres—or wherever permanent color and sparkle are desired.

Look up Marlite in Sweet's Builder's or Architect's File or in the Building Supply News Directory. Then look at Marlite. You'll see why you'll be proud of your Marlite installations.

EASY TO INSTALL



Measure it, cut it, spread Marsh Adhesive on it, and Marlite's ready to install. It's no trick at all, creating beautiful interiors with beautiful Marlite.

EASY TO HANDLE



Wall-size panels, big enough to cover a generous area, yet easy to handle, quickly and easily installed using only regular carpenter's tools.

EASY TO CUT and FIT



Marlite is durable, but you'll have no trouble cutting and fitting it to the most exacting specifications. Complete installation instructions included in every shipment.

and ECONOMICAL, TOO!



The cost of materials for a complete Marlite installation has increased less than 15% since 1940. That's why Marlite means added value for your customers . . . added profits for you!

BEAUTIFUL • PRACTICAL • PERMANENT

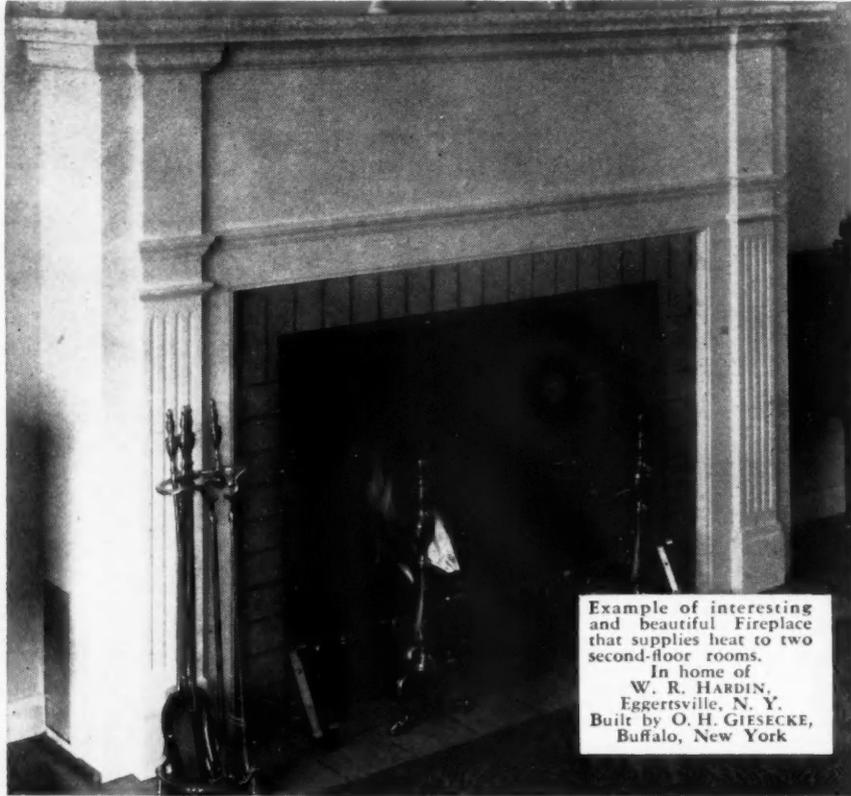


MARSH WALL PRODUCTS, INC.

203 MAIN STREET, DOVER, OHIO



FOR CREATING BEAUTIFUL INTERIORS



Example of interesting and beautiful Fireplace that supplies heat to two second-floor rooms. In home of W. R. HARDIN, Eggersville, N. Y. Built by O. H. GIESECKE, Buffalo, New York

Win \$50⁰⁰ for a Photo of a Fireplace Built around the FYRO-PLACE

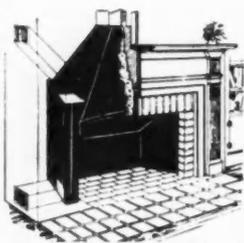
Until further notice, Price Fireplace Heater & Tank Corporation will pay \$50 each month for the month's most attractive photograph of a fireplace using the FYRO-PLACE Unit.

A Snap Shot will do. If your photo is the winner, we will have the picture retaken by a professional photographer, and reproduced in builders' publications. Your name will be mentioned as the winner.

The Judges are F. E. Price, President, H. H. Walters, Vice-President, (Chief Engineer) and K. G. Niblack, our Advertising Counsel. To qualify in the current month's contest, your photo entry must be postmarked not later than February 28, 1949.

If your Photo is not the prize winner, but is one we'd like to have in our collection, we will write for permission to use it and pay you for the privilege.

So get out your camera, get snap shots of all fireplaces in which you have used a Fyro-Place.



Fyro-Place

is the steel form and heat circulator that builders use to save time and materials... to assure perfect operation.

Get our Book "100 FIREPLACE IDEAS," beautifully illustrated — FREE

PRICE FIREPLACE HEATER & TANK CORP.
83 AUSTIN STREET . . . BUFFALO 7, N. Y.

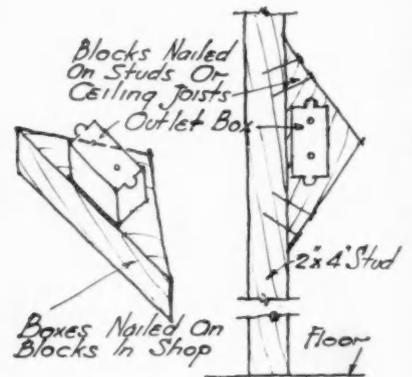


(Continued from page 214)

How to Prefabricate Outlet Box Holders

A SHORT CUT and time saver for electricians is suggested by BERNIE L. STOKES, Wheatridge, Colo.

Outlet boxes are nailed to wood blocks, which in turn are secured to studs or ceiling joists. This method



while being a short cut and time saver, also forms a solid base for the outlet.

All blocks are cut from scrap 2x4 inch material found on the job. The assembling of block and outlet box can be completed on job or in spare time around the shop.

How to Toe-Nail Boards

BATSELL MOORE, Waco, Texas, submits this simple yet very practical idea.



Greater strength is obtained through toe nailing when a slight crook is made at the point of the nail.

(Continued to page 218)

FOR
WOOD WINDOWS
 OF *Beauty*
AND PERMANENCE ...

Specify AND INSIST ON



"Huttig of Muscatine" wood windows are built to "Modular Standards" in a wide range of smartly styled types and sizes suitable for all classes of architecture and construction. They are made of selected PONDEROSA PINE which provides extra insulation and are ROT-PROOFED WITH HUTTIG'S OWN SPECIAL WATER-REPELLENT WOOD PRESERVING TOXIC SOLUTION which gives protection against rainy weather, high humidity, black mould, blue stain, termites, fungus and other forms of decay and prevents EXCESSIVE SWELLING, SHRINKING OR WARPING. This "chemical treat" also serves as a priming coat and reduces painting costs. The original and genuine "Huttig of Muscatine" window is guaranteed for 25 years and has two trade marks (shown below) electrically branded on each stile.

HUTTIG MANUFACTURING CO.
 BOX "A" MUSCATINE, IOWA



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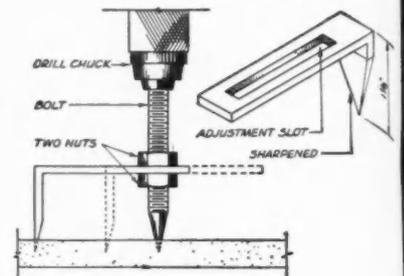
How-To-Do-It

(Continued from page 216)

How to Make an Adjustable Hole Cutter for Sheetrock

THIS IDEA for a cutter is submitted by HERBERT E. FEY, New Braunfels, Texas.

A piece of flat metal is cut to shape and bent with the pointed end sharpened for cutting. A common bolt is



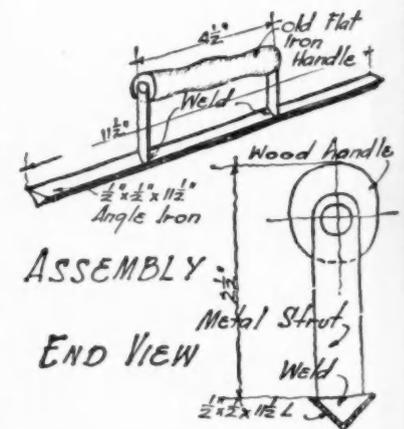
filed or ground to a point at one end, while the other is tapered or flattened to engage the drill chuck.

One nut is threaded on the bolt. The cutter is held in position by the second nut. Adjust both nuts so that the cutting point of the metal piece is slightly higher than the point of the tapered bolt end.

How to Make a V-Joint Groover

J. G. CALDWELL, San Mateo, Calif., puts the handle of an old electric iron to practical use.

This tool is used to make V joints



in the laying up of brickwork. Remove old handle from ironer, weld it to a piece of 1/2x1/2 inch angle iron.

(Continued to page 220)

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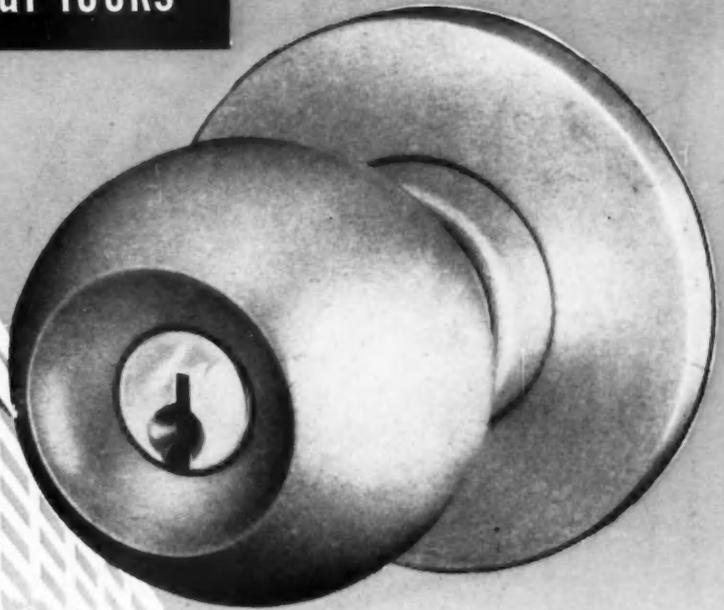
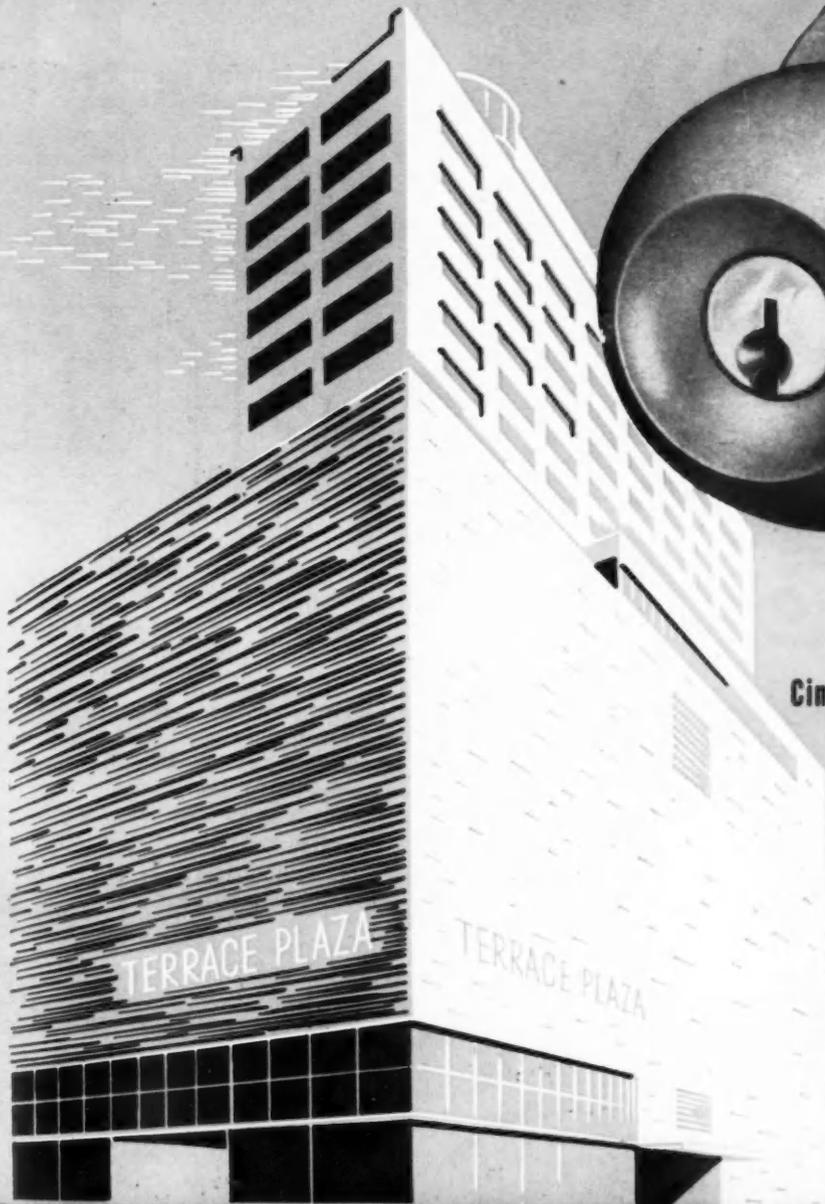
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SCHLAGE

... first name in cylindrical locks

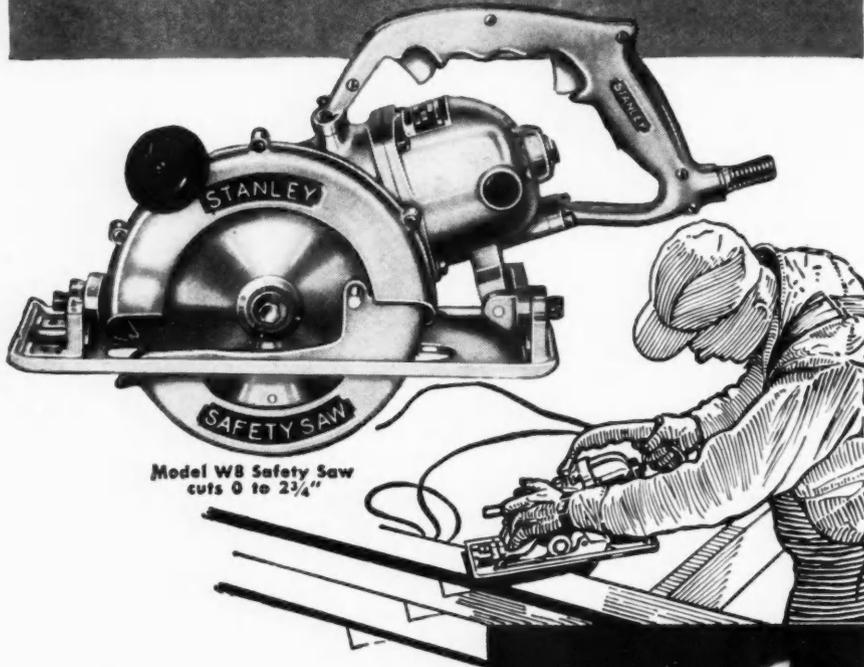


Saturn Design illustrated above
was used in a dull chrome finish for
Cincinnati's Terrace Plaza Hotel...
a Schlage installation of heavy-duty
cylindrical locks.
Architects. Skidmore, Owings & Merrill

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SAN FRANCISCO · NEW YORK

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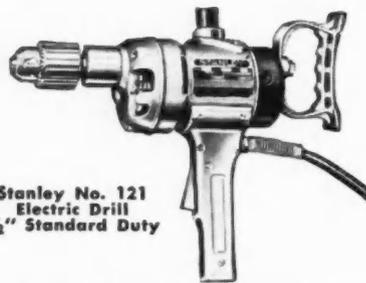
Stanley W8 is a heavy-duty power saw that handles as easily as a hand saw. Gives machine-perfect accuracy on all kinds of tough jobs... compound angles, stair stringers, floor joists, flooring.

Duplex handle with two switch triggers for convenient handling in any position. Simple wing nut adjustment for depth of cut. Safety guard covers cutting edge at all times. Motor and arbor mounted on sealed ball bearings. Tilting base permits bevel cuts up to 2 1/16" at 45°. Capacity on straight cuts, 0 to 2 3/4". Operates on AC or DC.

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Saw Track No. 158 makes the Stanley Safety Saw a bench saw for production sawing.



Stanley No. 121 Electric Drill 1/2" Standard Duty

Light and balanced for easy handling but packed with power. Full ball bearing construction, heat treated nickel steel gears and automatic release safety switch.



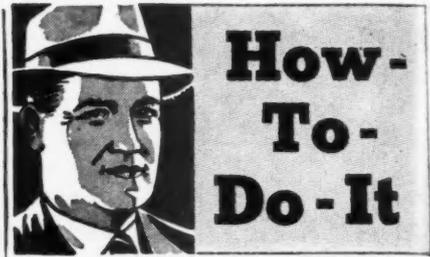
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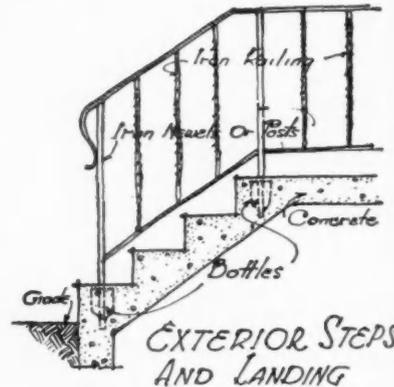


(Continued from page 218)

How to Set Iron Posts In Concrete Steps

A UNIQUE method for setting iron posts is submitted for consideration by J. G. CALDWELL, San Mateo, Calif.

Old bottles are set in the soft concrete of steps and pushed down one



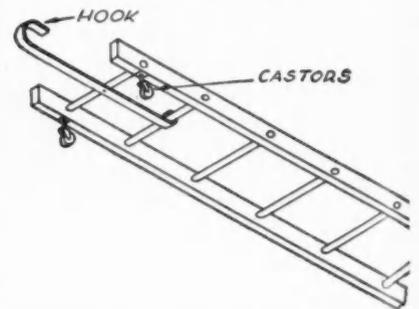
inch below the surface of the steps. This enables the cement finisher to trowel off the steps without interference.

When iron rail is to be set, the workman taps the step—the bottle breaks, and then it is an easy task to set the posts and grout them in.

How to Avoid Injury To Roof Surface

SIMPLE, yet effective, is this suggestion from JOHN H. WOOLHOUSE, Norwood, R. I.

Casters secured to one end of both rails make it easy to shove a ladder



up over shingles without injury to the surface. When the ridge of the roof has been reached, turn ladder over. Secure it by means of an iron hook fastened to the two top rungs.

(Continued to page 222)

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for LOW-COST HOMES!**



New

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Put this quality "salesman" to work selling homes in your present development. See how the housewife "oohs" and "aahs" over its work-saving operation which eliminates "dishpan hands".

The handsome chrome faucet unit becomes a dishwasher at will. Suds flow through the nylon brush, giving fast, sanitary scrubbing of dishes. Instant switch to clear rinse water.

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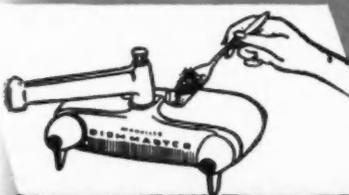
Demonstrated at NAHB Convention Feb. 20-24, Stevens Hotel, Chicago

in

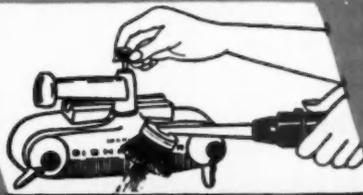


**Gerity-Michigan
CORPORATION**

Adrian, Michigan



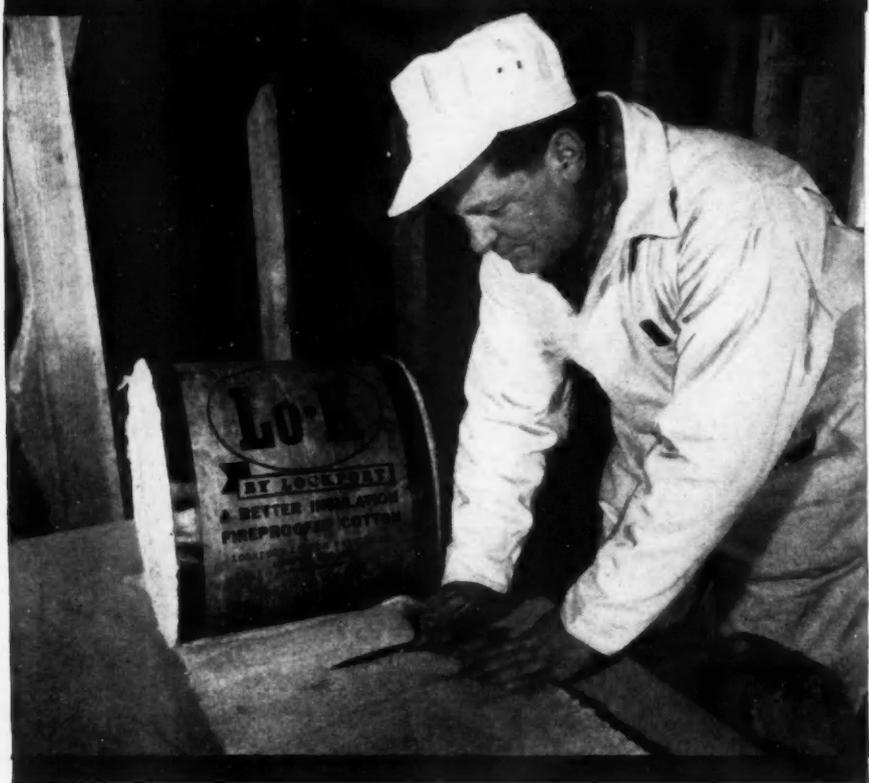
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Fingertip control. Lift the diverter valve for clean spray. Push the button on sprayer handle to add suds as needed.

*Trade mark registered. Patent pending.

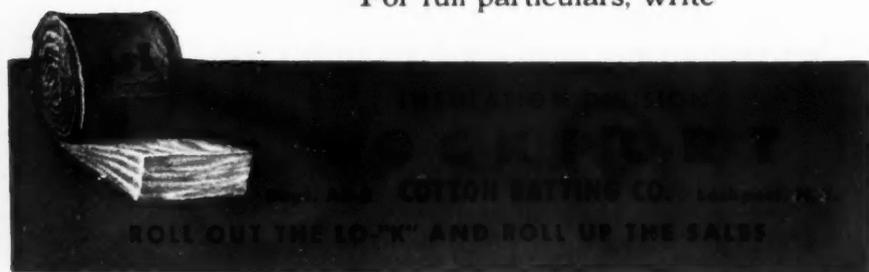
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Depend on Lo-“K” Insulation for customer satisfaction, too. Insulates from 4% to 36% more efficiently; never sags or settles. Resists moisture, rot, vermin and mildew. *Flameproofed* to rigid government tests.

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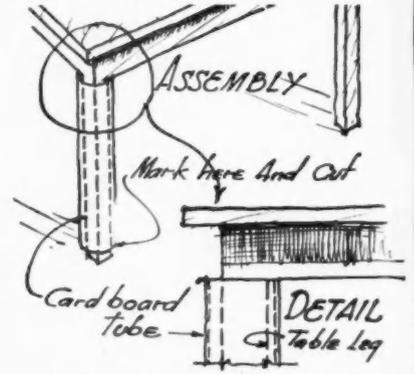
How-To-Do-It

(Continued from page 220)

How to Make a Gauge for Leveling Furniture Legs

A PRACTICAL suggestion offered by MORRIS A. HALL, White Plains, N. Y.

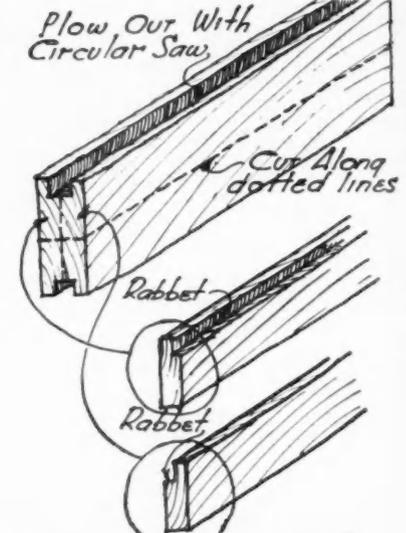
Adjusting the legs of tables and chairs of equal lengths can be done



easily by using a cardboard tube of proper size to permit it to slip over the leg of the table or chair. Cut this tube exactly to length with care, then mark all four legs using tube as a gauge. Cut off bottom of legs.

How to Cut Board For Picture Frame

A QUICK method of cutting four identical pieces of wood is suggested



by HERBERT E. FEY, New Braunfels, Texas.

Plow out edges on either side of the board. Cut board in half. Rip the two pieces on center. This will provide four identical pieces that are rabbeted.

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Give your clients 3 WAY SERVICE FROM 1 UNIT



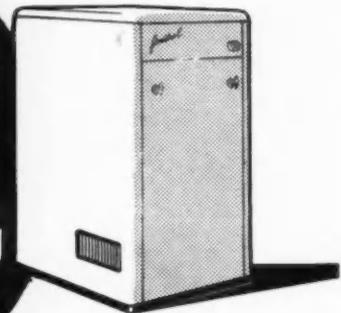
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Single, compact Janitrol Unit supplies all household needs for hot water and heating.

Your clients get three separate supplies of domestic hot water... each at the right temperature... from a single Janitrol unit.

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Installations are not confined to new, single houses, for, this new Janitrol system provides ideal 3-way-service for apartments, stores, motels... all kinds of old and new

commercial buildings. Hundreds of Janitrol Triple Service Units have also been installed for radiant panel heating in both floor and ceiling applications, they are particularly well suited for rambling, one floor, ranch style houses. You'll find this Janitrol system gives more design freedom for more usable room sizes and arrangements.

DOMESTIC HOT WATER SUPPLIES: The single Janitrol unit also provides a plentiful supply of high temperature water for automatic laundry

and dishwashing, and a more temperate hot water for family use.

This proven Janitrol system, gas, oil or LP-Gas-fired, is only installed by authorized and thoroughly experienced Janitrol dealers... your double assurance of securing long-lasting heating comfort and a dependable hot water supply for your clients.

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Controlled Quality



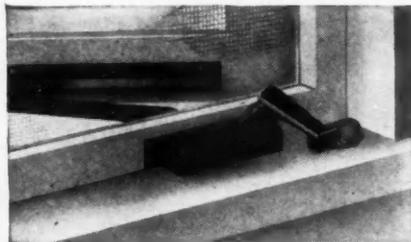
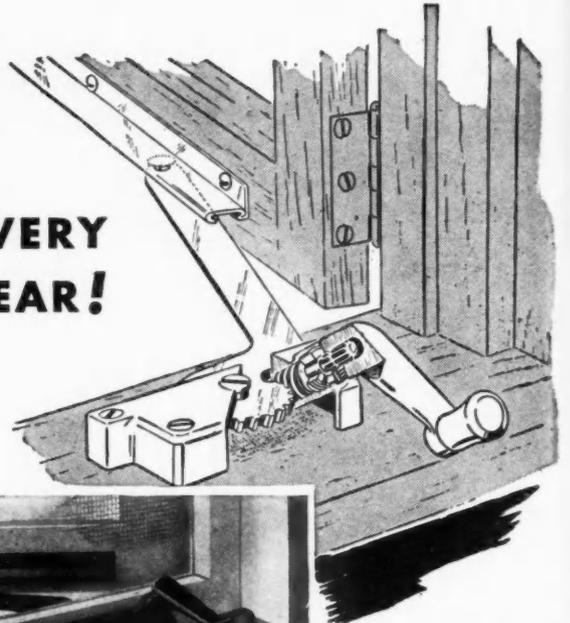
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Because it's equipped with a Getty No. 4715 wood Casement Operator. There'll be no jammed channels, no broken teeth, no stripped threads. Day in, day out, Getty operators will give "good mileage" quietly, efficiently—and at minimum cost. Inherently correct design, using the worm-and-gear angle drive principle, and accurate, sturdy construction, using the right materials in the right places, assure years of trouble-free positive casement control at all times. Getty operators are built for a lifetime of service... and here are six down-to-earth reasons why they are the choice of architects, builders, contractors and home owners for wood casements everywhere.

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- Solid brass arm button is locked in channel.
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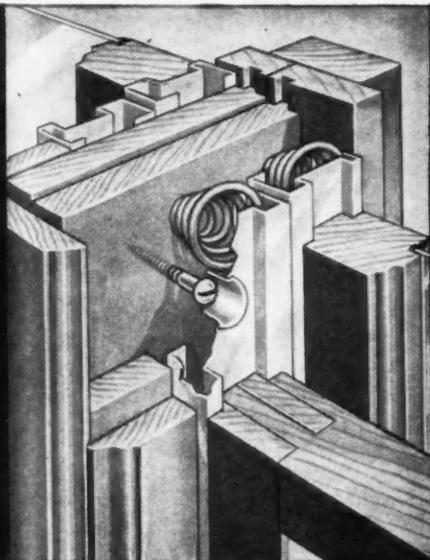
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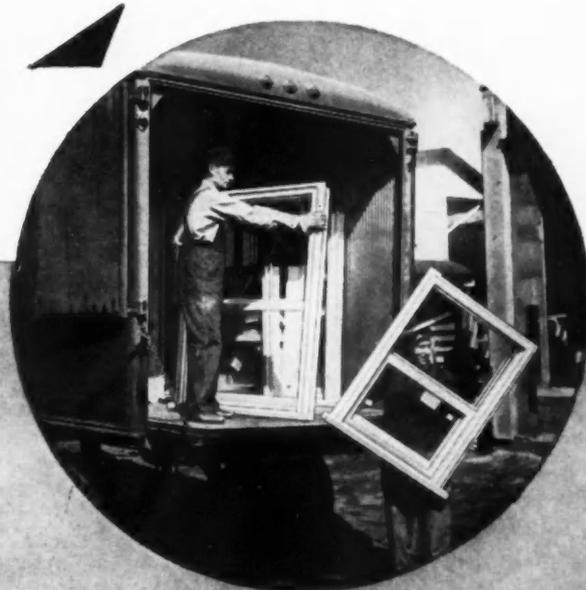
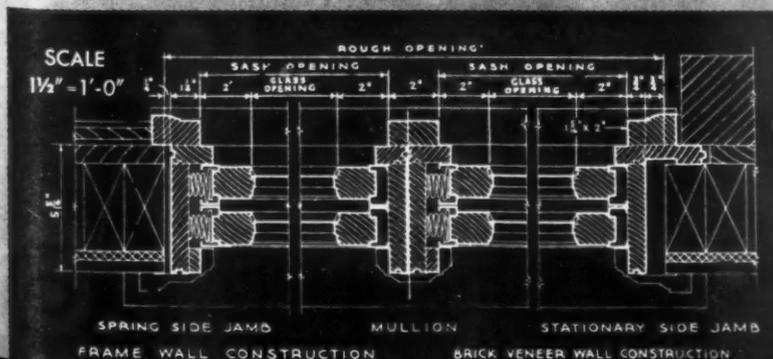
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In opening or closing, wood slides against metal. Spring pressure acts as a cushion, compensates for swelling or shrinking due to weather conditions.

