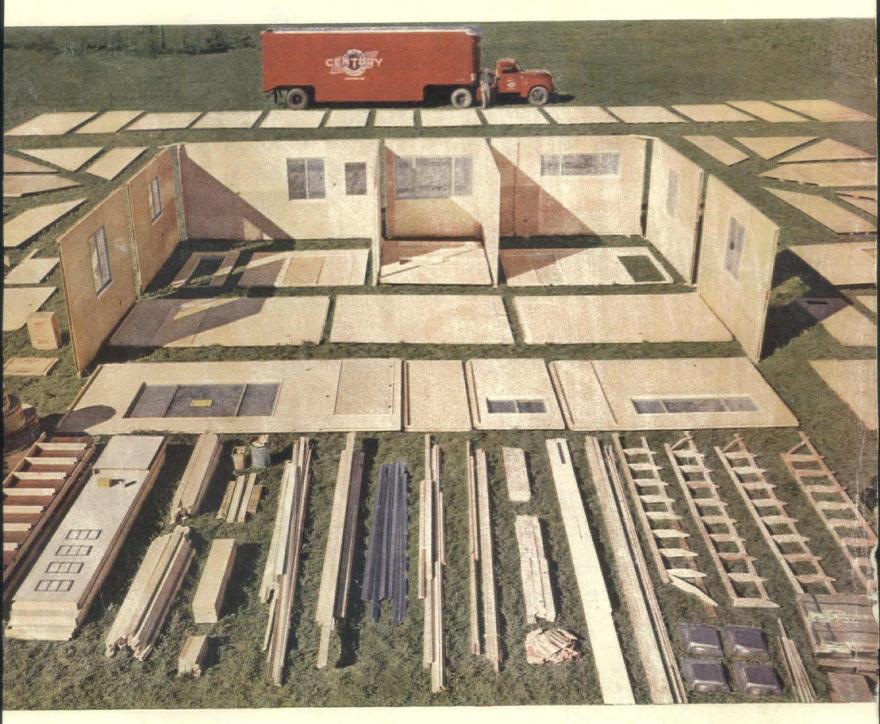
December 1955 house & home



The prefab package is getting bigger page 118

What's new in prefabrication: a year's end round-up page 100

Builder-dealers: problems and profits page 126

How far can you go with steel components? page 138

The new look in the 1956 prefabs page 108

For complete contents see page 92



ONLY NUTONE GIVES YOU 10 YEAR GUARANTE On Ventilating Fan Grilles



Why take chances with Ventilating Fans till using old-fashioned throme grilles that rust?

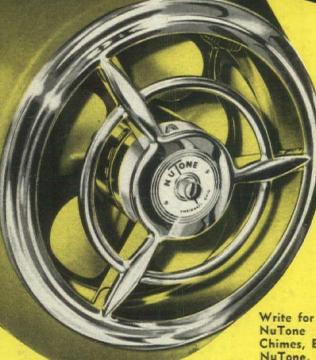
Now you can have NuTone's ANODIZED ALUMINUM Grille .. GUARANTEED ABSOLUTELY RUST-PROOF.

NuTone's mirror-bright grille is easier to clean . . . will not stain or streak . . . and it is guaranteed for 10 years!

You can sell the idea of QUALITY in your homes — by displaying this 10-year Guarantee tag.

NUTONE Ventilating fan Grilles Guarantoed 10 YEARS! TROUBLE-FREE GUARANT

PO



Write for FREE Catalog NuTone Ventilating F Chimes, Electric Ceiling NuTone, Inc. Dept. H

Prevents Service Troubles



10 BASIC CEILING AND WALL MODELS, \$24,25 to \$39,70



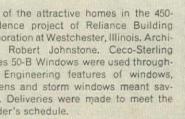
Better engineered

CECO windows helped cut labor costs 30%"

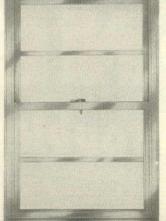
says Maurice C. Melberg, President, Reliance Building Corporation

Labor is one of the major costs in building . . . ting labor time means cutting costs. So reasoned urice C. Melberg, president of Reliance Build-Corporation, when he chose Ceco-Sterling Alumum Double-Hung Windows for his 450-reside project in Westchester, Illinois. By using co-Sterling Aluminum Windows instead of wood, work of fitting and trimming by carpenters was minated . . . 30% was saved on payrolls. Time ed here helped meet the completion deadline on project. And Mr. Melberg saves further time I money because he has no call-backs. Cecorling Windows are quality controlled—the finest

residential aluminum double-hung windows in America... they open and close easily and add to the beauty of the homes. Here are their 3 major advantages: (1)—The corner construction of frame and sash are welded and the frame sill corners are sealed water-tight. (2)—Muntins are interlocked at the cross joints and at the abutting sash sections. (3)—All sash are completely weatherstripped with stainless steel, assuring the tightest weatherseal. Consult Ceco Engineers in your pre-planning stage. Chances are they can show you how to save ... provide better engineered windows that will help you sell homes faster.







Series 50-B Ceco-Sterling Aluminum Double-Hung Window, Type H. Full line of sizes and additional types are available.



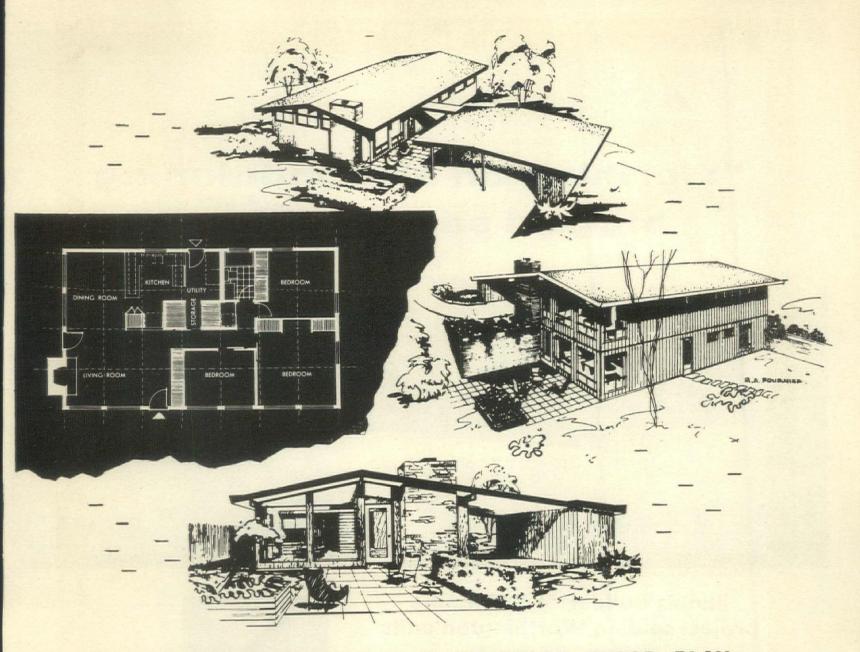
CECO STEEL PRODUCTS CORPORATION

Offices, warehouses and fabricating plants in principal cities General Offices: 5601 West 26th Street, Chicago 50, Illinois

Metal Windows and Doors • R/C Duct Floors • Steel Joists

Metal Roofing • Lathing Products

IN CONSTRUCTION PRODUCTS CECO ENGINEERING MAKES THE BIG DIFFERENCE



hundreds of exteriors with one MODULAR FLOOR PLAN

THE MOST FLEXIBLE PRE-FAB PACKAGE!

Post and beam-with over 50 interchangeable panels!

Shift position of carport and fireplace, too!

Slab, crawl-space or basement.

3 or 4 bedrooms - 1, 11/2 or 2 baths.



to change the exterior...

Barrett Station & Dougherty Ferry Rds. Route 13 - Kirkwood 22, Mo.

Many exclusive dealer franchises open in the Mid-West. Write for complete dealer info kit No. 2 today!

"Worthington air conditioning biggest sales feature!"



Illinois builder of 350-home project sold on Worthington units

Any home that costs \$12,000 or more to build should be air conditioned!

That's how builder L. B. Pooley of Aurora, Illinois sees it. Air conditioning not only protects the buyer's investment, but also makes a home easier to sell.

Most convincing proof of this is offered by the quality 350-home development now under construction by builder Pooley and his son Bob. Worthington's Year-Round unit has been speeding up sales ever since the project first got underway.