DELIVERED COMPLETE to your construction job as pre-fit, weatherstripped units. Keeps on-the-job labor costs at a minimum. One of 43 R-O-W manufacturers is near you to insure prompt delivery, efficient service, and low freight expense.

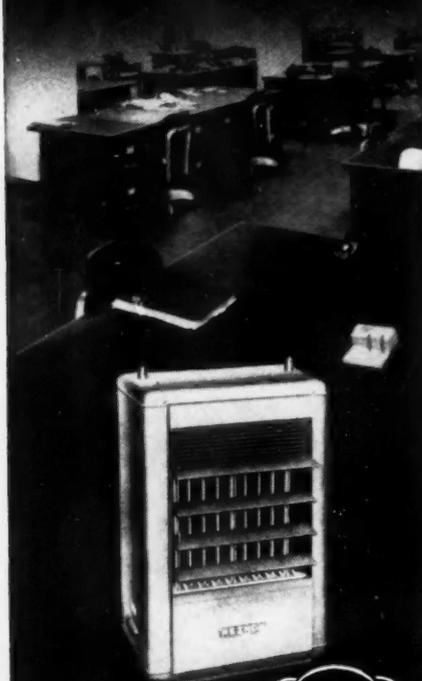
See your local building materials dealer or write R-O-W Sales Company, Royal Oak, Michigan.

TYPICAL CONSTRUCTION DETAILS



See R-O-W Windows at the 1949 National Home Builders Show, Stevens Hotel, Chicago, February 20-24, Booth 123. Look for the R-O-W Catalog in Sweet's Architectural and Builders Files.

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Gas Heaters Since 1888

Methods of Roof Deck Construction and Repair

Here are instructions supplied by experts that will aid the builder in obtaining weatherproof roofing

A ROOF DECK is to a roof as a foundation is to an entire house.

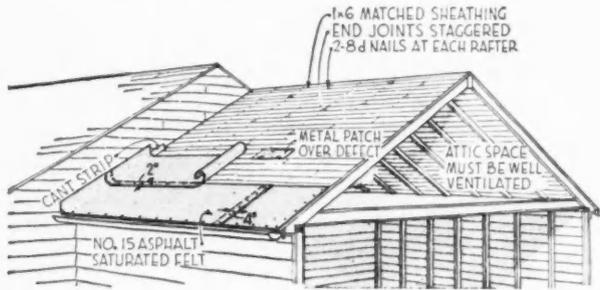
A house with a poor foundation is a house that is going to cause trouble. In the same sense, a roof which has been applied over an unsound deck will not be the best roof, no matter how excellent the roofing material itself is.

That belief is axiomatic to the Asphalt Roofing Industry Bureau which has specified the best methods of asphalt roof construction in all its

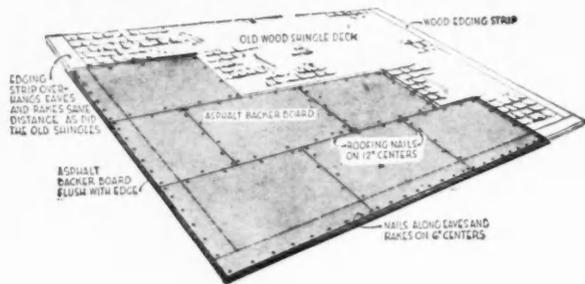
side of the roof deck or within the sheathing.

Adequate circulation of air also will help prevent warping of deck sheathing after a building has been constructed and is in use. Louvered openings should be constructed, usually under the eaves in the gable ends. Louvers should have a total effective area of 1/2 square inch for each square foot of attic floor space.

The first step in construction of a wood deck for asphalt roofing is to



DRAWING, top, illustrates features of satisfactory wood roof deck for asphalt roofing. Bottom shows preparation of old wood roof for reroofing with asphalt roofing



phases. For full life and service from roofing, the correct type of roofing must be selected for each job, and it must be properly applied over a properly constructed deck.

If the deck is not rigid, the sheathing can move slightly and disturb the lay of the roofing material. Green or poorly seasoned deck lumber can warp and cause cocking of the shingle tabs or wrinkling and buckling of roll roofing.

An effect similar to that produced by green lumber frequently results when the attic space under the roof deck is not adequately ventilated. Ventilation is particularly necessary during cold weather construction, especially when the interior of the house is being plastered or when plaster is drying.

Circulation of air is needed to remove moisture-laden air from the building, thus decreasing the possibility of condensation on the under-

choose fully seasoned tongue and groove sheathing or shiplap in narrow or medium widths. Wider boards sometimes will shrink enough to buckle any flexible roofing fastened to them. Badly warped boards or those containing excessively resinous areas or loose knots should be rejected.

Sheathing should be tightly matched, then fastened to each supporting rafter with two 8d nails, one through the face of the board and the other through the edge. If excessively resinous areas are noted in the deck after the boards have been nailed, cover them with sheet metal patches before the roofing is applied. Galvanized iron, painted tin, zinc or copper approximately 26 gauge, is good for this purpose.

The completed deck should be protected from dampness by an underlayment of asphalt saturated felt, not heavier than 15 pounds per square.

(Continued to page 228)

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Floor Plans

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Do it the DuPont Plaza way.



Aubinoe-Edwards-Beery, Washington, D. C.—Architects

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● In Washington's beautiful *new* DuPont Plaza Apartment Hotel . . . 328 of these gleaming Pureaire Kitchens have been installed by Alvin L. Aubinoe, prominent Eastern builder.

Why? Because Pureaire is only 48 inches wide—a complete kitchen that takes only 8 square feet of expensive floor space . . . a great saving in Per-Unit Cost!

And because—the *less* per-unit cost, the *more* income per dollar invested . . . *Maximum rent from minimum space!*

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Let us show you how others have used Pureaire Kitchens so successfully during the past 20 years . . . pictures of typical installations in apartments, multiple housing units, motels, homes and institutions . . . typical floor plans . . . specifications.

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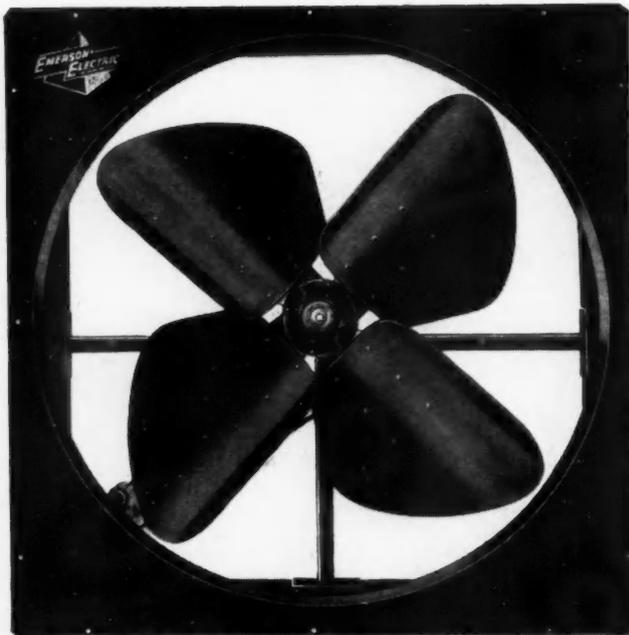
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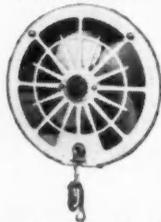


Three sizes: 36-, 42-, and 48-inch, exhausting up to 19,350 CFM. Sleeve-bearing horizontal discharge type for wall, or for ceiling installation with canvas plenum chamber and automatic shutters. Also ball-bearing vertical discharge type for ceiling installation with automatic shutters.

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Please her with a Kitchen Ventilator Fan . . . to whisk away smoke and cooking odors, prevent spread of greasy vapors to walls and drapes. Easy to install in any construction. Models for wall or ceiling installation.

THE EMERSON ELECTRIC MFG. CO. • ST. LOUIS 21, MO.

EMERSON  **ELECTRIC**
MOTORS • FANS **APPLIANCES**

Roof Deck Construction

(Continued from page 226)

Only as much decking should be laid in a day as can be covered the same day with the felt. Coated roll roofings should not be used for this underlayment because they act as vapor barriers and under certain conditions might cause an accumulation of moisture or frost between the deck and the underlayment.

Plywood decks should be at least $\frac{1}{2}$ inch thick and either three or five ply. Maximum center spacing between supporting members should be 24 inches. Units of plywood should be applied so that the outer ply runs at right angles to supporting members. Edge and end joints should be tightly fitted together and end joints in adjacent courses should be staggered. Units should be fastened to rafters with 6d nails at 6-inch intervals or closer. Eaves, rakes, ridges and other openings through the deck should be designed in such a way that the plywood will not be exposed to the weather either on surface or edge.

When reroofing is planned, a choice must be made between removing the old roofing or allowing it to remain. Generally it will not be necessary to remove old asphalt shingles, old roll roofing or old wood shingles, provided these two conditions exist:

1—Strength of the existing deck and framing is adequate to support the weight of workers and additional new roofing, as well as usual snow and wind loads.

2—The deck is sound and will provide good anchorage for nails used in applying new roofing.

Old Roofing Remains in Place

If inspection of a roof covered with old wood shingles indicates the shingles need not be removed before reroofing, the old surface must be prepared by:

1—Removing all loose and protruding nails and nailing with nails in different places.

2—Nailing down all loose shingles.

3—Splitting all badly curled or warped shingles and nailing down the segments.

4—Replacing missing shingles with new ones.

5—In areas where high winds can be expected shingles at eaves and rakes should be cut back far enough to allow the application of wood strips 4 to 6 inches wide and 1 inch thick. Nail the strips firmly in place, allowing their outside edges to project beyond the edges of the deck as far as the wood shingles originally projected.

(Continued to page 230)

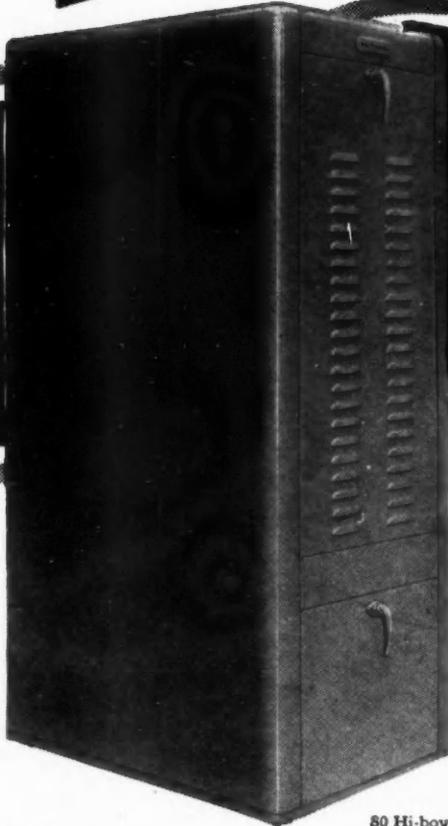


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Resolve now to increase your sales this year with KO-Z-AIRE, America's finest . . . and most complete line of home conditioning units. They assure satisfied customers because of clean, completely automatic heat—the best in carefree comfort. They assure you a full year of big, easy profits. Make KO-Z-AIRE your line for '49 . . . and a prosperous new year to you!

Easy to Sell!
Easy to Install!

There's a KO-Z-AIRE for any size structure—small, medium or large. Smaller units come factory-assembled, ready to install.

MAIL THIS COUPON NOW!

80 Lo-boy



A UNIT FOR EVERY PURPOSE!

80 Hi-boy



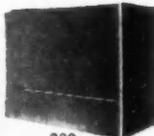
65 Hi-boy



150



100



220



350

We'll be seeing you at the 9th International HEATING AND VENTILATING EXPOSITION KO-Z-AIRE BOOTH NO. 1302

JONES & BROWN, INC.

439 SIXTH AVENUE · PITTSBURGH 19, PA.

Jones & Brown, Inc.
439 Sixth Ave., Pittsburgh 19, Pa.

Yes, I want complete information on KO-Z-AIRE, the profit line for '49.

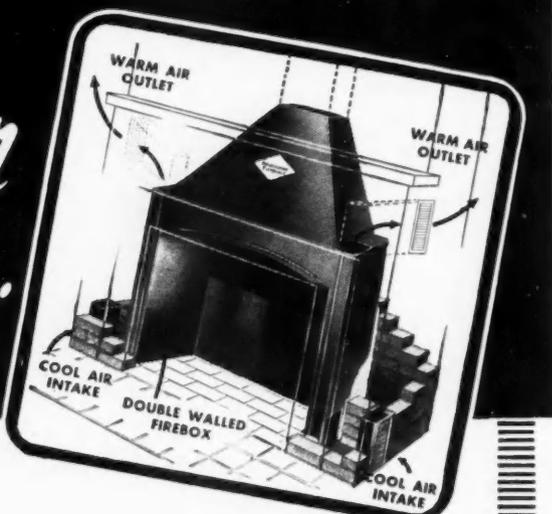
NAME _____

ADDRESS _____

CITY _____ STATE _____

Build Your Fireplaces

*this
Easier
way...*



HEATILATOR*

1. Complete form for the masonry

2. Saves time, labor and materials

The Heatilator comes to you as a complete steel unit. The smoke dome, throat, downdraft shelf and damper are all built right in. You simply set the Heatilator unit in position, then lay your masonry around it. You don't have to figure out the proper size and proportions of your fireplace. When you use the Heatilator unit, your fireplace is bound to be right!

- **Heatilator Fireplace Circulates Heat**

- **Will Not Smoke**

These two features alone, even if there were no others, make the Heatilator Fireplace outstanding. This is why more builders and home owners prefer the Heatilator Fireplace. It's been proved for more than 21 years in thousands of homes, cottages and camps.

*You save money on your
fireplace with Heatilator*

HEATILATOR, INC.

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

*Heatilator is the registered trademark of Heatilator, Inc.



HEATILATOR FIREPLACE

Roof Deck Construction

(Continued from page 228)

6—For best service, "backer board" should be applied over the wood shingles or bevelled wood "feathering strips" should be placed along the butt of each course of old shingles.

If any old asphalt shingles are to remain in place, nail down or cut away all loose, curled or lifted shingles, remove all loose and protruding nails, remove all badly worn edging strips and replace with new ones. Sweep the roof surface clean just before applying the new roofing.

New Roofing Over Old Roll Roof

When new asphalt roofing is to be laid over old roll roofing, the procedure is:

1—Slit all buckled sections of the old roofing and nail segments down smoothly.

2—Remove all loose and protruding nails.

3—If any of the old roofing has been torn away, examine exposed sections of the deck for loose or pitchy knots and excessively resinous areas. Defects such as these should be covered with sheet metal patches made from galvanized iron, painted tin, zinc, or copper, approximately 26 gauge.

Old Roofing Removed

Old roofing, regardless of its type, must be removed if the deck under it will not furnish adequate anchorage for new roofing nails or if the framing supporting the deck is not strong enough to support the total weight of old roofing, new roofing and workers during application. In either of those cases, steps in preparation of old deck are:

1—Repair the deck framing if necessary to strengthen or level the deck.

2—Remove all rotted or warped old sheathing (delaminated units in the case of a plywood deck) and replace with new sheathing of the same kind.

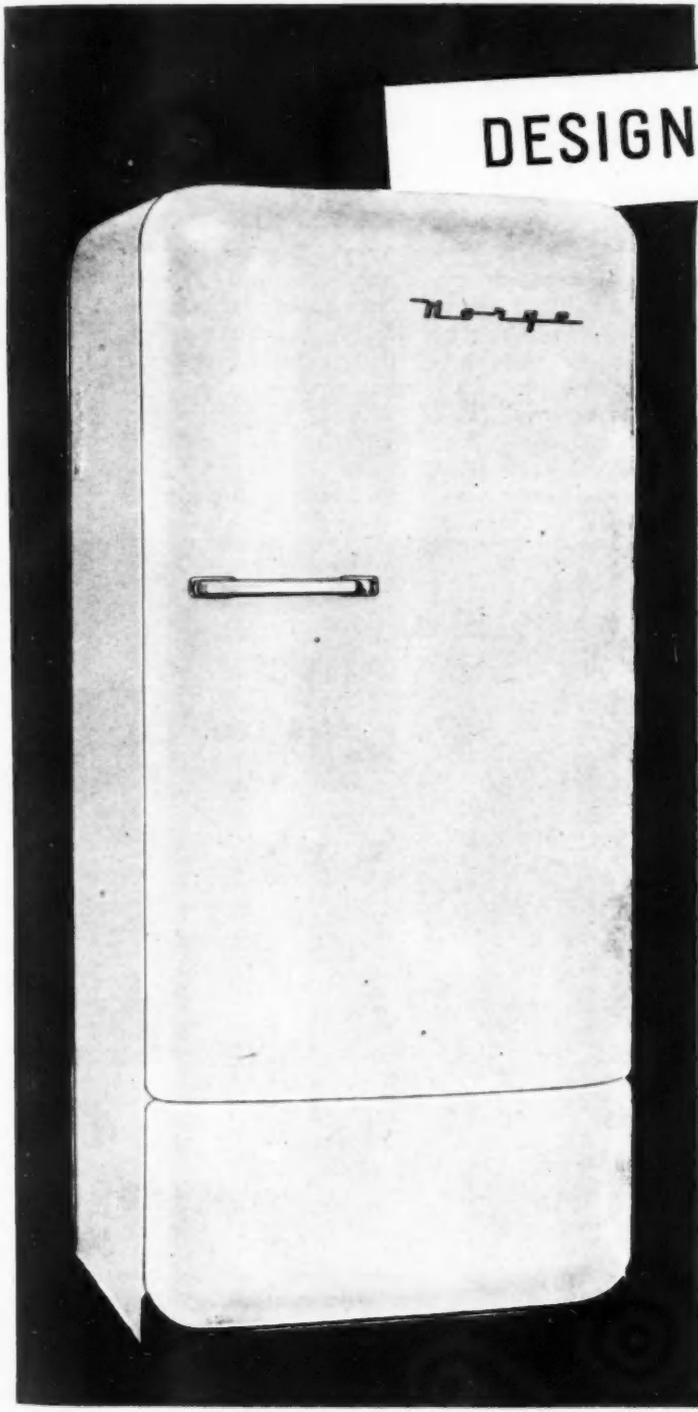
3—Fill in spaces between boards with securely nailed wood strips of the same thickness as the old deck, or move existing sheathing together and sheath the remainder of the deck.

4—Pull all loose or protruding nails and renail the sheathing firmly, not through the old nail holes.

5—Cover all large cracks, slivers, knot holes, loose or pitchy knots and excessively resinous areas with sheet metal patches securely nailed to the sheathing.

6—Just before applying the new roofing, sweep the deck clean of loose debris.

DESIGNED TO PLEASE...



THE NEW
Norge
B-649

REFRIGERATOR

The Norge is planned to complement the best efforts of architects and builders everywhere... a dependable refrigerator backed by one of the soundest reputations in the industry. Twenty-two years of manufacturing experience have gone into the production of this special space-saving, money-saving model, engineered to provide 50% more refrigerated storage space in the same floor space as a prewar Four! For full information and complete specifications, you are invited to write Norge Division, Borg-Warner Corporation, 670 E. Woodbridge, Detroit 26, Michigan.

**SMOOTH-FLOWING SYMMETRY
OF DESIGN**

•
**COMPACT, SPACE-SAVING
ARRANGEMENTS**

•
STYLISH, MODERN BEAUTY

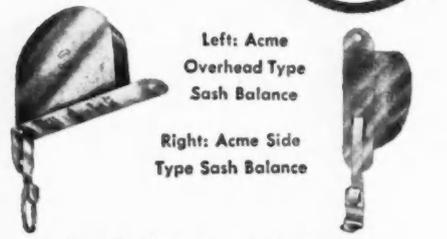
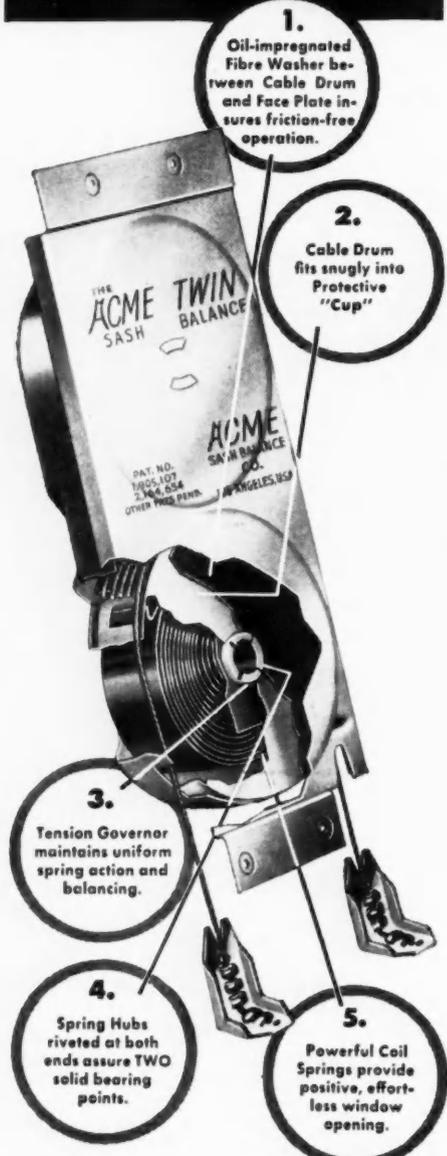
•
ECONOMICAL, EFFICIENT OPERATION

A BORG-WARNER INDUSTRY

Refrigerators • Electric Ranges • Gas Ranges
Electric Water Heaters • Washers • Home Heaters
Water Coolers • Home Freezers

SEE
NORGE
BEFORE YOU BUY

This cutaway view shows why the **IMPROVED ACME TWIN** is the most efficient sash balance ever designed



See your dealer or write for literature

ACME
 SASH BALANCE COMPANY
 1626 Long Beach Ave.
 Los Angeles 21, Calif.

Research Develops New Gypsum Products

By Lloyd H. Yeager
 Gypsum Association

AN ENORMOUS demand for the products of an industry very often serves to de-emphasize the necessity for research and development. This is not true of the gypsum industry for never in its history has there been such a backlog of fully researched and developed products to be released when pro-

the structural gypsum core has been integrally treated to make it highly resistant to water absorption. Thus, gypsum sheathing, while made essentially from rock, will actually float in water. On many large projects it has been stockpiled outside the building without special protection against rain.



INSTALLING plain gypsum with a sheet of aluminum foil on back side making it resistant to vapor transmission and giving heat insulation equal to 1/2-inch fibre board

ductive capacity permits. These products are not developed overnight for after they have emerged from the exhaustive laboratory development and tests, they are subjected to controlled field studies; then released for a period of time in a very limited area where detailed observations are made for an extended period, often as much as five years, to determine its value for unlimited distribution. At least four products have gone through such a cycle and have been produced in sufficient quantities to show their real value to the building industry—

Water-repellent gypsum sheathing has been used in limited quantities and in all climates for several years. Not only is the paper covering made water-repellent but

Its large sheets (2x8 feet) are quickly erected and the tongues and grooves on the longitudinal edges make a tight, strong wall. Its bracing strength complies with building code requirements. It can be cut with an ordinary saw or scored on the face, snapped backward to break the core and snapped again to break the paper on the opposite side—in less time than is required to relate. Several excellent fasteners have been developed for the attachment of wood shingles, asbestos products, etc., directly to the gypsum sheathing without furring. And it is fire-proof; a wall of gypsum sheathing and wood siding with perforated gypsum lath and plaster on the interior is one-hour fire-resistive.

(Continued to page 234)

BRADLEY MAKING RAPID COME-BACK

FROM JANUARY 3rd TORNADO!

PLANT DAMAGE LESS THAN FIRST THOUGHT



This air view, taken since the storm, effectively refutes exaggerated reports that the entire plant had been "leveled." Many vital buildings escaped, including planing mill, flooring plant, storage sheds, etc. (center foreground); hardwood lumber yard (top center), containing several million feet, escaped as did the office.

It is gratifying to announce to the trade that removal of debris has revealed key power plant and production machinery units less damaged than expected.

Starting with first things first, restoration of the power plant is well along. With this completed, each successive department of production will resume as rapidly as repairs can be made. As matters now stand, normal operations should be possible *substantially sooner than indicated in our bulletin of January 6*, particularly since our planing mill and hardwood flooring plant were not damaged.

With an electric power hook-up from the outside, production at the pre-finished hardwood flooring department has been resumed, so that

**SHIPMENTS OF
PRE-FINISHED
HARDWOOD FLOORING
ARE ALREADY
BEING MADE**

Bradley Brand will continue to supply our customers with premium quality for which it has long been known and identified by its famous red trade-mark as the

STANDARD OF COMPARISON

BRADLEY LUMBER COMPANY *of Arkansas*

WARREN, ARKANSAS



You Builders of LIGHT CONSTRUCTION—

STORES AND SUPER MARKETS, GARAGES, SERVICE STATIONS, APARTMENT BUILDINGS AND DWELLINGS, WAREHOUSES AND INDUSTRIAL EXPANSION JOBS

MACOMBER

can help you complete your jobs faster with Factory-Made structural load bearing units.

Get your jobs scheduled now for Spring delivery

ROOF TRUSSES for your Garage, School Addition, Recreation Center, Super Market or Plant Addition. Complete detail information. ROOF TRUSS CATALOG.

LONGSPANS for Floor or Roof Support out to 72' spans. Parallel or Sloping chords for level or drainage conditions. Send for LONGSPAN Catalog.

STEEL JOISTS for any apartment, home or commercial job. Quickly placed, easier plumbing and electrical installations. Write for JOIST Catalog.

Forward drawings for quotation and delivery estimates. MACOMBER is the kind of an outfit that will work with you. Let's get acquainted.

V-BAR JOISTS AND PURLINS • V-STUDS • TRUSSES • LONGSPANS • DECKING



MACOMBER
INCORPORATED
CANTON, OHIO
IN MEXICO D. F.—MACOMBER DE MEXICO S.A. CEDRO 500
STANDARDIZED STEEL BUILDING PRODUCTS

New Gypsum Products

(Continued from page 232)

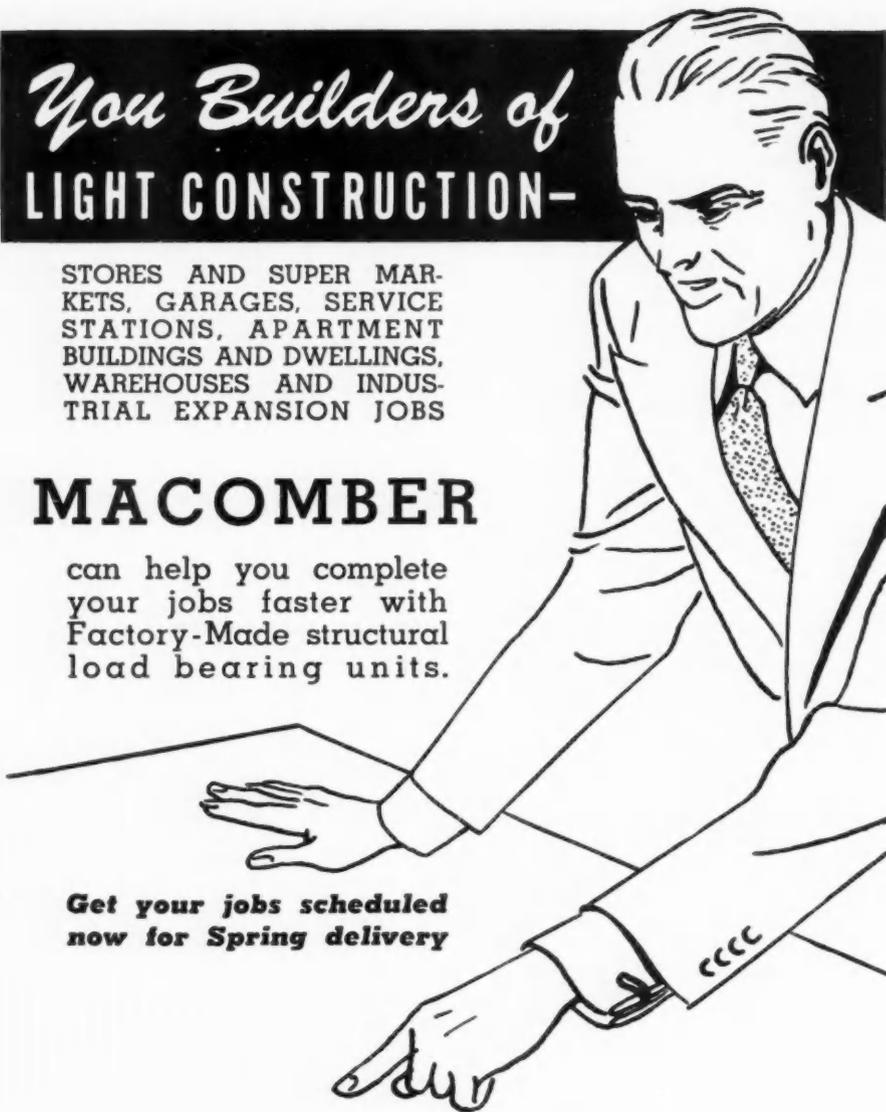
Lightweight aggregates are being used by several manufacturers to produce a lightweight, ready prepared plaster with unusual resistance to fire. These plasters require the addition of only water at the job site, thus permitting very accurate control of the aggregate with respect to quantity and particle sizings. They are applied in the usual manner.

The use of these lightweight aggregates, vermiculite or perlite, reduce the deadload weight of ordinary plaster by as much as 65 per cent, extremely important in multistory construction. By carefully controlled mill processing, the strength of these plasters are made to approximate the strength of well prepared sanded plasters. Used principally in steel frame construction, these lightweight aggregates with gypsum plaster have been used on ceilings of bar joist floor construction to qualify under building code requirements for three-hour fire-resistance. Similarly columns are fire-proofed for four-hour fire-resistance. These aggregates are gaining in popularity particularly in the larger metropolitan areas where multistory construction is advantageous.

The subject of vapor transmission is not generally understood by the building industry but has received considerable study by the Federal Housing Administration in Washington with appropriate directives and recommendations to their various district offices. They recognize that with normal humidity within a home in our colder climates, condensation within the walls and ceilings is generally unavoidable unless an appropriate barrier is placed on the warm side of the wall. Waterproof papers are inadequate because the vapor within the room is a gas and would readily permeate and pass through such papers; therefore, a highly rated vapor barrier is recommended.

One of the important developments within the gypsum industry is the technique of applying aluminum foil to the back side of gypsum wallboard and gypsum lath. Aluminum foil is recognized as the best of the commercial vapor barriers and when used on the warm side of the studs, it stops the vapor transmission before it reaches the cold side of the wall and at the same time, provides insulation equivalent to a one-half inch thick

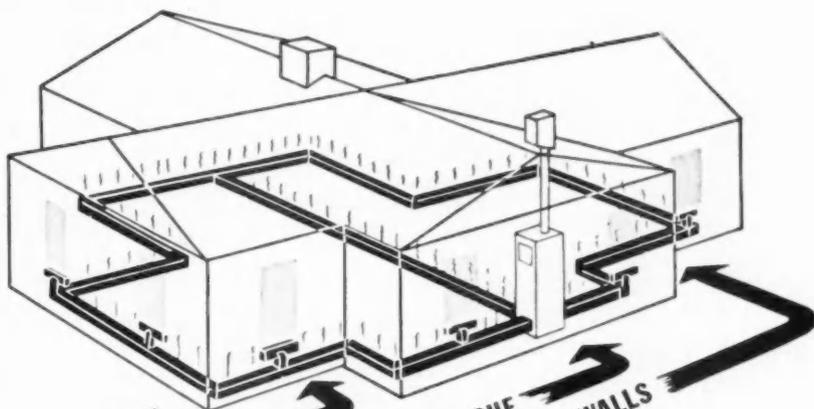
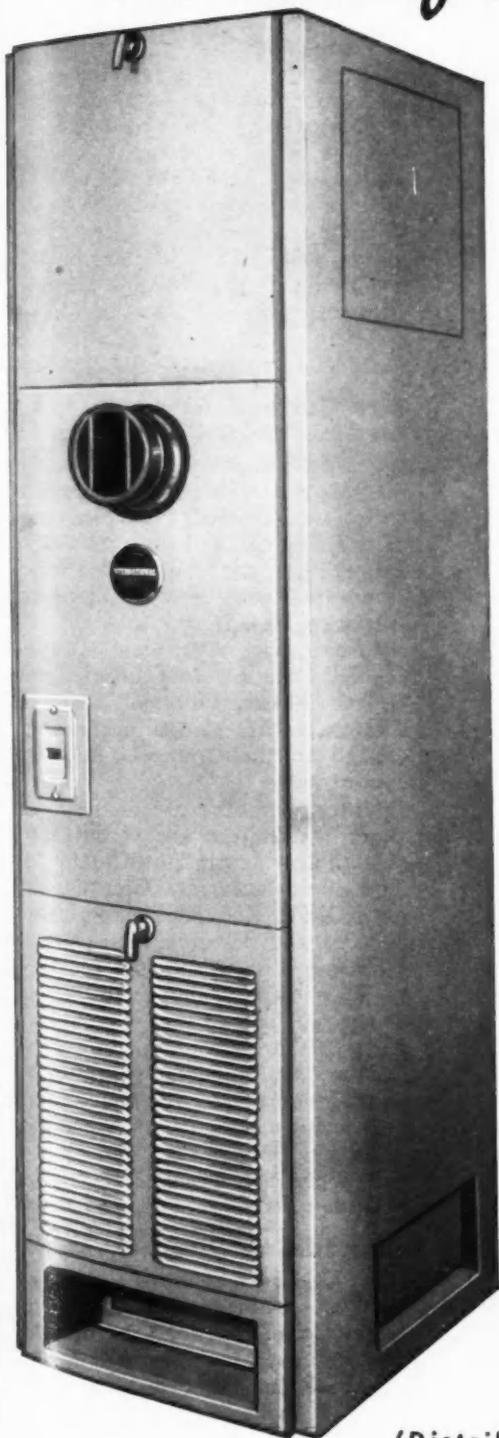
(Continued to page 236)



RADIANT FLOOR PANEL HEATING *plus* FILTERED CIRCULATING WARM-AIR

Both in one unit - At less than the cost of conventional heating!

The INTERNATIONAL WARM-AIR AUTOMATIC OIL or GAS FURNACE



BASEBOARD OR FLOOR REGISTERS UNDER WINDOWS

COMPACT 2'x2' FITS IN CLOSET OR NICHE UNDER-FLOOR DUCTS AT OUTSIDE WALLS

FOR RANCH-TYPE or BASEMENTLESS HOMES...

A truly great advance in modern heating engineering—that really overcomes the basic problems of home heating. Underfloor ducts eliminate cold floors and chilly walls . . . Base register banishes cold air cascading down windows . . . Elimination of air stratification assures uniform temperatures at all levels. Low cost installation — economical operation.

Send for literature giving details and typical layouts.

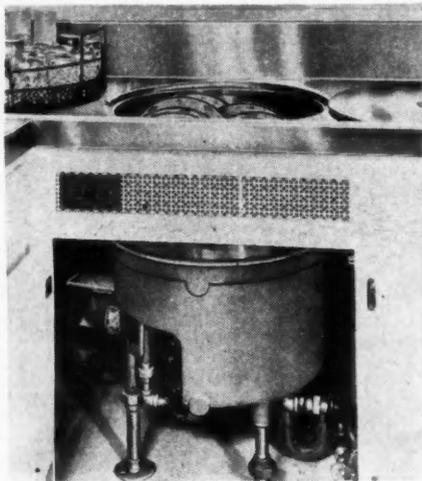
See it in Booths 55 and 56 At the National Home Builders Exposition, Chicago

INTERNATIONAL OIL BURNER CO.

Park & Spring Aves. St. Louis 10, Mo.

(Distributors—Some protected territories still open—Inquire)

See the Amazing—New
JACKSON
HOME DISHWASHER
in actual operation!



For installation, cut 20" hole in drain board, make hot water and drain connections. May be installed in corner or under over-head cabinets if desired.



Especially designed for builder installation in new homes or present drain boards.

Jackson Home Dishwashers are backed by 24 years' experience in the dishwashing field—your guarantee of dependability and proven efficiency. Install the new Jackson Dishwasher—a powerful selling point for the homes you build.

WRITE TODAY for literature and complete information.

THE JACKSON DISHWASHER CO.

3703 East 93rd St.

Cleveland 5, Ohio

Dishwashing Specialists Since 1925



BOOTH
59

NATIONAL HOME
BUILDERS SHOW
STEVENS HOTEL
CHICAGO • Feb. 20-24



You are cordially invited to visit the Jackson Booth for a demonstration of the many outstanding features of this new machine.

- 70 second operation!
- Exclusive Double-Revolving Sprays!
- Wash water recirculated by pump system!
- Easily installed!
- Fits beautifully in every type kitchen!

See for yourself why more and more builders are installing the new Jackson Home Dishwasher. Inspect the many features that make dishwashing easier, faster and more economical than ever before!

New Gypsum Products

(Continued from page 234)

ness of fiber insulation board. Thus it serves a dual purpose and many builders are finding that FHA requirements for thermal conductivity may be satisfied throughout most of the country without the use of insulation other than that which is provided by the use of aluminum foil. Generally the double requirements of FHA for vapor control and insulation are met with an expenditure which usually does not exceed 2 cents per square foot of exterior wall and top floor ceiling surface.

In designing for the proper control of vapor, the builder should be reminded that the exterior of the wall must be relatively permeable to vapor, thus making difficult the entrance of vapor into the wall space and at the same time facilitating the passage of the vapor through the exterior. In other words, materials of low permeability should be used on the exterior. Glossy papers are usually vapor-resistant and their use on exteriors should be avoided.

Tile Council Elects Jordan 1949 Chairman

R. E. JORDAN, JR., treasurer of the Mosaic Tile Co., Zanesville, Ohio, was elected 1949 chairman of the Tile Council of America, at a meeting of the Council's advisory committee held recently at Hotel Biltmore, New York, N. Y.

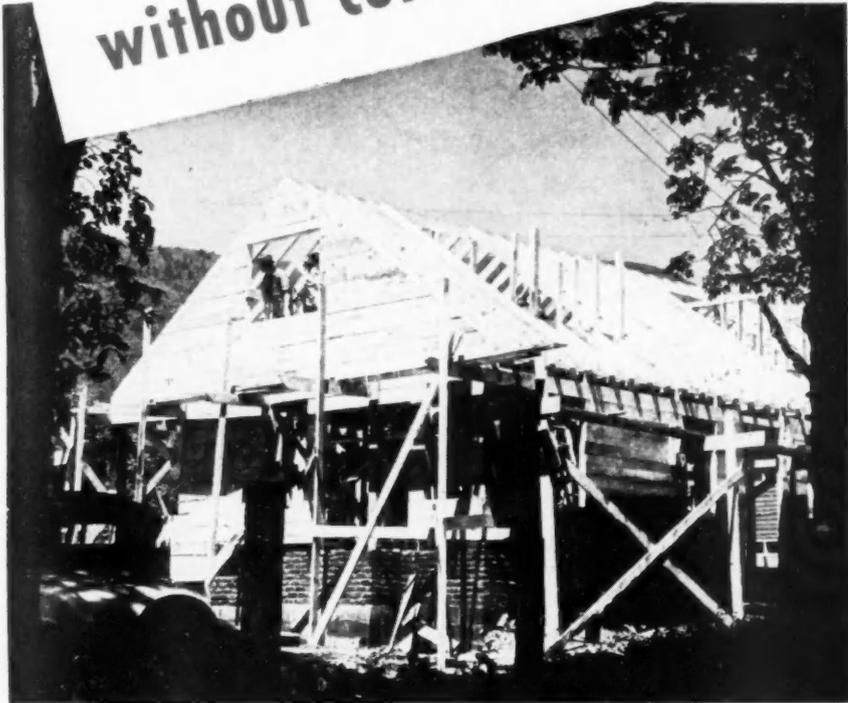
Jordan, vice chairman in 1948, succeeds A. R. McMannis of the United States Quarry Tile Co., Canton, Ohio. McMannis was re-elected to the Council's advisory committee.

Other members of the new advisory committee are C. H. Burchenal, president of the Cambridge Tile Manufacturing Co., Cincinnati, Ohio; Roy Alexander, president of the National Tile Manufacturing Co., Anderson, Ind.; J. C. Larrimore, sales manager of Murray Tile Co., Inc., Cloverport, Ky.; William Schatzkin, president of the Architectural Tiling Co., Inc., Keyport, N. J.; R. W. Schweiker, vice president of American Encaustic Tiling Co., Inc., Lansdale, Penn. Jordan and Schroeder will also serve on the committee.

New Siding Plant Opened

ON JANUARY 1, the Insulite Div. of Minnesota and Ontario Paper Co. commenced the production of insulating siding at a new plant at Elizabeth, N. J., it was revealed by D. D. Davis, president.

CUTTING COSTS without cutting corners!



Now, there's a way to help stretch precious working hours and slash your wiring costs, without sacrificing quality—General Electric PVX® nonmetallic sheathed cable.

Look at these features and you can easily see why PVX has fast become standard almost everywhere for open and concealed work. More and more cost-conscious builders are discovering that General Electric PVX goes in fast—gives a neat, dependable job:

SPACE-SAVING—Easy to handle—requires small holes and little installation space.

LIGHTWEIGHT—Makes handling easy during installation.

EASY TO STRIP—Crushed-paper armor on individual conductors is easy to remove—thermoplastic insulation strips freely, leaves a clean conductor for connection.

To get the rest of the facts on PVX and the other products in the General Electric wire and cable line, send for a free copy of the 42-page booklet *Building Wires, Cables, and Cords for every purpose*. Address Section W21-22, Construction Materials Department, General Electric Company, Bridgeport 2, Connecticut.



GENERAL ELECTRIC

AROUND THE CIRCUIT WITH YOUR **G-E**

MERCHANDISE DISTRIBUTOR



LIGHTWEIGHT BX® armored cable, with bonding strip in sizes 12 and 14, speeds construction because of weight reduction and increased ease of installation. These

two new features added to the General Electric BX armored cable line maintain the standard for construction requiring this type of wiring protection.

EASY INSTALLATION

is one feature of Type SE-Style U service entrance cable. It can be installed directly on the outside of a building without conduit. You can even paint the flame-retardant, moisture-resistant cotton braid if you want to. Another convenience of this high-quality product is that, on short spans, you can run it from the pole right through to the meter equipment.



SUPER PVX nonmetallic-sheathed cable is the new G-E development that's creating a stir in the wiring field. The good-looking smooth, brown or ivory finish—to harmonize with surface wiring devices—

makes it right for exposed wiring anywhere. Its tough, thermoplastic sheath and rotproof thermoplastic insulation make it a natural for fighting fumes and moisture in barns and other troublesome locations. Ask your General Electric distributor about SUPER PVX.

THE FULL LINE of

General Electric wires, cords, and cables gives you a wide range of materials to choose from. For information on any part of the line, why not contact your General Electric Construction Materials distributor? He'll be glad to straighten out your supply problems, or simply give you how-to-do-it wiring facts.



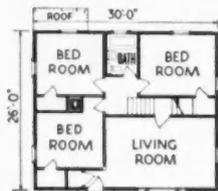
Somebody Will Sell
**LFI TRI-LEVEL
 HOMES IN YOUR
 MARKET**

and
TRI-LEVEL
 is the
**LOWEST COST
 FINEST QUALITY
 3 BEDROOM
 HOME
 IN ANY MARKET**



**YOU CAN BUY
 ONE OR ONE
 THOUSAND —
 BUT . . .
 YOU CAN'T
 DUPLICATE IT!**

Tri-Level Homes are available price-wise in three stages of construction.



Grade and Upper Level



Grade and Lower Level

Copyright 1940, Walt B. Degree, Detroit



Precision manufactured in panelized form for sturdy construction and fast erection under U.S. Copyright protection, Tri-Level Homes are exclusive with Lumber Fabricators, Inc. Featuring Seven generously sized rooms the Tri-Level provides 3 bedrooms for the price of 2 with a dining room free . . . a Utility and Recreation Room without basement cost . . . and many large closet and storage spaces.

LFI GENERAL SERVICE—includes 78 models of ranch type homes in addition to the Tri-Level. These 78 models provide developers and contractors with fast low cost construction. LFI Distributorships and Dealerships are available now in several areas.

See LFI models in Booth 193 at Nat'l Ass'n of Home Builders' Show Chicago, Feb. 20 to 24.



LUMBER FABRICATORS, INC.
 728 Fisher Bldg., Det. 2, Mich.
 Northern Plant
 Elkton, Mich.
 Southern Plant
 Fort Payne, Ala.
 A nationwide organization
 from coast to coast

LUMBER FABRICATORS, INC., 728 Fisher Bldg., Det. 2, Mich., Dept. A
 Please send me complete information on how I can use LFI to offer better homes at lower prices with more profit to me.

NAME _____
 COMPANY _____
 ADDRESS _____
 CITY & ZONE _____ STATE _____

Electrical Installation Serves as a Sales Tool

(Continued from page 173)

are not portable and become a part of the structure, the builder can deliver for \$4.59 per month. If just an automatic laundry were purchased on an 18-month installment plan, even the most lenient interest rate plan would require a down payment of \$60, plus monthly installments of nearly \$14.

Obviously, a buyer would prefer a home equipped with all the items listed, to a house with none of the items, if the extra cost is only \$4.59 a month. If he expected to buy at least one appliance like the Laundromat on the installment plan, the elimination of that installment purchase can give him about \$9 per month extra to put toward his house payments, and he gets five or six times as much convenience in the new home immediately.

Of course, in order to use a wide variety of electrical packages, or to permit their addition at a later date, the builder must install more than the usual number of circuits and outlets—which is what Westinghouse did in a group of demonstration houses it built in Hartford, Conn., last summer. Pictures accompanying this story show some of the variations in electrical packages used, and show a wiring diagram which gives ample present and future capacity. This kind of electrical circuit and outlet installation is a strong selling tool in itself, if the builder learns how to use it as such. He need no longer consider the circuits as just a part of the house, but can make them into a convincing selling argument. How many home buyers have had experience with burned out wiring and fuses in the past as they tried to add new electrical appliances to circuits inadequate to handle them? All such prospects can be made keenly aware of the advantages on an electric circuit system which will never fail them in the future.

NPDA Expresses Optimism On 1949 Building Outlook

GENERAL OPTIMISM for building in 1949 was expressed by the National Plywood Distributors Association at their Winter Round Table Meeting, Edgewater Beach Hotel, Chicago.

While they believed the demand for higher-cost homes may not be as great in 1949 as it was in 1948, Association members at the meeting believed that there would be an increasing and sustained demand for lower-cost homes.

"American Colonial" — the Beautiful Asbestos Shingle that's EASY TO APPLY



Self-aligning...self-spacing

Each American Colonial is a rigid asbestos strip which can be applied by any carpenter. No chalk lines or measuring necessary. Large size speeds application.

Easy to handle

Bundles weigh about the same as asphalt strips. Use only 80 pieces per square . . . only 4 nails per shingle in pre-punched holes. American Colonial meets the construction standards of Industry-Engineered homes.



The most attractive low-cost Asbestos Roof shingle ever developed by J-M!



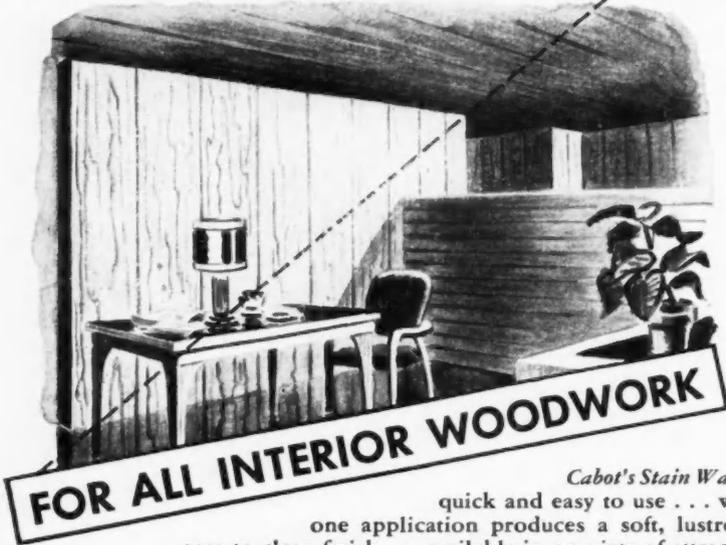
Distinctively beautiful, wins instant approval. Blends perfectly with any style architecture. Has slightly staggered horizontal shadow lines and deep-grained texture. Available in several pleasing colors.

Fireproof, rotproof, weatherproof, thousands of J-M Asbestos Shingles have been in service over 35 years. No signs they won't last another 35 years or more. Write us for free brochure No. AS-85A. Johns-Manville, Box 290, New York 16, N. Y.

Johns-Manville



A Quick, Attractive Finish



Cabot's Stain Wax is quick and easy to use . . . with one application produces a soft, lustrous, easy-to-clean finish . . . available in a variety of attractive light shades including grays and white.

Development builders use Cabot's Stain Wax because it gives interior woodwork many unique and attractive effects . . . because it costs less and is quicker to apply than paint . . . because its clean, modern appearance appeals to today's home buyer.

Write for complete information and color card. Samuel Cabot, Inc., 224 Oliver Building, Boston 9, Massachusetts.

CABOT'S STAIN WAX

Art in Iron



Artcraft produces the finest, most exacting custom-made ornamental iron work from specifications at amazingly low cost. This is in addition to our regular, low-priced, stock ornamental work. Write today for more information, or send specifications direct.

Delivery: Two weeks for custom work; Immediate delivery for stock items.

Terms: Payment with order or C.O.D.

Artcraft Ornamental Iron Co.

710 E. Hudson Street, Columbus 11, Ohio

Artcraft manufactures:

Fireplace Equipment—Railings—Grilles—Balconies—Marquee—Theater Lighting—Steel Stairs—Gates—Fire Escapes—Hoods—Draperly Rods—Metal Furniture—Church Lighting—Sign Brackets, plus all kinds of architectural metal work. Write for information.

FREE:

New 40-page catalogue, "ART IN IRON" showing Artcraft's latest in custom and stock work, with complete prices, is just off the press. Write for your copy, or fill in attached coupon and mail today.

Artcraft Ornamental Iron Co.

710 E. Hudson Street, Columbus 11, Ohio
Send me FREE by return mail my copy of your new 40-page catalogue titled "ART in IRON."

NAME

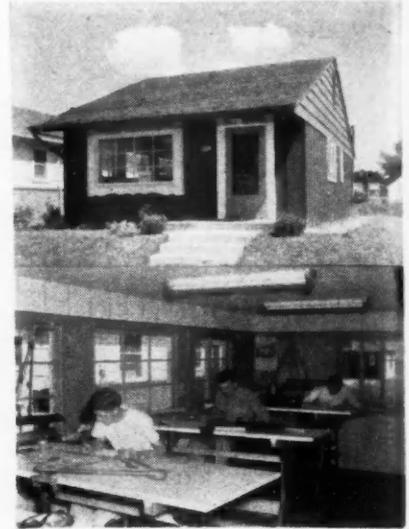
ADDRESS

CITY.....STATE.....

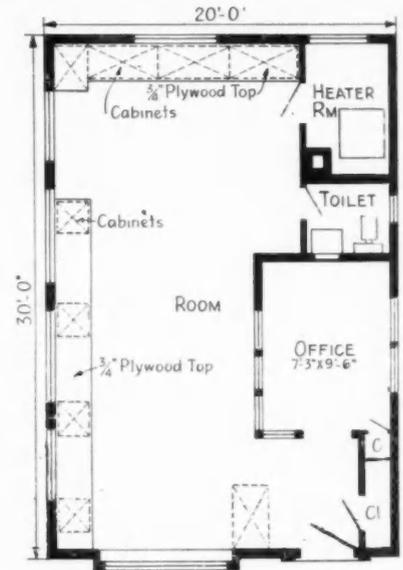
OCCUPATION

Architect's Office Model of Design

HERE IS an office idea that is practical for both architects and builders, by Norman R. Johnson, architect, St. Paul, Minn. It is centrally located in the area where he works. Its sub-



ABOVE: Exterior view of architect's office and interior of well-lighted drafting room. Plan below shows basic arrangement of facilities inside compact building



FLOOR PLAN

urban atmosphere conforms with the nature of his work.

Some of the advantages of his office to Johnson are:

He has avoided any parking problems. Clients do not have to park several blocks away, as they might if he were located downtown. Besides being attractive and conforming to the distinctness of his work, the office is spacious, modern—and what is most important—it was inexpensive to build.

Pittco De Luxe Sill-Sash Combination



modern . . . versatile . . . easy to install



THE new Pittco De Luxe sill-sash combination gives the appearance of a single moulding combining the functions of sill and sash. Actually sill and sash are separate members designed to be used together in certain modern store fronts which require such a stylized assembly.

"Pittsburgh" research . . . aimed to help solve architectural and building problems encountered in the field . . . indicated the advisability of this type of construction. Sill and sash, being separate members, are installed separately. Thus the hazards of glass breakage are reduced to a minimum. Experience in the field also dictated the design which recesses the Carrara Structural

Glass bulkhead, providing toe room and protection.

The sill of this new versatile combination is invertible. (See cross-sections.) It is shown above with Sash 12-A, but it may be combined effectively with any of the sashes in the Pittco De Luxe line. Setting procedures for all Pittco De Luxe members are so simple that a substantial saving in setting time is usually effected.

"Pittsburgh" technicians at every warehouse will gladly advise on the proper erection of rough work to receive "Pittsburgh" products. And you'll find that experienced "Pittsburgh" workmen set glass and metal with speed and skill.

PITTCO STORE FRONT METAL



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

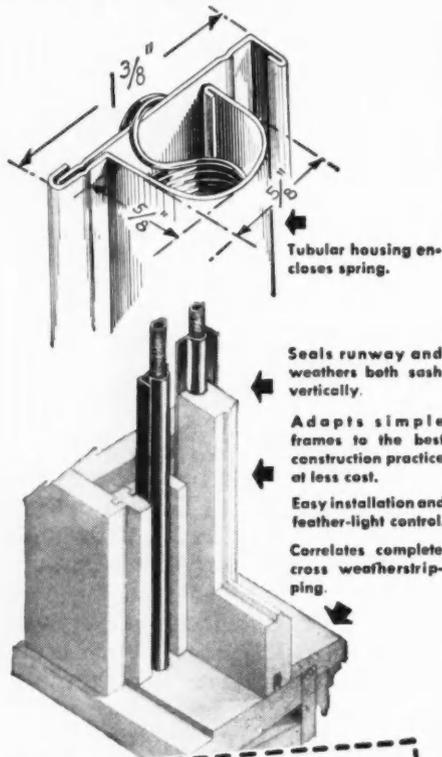
An announcement

The Allmetal Weatherstrip Company, manufacturers of quality weatherstrip equipment since 1915 announces a NEW and SUPERIOR patented Sash Balance and Weatherstrip Unit.

Details are shown below.

Here are the features . . .

- 1 Balancing equipment for double-hung sash has always emphasized sash suspension. The Allmetal Unit is engineered to counter-balance sash in two ways; with coil spring tension to overcome gravity and metal housing tension to provide stability. Note that the tubular housing which covers the spring is a free-moving member. Under easy compression in the sash groove it offers maximum surface contact with the wood yet maintains free vertical movement.
- 2 Spring is enclosed and invisible.
- 3 Effective weather protection for the runways is assured with flexible hemmed side rib.
- 4 Non-corrosive and rust-proofed metal construction throughout.



ALLMETAL WEATHERSTRIP CO.
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Gentlemen: Please send me complete information and prices.

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Town _____

THE ALLMETAL SASH BALANCE & WEATHERSTRIP UNIT

LOW COST Summer Cottage

S. DILUCIAN, president of the Allen Properties, Inc., has built a model house 22x26 on a lot 60x100. It has a full basement made of concrete blocks. The basement is not floored. The exterior is novelty siding with Johns-Manville asphalt shingle on the roof. A picture window in the living room adds to the attractiveness of this



model summer cottage. The interior is partitioned off into four rooms with plasterboard on one side leaving the other side to be finished later. The cottage has no ceiling. This also can be done at some later date.

Each summer cottage, built by Allen Properties, Inc., is wired, and the plumbing is completely installed in the cellar; so when the purchaser wants to install a bath or shower, it is a simple operation to set them up. Every house is equipped with a well and a hand pressure pump in the cellar, a sink in the kitchen and toilet in the bathroom. A chimney is built in, also in anticipation of a furnace.

Allen Properties, Inc., are building these under the new Title I regulation of the FHA permitting 15-year mortgages at 4½ per cent on resort homes.

The model house was built by Dilucian to illustrate the type of cottage that may be produced at \$3,700 including a \$700 payment for the lot. After that payment, the house may be carried for low monthly installments under FHA insured financing.

AZPHLEX

A NEW NAME...
A PROVEN TILE...

A NEW STANDARD OF FLOORING EXCELLENCE!

Long and exacting research has gone into the making of AZPHLEX Asphalt Tile—and the result is the finest premium-quality grease-proof flooring tile on the market today!

AZPHLEX is impervious to greases, alkalis, alcohol and mild acid solutions, yet has all the desirable characteristics of the best "standard" asphalt tile. It offers high resilience.. flexibility.. extreme durability.. high resistance to denting and marring.. brilliant, non-fading, through-and-through decorator colors.

IDEAL FLOORING FOR TODAY'S LOW-COST HOMES
F.H.A. approval of asphalt tile over concrete slabs for low-cost home construction under Sub-Section B-2 of Section 203 of Title 2 attests to F.H.A. confidence in the lifetime durability of this type of floor covering.

WHEN FLOORING SPECIFICATIONS CALL FOR THE BEST — THEY MEAN AZPHLEX

Consult your floor covering contractor or write for complete information.

UVALDE ROCK ASPHALT CO.
Makers of AZROCK and AZPHLEX Asphalt Tile
FROST BANK BLDG. SAN ANTONIO, TEXAS



"THREE GOOD REASONS FOR PRESDWOOD?"

That's easy!

1. *Presdwood gives you quality construction without high cost*
2. *Presdwood permits speedy installation without fuss or muss*
3. *Presdwood provides durability without costly upkeep*

There are many reasons for using time-proved Masonite Presdwood to build or remodel. In stores, shops, offices, in homes, clubs, hotels—just about everywhere—it offers broadened design possibilities.