Pooley explains his choice of Worthington equipment like this:

"Worthington's Year-Round unit makes it easy for me to offer air conditioning as an optional feature. Heating and cooling sections come in one trim-looking cabinet that's a cinch to install. If a prospect wants to hold off on air conditioning, I install the heating unit first. The cooling section can be added at any time!"

Like Mr. Pooley, you can make Worthington air conditioning the feature that sells your homes this year. Call your Worthington dealer. He'll be glad to go over installation and cost details . . . and show you how Worthington's Year-Round unit will pay off in quick sales for you. You can also get full details by returning the attached reply card. Worthington Corporation, Air Conditioning and Refrigeration Division, Section A.5.45-PB, Harrison, N. J.



Builder Pooley likes the optional feature of Worthington's Year-Round Air Conditioner. Cooling section can be added at any time—it rolls into cabinet like a drawer.

WORTHINGTON



CLIMATE ENGINEERS TO
INDUSTRY, BUSINESS AND THE HOME

WORTHINGTON CORPORATION
Air Conditioning & Refrigeration Division
Section A.5.45-H
Harrison, N. J.

Gentlemen: Please send me information on Worthington home air conditioning.

Address.



Even the best can be improved

Today, there are more than 27 million KWIKSET

"400" line locksets in unconditionally guaranteed
service—and still they are being improved. Technical
advancement and scientific discovery enable KWIKSET design

engineers and production specialists to constantly improve even the best products.

Latest improvement in kwikset "400" line locksets is the addition of a precision engineered retaining ring which insures greater knob rigidity and enhances the beauty of the lockset design. This is but one example of kwikset's unending effort to offer highest quality in every lockset—regardless of price.

KWIKSET SALES AND SERVICE COMPANY, Anaheim, California

The quality lock for budget building

400" LINE

Over 1,000 Inland Homes erected in Dayton project by Grant-Holladay Company





GRANT-HOLLADAY say—

"We were the first in the Dayton area to offer a home in the \$10,000.00 price range with 4 bedrooms and many other added features—thanks to Inland. The basic model D-230 with 1008 square feet of floor space and 6 different elevations helped us achieve a pleasing variation in the appearance of our first sub-division. The quality homes, with pleasing exteriors, made our selling task an easy one. In fact, our advertising cost was approximately \$3.00 per home. Prompt deliveries and an easy-toassemble package gave us every construction

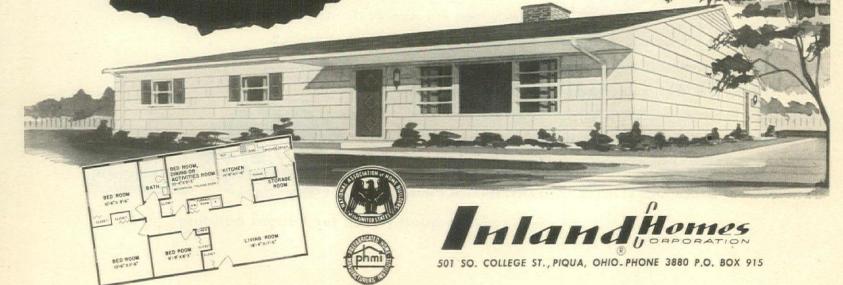
A "must" for every builder!

Just as Grant-Holladay was able to do in Dayton - and is now doing in other projects - so can you.

Every project builder should know about Inland Homes. Inland Homes offers one of the most profitable programs for project building. The Inland Homes program gives you:

- · A wide variety of exteriors
- · A complete package that is erected in less than a day
- · A completed and readily saleable home that has won consumer acceptance wherever erected

It's a "must" for you to have our story. Write, wire or 'phone today. Let us tell you how you can build better, sell easier, with Inland







Top and center: Meadow Lawn, a residential section by Florida Builders, Inc., St. Petersburg, Florida, Lupton Windows used throughout the project.

Left: Mobile Homes Corp., Bakersfield, Cal. Lupton Windows used consistently. (Photo shows Mobile Home at Kern County Fair)

Add the plus of Lupton Windows

Whether you're interested in prefabrication, or erection in the field, you owe it to your profits to know and use the Lupton line . . . windows in steel or aluminum for any project. Your value-conscious buyers appreciate, and look for Lupton Windows. They've read about them through national advertising in Better Homes & Gardens.