Available in large, rigid panels of great strength and structural stability, Presdwood is grainless, hard

and dense—won't split, crack, chip or dent. It can be bent in graceful curves. Its smooth surface takes finishes beautifully—and holds them.

Easily worked with carpenters' tools, Presdwood goes up quickly over existing walls or in new construction. On remodeling jobs, that means rapid completions without interrupting normal business operations. For all exterior applications and interiors subject to unusual wear or moisture conditions, Tempered Presdwood should be used. See our insert in Sweet's Architectural File.

Get Free Sample for Clients and Customers!

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111 W. Washington St., Chicago 2, Ill.

Please send me, without cost or obligation, a sample and interesting literature about Masonite Presdwood.

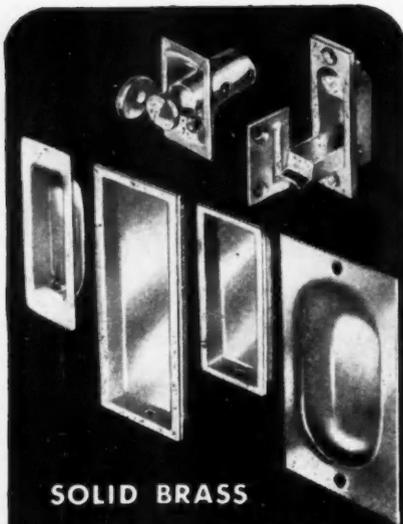
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MASONITE REG. U. S. PAT. OFF.

PRESDWOOD *the best wood*

"Masonite" and "Presdwood" are registered trade-marks. "Masonite" signifies that Masonite Corporation is the source of the product.



**SOLID BRASS
SLIDING DOOR
TRIM**



RITE TRIM has the *look* of quality . . . it is high quality, too, yet prices are modest! When you think of sliding doors remember Adams-

Rite can supply the proper trim from a cup pull to a completely modern lock. You'll especially admire our lock . . . it is a single assembly easily installed, even in narrow stiles, by a simple cut-out . . . no mortise necessary. Three types fit all doors from 1-1/8" to 1-15/16" thickness, with a 3/4" type for wardrobes. Latch type and Thumb Button type with emergency unlocking feature adaptable to doors of either hand. For maximum security pin tumbler cylinder operation in the escutcheon is optional. All exterior parts are solid brass. Escutcheon measures 4-1/2" x 2-7/8".



**ADAMS-RITE
MANUFACTURING CO.**

540 WEST CHEVY CHASE DRIVE, GLENDALE 4, CALIFORNIA, U. S. A.

Cost Saving Techniques Help Produce Low-Cost Homes for Veterans

A FORT WORTH builder is quietly mass-producing low cost houses in volume for veterans while the nation heatedly debates the question. One-hundred-fifty of a two-hundred house project have been completed by the Farmer Construction Co. and are now veteran occupied.

The houses already sold were transferred to veterans for \$4,975, with \$175 down and \$37.50 monthly payments. This price also covers the lot. Builders and developers the nation



SPRAYING cement on exterior walls with Jet-Crete airgun is done in low-cost housing by Farmers Construction Co. Wall partitions are of Texcrete blocks

over have watched this project as one of the outstanding low-cost housing ventures in the country.

Of two bedrooms, kitchen and dinette combined, living room, bath, the homes contain 641 square feet of livable floor space, and have ample closet and storage provision. The houses are built on concrete foundation, and the floors are concrete with asphalt tile covering. The walls are of Texcrete, a lightweight masonry block manufactured in Fort Worth by blending Portland cement and hay-dite. Made by the Texcrete Co., the product is relatively new on the market, but has been put to use by builders and general contractors for homes, commercial buildings, churches, and other construction.

The homes were committed under Title VI, of Federal Housing Administration regulations at \$4,400. This
(Continued to page 246)

**YOU BUILD
GOOD WILL**

(as well as good homes)

when you use



RUSSWIN

**TUBULAR LOCKS
and LATCHES**

There are no costly call-backs for service or adjustments when you choose Russwin Tubular Locks and Latches for the homes you build. The name Russwin stands for quality construction—throughout. Which means you get such client-pleasing extras as the famous Russwin all-steel rack and pinion construction which assures smooth, positive, trouble-free action . . . the automatic throw-off safety feature (in case of accidental closing of door)—in a lockset that's easy to install.

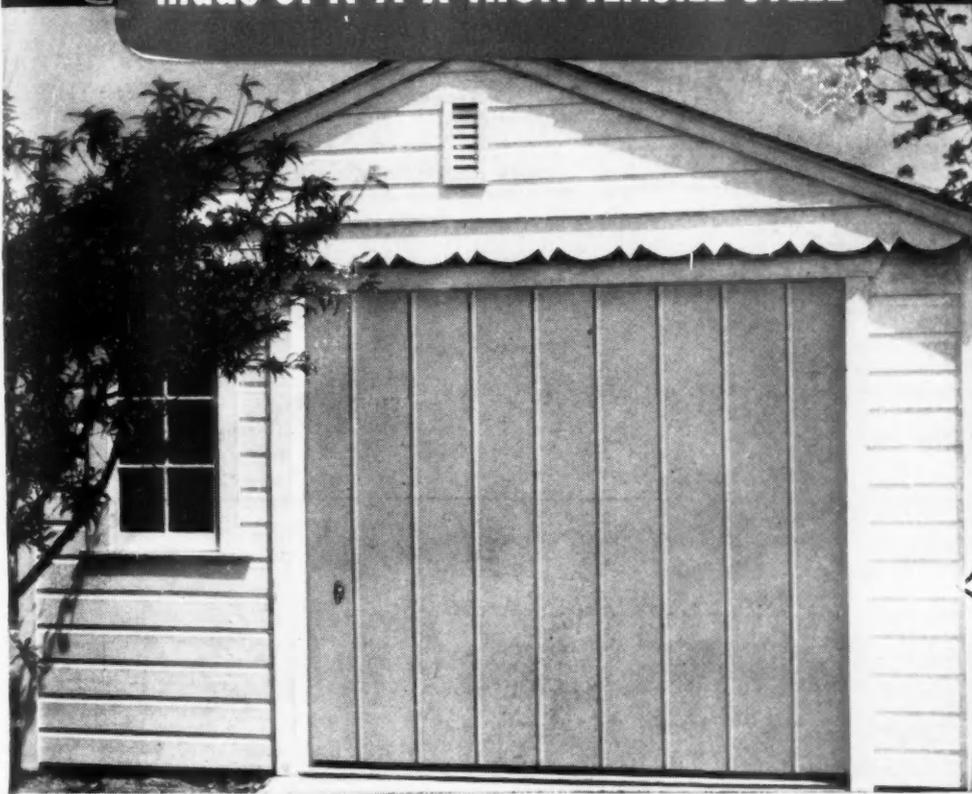
See your Russwin dealer. Buy the hardware backed by over a century of experience—RUSSWIN, the "good will builders" in builders' hardware. Russell & Erwin Division, The American Hardware Corp., New Britain, Conn.



SINCE 1839
DISTINCTIVE
HARDWARE

CHOOSE THE DOOR WITH 10 LIFETIME ADVANTAGES

GLIDE-AWAY made of N-A-X HIGH TENSILE STEEL



QUICK, EASY INSTALLATION ON ANY GARAGE!

Here is the full-recessing, overhead-type door with every advantage for dealers, builders and home owners . . . famous "Glide-Away", the only garage door made of 100% High Tensile Steel. That means lifetime beauty because there'll be no dents or dings with normal use. "Glide-Away's" sturdy, one-piece welded construction means no troublesome warp . . . no weather leaks around door

edges. Installation is simple as A-B-C and the door is up for keeps. With "Glide-Away", no valuable garage space is sacrificed. Standard sizes include the popular 8'6" x 7' door for wide, late model cars, in addition to 8' x 7', 8' x 7'6" and 8' x 8'. Double size: 16' x 7'. Special sizes are available up to 16' wide by 8' high. Prices are competitive. Dealer and distributor inquiries are invited.

See "Glide-Away" doors demonstrated in Booths 189 and 190 at the National Association of Home Builders' Show, February 20-24, Hotel Stevens, Chicago, Ill.

- 1 The only door made exclusively of N-A-X HIGH TENSILE STEEL for 50% greater resistance to distortion and denting, and 4 to 5 times greater resistance to rust or corrosion.
- 2 ONE-PIECE, ALL-WELDED, double flange, hat channel section construction for extreme rigidity.
- 3 EDGES ARE COMPLETELY FLANGED to eliminate all sharp surfaces.
- 4 ONLY 2 1/2" OF HEADROOM REQUIRED leaving maximum space for storage left.
- 5 FULL RECESSING . . . the opened door is safely within the garage.
- 6 SPACE-SAVER HARDWARE provides smooth, gliding action without sacrificing interior space.
- 7 Distinctive JAMB-ALIGNER and WEATHER SEAL assures perfect closure, even for out-of-plumb openings.
- 8 SPRING BALANCED MECHANISM is easily adjusted and assures perfect balance and effortless operation.
- 9 "Glide-Away" doors can be INSTALLED BY ANYONE, quickly and without special tools.
- 10 DESIGNED AND BUILT FOR A LIFETIME of trouble-free service, good looks and utmost protection.

STEEL DOOR DIVISION

STAMPING PRODUCTS AND MFG. CO.

628 E. FOREST AVENUE • DETROIT 1, MICHIGAN

Stamping Products and Mfg. Co.
Steel Door Division
628 E. Forest Ave., Detroit 1, Mich.

Please send detailed information on "Glide-Away" Garage Doors.

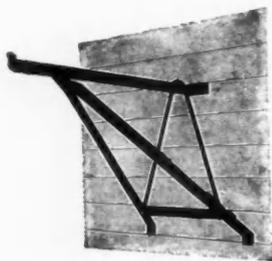
I am a Builder, Dealer, Prospective Buyer

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Do Sidewall Jobs in Greater Safety with "TROUBLE SAVER" Scaffold Brackets



On jobs like this—and many others—"Trouble Savers" pay big dividends by saving time, labor and materials. They provide safe working platforms that give your men safe footing.

Made of rail steel, "Trouble Saver" Scaffold Brackets are light, easy to handle and extra strong. They're available in nail-attached, studding and bolt-attached types.

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THE STEEL SCAFFOLDING COMPANY, INC.
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Take "The Labor" Out of Tacking

HAMMER TACKERS

DRIVE STAPLES FROM 5-32 TO 9-16" IN LEG LENGTH
FEED AND DRIVE STAPLES AUTOMATICALLY
TACK 2 TO 4 STAPLES PER SECOND
EASY ONE HAND OPERATION



EASY TO CLEAN - EASY TO LOAD

Tacking presents no problem when you use a Duo-Fast Hammer Tacker. It is time-saving, efficient and thorough. One hand does the complete job. This is the easiest, quickest method of tacking insulation, building papers and felts. Write for information on the Duo-Fast hammer, gun and air-tackers.

DUO-FAST
FASTENER CORPORATION
 888 Fletcher Street Chicago 14, Illinois

Cost Saving Techniques

(Continued from page 244)

means that a veteran could have purchased one of the homes for \$175 down and \$37.50 a month, and a non-veteran could have bought one of the homes for \$725 down and \$32.50 monthly payments. One hundred fifty houses are now occupied by veterans, and the remaining 50 are being occupied by both veterans and non-veterans.

Marsh Farmer, general manager of the Farmer Construction Co., has produced an efficient organization to



ONE of low-cost veterans homes built by Farmers Construction Co., of Fort Worth, Texas. Approved by FHA and Veterans Administration, houses sold for \$4,975

build the homes, and employs a number of cost saving devices. One of the techniques which saves considerable cost and at the same time produces good construction is the manner in which he builds exterior walls.

The Texcrete block is laid quickly with bed joints only, leaving the vertical joints unfilled. After the wall has been built up, it is sprayed with Jet-Crete about 1/2 inch. This treatment also fills the vertical joints. The technique increases the productivity of block laying by approximately 30 per cent and blowing cement plaster on the wall instead of stuccoing it by trowel creates another saving.

Exterior walls are finished with a final coat of Oriental stucco, giving a waterproof covering. On the interior walls of a portion of the houses, Farmer is using a thermal-acoustic plastic recently developed by an Albuquerque, N. M., company.

The homes were designed by Jim D. Vowell, Fort Worth architect.

New Corporation Formed

UNIVERSAL-RUNDLE Corp., new company formed to produce bathroom and kitchen plumbing fixtures, is merger of the Universal Sanitary Manufacturing Co. of New Castle, and Rundle Manufacturing Co. of Milwaukee, Wis. Headquarters of the new company is at New Castle.

HAR-VEY

ROLLING DOOR HARDWARE

is now Completely Rustproof
--and more silent than ever!



CHAMPION quality Har-Vey Hardware has scored a permanent victory over rust, for use of new oilite bearings has made it completely rustproof.

And with this new feature, Har-Vey Hardware rolls even more silently, even more smoothly than ever before!

Rolling doors save space, time and money -- equipped with Har-Vey Hardware, they are simply installed and good for a lifetime of smooth, silent rolling.

Send today for folder showing varied uses & installation details of rolling doors & complete information on Har-Vey Hardware:

Address: **Hardware Division H**

METAL PRODUCTS CORPORATION

807 N. W. 20th St. Miami, Florida



Please send me your free folder on rolling doors & Har-Vey Hardware

NAME _____

COMPANY _____

STREET _____

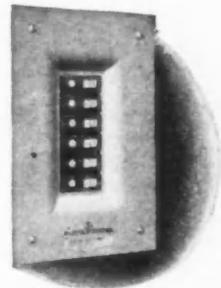
CITY _____ STATE _____

YOUR DEALER'S NAME _____



the modern "fuse box" is now...

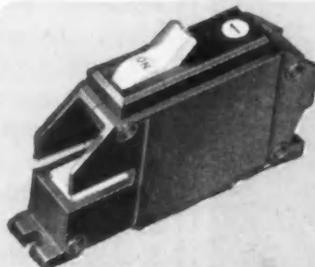
**FUSELESS!
SHOCKPROOF!
AUTOMATIC!**



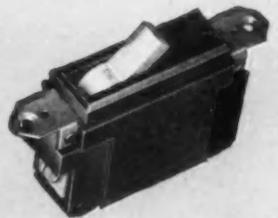
THAT'S RIGHT! On harmless momentary overload, the thermal action maintains the circuit, BUT—when short circuits or *dangerous* overloads occur, the Thermal-Magnetic action of the **FA** THERMAG Circuit Breaker Load Center instantly and *automatically* opens the circuit and trips the circuit breaker handle to "off" position. Then, safely and conveniently, a simple flip of the handle to "on" position restores the circuit to normal operation. And there is nothing to replace!

For smaller capacity requirements, the new **FA** JUNIOR Circuit Breaker Load Center provides *automatic* protection for small residences, garages, stores, etc.

For more information, consult an Electrical Contractor or your **FA** Representative (he's listed in Sweet's) or write for Bulletins No. 202 and 203.



FA THERMAL-MAGNETIC CIRCUIT BREAKER. For use in load centers up to 16 single poles or a combination of single and double poles totaling 16 poles maximum. Capacities: 15-20-30-40-50 amps.; for 120 and 120/240 volts AC service only.



FA TYPE AC JUNIOR CIRCUIT BREAKER. Automatic thermal trip for use in load centers, 6 circuits or less. Also for oil burner or stoker protection . . . or where smaller capacity circuit breakers are desired. Capacities: 10-15-20-30 amps.; 120 volts, AC service only, single pole.

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PRESTILE
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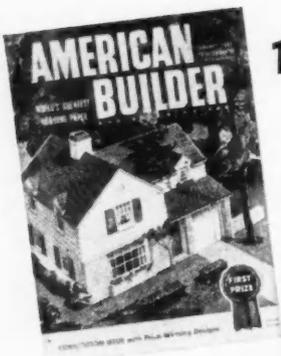
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Please send me free samples and Dealer's Merchandising Kit—"How to Make More Profits from Tileboard."

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1945 NAHB Prize Home As Built Today



ORIGINAL plan of this NAHB prize-winning house was by Edward G. Conrad. Drawing appeared on *American Builder* cover in January, 1945

THE 1945 NAHB prize-winning home, presented in *American Builder* in January of that year, has recently been reproduced in Tulsa, Okla., by the M. W. Turner Co.

Reproduction of this house is a reminder of the landmark set by the National Association of Home Builders in that year. It was the first time NAHB held a national convention and exposition, in which more forces than ever before in the industry's history were massed under one roof.

This house, originally designed by

Edward G. Conrad, Cleveland, Ohio, architect, is as soundly designed and constructed as the NAHB organization. Materials, design, workmanship—all are products of individual ingenuity, enterprise and effort.

The NAHB has gone a long way toward the realization of many plans made in 1945, yet much remains to be done in the face-lifting of America's residential landscape. Plans made in this year's convention, can be realities tomorrow—just as this house design by Conrad is a reality today.

Master Woodworker...

THE OLD RELIABLE Machine Constantly Improved

Practical. Proven. Unfailing dependability. Longer life. **SELF-ALIGNING OVERHEAD CROSS CUT RADIAL SAW.** Requires no adjustment for wear. **UNDERSLUNG RIP SAW** approved by Underwriters as the safest and correct method of ripping. No changing of saws required. Eliminates vibration and distortion. 3-knife round head jointer-ball bearing throughout. Most powerful machine on the market. Built by the oldest exclusive manufacturer of Universal Woodworkers.



Built in
5 Sizes

Gasoline or Electric power. With Joint, Bevel, Mitre, Dado, Boring, Rip, Cross-cut, etc., with speed and accuracy.

The Master Woodworker Manufacturing Co., Inc.

Since 1917

Fort & Brush Sts.

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*One Thin
Blanket's
not enough!*



INSIST ON "full-thick", fireproof Gold Bond Rock Wool Batts!



GOLD BOND ROCK WOOL—the finest fireproof home insulation in the world — at no extra cost

FOR top insulation efficiency, always use Gold Bond Rock Wool Batts. They give your customers *all three* of the benefits insulation can and should provide.

- 1. FIREPROOF**— as the rock from which it's made. Not just "fire-resistant", or "fire-retarding".
- 2. FULL-THICK**—batts— not just 1 or 2 inches thick, but full-thick,— completely fill the walls, providing an effective fire-stop and top efficiency heat insulation.
- 3. EFFECTIVE VAPOR BARRIER**— is part of the batt. Saves extra labor and expense of putting in separate vapor barriers (in some cases required by F. H. A.). Gold Bond Batts meet all requirements!

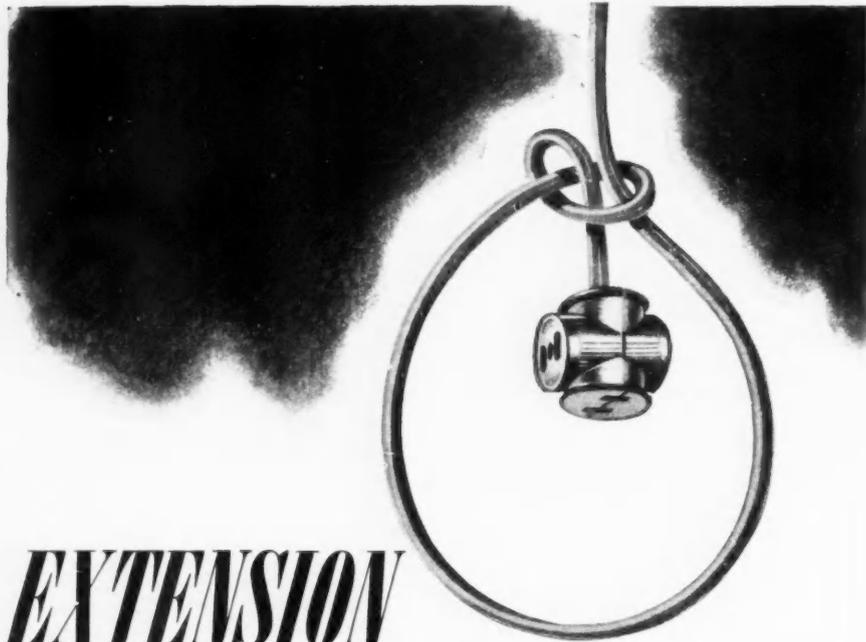
*Play it safe! Always use the best!
Use Gold Bond Rock Wool Batts!*

**NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK**

Over 150 Gold Bond Products including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.



**You'll build or
remodel better with
Gold Bond**



EXTENSION CORDS CAN "hang" YOU!

Don't let prospective buyers see the need for unsightly and dangerous extension cord entanglements, due to a lack of convenience outlets in your homes. These are the things on which a sale can hang—or they can hang you!

An adequately wired home sells readily at a good price, because home buyers nowadays have learned to look for Adequate Wiring.

An Adequate Wiring Certificate is your proof that each house you design and build has:

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The Sign of the Times

Use the services of the local Adequate Wiring Bureau in preparing a complete Adequate Wiring layout and specification, *before* you put the electrical job out for bids. Get the wiring into the plans for better appraisal—a better loan!

If there is no Adequate Wiring Bureau in your community, write us or your local electric utility for information on how to take advantage of Adequate Wiring in the homes you build.



USE THIS COUPON if there is no Adequate Wiring Bureau in your area

NATIONAL ADEQUATE WIRING BUREAU, Dept. AB-2
155 E. 44th Street, New York 17, N. Y.

Please send me, without charge, information on how to take advantage of Adequate Wiring as a sales feature.

NAME

TITLE

STREET ADDRESS

CITY

Course in Home Building Offered by Trade School

A COURSE in the fundamentals of the home building business has been added to the curriculum of the Commercial Trades Institute, a Chicago trade school. It covers all phases of the home building business, including methods of construction, reading plans and specifications, letting contracts and sub-contracts and proper methods of financing and cost accounting. An important feature is a complete set of architectural plans and specifications for a modern six room house of Dutch Colonial design.

The course, consisting of 47 home study lessons, was prepared under the supervision of a builder. It has been examined and approved by the Chicago Metropolitan Home Builder's Association. Nathan Manilow, president of the CMHBA, said, "Anyone considering the building business as a field of occupation will progress farther and faster if he acquires the basic knowledge of building principles and methods as presented through this course." Manilow further contends that such a course will attract a better informed, more serious and ambitious type of worker to the building field.

The course, the only one of its kind in the country, is available to veterans under their G.I. Bill of Rights. An illustrated brochure called "Your Future in the Building Business" explains its scope and the school's method of instruction. Readers of *American Builder* may obtain a free copy by writing Commercial Trades Institute, 1400 Greenleaf Avenue, Chicago 26, Ill.

George Bain Cummings Elected to AIA Board

THE ELECTION by the board of directors of the American Institute of Architects of George Bain Cummings, Binghamton, N.Y., to the board is announced by Douglas W. Orr, of New Haven, Conn., A.I.A. president.

Cummings was named to fill the vacancy on the board caused by the death of William G. Kaelber, Rochester, N.Y. Cummings will serve as regional director for the New York district until the convention in March, 1949.

Long active in architectural circles, Cummings previously had served on the board of the national group in 1942. For his accomplishments in the service of his profession, he was honored in 1948 by the election as a Fellow of the Institute.

Cummings was graduated from the College of Architecture at Cornell University in 1912.



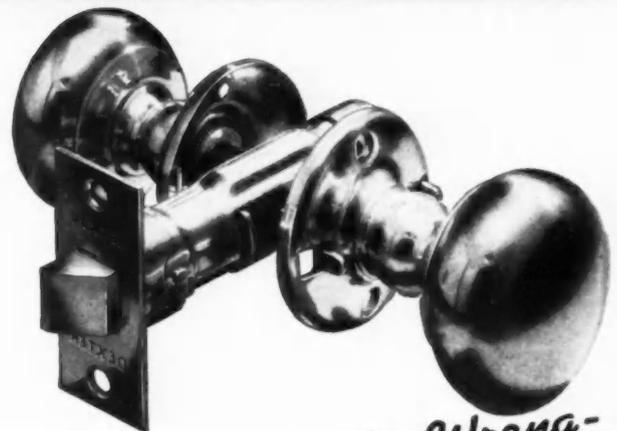
Nothing to it!

NO, THERE'S NOTHING TO IT—if what you mean is that the simplicity of Dexter Tubular design is so elemental that nothing can gum up the works. And a good feature it is, too, for who wants a lot of hocus-pocus mystery in a piece of equipment that's used so continuously as a door latch! Folks never need look for a locksmith when their doors are Dexter Tubularized!

Of course, such simplicity doesn't just happen. The beauty of a Dexter Tubular is that the "inside" story is one of precise engineering, imparting to the mechanism a perfection that carries a lifetime warranty.

There's nothing simpler than a Dexter Tubular—and the simplest thing of all is the way it can be installed by any carpenter in *less than six minutes*—from scratch! Yes, six minutes and it's all done, from start to finish!

You're right — there's nothing to it! Makes the specifying of Dexter Tubulars mighty interesting and attractive, doesn't it!



"Yep, Nothing to Go Wrong—that's why there's a Lifetime Guarantee!"



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Grand Rapids, Michigan

MAKERS OF BUILDERS, CABINET, SCREEN DOOR AND SHELF HARDWARE

In Canada: Dexter Lock Canada Ltd., Guelph, Ontario



Here's BUILT-IN Sales Appeal

Built-In Radio Installations in Kitchens, Bedrooms, Bath, Etc.



THE Flush Wall Radio fits in perfectly with today's popular trend to built-in appliances and appointments in the modern home. Architects and builders find it gives that touch of individuality and charm which means added sales appeal.

And homeowners are enthusiastic about the Flush Wall Radio for it enables them to enjoy the convenience of several fine quality radios throughout the house—in kitchen, bathroom, bedrooms, study, recreation room, children's rooms—in addition to their large conventional living room radio.

FLUSH WALL RADIO FEATURES:

1. 5-tube AC-DC Super-heterodyne Licensed by RCA and Hazeltine.
2. Easy Installation — Comes with Steel Box, 6 1/2" x 9 5/8" x 3 7/8" deep, which Goes Between Studding. As Easy to Install as an Electrical Receptacle Outlet.
3. Easy to Service — Chassis Swings Out On Patented Adjustable Slotted Hinges.
4. Attractive Instrument Panel, 7 13/16" x 11-7/16". Catalin plastic panels available in Wide Choice of Colors to Harmonize with Room Decoration.
5. Approved by Underwriters' Laboratories for Built-in Installation.

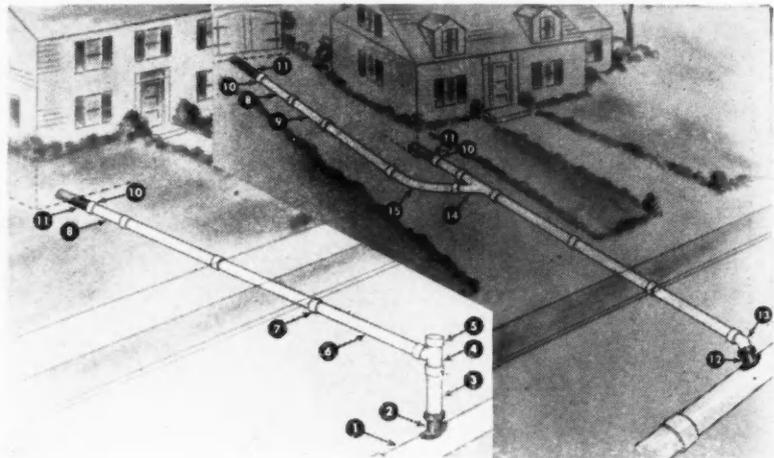
Retail Price, **\$34.95**
Radio, Model 5P
Panels Extra
From \$2.45 to \$4.45



FLUSH WALL RADIO

BUILDERS AND DEALERS! Get your share of the plus profits from Flush Wall Radio sales. Write today for complete information, prices, etc. to **FLUSH WALL RADIO CO.**, 9 West Park Street, Newark 2, N. J.

How to Install Transite House Connection Pipe



(1) TRANSITE street sewer. (2) 90° branch connection. (3) Short section pipe. (4) Transite tee. (5) Transite cap. (6) Standard 10 foot length. (7) Taper-Tite coupling. (8) Short section. (9) Standard half length connection pipe. (10) Transite sleeve adaptor or Duplex adaptor. (11) Soil pipe, spigot end, (12) 45° branch connection. (13) Lateral. (14) 45° bend

FOR MODERN, sanitary sewage disposal, the Johns-Manville Transite connection pipe meets every requirement of efficiency, durability and economy. Its ingenious coupling provides an exceptionally tight joint that guards against root growths and the infiltration of ground water. Its long

10-foot lengths assure simplified installation. And its asbestos-cement composition makes it exceptionally strong and corrosion-resistant.

It is easily connected to other kinds of pipe. It is inserted directly into the bells of tile lines or fittings, or it can
(Continued to page 254)

BUILDERS TELL US STYRON BRI★TILE

**PLASTIC WALL TILE
SELLS NEW HOMES FASTER BECAUSE**

- SIMPLE INSTALLATION
- BEAUTIFUL COLORS
- LUSTROUS FINISH
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How to build more **Sales-Appeal** into your homes

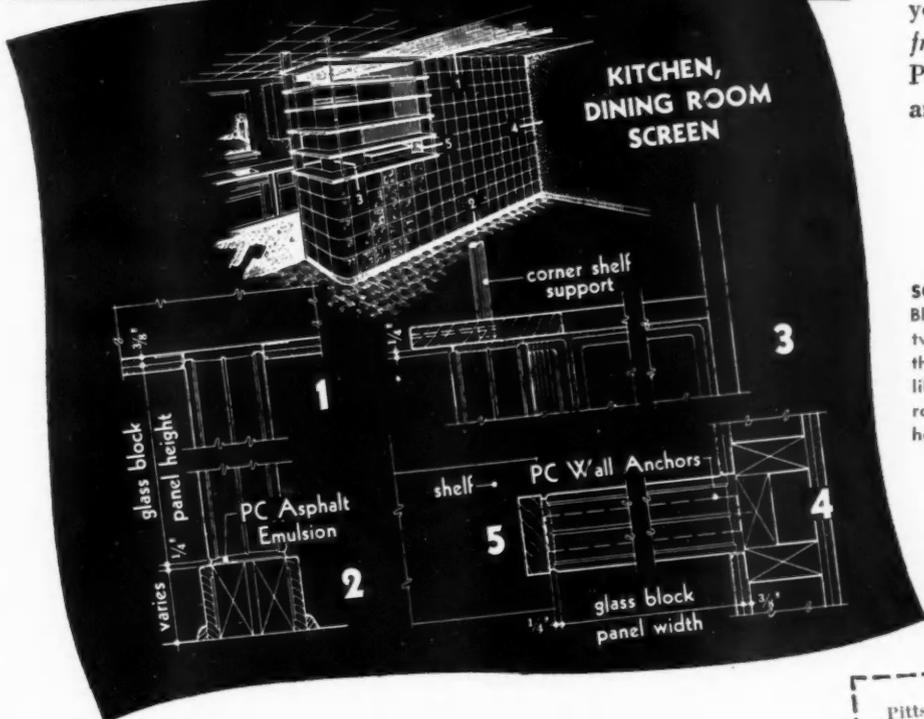


All over the country, builders have proved that a few Glass Blocks in the homes they build make them much more attractive to prospective buyers... much easier to sell.

In bathrooms, kitchens, stairwells... around doorways, or at any "dark spot"—PC Glass Blocks admit floods of pure daylight—assure complete privacy. And since PC Glass Blocks are *hollow*, with a partial vacuum, or dead-air space inside, their insulating value is twice that of ordinary single-glazing.

PC Glass Blocks are easier to clean than windows, too. They require no up-keep, no painting, no storm sash. And they fit in with all styles of architecture—modern or traditional.

You, too, can get more sales-appeal into the homes you build by always making PC Glass Blocks a "must" in your plans. Meanwhile, send for your *free* copy of our booklet on the use of PC Glass Blocks in homes of all sizes and styles. There's no obligation.



SCREENS OR PARTITIONS of PC Glass Blocks establish a definite separation between rooms, yet "share the light" so there are no dark corners. Use panels like this for dinettes, pantries, bathrooms and countless other places in the home.



GLASS BLOCKS

The mark of a modern building

Pittsburgh Corning Corporation
Dept. A-29, 307 Fourth Ave.
Pittsburgh 22, Pa.
Without obligation on my part, please
send me your FREE booklet on PC Glass
Blocks in all kinds of homes.

Name _____
Address _____
City _____ State _____

Distributed by Pittsburgh Plate Glass Company; by W. P. Fuller & Co. on the Pacific Coast, and by Hobbs Glass Ltd. in Canada

Here's new, breathtaking beauty for bathrooms

Crystalcrome

Accessories by

HALL-MACK
TRADE MARK REG. U. S. PAT. OFF.



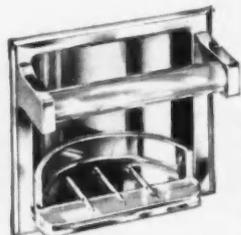
No. 170
PAPER HOLDER

NEW in design...NEW in appearance...NEW in its conception of modern accessories for bathrooms—that is Hall-Mack Crystalcrome!

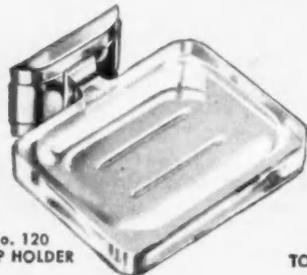
Crystalcrome combines the lasting brilliance of polished chrome on solid forged brass with the added beauty of crystal that is perfectly clear, jewel-like and unbreakable.

Whatever your designs or building requirements may be, Crystalcrome will bring new beauty to bathroom decoration. Moderately priced to cover a wide range of building needs, Crystalcrome is quickly and easily installed. It is an important new addition to the complete Hall-Mack line of bathroom accessories for every application from millionaire's mansion to modest cottage.

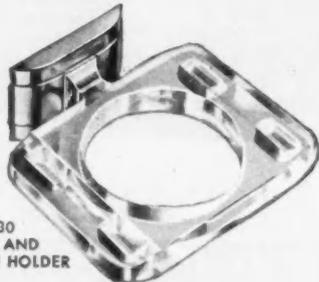
Crystalcrome is available in towel bars, soap dishes, paper holders, toothbrush and tumbler holders and other accessories—in designs never before achieved in bathroom equipment. *Your copy of the Crystalcrome Catalog will be mailed without obligation on request—write for it today!*



No. 165
RECESSED
SOAP AND GRAB



No. 120
SOAP HOLDER



No. 130
TUMBLER AND
TOOTHBRUSH HOLDER

HALL-MACK COMPANY

1344 WEST WASHINGTON BOULEVARD, LOS ANGELES 7, CALIFORNIA
7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS

How to Install Transite

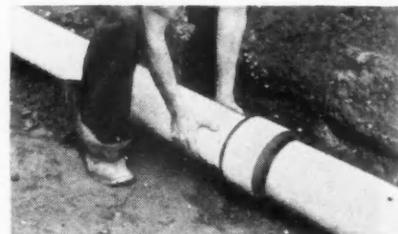
(Continued from page 252)

be connected to the spigot end of cast-iron soil pipe by using an adaptor. Where short sections are desired, Transite connection pipe can be cut with a hack saw or rip saw.

To install, the pipe is laid on a trench bottom, or on small mounds of earth placed at blocking points near the ends of the pipe, or it can be laid to grade on temporary wood blocks. After jointing and placing backfill under the pipe, the blocks are removed. Backfill, free of stone, is placed around the pipe and firmly tamped. The four steps required to assemble the coupling are illustrated below.



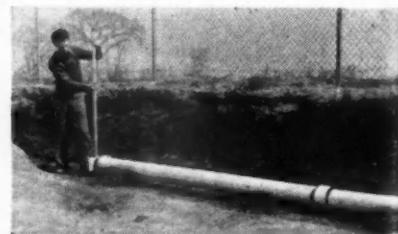
AFTER cleaning end of pipe and inside of coupling with dry cloth, apply primer to both the pipe and the coupling



WIPE END of next length of pipe and apply primer; then insert this length with twisting motion into coupling



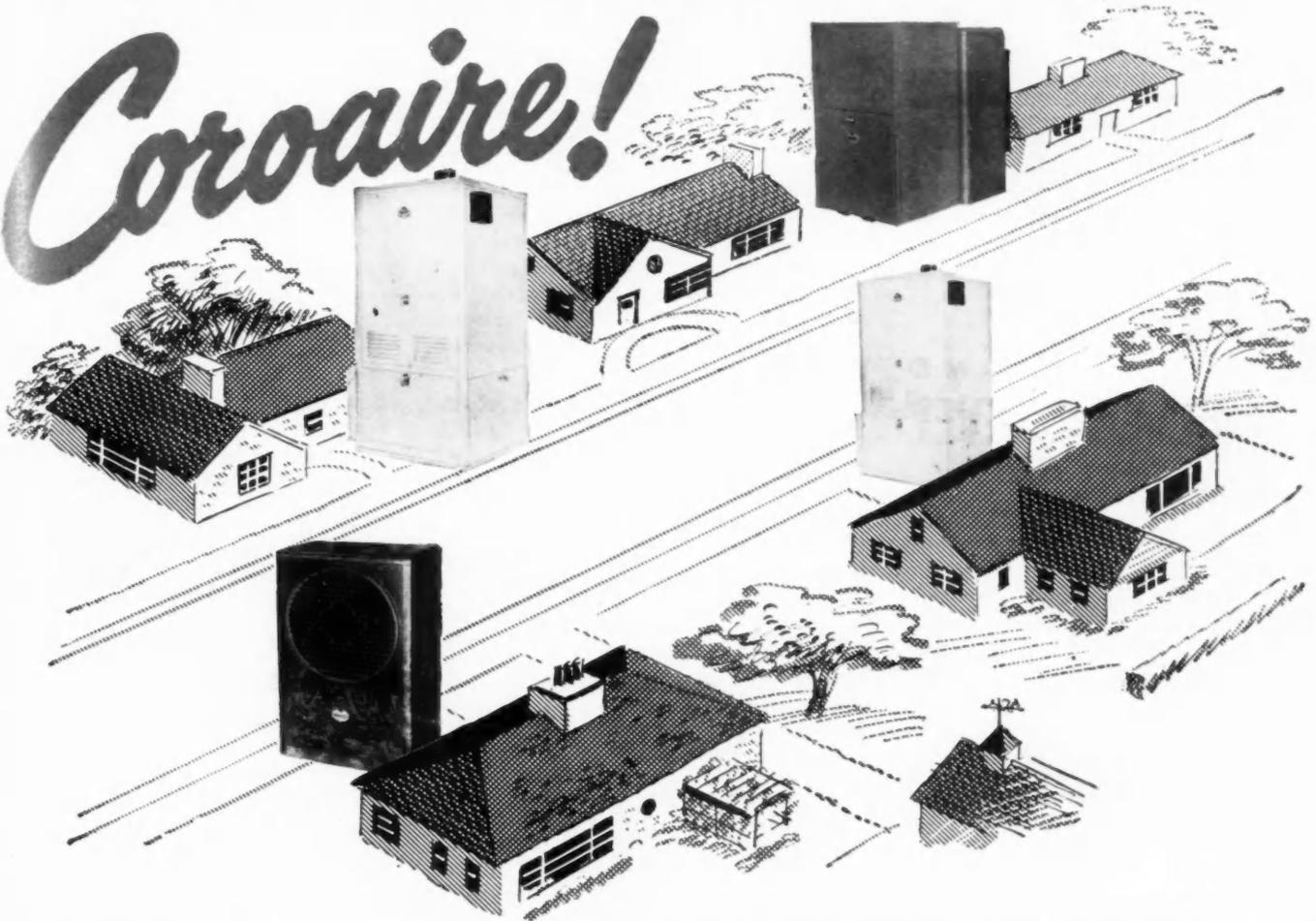
PUSH coupling over pipe with twisting motion. Then using rod and block of wood, push coupling firmly into position



GOING to other end of length, push it into place with rod and block of wood. Repeat procedure starting with step one

PROFIT-MINDED BUILDERS SPECIFY...

Coroaire!



- POSTWAR DEVELOPMENT
- REVOLUTIONARY PATENTED VENTURI TUBE
- SPECTACULAR OPERATING ECONOMY
- UNUSUAL HOME OWNER AND TENANT SATISFACTION
- FACTORY ASSEMBLED—ECONOMICAL INSTALLATION
- CAST IRON HEAT EXCHANGER
- PRICED FOR NEW CONSTRUCTION MARKET
- RECOMMENDED BY NATIONALLY-KNOWN BUILDERS AND HEATING AUTHORITIES

Tens of thousands of Coroaire winter air conditioning units have been installed since the war. These units offer positive proof of greater efficiency and lower operating costs because of exclusive patented features. In four years, Coroaire has secured leadership of the industry.

The Coroaire Console is engineered and designed to completely and automatically winter air condition average-size, one-floor, basementless homes and individual apartment suites—WITHOUT THE USE OF DUCTS. Installation at minimum cost—means more profit for you. **LESS MONEY WHEN YOU BUY—LESS MONEY TO INSTALL.**

The Coroaire Hi-Boy winter air conditioning furnace, outstanding in efficiency and design, is factory assembled with all Coroaire exclusive patented features—complete with controls and safety equipment. For basement, utility and closet installations in connection with a duct system, build Coroaire profit into your profit plans.

WRITE TODAY: For complete information on Coroaire advantages for builders. Address inquiries to:

THE COROAIRE HEATER CORPORATION
1422 Euclid Avenue • Cleveland 15, Ohio

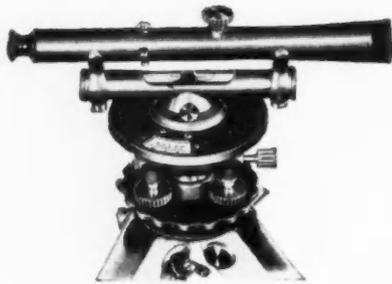
FIRST in the Industry



COROAIRE

The Hottest Line for '49

ENGINEERS
Said it couldn't be done



**BALL BEARING
BUILDER'S LEVEL**

(DUMPY TYPE)

- No maintenance cost
- Sealed telescope
- Sealed against dust

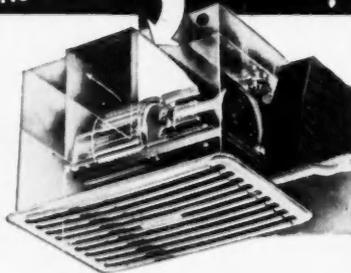
Brunson has proved that precision surveying instruments can be engineered and constructed with the freedom of motion provided by ball bearings — by producing vastly superior instruments which retain their accuracy under the most adverse conditions.

*Precision surveying instruments
Transits, Levels, Rods, Tripods.*

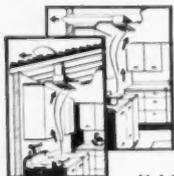


write to
BRUNSON INSTRUMENT COMPANY
1407 Walnut St. • Kansas City 6, Mo.

Only THE CLIPPER
HAS THIS GREASE PARTITION!



Hundreds of pounds of grease and dust suspended in the air as mist pass through a kitchen ventilator during its operating life but only the Clipper moves this harmlessly outdoors without gumming or wearing the motor. The Clipper is guaranteed for 5 years because the motor is entirely removed from the air stream. It's easy to install in old or new houses. Mounts in the ceiling between joists with only the dripless ceiling grille visible.



Mounts in the ceiling between joists with only the dripless ceiling grille visible.

Sketches show how easily Clipper is installed between joists and vented through roof or a side wall

MAIL THIS COUPON TODAY

Trade-Wind Motors, Inc.
5705 S. Main St., Los Angeles 37, Calif.
Send complete information on the Clipper

NAME _____

ADDRESS _____

**Year of Progress Planned
For Warm Air Heating and
Air Conditioning Industry**

THE 35TH Annual Convention of the National Warm Air Heating and Air Conditioning Association was held in Cleveland in December. It embraced one of the most comprehensive programs for the advancement of the industry recorded to date. Decisions were reached which, it is anticipated, will result in material gains to the industry as a whole. Almost 500 people attended the convention, of which about one-quarter were warm air heating dealers.

The keynote address, given by Association president Atlee Wise of the Wise Furnace Co., set the note of optimism for the future, which, in general, was the pervading spirit present in all addresses.

Speaking on the latest Association-sponsored research projects were Robert W. Roose and Norman Buckley of the Warm Air Research Staff at the University of Illinois. As a tribute of appreciation for his efforts in the warm air heating field, the Association, through President Wise, presented S. Konzo, professor of mechanical engineering at the University of Illinois, with an artistically rendered testimonial and luggage.

A special committee of seven men

was appointed by President Wise to investigate low-cost, warm air heating installations in houses without basements and built with concrete slab floors. After the committee has finished its investigations, a tentative manual will be issued covering the design of the low cost warm air system to be selected by the Low-Cost Housing Heating Committee. The manual will be distributed to dealers so they will know what type of low-cost system to recommend for heating concrete slab floor houses.

The Association's Board of Trustees authorized the immediate construction of two new research residences. In one the Association will conduct tests of low-cost heating systems to be selected by the Low-Cost Housing Heating Committee, and to effect improvements in the design, installation and operation of this system. In the other, tests will be made of gravity furnace operation and various types of wall heating appliances for comparison purposes.

The Association plans to continue its dealer membership campaign into 1949, and to conduct a consumer education program wherein information on the benefits of warm air heating systems will be prepared for consumer publications.

Officers re-nominated and unani-

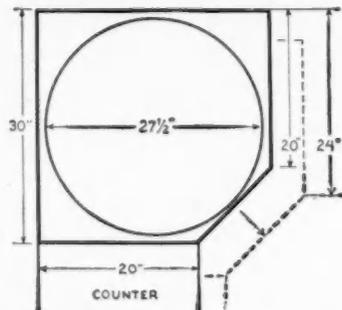
(Continued to page 258)

**SELL THE
HANDY
MANDY**

**REVOLVING
CORNER CABINET**



Utilize Dead Space in the Kitchen



PLAN VIEW—Shows how cabinet fits counter depth from 20" to 24".

This revolving corner cabinet brings to the finger tips that dead space in a U or L shaped kitchen —will return perfectly to stove, sink or any other standard depth cabinet.

Shelf revolves on three ballbearing rollers. Sides, shelves and false bottom from 5/8" 5-ply fir. National Lock Hardware. Good quality throughout. Retail for around \$47.50.

Responsible Dealers Desired!

GALION CABINET CO., INC. Galion, Ohio

You Get Many Construction Advantages

with Pittsburgh Steeltex for Masonry Veneer

You get extra strong walls of *reinforced* brick or stone construction with Pittsburgh Steeltex for masonry veneer. It is a combination of galvanized steel wire mesh and waterproof fibrous backing which eliminates the need for sheathing. The mesh provides positive reinforcing for the one inch mortar slab between the brick and waterproof backing. Steeltex is easily applied—requires no radical change in building methods.

In addition to the monolithic mortar slab completely around the structure, Steeltex veneer construction gives you positive protection against moisture penetration—greater fire protection and completely filled mortar joints. For better construction see our catalog in Sweet's or write for your copy of our catalog D.S. 132 to Dept. AB, Pittsburgh Steel Products Company, Grant Building, Pittsburgh 30, Pennsylvania.

PITTSBURGH STEEL PRODUCTS COMPANY

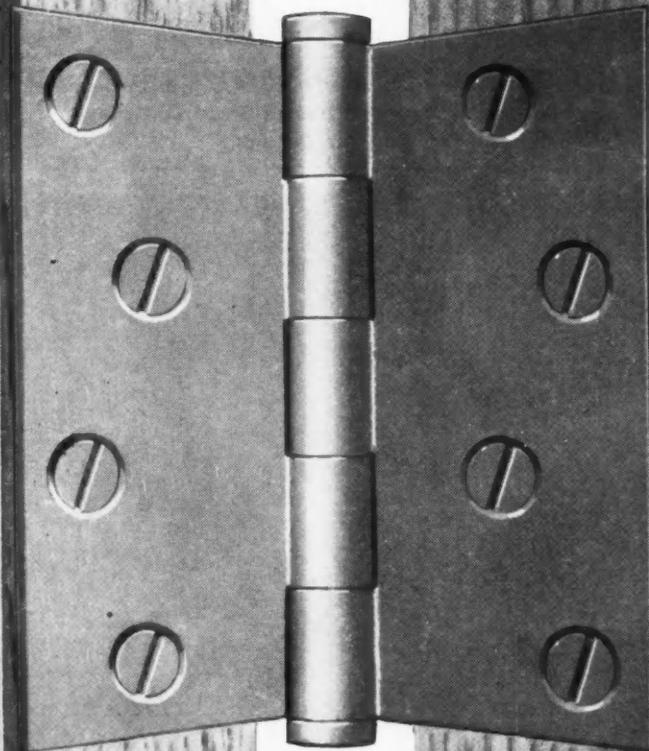
A Subsidiary of Pittsburgh Steel Company
Pittsburgh, Pa.



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BUTT HINGES

BY MCKINNEY



QUALITY
HARDWARE
SINCE
1865

MCKINNEY

MANUFACTURING COMPANY

PITTSBURGH 12, PENNSYLVANIA



Air Heating Progress

(Continued from page 256)

mosty elected to the Board of Trustees for one year are: Atlee Wise, Wise Furnace Co., President; Clarence Franke, American Furnace Co., first vice president; W. D. Redrup, Majestic Furnace Co., second vice president; George Boeddener, National Warm Air Heating and Air Conditioning Association, secretary-treasurer.

The following were elected to the Board for a 2-year term: H. C. Curtis, Auer Register Co.; E. H. Paul, Clayton & Lambert Manufacturing Co.; Frank L. Meyer, Meyer Furnace Co.; G. W. Denges, Williamson Heater Co.

The following members of the Board of Trustees terms expire in December, 1949: P. T. Cheff, Holland Furnace Co.; E. B. Lau, Lau Blower Co.; C. B. Phillips, Surface Combustion Corp.; A. W. Wrieden, Lennox Furnace Co.; F. E. Mehrings, ex-officio, Meyer Furnace Co.

Retiring trustees include Ralph Blanchard, Hart & Cooley Manufacturing Co.; C. L. Rowley, Owens-Corning Fiberglas Corp.; Fred S. Boone, Hall-Neal Furnace Co.; and A. L. Rybold, Rybold Heating Co.

Hager Company Gets New Sales Manager

CHARLES M. JONES, formerly Wisconsin, Minnesota and Chicago Metropolitan sales representative for C. Hager and Sons Hinge Manufacturing Co., St. Louis, Mo., has been named sales manager of the Hager Co.

Jones is a graduate of Ohio Wes-



CHARLES M. JONES

leyan University and served as a Navy officer during the recent war.

William D. Kennedy, formerly salesman with the Curtis Co., Clinton, Iowa, has been named successor to Jones in the Chicago post. Kennedy is a graduate of Iowa State College, and drew combat duty aboard the U.S.S. Iowa as a Navy officer during the war.

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The PROFESSIONAL BUILDERS' BULLETIN

An "Idea Department" from the Engineers of Ingersoll



INGERSOLL ADDS NEW MODEL UTILITY UNIT

Simplified Panel Unit Includes All Basic Plumbing in Minimum Space—

HEATING UNIT MAY BE PURCHASED SEPARATELY!



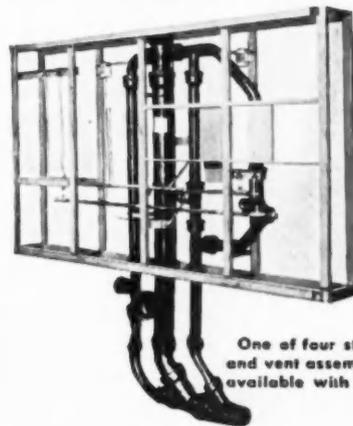
Cutaway of Panel Unit
—from bathroom side.

A new, simplified Utility Unit has been added to the Ingersoll line. It includes all basic plumbing plus a complete kitchen and bath. Unlike the standard Unit, the heating plant is not an integral part of the new model. The new Ingersoll "88" or other furnaces may be purchased separately if desired.

This unit is built around a compact, 10-inch-wide panel core. To meet your codes there is a choice of four vent and stack assemblies. Further flexibility is provided in a choice of lead, cast iron and steel materials in vents, stacks, wastes and undergrounds.

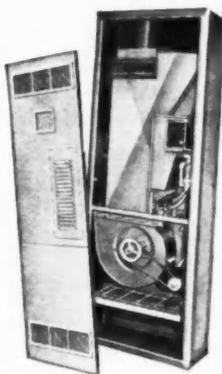
Assembled by skilled A. F. of L. Building Trade Mechanics, the

new Panel Unit combines the economies of pre-engineered assembly with the flexibility of buying small-home utilities in individual components. It is equally adaptable to homes with or without basements, to multi-storied apartments and to tourist courts.



One of four stack and vent assemblies available with Unit.

"JUST WHAT WE'VE NEEDED" TRADE SAYS ABOUT NEW INGERSOLL "88" FURNACE



Enthusiastic acceptance everywhere has greeted the recently introduced Ingersoll "88" Furnace. Gas-fired, it has an output of 50,000 B.T.U.s, yet occupies less than 3 square feet of floor space. It has been approved by A.G.A. for installation within walls—an interliner jacket keeps the exterior cool. It is equally efficient either as a space heater or for duct-type heat distribution.

New Wholesalers Report on Sales of Ingersoll Utility Unit



Reports from the more than 100 wholesalers added by Ingersoll in recent months, indicate excellent sales activity for the Ingersoll Unit. "The Unit fills a real need," is the most frequent explanation.

WRITE FOR INGERSOLL BOOKLET TODAY

It's yours for the asking, at no cost to you—a complete booklet about the new Ingersoll Panel Utility Unit and "88" Furnace. Gives all information complete with illustrations, diagrams and suggested floor plans.

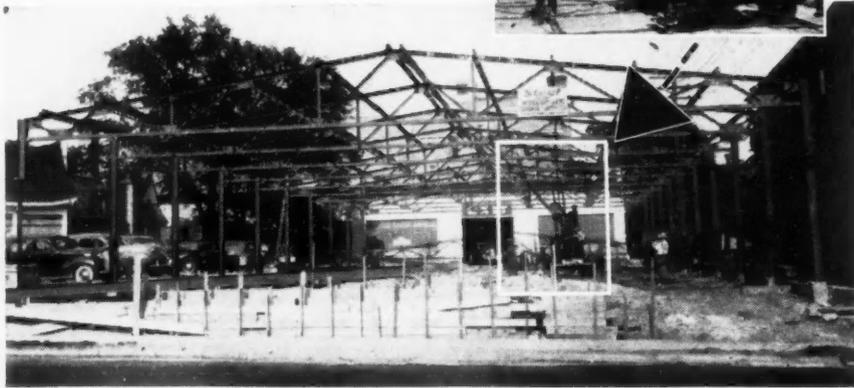
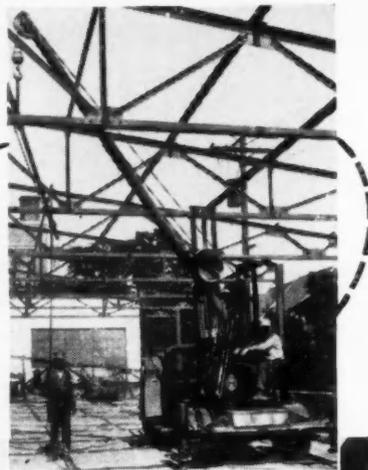


Write for yours today!

INGERSOLL UTILITY UNIT DIVISION

Borg-Warner Corporation
Dept. B2, 321 Plymouth Court
Chicago 4, Illinois

**\$75 Hydrocrane
Rental
to Set This Steel**



In just one day—including two miles of travel to and from job plus unloading steel from trucks—a Bucyrus-Erie Model H-2 Hydrocrane set this 60' x 140' steel structure—picked up 50-foot steel trusses weighing 1½ tons and placed them in position 24 feet above the ground. The contractor rented the Hydrocrane for only \$75 including operator's pay and gasoline cost.

The Hydrocrane has done such an amazing cost-and-time-saving job on light building work that contractors have often increased output as much as five times over hand methods. It travels at normal truck speeds and can haul a loaded trailer to a job site. On the job it digs trenches and foundations, lays pipe, sets septic and storage tanks, erects pre-fab units, places concrete, does clean-up work.

You can't beat it for simplicity. Low cost power for efficient

hydraulic operation is furnished by the truck engine. Every crane function is fully hydraulic—boom hoist, load hoist, swing, outrigger set and retract, and boom telescope. Bucket closes by hydraulic power. Control is simple—hand action only, no foot levers.

The Hydrocrane is built in two sizes—the 2-ton, ¼-yard Model H-2 and the 3-ton, ⅜-yard Model H-3. Ask for a Hydrocrane demonstration.

14H49



HYDROCRANE DIVISION

7923 W. Greenfield Ave.,
MILWAUKEE 14, WISCONSIN

**MAIL THIS COUPON
TODAY TO:**

Bucyrus-Erie Hydrocrane Division
7923 W. Greenfield Avenue
Milwaukee, Wisconsin

I want the full story on the Hydrocrane

NAME.....
COMPANY OR DEPT.....
ADDRESS.....
CITY.....STATE.....

**Anticipate Peak Levels
In Appliance Sales
Despite Sharp Competition**

ALTHOUGH the electric appliance industry has returned to its historically normal condition characterized by sharp competition, 1949 will be a good year for dealers who step up their sales efforts to match increasing resistances, according to Leonard C. Truesdell, vice president of marketing, Hotpoint, Inc.

Record production in 1949 satisfied the pent-up demand for nearly all major appliances and brought inventories to dealers for the first time in post-war, he said. However, electric utility expansion, high employment and wage levels, home building programs, and a growing farm market will combine to create increased markets and keep business good for a long time to come.

Although some price adjustments are inevitable, Truesdell anticipates that competition among the manufacturers will more likely take the form of new products and new product features to increase the sales appeal of work saving appliances. This will be supplemented by marketing programs that will include large national advertising budgets, with continuing emphasis on sales training and product promotion.

The biggest new factor in the 1949 outlook, he said, would be the steady expansion of the market for electric ranges, disposals, dishwashers, and water heaters, appliances that have low saturation. All of these appliances are enjoying unprecedented acceptance, he stated. Truesdell estimates 1949 sales for nearly all major appliances will reach or exceed peak levels attained in 1948.

**Chicago Home Builders
Plan Annual Home Show**

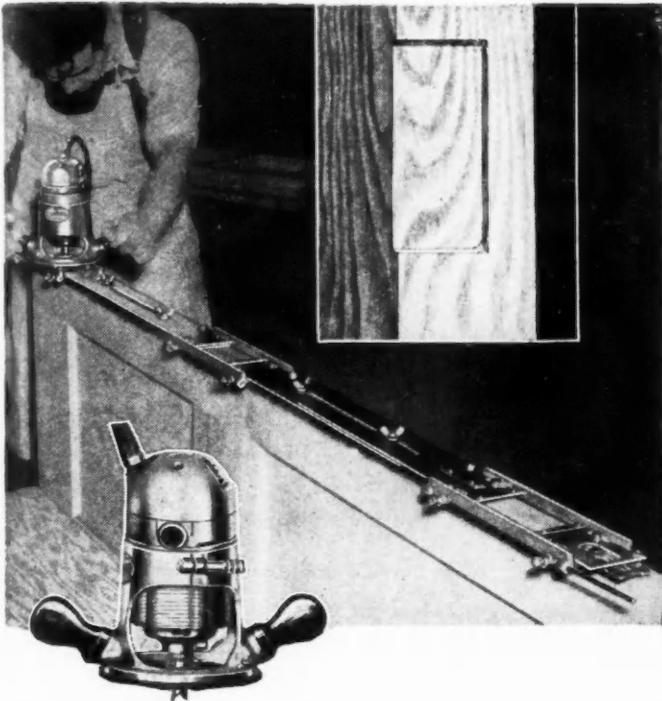
THE Third Annual Chicagoland Home Show will be held in the Chicago Coliseum, May 14 to 22, inclusive. It is anticipated by members of the Chicago Metropolitan Home Builders who are planning the show that this year's program will be larger than any previously.