You and the ultimate owner both benefit when you install Lupton Metal Windows. Precision-engineered, designed and made with skills gained by fifty years' experience, they are easily installed for years of trouble-free service. You save on installation time, owners save on maintenance costs . . . especially if you've used

Lupton Aluminum Windows. With these time and labor savers there's no painting when new . . . or ever.

Work with the Lupton organization, you'll get full cooperation from thoroughly experienced window designers, manufacturers and installers. Their advice and suggestions can help you save time and money. Get details today!

MICHAEL FLYNN MANUFACTURING CO.
Main Office and Plant: 700 E. Godfrey Avenue, Phila. 24, Pa.
New York Office: 51 E. 42nd Street, New York 17, N. Y.
West Coast Office: 672 S. Lafayette Park Place, Los Angeles 57, Calif.
Stockton Office and Warehouse: 1441 Fremont Street, Stockton, Calif.
Sales Representatives and Distributors in other principal cities

LUPTON METAL WINDOWS



Money can't buy finer...yet everyone can afford

The homes above contrast sharply in size and cost . . . yet each is equipped with a B&G Hydro-Flo System!

This most versatile provider of year 'round comfort and convenience is the choice of the luxury home builder . . . because he can't buy better at any price! Its benefits are not denied the small home builder . . . he can start with better heating and add other Hydro-Flo features as his budget permits.

The basic Hydro-Flo Forced Hot Water System endows a home with radiant sunny warmth . . . warm floors . . . draftless rooms. Automatic modulation of the heat supply keeps indoor temperature constantly at the comfort level—prevents wasteful overheating. A limitless supply of domestic hot water is furnished, heated by the same boiler that heats the house.

Next, snow melting equipment can be added, to keep driveways and sidewalks free of snow and ice. And at any time, summer cooling—with water as the cooling medium—can be provided in a choice of several ways.

The B&G Hydro-Flo System is virtually a lifetime installation—no frequent repairs and replacements. That's why Hydro-Flo equipped homes command better mortgage terms—better resale values.

ONLY WATER PROVIDES ALL THESE COMFORT AND CONVENIENCE FEATURES



Sunny warmth-draftless floors



Summer cooling



Year 'round hot water



Snow melting

This luxurious home at Fox Point, Wisconsin, is equipped with a three-zone radiant floor panel Hydro-Flo System. One of its features is a unique sunken bathtub with warming coils installed under it.

This modest home is also heated with a B&G Hydro-Flo System, using baseboard panels as the heat distributors. Note the sign—the builder is capitalizing on the strong sales appeal of hot water radiant heat.



the comforts of the B&G Hydro-Flo System

B&G BOOSTER

... key unit of the B&G Hydro-Flo System

Engineered for compactness, silent operation and years of service, this electric pump circulates water for heating the house in winter, cooling it in summer and for snow melting panels. It is built with precision manufacturing methods which translate good design into superior product . . . permit mass production with custom-built quality.

The B&G Booster has a solid reputation for quiet, dependable and long-lived operation. That's why over two million units have been sold to date!

*Reg. U. S. Pat. Off.



BELL & GOSSETT

Dept. ED-10. Morton Grove, Illinois

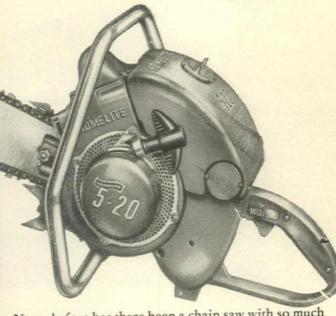
Canadian Licensee: S. A. Armstrong, Ltd., 1400 O'Connor Drive, W. Toronto, Canada





It's NEW ... It's alive with power

5 HP-20 POUNDS



Never before has there been a chain saw with so much power per pound as the new Homelite Model 5-20. It has 5 big horsepower for faster cutting . . . a light, light 20 pounds for easy operation. What's more, it is the only chain saw that gives you a choice of attachments to do many different cutting chores easier.

The new Homelite Model 5-20 is precision built for quick starting, dependable performance, and low, low maintenance. Cuts in any position . . . it saves both time and money . . . brings bigger profits to woodcutting or clearing operations. Write for complete details or see your Homelite dealer.