The show is staged each year to provide the people of Chicago with an opportunity to see, under one roof, products and services available for home building.

Factory Stoker Sales Up

APPROXIMATE factory sales of all sizes and types of stokers in 1948 were between 90,000 and 95,000, according to the Stoker Manufacturers Association. There were 69,000 in 1947.

CUT BUTT RECESSES 6 TIMES FASTER



With This Stanley-Carter Router

As the pace of building steps up, this is the kind of electric tool that will help you keep up . . . and get ahead. Saves money on small remodeling jobs; makes more money on new construction.

Used with the Stanley-Carter Butt Templet, this Router cuts out recesses for square-cornered butts and for round-cornered butts at least six times faster than is possible by hand. This combination also gives you recesses that have a smooth, perfectly flat surface, providing a very solid foundation for the hinge.

EIGHT HOUR PERFORMANCE

Unlike hand work, which through the day may become progressively less accurate, the Stanley-Carter Hinge Butt Router gives you full eight hour performance. This means that every door you hang will have the same uniformity. The weight will be evenly distributed over the recess, consequently the hinge screws won't have to carry the full load. This makes for longer, more trouble-free operation of the doors you hang. For further details write — Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle Street, New Britain, Connecticut.



(Reg. U.S. Pat. Off.)

HARDWARE · HAND TOOLS · ELECTRIC TOOLS

SURE, Copr-fibre BLANKETS are MOISTURE PROOF!

. . . And Copr-fibre moisture-proof qualities add protection to any insulating job. BUT Copr-fibre Blankets are best for top-quality permanent insulating on every one of your jobs.

Besides . . . ONE MAN Can Install 'Em!



Copr-fibre 8-foot lengths take the cuss out of discussion on installation costs . . . One man can install Copr-fibre Blankets at about the speed of two men putting in batts!



You get complete data on Copr-fibre advantages, fast! Use coupon below and your nearest U. S. Mail Box!

**FORTY-EIGHT
INSULATIONS**
INCORPORATED
AURORA, ILLINOIS



Send samples and more information on Copr-fibre

Blankets

Batts

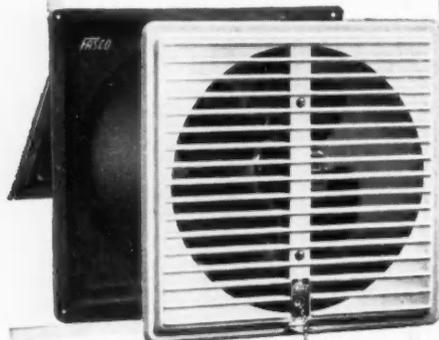
Name _____

Company _____

Street _____

City _____ State _____

**YOU
CAN BUILD
MORE
SALES APPEAL
ON A
BUDGET
with the**



**FASCO
AUTOMATIC
KITCHEN
VENTILATOR**

● Meeting buyer resistance by giving more house for less money is mighty tough. But you can solve one part of the problem easily. You can offer the sales appeal of clean, cool, comfortable kitchens for a surprisingly slight cost . . . by installing FASCO Automatic Kitchen Ventilators.

Their amazing low price and many quality advantages make FASCO ventilators the best buy in the field. Leading builders all over America have installed many thousands of them with excellent results. Two models and three sizes are available for large, average, or small size kitchens built with standard, thick, or thin wall construction.

WRITE for complete information to . . . FASCO Industries, Inc., 100 Davis Street, Rochester 2, New York.

ON DISPLAY IN BOOTH 195, NATIONAL ASSN. OF HOME BUILDERS EXPOSITION, CHICAGO



Formerly F. A. Smith Manufacturing Co., Inc.
ROCHESTER 2, N. Y.

**Grote Cabinet Division
Gets New Sales Manager**

APPOINTMENT of G. H. Horst as sales manager of the cabinet division of the Grote Manufacturing Co.,



G. H. Horst

Bellevue, Ky., was announced recently by Walter F. Grote, president.

Horst joins the Grote firm after several years in the production control, planning and sales departments of the Crosley division, Avco Manufacturing Corp. Prior to his Crosley affiliation, Horst was with Bendix, in South Bend, Ind., for ten years.

**New NAREB President
Calls For Rent Decontrol,
Increased Home Ownership**

INCREASED home ownership and a free market in rental housing are two of the major goals of the National Association of Real Estate Boards for 1949 outlined January 11 by Theodore H. Maenner, Omaha, during his installation as president.

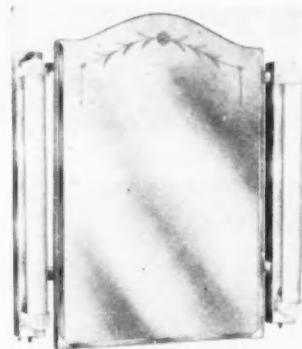
He spoke at a banquet in the Statler Hotel, Washington, attended by several hundred realtors from all parts of the country. He succeeds Hobart C. Brady, Wichita, Kan.

More home ownership, Maenner explained, means "concentrating more of our home production in the modest price brackets in order that home ownership may be moved within reach of more of our people.

"It means use of our best efforts to ease the current tightness in home financing. It means forward-looking use of modular design, standardized units in building materials, and prefabrication to reach a wider and wider market."

Widespread ownership of property, he explained, is the "surest guarantee we have of continued national strength" in today's conflict on the basic principles of social organization.

"A free market in rental housing should be restored now that there are clear indications of an easing of pressure in the rental housing situation," Maenner said.



**Attention DEALERS,
BUILDERS, AND CONTRACTORS**

The most beautiful all chrome finish fluorescent medicine cabinet with plate engraved Everlast mirror, all General Electric equipment, plastic caps, Underwriters' approved, **retails at \$43.75.** This medicine cabinet unit is built for the purpose of saving all wiring and fixtures necessary for the bathroom as it contains all the wiring and switches necessary and also a convenience outlet for electric razor or any other use. Each fixture has a separate switch so that you may light one or two lights as you desire and will provide sufficient light for any bathroom without any extra fixtures. The only thing necessary is to connect the cabinet with the main line. The price of this cabinet is very reasonable and at the same time it covers all the cost of wiring and fixtures for the bathroom.

Manufacturers representatives and distributors invited.

Manufactured by
FLUORESCENT LIGHTING CO.
MONTICELLO, N. Y.

**Brown's
SUPERCEDAR**



Red Cedar Closet Lining

Guaranteed 90% Red Heart or Better

Only SUPERCEDAR is of the same uniform high quality standard that guarantees every package to contain 90% Red Heart or better, and 100% oil content which produces the pleasing aroma.

100% oil content

Suggest Cedar Lined Closets to Every Home Builder. There is Nothing Better than

SEALED
PACKAGED
LABELED



More home builders are specifying cedar lined closets today than ever—and Brown's SUPERCEDAR is nationally advertised to thousands of new home prospects, architects and builders. SUPERCEDAR closet lining is surfaced, tongue and grooved, ready to put on with no waste. Packaged and sealed with the Geo. C. Brown label and guarantee, famous since 1886.

Product of
GEO. C. BROWN & CO.
GREENSBORO, N. C. ESTABLISHED 1886

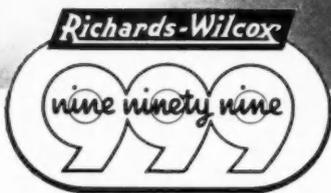
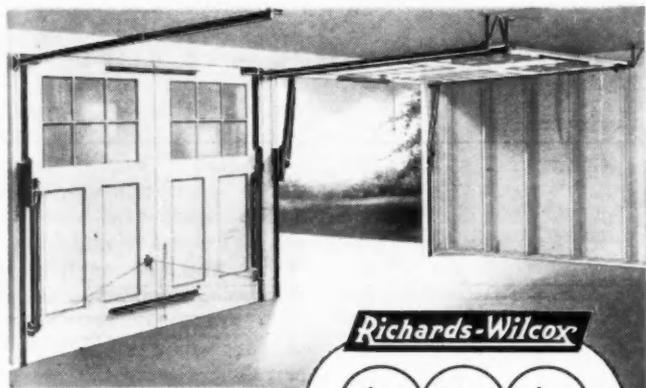
LARGEST MANUFACTURERS OF
AROMATIC RED CEDAR IN THE WORLD



EASY...

EVEN FOR A CHILD!

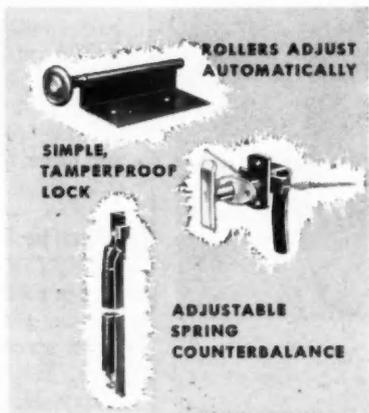
To Provide the Newest, Most Modern Overhead Door Convenience Specify



GARAGE DOOR HARDWARE

Ordinary obstacles, and seasonal "headaches" such as slush, snow, and freezing temperatures are nothing to worry about when garage doors have been converted to the overhead door convenience made possible by Richards-Wilcox Garage Door Hardware. And with the new R-W 999 line conversion is swift, easy, economical. Everything needed for installation and operation, all hardware including tracks, comes complete in one carton. Requires only 1/2" headroom.

For modernization, or in planning new structures, specify overhead garagedoors with R-W 999 Hardware, and be sure of doors that will function smoothly, quietly, effortlessly—so easy even a child can operate them. For further information, call the nearest Richards-Wilcox office, or write for free folder.



1880 LEADERS IN DOOR HARDWARE OVER 69 YEARS 1949

Richards-Wilcox Mfg. Co.
 "A HANGER FOR ANY DOOR THAT SLIDES"
 AURORA, ILLINOIS, U.S.A.
 Branches: New York, Chicago, Boston, Philadelphia, Cleveland, Cincinnati, Washington, D.C.,
 Minneapolis, St. Louis, New Orleans, Des Moines, Minneapolis, Kansas City,
 Los Angeles, San Francisco, Denver, Seattle, Detroit, Atlanta, Pittsburgh



Here's Your Low-Cost Floor!



- IT'S FACTORY-WAXED
- IT'S DURABLE . . . IT'S SMART

— Available in 22 colors
 Plain or Marbleized

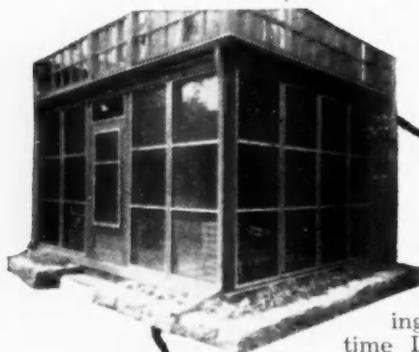
Because it is made to Federal specifications — you just can't buy better asphalt tile flooring than MA•TI•CO. Here is quality that has proven its endurance the country over—in more than 150 million square feet of installations. MA•TI•CO is safe . . . does not wear slippery with use. It is sanitary, odorless — will not originate dust. And, its variety of colors offer limitless design possibilities.

FREE! Full-color literature showing complete sample tile line and design patterns. Write: Mastic Tile Sales Corp., Dept. E, 153 West 57th Street, New York 19.

MASTIC TILE
 Corporation OF AMERICA

FACTORY: NEWBURGH, N. Y.

Something new FOR NEW OR OLD HOUSES



HERE'S a handsome item that can be sold the year around. Give your customers all-season comfort with these exclusive sliding ultra-violet glass panels with lifetime Lumite plastic screen. Self Storing Breezeway and Porches do away with seasonal changing of windows and screens.

Triple channel jambs permit two-thirds open area at three levels. Optional door location. All glass set in rubber. Lined aluminum extruded sash. Furnished in these standard sizes, or any of combination: 7' x 8", 10", 12", 14" and 20". Also available in special sizes—just send measurements.

The sections slide together quickly to provide a weatherproof, dustproof area. Door matches paneled area. Panels are erected easily without special skills or tools.

Shipped complete, ready to install.

Be the first in your community with this line. An excellent opportunity to show home builders and home owners that you are building with the latest materials and methods!

Write us for complete details. Franchises available in certain territories.



**READILY
AVAILABLE**

**EASILY
INSTALLED**

QUICK PROFITS

IN THESE ITEMS FOR PORCHES AND BREEZEWAYS

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American Builder Starts New Technical Department In the March Issue

Consistent with *American Builder's* policy of always striving to serve its readers better, a new department, "Technical Guide for Builders and Craftsmen" will be published for the first time in the March issue.

This new department will consist of detailed drawings and explanations of techniques for carpenters, mechanics and other tradesmen on time and labor-saving practices. The six-page department, which will become a regular feature in every issue of *American Builder*, will include the popular "Better Detail Plate", which has been a part of the "How-to-Do-It" department in the past. It will also contain many more "how-to-do-it" ideas which will be helpful to all types of craftsmen who have anything to do with building construction.

Readers are encouraged to forward ideas which will be suitable for publication in this new department. *American Builder* will pay \$5 to each contributor for each item which is published in the "Technical Guide".

Bradley Lumber Plant, Damaged by Storm, To Continue Production

BRADLEY LUMBER CO. of Arkansas, Warren, Ark., received property damage to its plant in excess of \$1,000,000 in the January tornado in that area, it was reported by R. W. Hanly, vice president of the company.

Some of their equipment escaped damage, however, and production will be resumed as soon as possible.

The main path of the tornado crossed the plant diagonally, and hit several of the buildings. The offices, flooring plant, boilers, planing mill and other buildings out of the storm's path were relatively undamaged.

Lumite Plant Expands

CONSTRUCTION of a 10,000-square foot addition to the main plant for the production of Lumite woven saran screening and fabrics, at Cornelia, Ga., has been announced by Harry H. Purvis, vice president in charge of manufacturing.

The Lumite plant, built in 1946, is considered one of the most modern in the South. Among its unusual features is an air-conditioner and humidifier system for the comfort of employees.

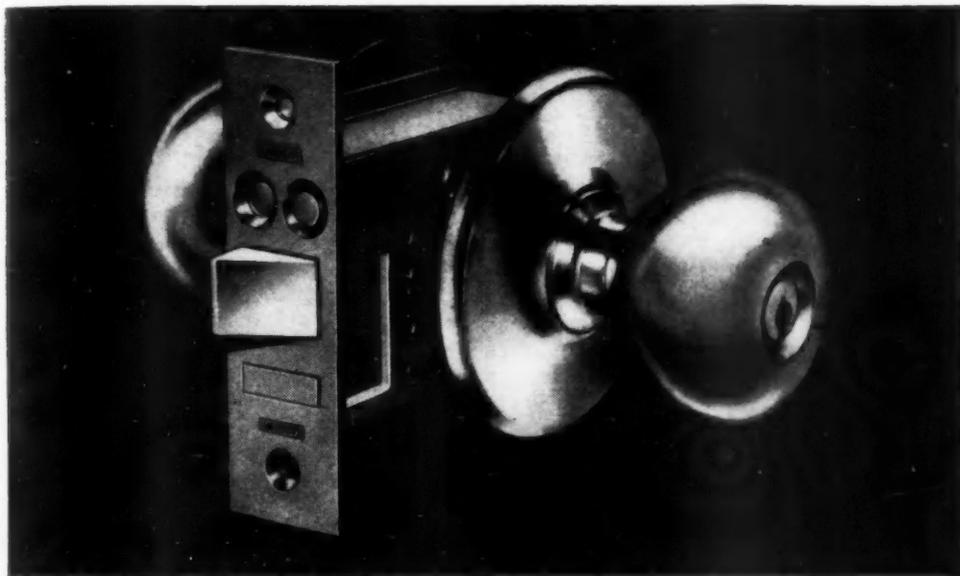
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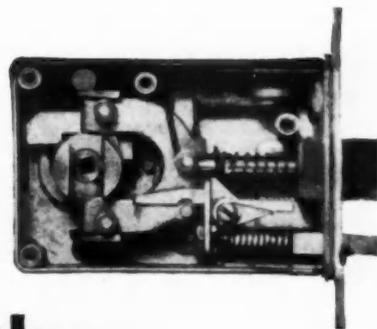
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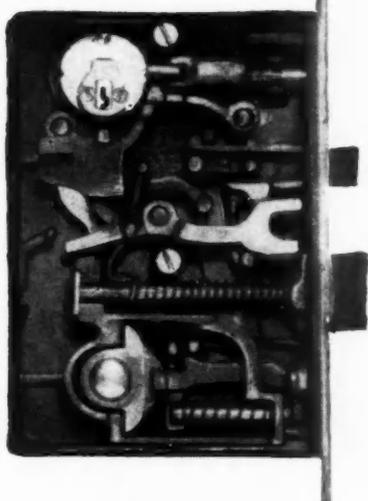
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No! We didn't use a shoe-horn. We used American ingenuity and the most up-to-date engineering methods to produce the sturdy, streamlined Sargent IntegraLock. By combining simplified design, precision production and the finest materials, we created a lock set with 30% fewer parts, a new ease of application, a new beauty of design, a new convenience in use, greater security ...and at a price far less than pre-war locks of similar types ... all these features add up to the

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a lock we are proud to produce, a lock you are proud to sell.



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The superiority of IN-SINK-ERATOR'S two directional shredding action has been proved by over ten years of consumer use. This and other features listed assure long and trouble-free operation.



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doubles the life of the shredding elements
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Specializing Exclusively in the Manufacture of
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For Low-Cost Housing, Exercise Existing Federal Powers, Says NRLDA President

EXERCISE of federal powers already granted, not new national legislation, can make low cost housing immediately available, President C. B. Sweet of the National Retail Lumber Dealers Association, Washington, D.C., told the hundreds of lumber and building material dealers assembled at the Minneapolis auditorium for the Northwestern Lumbermen Association convention.

"The Veterans Administration refusal to increase mortgage rates above 4 per cent has decreased the possibility of veterans obtaining privately constructed homes," he pointed out.

"The Federal Reserve Bank Board's repeated urgings to curtail construction loans has had the effect," he continued, "according to a survey of 352 cities, of drying up money available for new home construction.

"This survey shows that between 30 and 50 per cent of the total cost of a home is being demanded as a down-payment, before these banks will consider making a loan.

"Speculation in some circles has coupled these two actions as being merely preliminary steps toward smoothing the way for an increased public housing program by making it increasingly difficult for private industry to construct homes," said Sweet.

Industry Faces Challenge

"It is clear that this industry faces a severe challenge and possibly direct competition from government in the home field," he averred.

The legislation required to enable mortgage money to flow at proper interest rates into low-cost homes with low down payments has already been passed, Sweet told the lumber dealers, but lack of administration, and government agencies working at cross purposes with each other, has all but blocked the application of existing laws and has actually thrown home construction into a tailspin during the last three months.

"The FHA and the HHFA are seeking industry cooperation and means of building 300,000 low cost homes in the U.S. during 1949. Their definition of a low-cost home is one under \$10,000, and in many areas far enough below \$10,000 to be afforded by the middle to lower income groups," Sweet stated.

"More than 300,000 low-cost homes have been built in 1948 which cost the purchaser less than \$10,000," Sweet declared.

A meeting in Washington called to-

gether the heads of national organizations concerned with home construction, Sweet told the dealers. It was proposed that similar groups composed of builders, realtors, lumber dealers, labor leaders, government building inspectors and building code men, be called together in each state at the request of the local FHA regional head.

Raymond Foley, HHFA Administrator, at this Washington conference, inferred that additional legislation would probably be introduced into the 81st Congress which would have for its major purpose the assurance of adequate financing and a broadening of the primary and mortgage market for low-cost homes, Sweet went on to say. It was stressed to Foley that in calling regional and local conferences to stimulate more low-cost home building, the first requisite to a successful conference would be confidence on the part of those participating that ample and adequate mortgage financing would be available to the builder of low-cost homes.

It was pointed out to Commissioner Foley, he continued, that low-cost homes could be provided through the stimulation of Title I Class 3 loans; the 95 per cent Title II loans on \$6,000 homes; and other improved financing methods. One word from Commissioner Foley, supported by the administration, could make more truly low-cost homes available to every man or family who wants one, President Sweet said.

Existing Laws Cited

We fail to find in government proposals, he pointed out, any mention of enforcement of state and municipality public health and safety laws that would eliminate at least 50 per cent of the need for slum clearance.

"These latter two practical steps solving the low-cost housing and slum clearance problem require neither new legislation nor outright grants of money. The means for accomplishing both of these objectives have been in the hands of the administration, and it might be asked why they have not been used," exclaimed President Sweet.

No longer do stand-by controls, including material allocations, priorities, and price controls depend upon the reasoning offered by sociologists and do-gooders, he pointed out. In his report on the State of the Union, the President has asked for these

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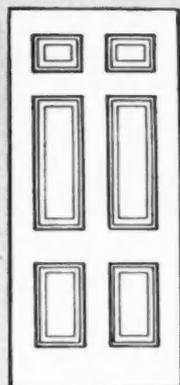
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Here is a popular Ponderosa Pine door—one of many stock designs including 8-panel, 6-panel and single panel designs. Whatever the style of the houses you plan, you can find exactly the right Ponderosa Pine doors for your purpose. Remember, too, that Ponderosa Pine windows are made in pre-fit modular standard sizes for window openings.

Low Cubage Need Not Cut Privacy

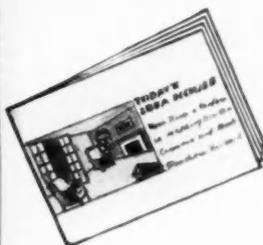
People who live in small houses need interior doors. Doors that help to shut out noises and drafts . . . doors that assure restful privacy for every member of the family. Stock design interior doors of Ponderosa Pine fit snugly into the limited building budget—enabling you to plan for the owner's peace and quiet!

Because of their wide variety of styles, Ponderosa Pine doors allow broad scope for your planning. These doors have the inherent sturdiness of wood, and are precision made. They take paint or other finishes beautifully—and hold them. They stand long years of hard use because of the natural durability for which Ponderosa Pine is famous.

Many styles of Ponderosa Pine doors and windows are illustrated in the booklet "Today's Idea House." Full of actual photographs, this book can be a valuable help in planning interiors. A copy of "Today's Idea House" is yours for the asking—just mail the coupon.



For Friendly Living..
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(Please print).

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• Boice-Crane engineers had builders' specific needs in mind when they designed the

BOICE-CRANE No. 1420 SIX-INCH JOINTER

They intentionally made the table 36" overall (5" longer than most); the fence 33" long (10" longer than most). Built to these generous proportions the Boice-Crane jointer will surprisingly out-perform others on all kinds of on-the-job fitting work, especially doors; also in the shop and on the job making sash and special millwork parts.

Other refinements give your inside finish that high grade look, and save hundreds of high priced labor hours. The **ONLY** fence that is 100% rigid, permits steady guiding and accurate cuts through the full length of even heavy 12-foot doors and sash. Unskilled operators get perfect results and more output because they can give entire attention to feeding the stock.

The only 6-inch jointer with quick acting fence locks at **both** ends. Even six times ordinary feed pressure cannot spring fence sidewise nor up on right angle or bevel cuts.

The 2 3/4" diameter cutterhead has a 3" diameter cutting arc, the largest in any low-price 6-inch jointer, for freer cutting "rake-angle" to knives, for a chatterless and much smoother shearing cut, rather than the chipping and chattering cut common to small diameter cutterheads. Cutterhead and bearings will withstand speeds up to 5500 r.p.m.

Features a double-pivoted cutter head guard, which, when rabbeting, is not bodily removed from the machine (usually the case), but swings down and out of the way, remaining immediately replaceable when conventional jointing is resumed, thus reducing the chances of failing to return guard to position.

Dual fence controls **BOTH** at operator's fingertips.

Floor cabinet has motor compartment and dust chute.

Four models, belt or direct-motor drive, bench or floor type. The direct-drive **bench** models are especially recommended for fitting doors. Placed low on the floor operator has full control in jointing the edges of doors and large panels.

SPECIFICATIONS:

Overall length: 43 1/2". Max. width of cut: 6". Tables: 6" wide x 36" long. Depth of cut, Max.: 9/16". Fence: 33" long x 3 3/8" high. Cutterhead: 2 3/4" dia. 3 knives.

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BOICE-CRANE COMPANY

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BAND SAWS • JIG SAWS • SAW JOINTERS • BELT SANDERS
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SPINDLE SHAPERS • DRILL PRESSES • JOINTERS

NRLDA President Speaks

(Continued from page 266)

stand-by controls as an essential part of an overall defense program. To quote:

"The authority which I have requested, to allocate materials in short supply and to impose price ceilings on such materials, could be used, if found necessary, to channel more materials into homes large enough for family life at prices which wage earners can afford."

This is the threat, Sweet told the dealers, to the entire distribution industry which has always been implied in public housing programs, but which has never before been actually stated in so many words by the President of the U.S.

Obviously, he declared, allocations, priorities, and price controls will continue to hang over this industry as a constant threat.

More Wage Increases

Your individual businesses, he told retail lumber dealers, are about to be affected by a fourth round of wage increases followed by an almost unavoidable increase in living costs. Changes in the Taft-Hartley Law and a minimum wage of 75 cents an hour are almost a certainty. Every effort will again be renewed to apply wage-hour provisions to as much of the retail industry as possible.

"In all, four major programs will draw upon United States resources and affect the building material picture," President Sweet stated. "If anything can tighten up the material situation, this will:

"First, there will be the domestic requirements of public housing and private building;

"Second, there will be the requirements of the European Recovery Plan;

"Third, there will be the speeded-up military preparedness program; and

"Fourth, the re-arming of Western Europe.

"In spite of the heavy legislative docket facing us, the real problems in the field of housing are not subject to legislative cure-alls," he continued, "but are mainly affected by administration, from the President down through the government agencies. Seventy-five per cent of the problem lies in the administration of laws and Washington agencies already in existence. Legislation is not going to change the attitude of banks, who view the costs of some of the proposed home construction coming before them for mortgage money as being out of line."

Shevlin-McCloud Lumber Company

Successors to Shevlin Pine Sales Co.
*Member of the Western Pine Association.

Ponderosa Pine Woodwork
DISTRIBUTORS OF
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Build Stair treads and risers this new and easy way Automatic template saves time and money

Now you can cut stair treads and risers in a fraction of the time formerly used for this type of work. The ETCO Automatic Template (Patent applied for) measures quickly and accurately the correct length and angle variations of each tread and riser. Simply place the template into the space to be measured—turn the locking handle and the template automatically adjusts and locks to the proper length and variation in angles. Lift it out and use it as a pattern for cutting, and you have a perfect fit every time. Here is a money-saving tool carpenters and builders have always wanted. It's automatic—accurate and easy to use—an invaluable aid to the apprentice. Adjusts to surfaces from 30 to 42 inches. Metal parts of steel.

Send coupon today

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Please send complete information about the new ETCO Automatic Template.

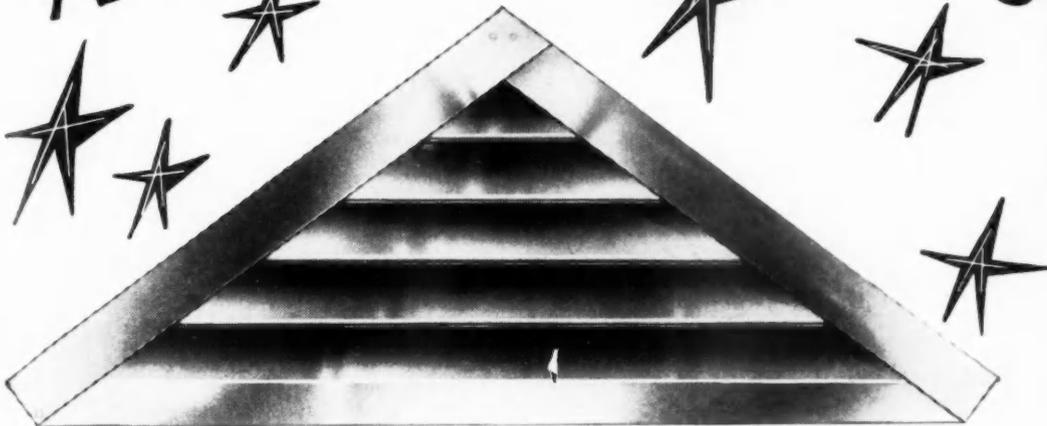
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HERE'S A NEW STAR IN ATTIC VENTILATORS



The New Leigh aluminum TRIANGLE ATTIC VENTILATOR

Low priced! Rigid construction!

An outstanding addition to the LEIGH line of "All Star" Aluminum Attic and Roof Ventilators — the Triangle Ventilator is the ideal answer to the demand for Peak Ventilators. This fixed pitch, solid ventilator doesn't have to be adjusted — no loose parts — no screen to cut — it's complete, ready to install. Designed for a 9-12 pitch — it is ideal for any pitch from 8-12 to 10-12 — it fits 95% of all roofs.

Priced for low cost homes — the LEIGH Triangle Ventilator has a surprisingly low price — they'll cut your attic ventilator costs in half!

Compare this ventilator with other ventilators: — built of rust-proof aluminum — full depth louvers with water deflecting baffles — exceptionally large free area — insect screen fastened in back — no straight thru opening in the peak — rigid, rivetted construction.

★ See your LEIGH Building Products Dealer today! He'll be glad to show you the complete Leigh line of Metal Shutters, Package Receivers, Foundation Ventilators, etc. Or write for your copy of Catalog 47-L.

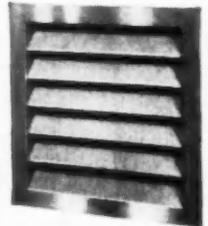


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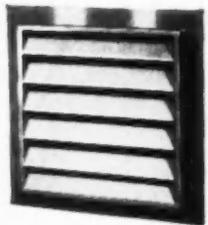
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LEIGH ALUMINUM ATTIC VENTILATORS FOR EVERY APPLICATION



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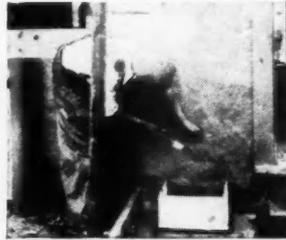
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Do You Know
YOU CAN INCREASE QUALITY AND REDUCE HOUSING COSTS
by using all three
SISALKRAFT PRODUCTS

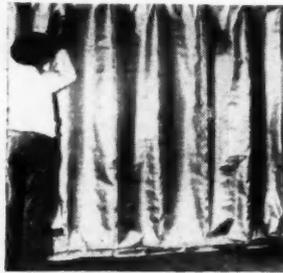
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SISALKRAFT is the best sheathing paper that money can buy! Costs very little more than ordinary tar paper . . . but it costs less to apply. Use SISALKRAFT for OUTER WALLS over sheathing . . . for INTERIOR WALLS, as a vapor-barrier (FHA-approved) . . . UNDER WOOD FLOORING . . . UNDER RUBBER TILE for "on-grade" floors . . . OVER SUB-FILL (under concrete slabs) . . . under radiant heated floor slabs.



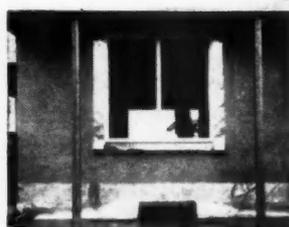
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At about \$25 per 1000 sq. ft., SISALATION saves 50% or more, compared with bulk or blanket-type insulation. SISALATION also costs less to apply. Provides BOTH sidewall insulation and vapor-barrier (FHA-approved). Lining attics with SISALATION makes them more livable and attractive. • SISALATION and SISALKRAFT, used together, provide modern DRY WALL construction . . . SISALATION for effective insulation and vapor-sealing from the *inside* . . . SISALKRAFT for weather-sealing from the *outside*. Highest QUALITY construction at low cost!



3. COPPER ARMORED SISALKRAFT

For about 75¢ per window or door opening, you can get this pure copper flashing. Highest quality, low-cost, enduring protection . . . for flashing door and window openings, foundation damp-coursing, ridge roll and other flashing, waterproofing shower stalls . . . and other concealed flashing uses.



See Sisalkraft Insert in Sweet's BUILDERS' File

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products for quality housing at low cost

The SISALKRAFT Co., Dept. AB, 205 W. Wacker Dr., Chicago 6, Ill.

I am ARCHITECT CONTRACTOR OTHER
 Please send data on all three Sisalkraft products and tell me where I can buy them.

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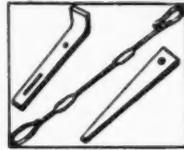
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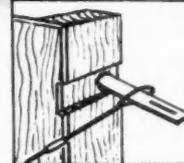
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SYMONS FORMING SYSTEM

SAVES TIME



There are only three essential pieces of hardware . . . bolt, wedge and form tie. The tie remains in the concrete . . . bolt and wedge are used again and again.



Bolt holds forms together and also holds tie both ways . . . No nails . . . No spreaders are used . . . Less bracing . . . Less waters.

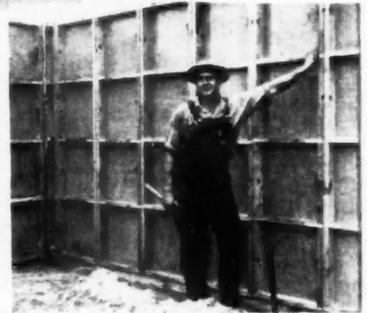


To strip forms, tap out wedges, remove bolts, then easily pull forms up or out without tools. Ties will break back inside wall, 1" from the surface by twisting loop 1/2 turn.

SAVES LABOR

"Seven men set-up the forms for a 26' x 27' foundation in one hour and fifteen minutes."

Harry G. Dehring
 Foreman
 Taylor Brothers
 South Bend, Indiana



SAVES COST

"We have used these forms 61 times and expect to get at least 60 more reuses."

Homer L. Short
 Superintendent
 Reed Construction Co.
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Symons Forms can be rented with purchase option or you may purchase the hardware separately to build your own forms. Construction blueprints furnished free.

WRITE TODAY for your Free copy of our 36 page catalog. If you will enclose dimensions of your next form job you will receive a free form layout and estimate.



SYMONS CLAMP & MFG. CO.

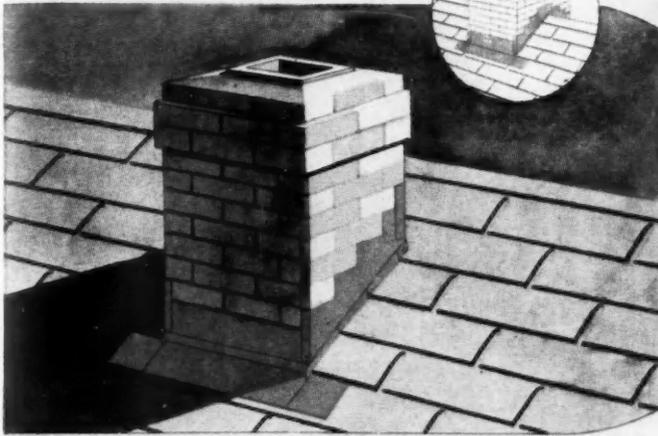
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CHICAGO 39, ILLINOIS



How to weatherproof chimney joints with REVERE HOME FLASHING

Weatherproof Chimney Joints

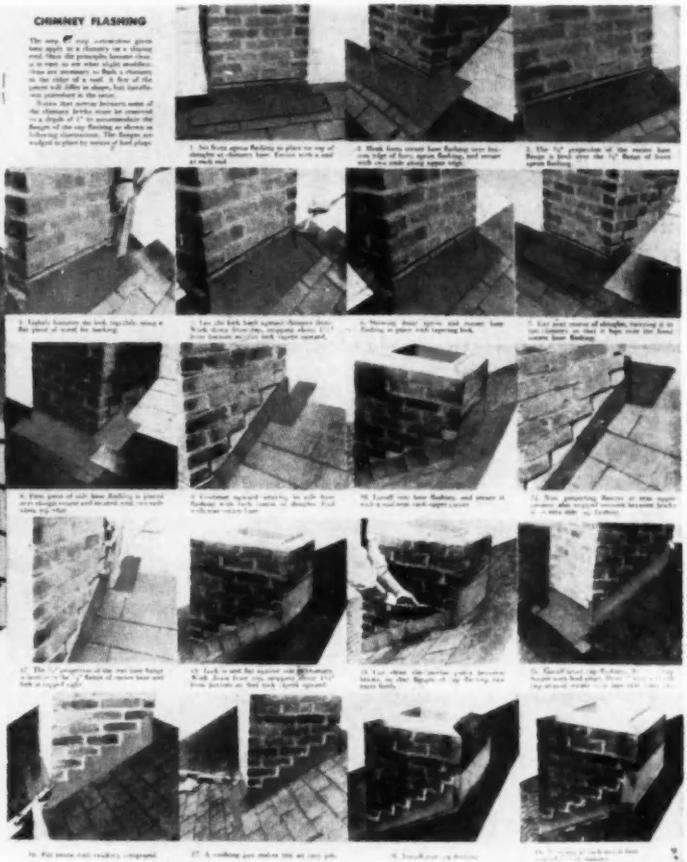


Where a chimney passes through the sloping part of a roof, it is impossible to lay shingles tightly enough against it to keep out the rain and melted snow. An attempt to do so would be made all the more difficult by the fact that the chimney is of masonry construction while the roof is of wood or other dissimilar material which is almost impos-

sible to fasten to masonry. Instead of attempting the impossible, flashing is used to seal the joints. It is readily installed, effective—and when Revere Home Flashing is used the protection you get is good for a great many years. The details of installation are essentially the same, whether the chimney flashing is at the ridge or the slope of the roof.

CHIMNEY FLASHING

The only way satisfactory protection can be given to a chimney on a sloping roof is to use a special flashing material which is made in one solid piece and which is fastened to the roof in the order of a roof. It fits all the joints and fills the gaps, but remains in position in the same manner as the chimney bricks are set on a slope of 12" in 12" in accordance with the requirements of the building code. The flashing is made in pieces to suit the size of the chimney.



A reproduction (1/3 the size of the original) of 2 typical pages in the Revere Home Flashing Instruction Book

REVERE HOME FLASHING is a packaged system for use in valleys and flashing on low-cost houses. Based on a special size, special temper and special gauge of sheet copper, it is packaged, complete, ready to install.

Each package contains 10 sheets of this special copper, cut to 18" x 48"; 200 bronze nails; and complete, illustrated instructions for installation. Simply follow these step-by-step instructions and you are sure of protection that is good for a great many years.

Revere Home Flashing provides low-cost, easy-to-install weatherproofing not only around chimneys, but also at valleys, doors, windows, and other wall and roof joints. In addition, being copper, it adds an important selling point to the house; it shows that the

builder uses quality material; and it assures complete satisfaction for the owner. And it does all this at such low cost that you'll want to start using it right away.

Your building supply dealer has Revere Home Flashing in stock or can get it for you promptly. Ask him about Revere Home Flashing today.

REVERE

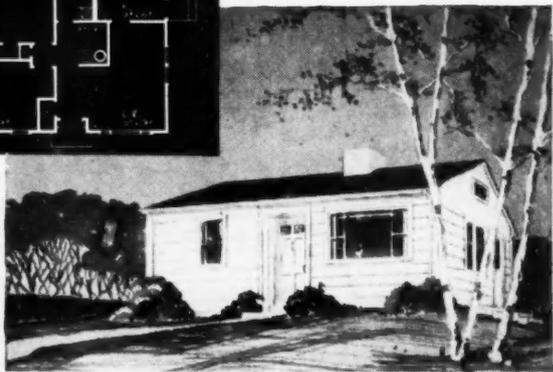
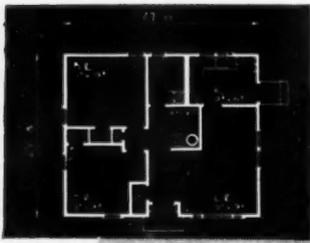
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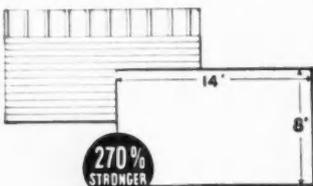
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The house pictured above has a living room, two bedrooms, a kitchen, a bath, five closets and a storeroom with ample space for baby carriage, sleds, etc. It can be built to sell for approximately \$6,500 — the

Homasote is happy to make the full details available to any interested builder. Your only cost is \$15 — for seven complete sets of blueprints and specifications.

We invite builders and architects to send for a copy of our new booklet describing some of the many uses for *weather-proof* Homasote. The book gives physical characteristics, performance charts, specification data and application instructions. Write for your copy today.



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costs varying slightly according to local conditions. A recessed entrance and a picture window are among its many desirable sales features. This house is one of the results of a \$500,000 research program conducted by Homasote Company over the past 12 years. Every detail of its construction has been fully proved. At an unusually low selling price for today's market, this house offers far more than FHA minimum requirements.



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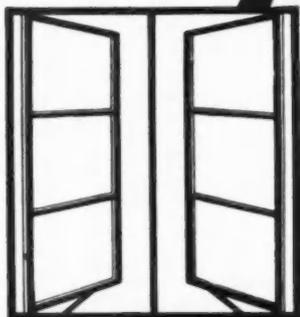
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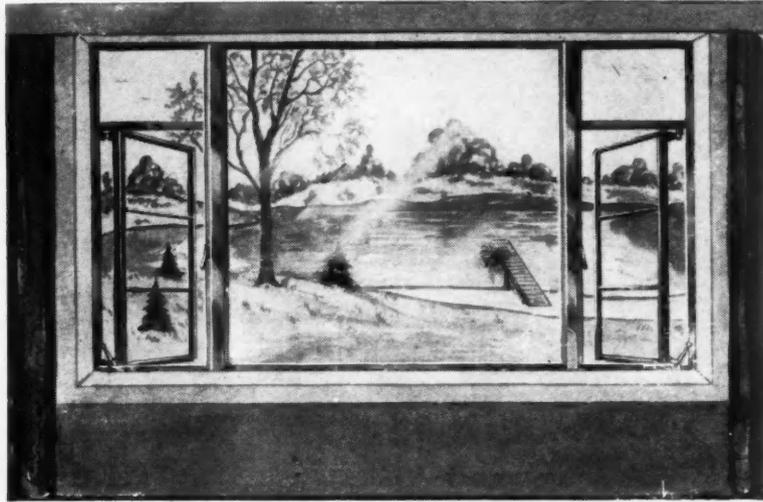
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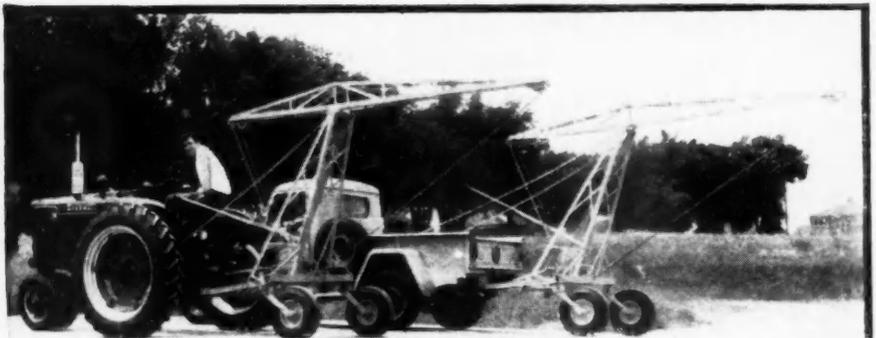
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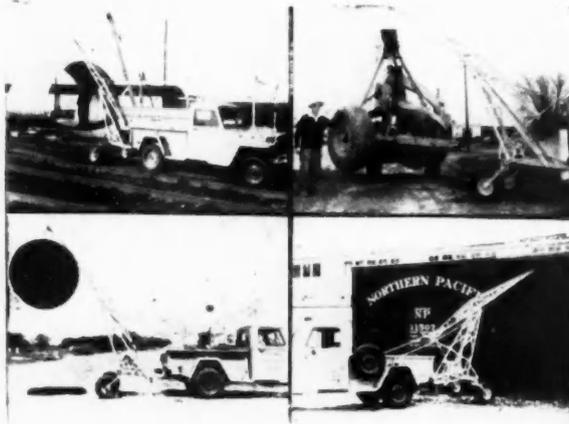


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The optional choice of butterfly type for use with venetian blinds or the standard cam locking handles gives you a freedom of choice.

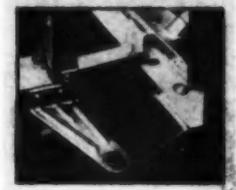
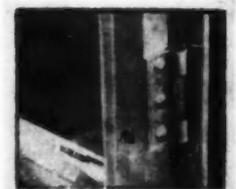


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U. S. Circulation	78995	50351	69033
U. S. Territories	230	517	34
Canada	1849	1772	996
Foreign	392	9944	82
Military Service	66	188	0
Total	81532	62772	70145
CONSTRUCTION GROUP	50439	11427	42103
<i>(Contractors and Builders, special trade Contractors)</i>			
DESIGN GROUP	2079	15213	1367
<i>(Architects, Architectural Firms, Engineers)</i>			
DISTRIBUTORS	13968	3613	6406
<i>(Retailers, Wholesalers, Jobbers, and Distributors)</i>			
REALTY, OWNERSHIP, MANAGEMENT AND FINANCIAL GROUPS	3425	5019	2906
<i>(Commercial, Industrial and Residential Realty Manage- ment Firms, Brokers, Financial Institutions, etc.)</i>			
PUBLIC OFFICIALS	1506	4374	0
<i>(Federal, State, County and Municipal Public Officials)</i>			
MANUFACTURING AND PRODUCING GROUP	4499	8108	1262
<i>(Commercial and Industrial Organizations, Manufacturers and Producers of Building and Construction Materials and Equipment, Utilities and Transportation Companies)</i>			
LIBRARIES, SCHOOLS, COLLEGES AND TRADE ASSOCIATIONS	3552	10060	700
<i>(Including Professors, Instructors and Students)</i>			
MISCELLANEOUS	1336	3323	2843
UNCLASSIFIED	728	1635	12558
TOTAL	81532	62772	70145

*1 Occupational groupings here are arranged for convenience only. They do not appear in this format in regular A.B.C. statements. *2 Based on last available printed publisher's statement dated December 31, 1947.

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And because it is DURABLE, for lime plaster has withstood the ages in the many fine examples of the builder's art of all periods.

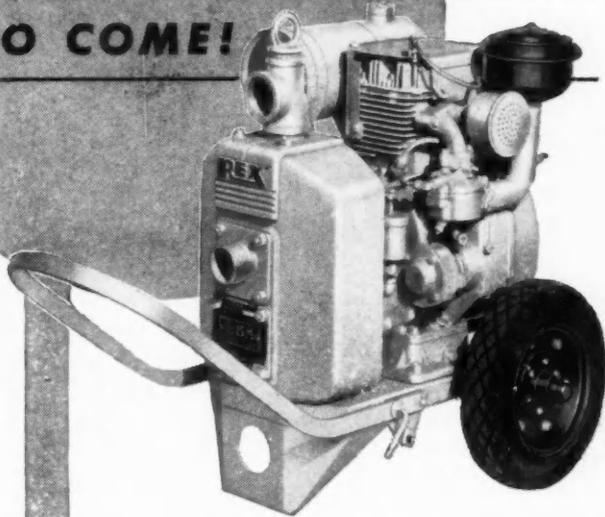
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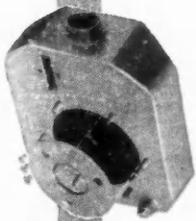
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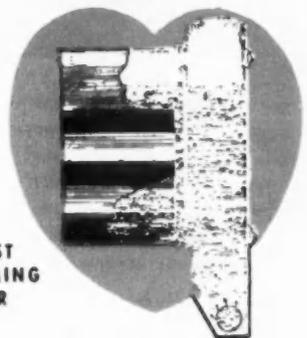
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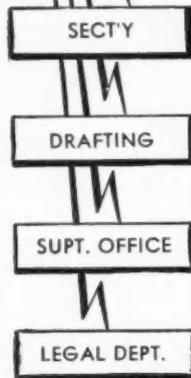
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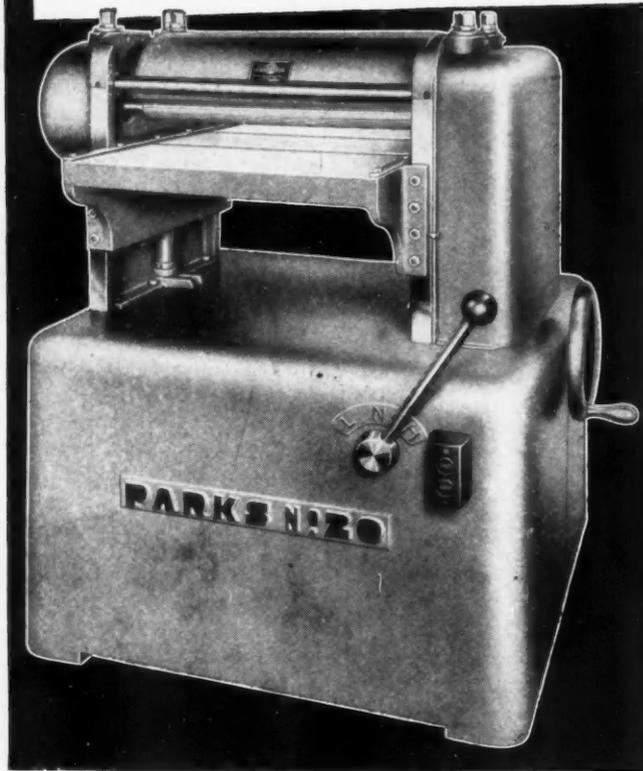
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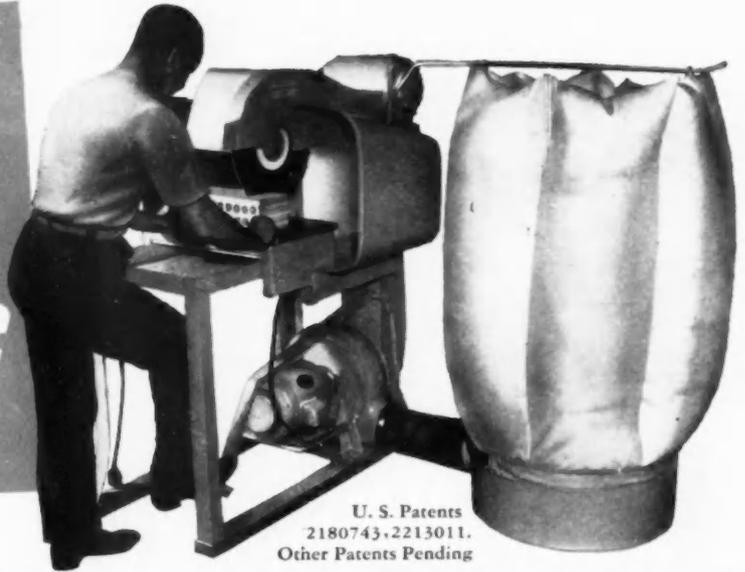
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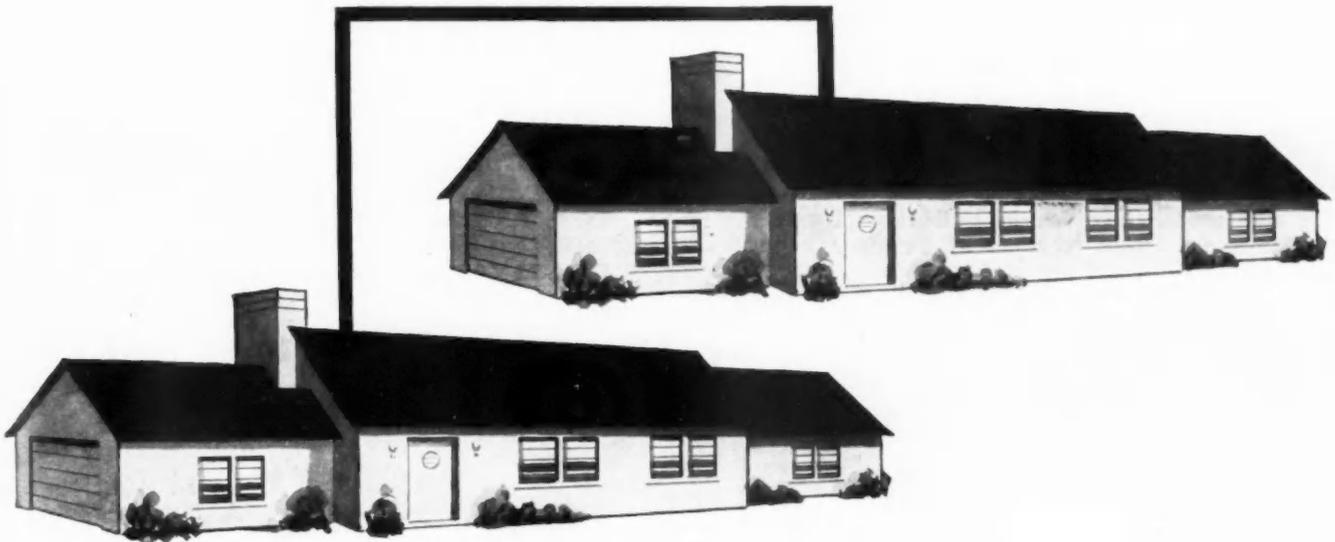
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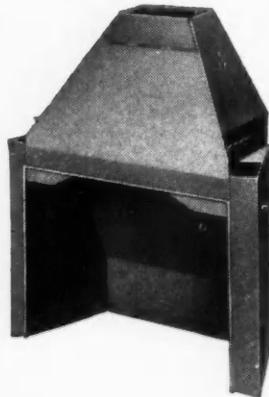
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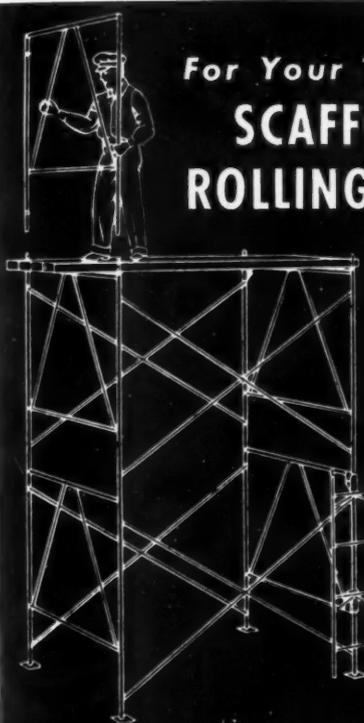
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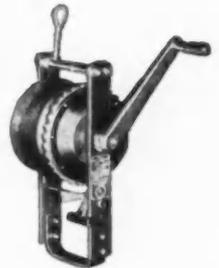


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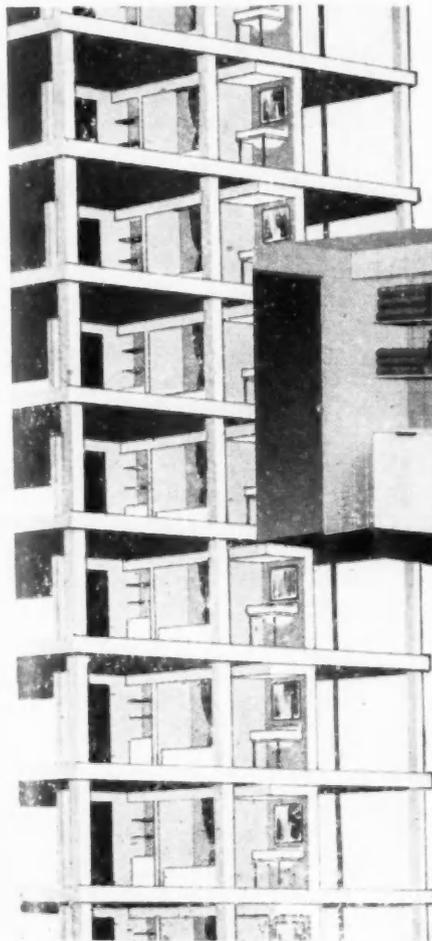
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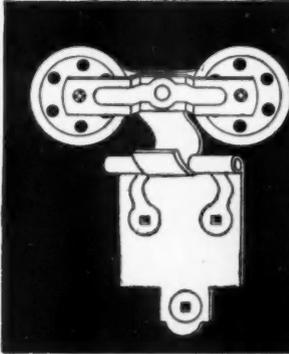
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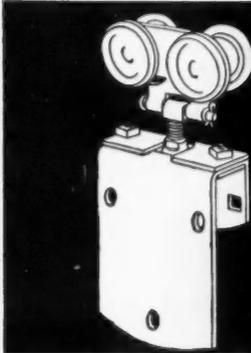
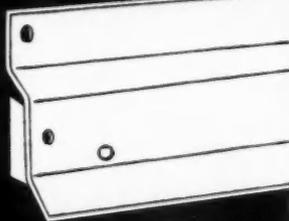


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Track and cover in one piece . . . the original "water-shed" type. A patented telescope joint gives smooth continuous tread. Lag screws at 1 ft. intervals, hold Track securely to the building, *without brackets*. Top of door protected. For use with "Glide" No. 1 and No. 2 Hangers.

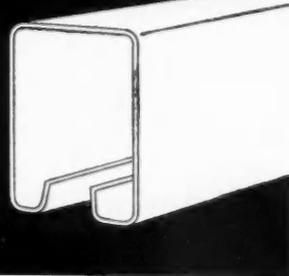


No. 61 TROLLEY HANGER

For doors weighing up to 350 pounds and from 1 1/4" to 2 1/2" thick, Trolley Door Hanger No. 61 is tops. Set No. 62 includes pair of No. 61 Trolley Hangers, three track brackets, two end caps, and necessary bolts. Hanger has vertical and lateral adjustments, flexible joint allowing door to swing out.