See your dealer for details on the Homelite TIME PAYMENT PLAN

Packed with power, the new Homelite Model 5-20 Chain Saw brings down big trees six feet in diameter, cuts through 20" trees in 20 seconds without forcing or jamming. Anyone can operate it ..., no experience necessary.

5812 RIVERDALE AVENUE . PORT CHESTER, NEW YORK A DIVISION OF TEXTRON AMERICAN INC.

Chain Saws • Pumps Generators • Blowers

Interchangeable Blades add versatility to the new Homelite 5-20 Chain Saw. For felling, bucking, limbing or plunge cutting, there's a hard track blade for every requirement. Straight blades available from 14" to 60", bow saws 14" and 18".

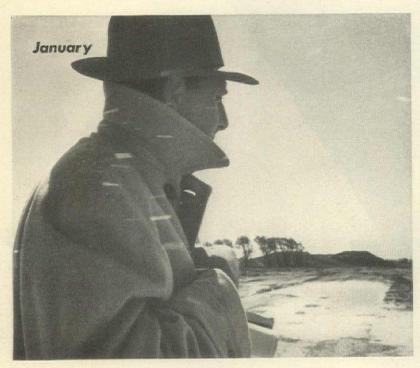


Brush Cutter cleans out brambles, brush, undergrowth and small sap-lings six times faster than conven-tional methods. The adjustable har-ness, hanger and handle bars assure perfect balance...make it ex-tremely simple to operate...safe for anyone.



Clearing Attachment makes quick work of clearing land of small trees. Plunge cuts or plunge bucks ... no bending or stooping ... less fatigue. One man keeps three men busy carrying away limbs and piling brush!

Raw Land to 500 Homes in 9 Months





P & H Homes Builder, Plans, Develops, Builds and Sells Full Project All in 9 Months

This is E. A. Herzog, of Herzog Construction Co., Des Plaines, Ill. If he wears the look of a man who knows he has done a big job well, he's entitled to. Herzog took raw, undeveloped farm land and turned it into a community of 500 homes in less than a year. And he did it with a minimum of risk and investment.

How? By a lot of sweat, careful planning, and by building Harnischfeger P & H Homes. With these quality prefabricated homes, Herzog cut his capital outlay and risk as low as they could be cut. With P & H, every phase of his development moved faster, more efficiently.

Speedy prefabricated construction methods enabled him to put up five homes a day. He saved three to four weeks in mortgage processing with P & H help. And he cut his overhead and other costs all across the board. Finally, Herzog's sales were faster because his Harnischfeger P & H Homes offered more space, better design, better construction than any homes at the price in his area.

If you're a home builder, developer or investor, and whether you build 15 homes in a year or 500, look into Harnischfeger P & H Homes building. You'll cut your costs, your risk, your capital investment - and offer a better home than any other you could build for the money. Write or phone for the "Herzog Story" today.

BUILDERS ... INVESTORS ... DEVELOPERS

Get details on Harnischfeger Home building-and the profits in it—first hand. Learn how you can cut your risk, get expert guidance in every part of your building job. See the 1956 Harnischfeger P & H Homes, visit our plant in Port Washington.

... Or Visit Booth 13, Hilton Hotel, NAHB Show, Chicago WRITE OR CALL FOR AN APPOINTMENT OR DETAILS NOW

HARNISCHFEGER HOMES, Inc.

501 Spring St., Port Washington, Wis., Phone 611

District offices in: Chicago, Cincinnati, Cleveland, Detroit, Indianapolis, Kansas City, Minneapolis, Pittsburgh







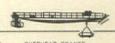










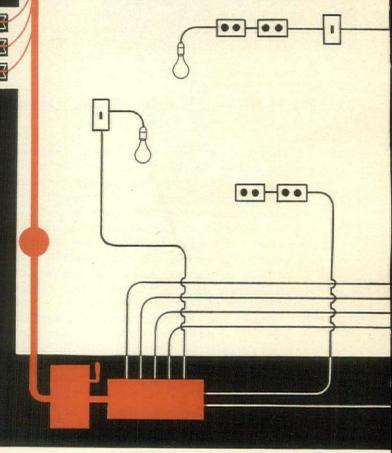


ADEQUATE WIRING

DOESN'T STOP HERE!

don't forget outlets

to put the power where it's needed, when it's needed. Plenty of outlets, strategically located, mean more to homeowners than any amount of wire in the walls!