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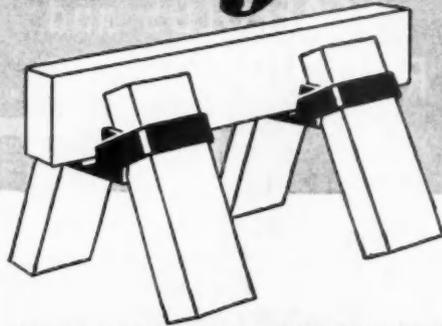
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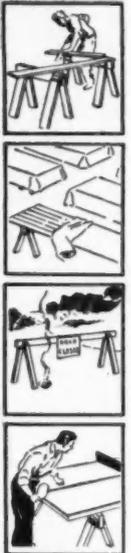
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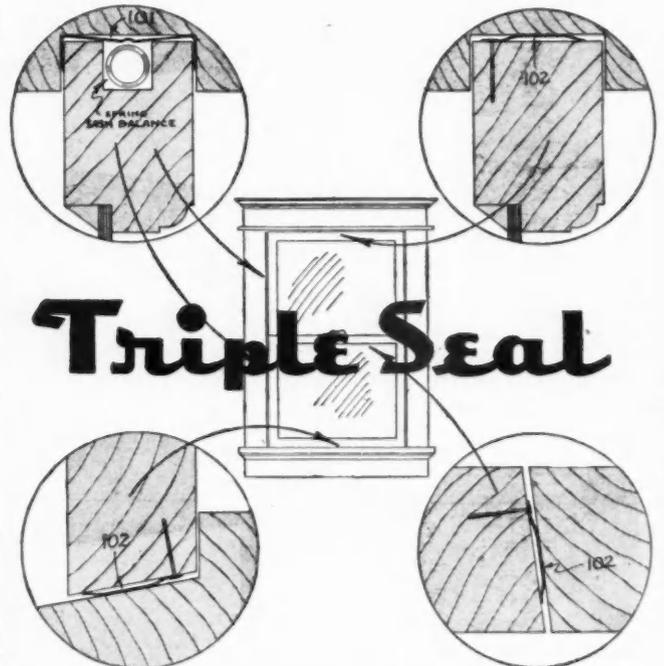
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Light Weight
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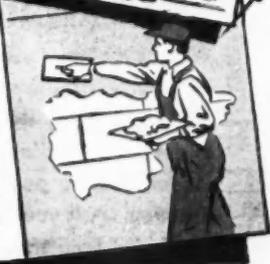
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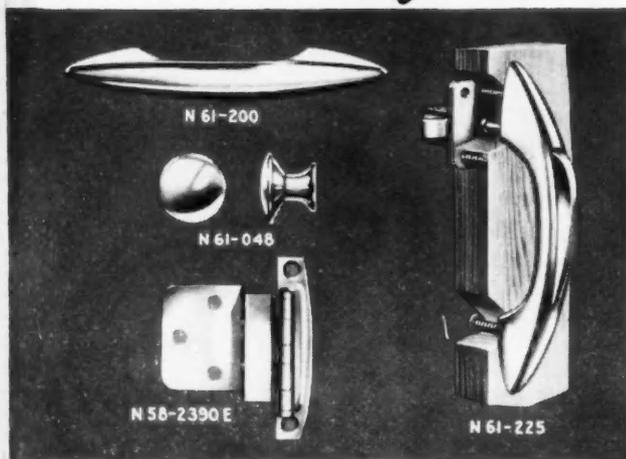
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- ELECTRIC MOTOR-DRIVEN
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125,000 BTU per hour capacity—enough to heat almost two ordinary 5-room houses!

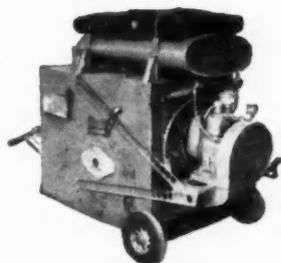
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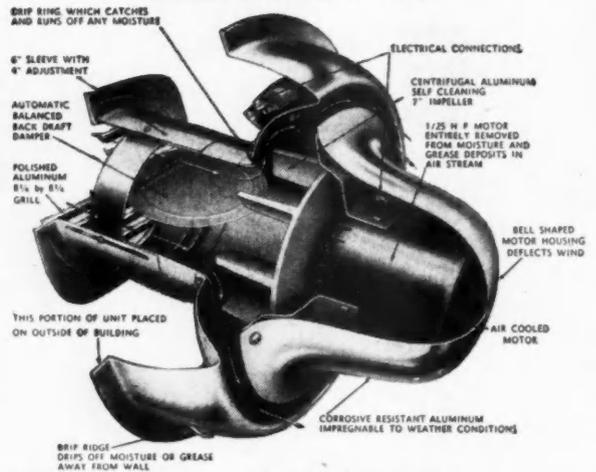


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Check these outstanding features . . .

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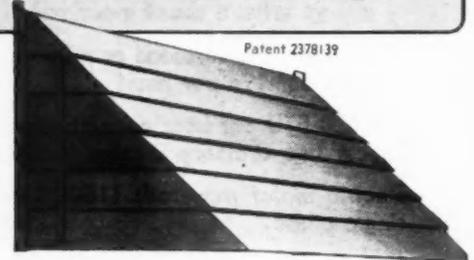
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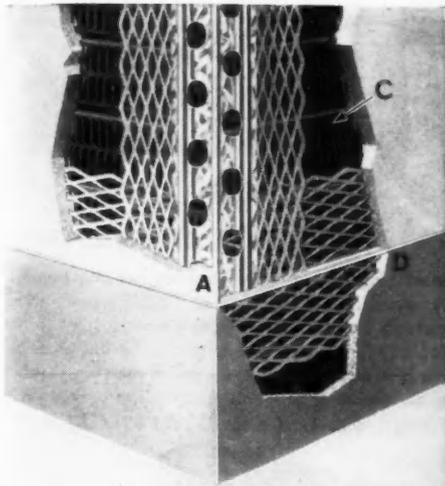
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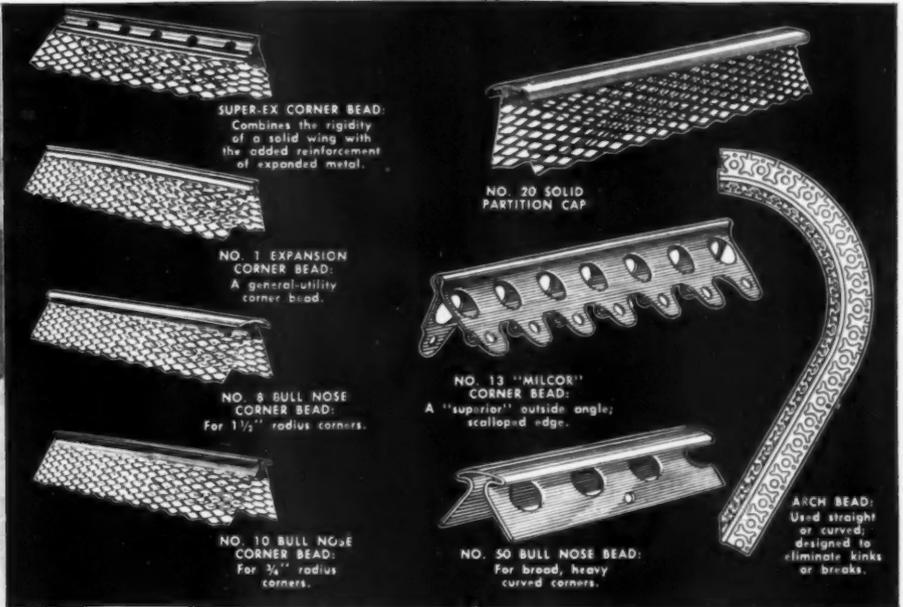
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Application of Milcor Corner Bead: A — Super-Ex Corner Bead. B — Metal Lath Reinforcing plaster. C — Wall base with Milcor Base Screenshot. D — Wall base with Milcor Base Screenshot.



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... designed to work together with other Milcor products for the finest fireproof construction

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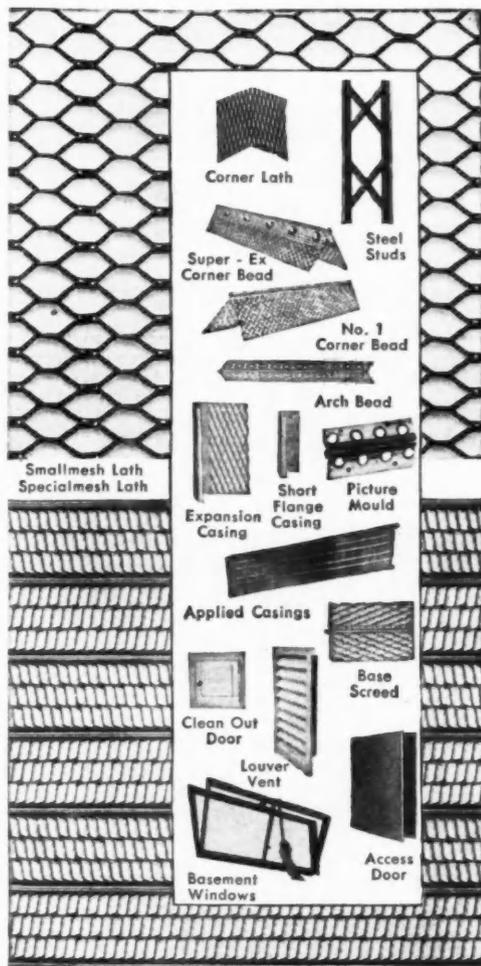
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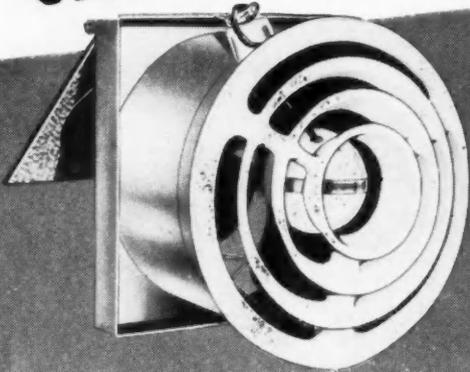
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Why handle freight the slow, costly way — by hand! You can now handle light freight *electrically* in loads of 1,500, 2,000 and 2,500 pounds with the new Otis Self-Supporting Elevator. Designed for a maximum rise of 35'-0" it is suitable for any 2 or 3 story commercial or institutional building. It is inexpensive to install because its self-supporting design requires no penthouse, no overhead supports, no building reinforcing. **OTIS ELEVATOR COMPANY, 260 11TH AVE., NEW YORK 1, N. Y.**

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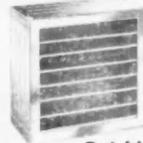


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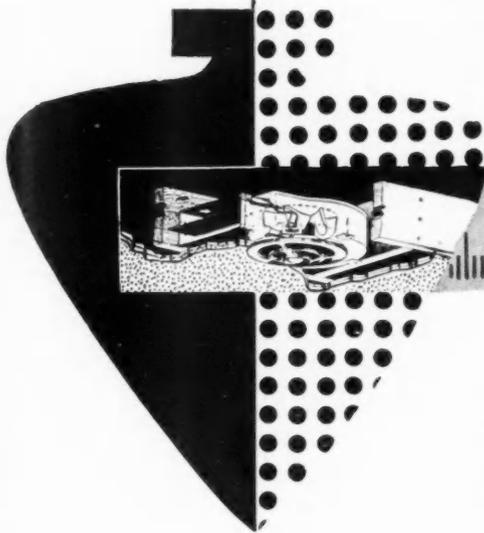
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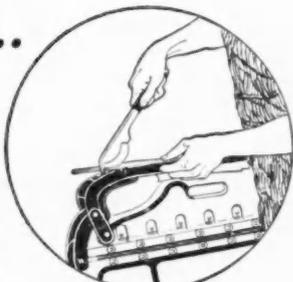
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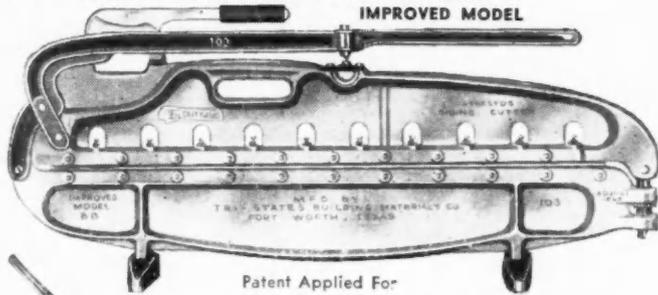
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- This cutter is light in weight—only 37½ lbs.—main castings are of high grade aluminum alloy.
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Manufacturers of Flame Proof, Fire Retarding Cotton Insulation

Improved Building Materials Used In Florida "Practical Home"

IN THE INTEREST of better home construction in Florida, more than 20 regional and national manufacturers are cooperating in the construction of a "Practical Home" in St. Petersburg.

The Practical Home is being built primarily to educate new residents and future home owners in Florida to the use of new and improved materials, combined with an attractive and practical house design, to fit the climate and living conditions of that state. Materials have been selected with a view to minimizing maintenance requirements.

Included among the products is a new type of concrete block which has staggered air spaces to eliminate the need for furring. Concrete for the house foundation is mixed



GROUND breaking ceremonies for the builders and manufacturers' Practical Home in St. Petersburg, Fla. The home is sponsored by more than 25 Florida newspapers, cooperating with national and regional manufacturers of building materials. Attending, left to right, were Robert Spiers, president of Dianol, Inc.; Walter D. Korp, Alfol Insulation; O. C. R. Stageberg, architect, Alfred L. Lino, advertising agency head; Mayor Harry W. McCormick of St. Petersburg; Al Steinwachs, general contractor and J. S. Crane, vice president of *American Builder* magazine

with a special dispersing agent added to the water which gives the cement high resistance to moisture penetration.

The house insulation will be a reflective, aluminum foil.

All interiors of the Practical Home will be painted with an insecticidal paint in which an insecticide is incorporated in an oil paint to kill ants, flies, roaches and other insects.

Aluminum windows, casement type, will be used throughout the house.

National firms cooperating in the construction of the home, either directly or through their distributors, include the F. C. George Machine Co.; Dianol, Inc.; A.B.C. Steel Equipment Co.; Cement Block Industries; Master Builders Co.; General Electric Co. and Serval, Inc.

St. Petersburg firms cooperating include Al Steinwachs, general contractor, O.C.R. Stageberg, architect; Rattan Manufacturing Co., Kempker Manufacturing Co., Modern Perma Finish Co., Alfol Insulation West Coast Distributors, Rieck & Fleece Builders Supply Co., Myric's Interior Decorators, E. R. Lorimer, master plumber; Florida Floors, Inc.; Wagner Distributors, representing Modern-fold Doors; Neenon Venetian Blinds, Cement Products Co.; George Copper Roofing Co., Salt Creek Welding Co., Mechanical Equipment Co. and City Fuel Oil Co.

Paul Vonn, St. Petersburg realtor, supplied the lot on which the Practical Home is being built.

When the house is complete, public tours will be conducted through it for a period of time, after which it will be sold at the cost of materials and labor represented.

See it!

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**Here's High Quality
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Booth No. 19 is the spot! At the Home Builders' Show you'll see the new PH Home! It's the high-quality, low-cost home you've been looking for. Sales features galore! You can sell this PH Home easier and faster — because it's bigger than the usual small economy house. It's a generous 24' x 32' — with good size closet and storage space — and a beautiful, extra large living room 11' 7" x 17' 4".

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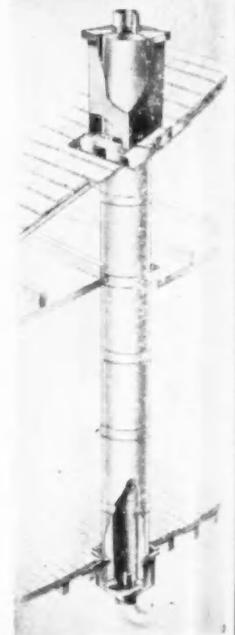
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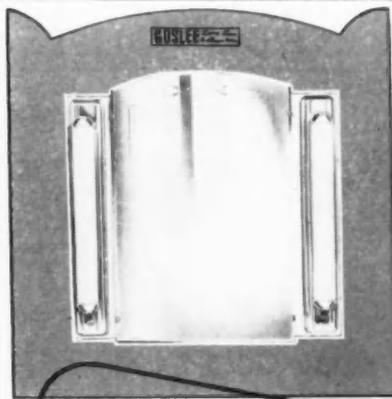
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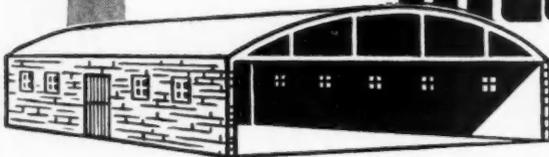
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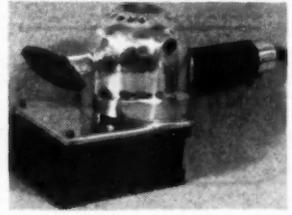
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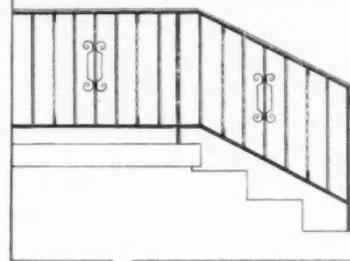
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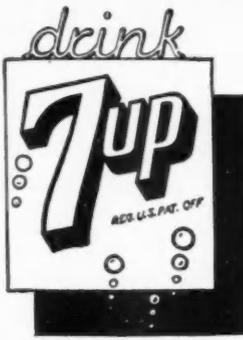
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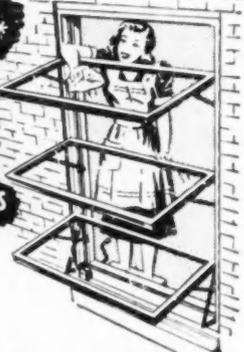
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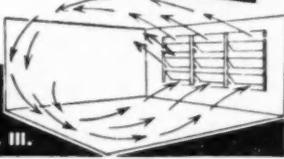
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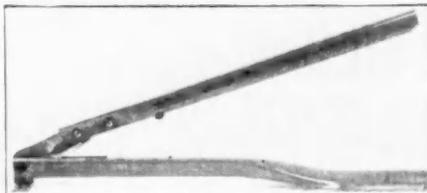
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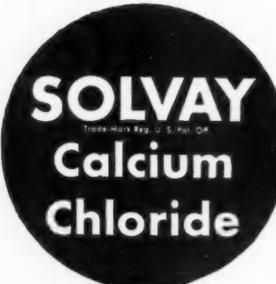
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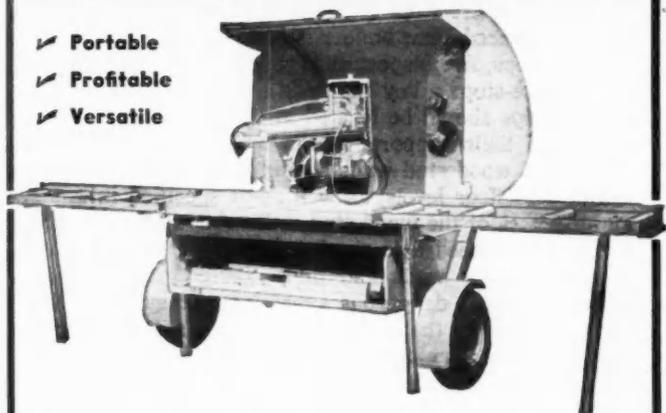
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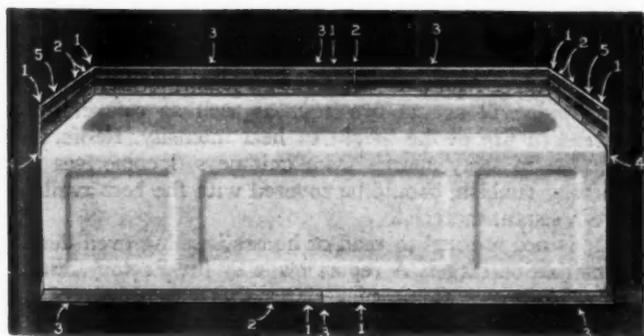
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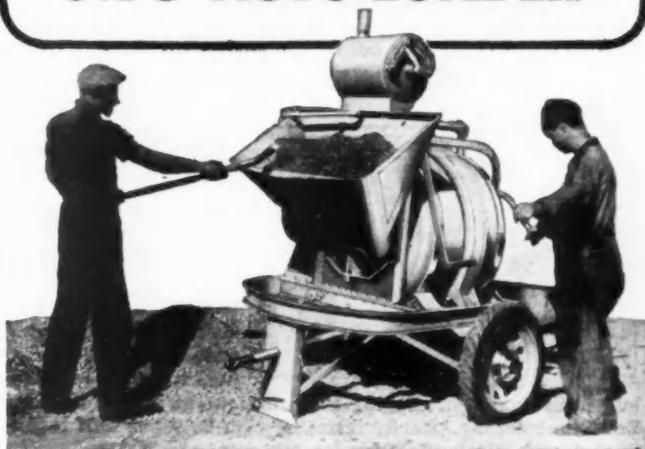
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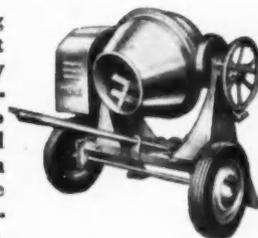


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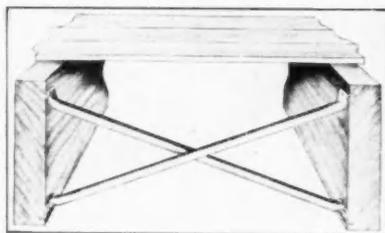
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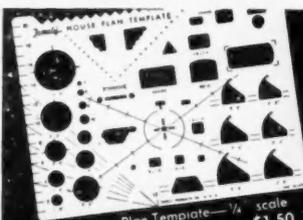
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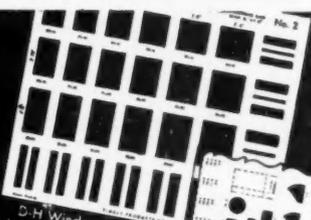
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Fire-stops should be located at the full depths of wood joists and their supports at the walls. The exterior and interior of wood stud walls should have fire-stops both at ceiling and floor levels, as well as at specified intermediate distances of the wood stud walls. Another place where fire-stops are needed to check blazes from spreading is in furred masonry walls and other furred places. Sliding door pockets are dangerous air spaces if they do not have fire-stops around the top, bottom and ends of the pockets. It is also necessary to build in fire-stops in such locations as holes for pipes and shafting, which allow passage for flames or hot gases.

Stairs of one type or another are found in almost every home. While they are a necessary part of any home, their presence constantly presents a hazard. When they are improperly constructed so that treads and risers are uneven in length or depth, people trip and injure themselves in falling. When stringers are not enclosed and afford a draft with which a fire can spread rapidly, stairways become a menace to life and property. If you are stressing fire-resistance in the home you build, pay particular attention to stairway construction.

The majority of fires that occur in homes originate in basements. In poorly constructed homes, a fire that starts in the basement is not unlike a fire in a furnace. Open shafts, stairways, and wall openings allow the flames to enjoy as much freedom as a draft-fed furnace fire. Construct basements so that a fire that breaks out in a rubbish-filled basement is imprisoned in the basement for at least an hour. Basement steps should be enclosed and include self-closing doors. Laundry chutes should be made of metal or at least of one inch lumber and their basement outlets equipped with doors that remain closed automatically.

A word about exits. Tragic, indeed is the oft heard story of the family trapped by fire because the only available exit from their home was blocked by fire.

The use of fire-resistant material in construction can help tremendously in retarding, and in some cases, preventing fire. Approved wall and attic insulation, properly installed, will act as fire-stops as well as retarding the spread of fire at the height of heat intensity. Roofs, susceptible to stray sparks from chimneys, locomotives and burning rubbish, should be covered with the best available fire-resistant material.

It is not unusual to read of homes burning even during construction stages. A report made by the Factory Mutual Fire Insurance Companies states that two thirds of the fires in buildings under construction and insured by that company have fires originating from salamanders or cutting in welding operations. With smoking included, these three causes are responsible for three quarters of fires.

Do not burn down your houses before they are built! If salamanders are in use, burn coke rather than wood or rubbish. Coke will not throw off the dangerous sparks that start the fires as will the free flames produced by more easily combustible material. Make certain the salamanders are placed firmly on a solid base so that they will not topple easily.

A safe precaution is proper storage of flammable construction material. The material should be stored away from the main structure, never inside the building. And most of all, watch the lit cigarette!

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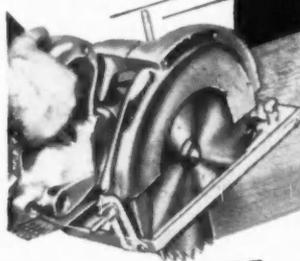
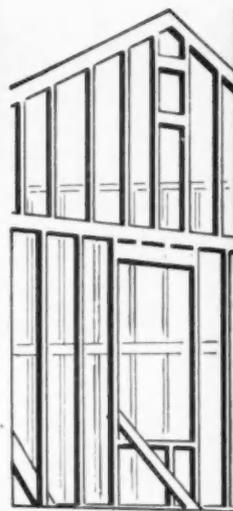
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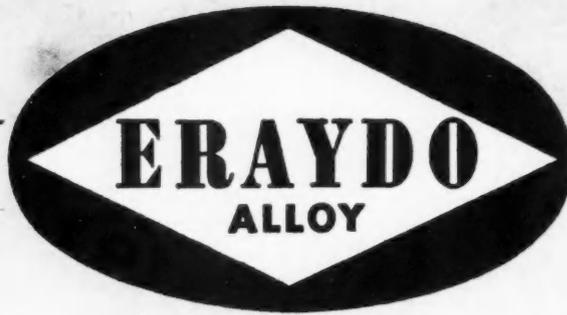
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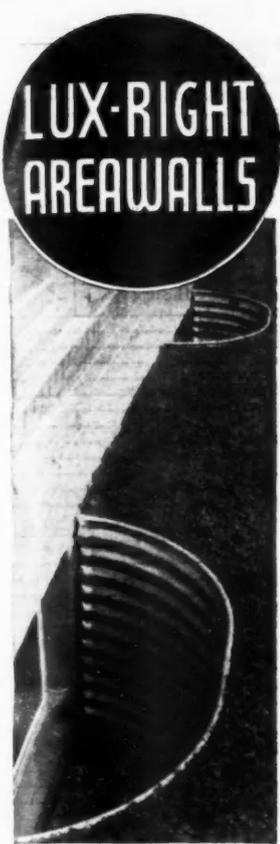
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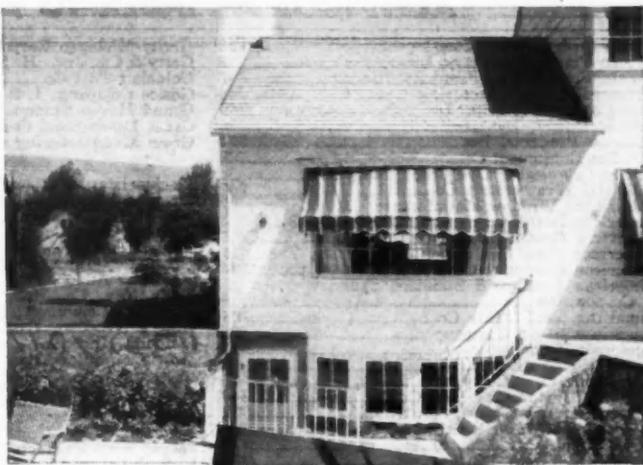
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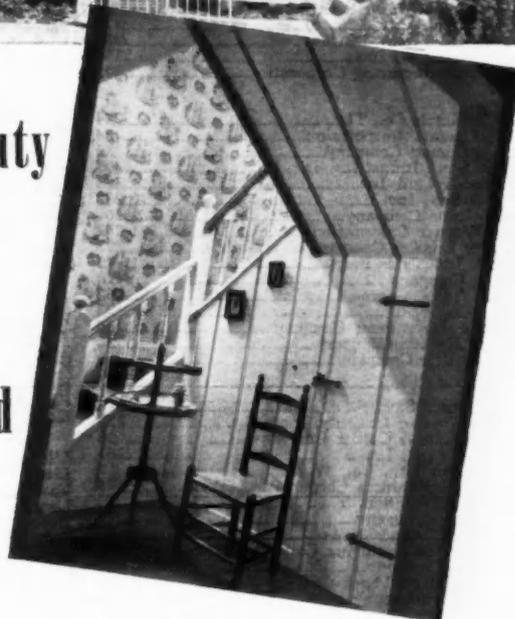
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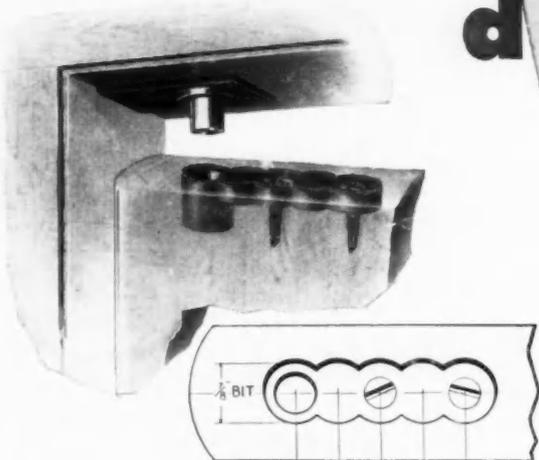
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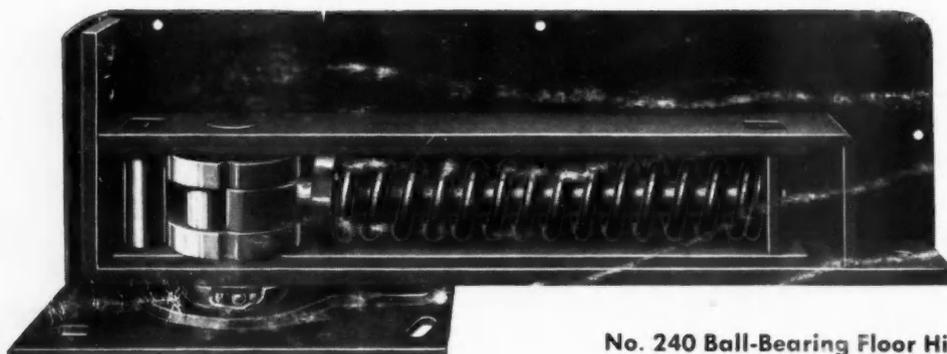
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Pivot for No. 240 Floor Hinge

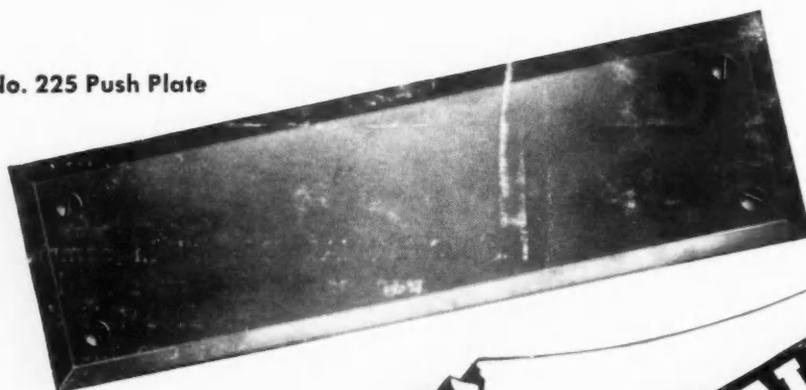
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