Calling as it does for a 3-wire, 100-ampere service entrance, the new NAHB voluntary standard is a definite step toward better homes through better wiring.

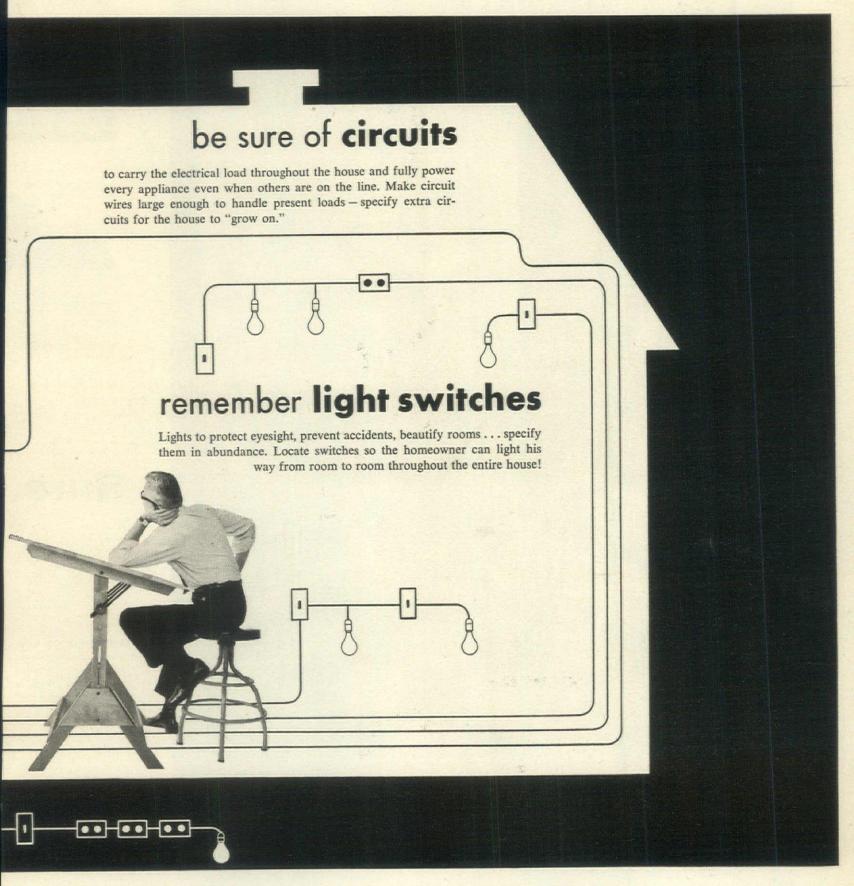
Follow the NAHB standard when planning your own homes. Specify at least a 100-ampere service entrance, plus wiring that is adequate all through the rest of the house!

This means circuits with wires large enough to carry full loads of electricity, plus extra circuits for the house to "grow on."

Include enough outlets to handle the appliances of tomorrow as well as today. Nothing grows so fast as the electrical needs of a new home!

Arrange switches so Mr. and Mrs. Homeowner can "light their way" from room to room without risk of injury in the dark.

Features like these are not "extras." Today, they are essentials of sound home design. More



than ever before, homeowners recognize the value of a home that's well-planned electrically!

Emphasize adequate wiring throughout every room of the houses you build. You'll make your homes sell faster — and add to your reputation as a quality builder as well!

Free Home Wiring Wall Chart! Send today for Kennecott's handy wall chart showing typical home circuit loads. Use it as a check list when planning home electrical systems. For your copy, write Kennecott Copper Corp., Dept. H125, 161 E. 42nd St., New York 17, N. Y.



Kennecott Copper Corporation

Fabricating Subsidiaries: CHASE BRASS & COPPER CO. . KENNECOTT WIRE & CABLE CO.





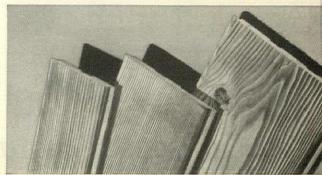
Sure,

striking surfwood® pattern lends playroom area the interest and charm of knotty driftwood, comes in 4′ x 8′ panels and 1538″ squares, both 5/16″ thick. Cost for a typical 12′ x 8′ wall is about \$24.



SEA SWIRL® ALSO SUGGESTS weathered driftwood, but in a clear pattern without knots. You can get 16" and 24" squares and 4' x 8' panels, all 5/16" thick, that cover a 12' x 8' wall for about \$33.

SURFPLANK® OFFERS the textured look of Surfwood in solid lumber plank boards with shiplapped vertical edges. The planks come %" thick and in 6", 8" and 10" widths in all popular lengths. Do a wall for about \$26.





WELDTEX® FEATURES irregular grooves for unusual lightand-shadow effects. Panels 5/16" thick range from 4 'x 7" to 4' x 10", also in squares. Choose Philippine Mahogany, Douglas Fir or Southern Gum—do a 12' x 8' wall for as little as \$27.



PLANKTEX® alternates bands of striations that contrast with the smooth pattern of the wood grain. Made of pre-finished Philippine Mahogany, Planktex comes in 4′ x 8′ panels, 5/16″ thick. Fine for a dining area wall, over the fireplace, or in an entrance hall. Panel a 12′ x 8′ wall for about \$47—less if you choose unfinished Planktex.

these textured woods say luxury -yet they cost only \$24-\$47*

Here's eye-catching, touch-inviting texture for one wall or a room in a model home. And yet see how little this wonderful feature costs compared with the selling help it gives you!

Easy installation keeps your costs low no matter which of these beautiful Weldwood textured woods you choose. Large Weldwood panels cover wall areas quickly and the textured finish conceals nails and joints.

Weldwood's brand name works for you when you install this textured paneling. Consistent advertising in popular consumer magazines together with heavy promotion have made Weldwood the best known name in plywood.

Unconditional lifetime guarantee protects your reputation—gives you another important Weldwood sales feature.

A strong competitive feature, Weldwood textured woods help give your homes impressive interiors. Send the coupon below for details. See these woods with the complete Weldwood line, including superior Douglas Fir Plywood, at any of the 87 United States Plywood branches in principal cities. In Canada: Weldwood Plywood, Ltd.

*Approximate price to cover a 12' x 8' wall.

Weldwood® TEXTURED WOOD PANELS

Products of

UNITED STATES PLYWOOD CORPORATION

WELDWOOD-The Best Known Name in Plywood

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New York 36,	N. Y.	Weldwood
Weldwood tex	me samples and literature tured woods I can install in m	y homes:
Surfwood S	Surfplank 🗌 Sea Swirl 🔲 Pl	anktex Weldter
	eldwood representative call o	
NAME		
COMPANY		
ADDRESS		
	s	TATE

Louisville builder breaks

SALES COST BELOW 1% at Highgate Springs. Clifford A. Knopf, president of Town & Country Homes, Inc., says, "U.S. Steel Homes promotion was my chief reason for this startling sales success."



How U. S. STEEL HOMES How U. S. STEEL HOMES Prefabricates Sales Prefabricates Sales

Prefabricated U. S. Steel Homes cut your building costs, speed completions, simplify your whole building process. They enable you to build fine wood homes at each fast to take full fast to tak

low cost.

But you have to sell fast to take full advantage of the savings. And United advantage of the savings. Holy you.

States Steel Homes, Inc., helps you.

States Steel Homes, Inc., nerps you.

We put you and your homes in national magazines. We put you on television, and in newspapers. We beat the drums for your homes right in your own community. The whole program peaks just in time for your opening. It adapts to suit your market. It is bigger, more effective than anything you

could afford to do yourself. Yet it costs you less even than a moderate promotion of your own—because United States Steel Homes foots most of the bill.

Homes foots most of the bill.

Homes foots most of the bill.

And it works . . . multiplies sales multiplies the value of every dollar you multiplies the value of every dollar you invest in your business. You'll find one example of one opening day on the next example of one opening day on the next

The same sort of thing happened everywhere that dealers tied in—in 200 communities throughout the land.

munities throughout the land.

munities throughout the land.

It can work for you, if you qualify as a
United States Steel Homes' Dealer. If you
act NOW! If you send the coupon NOW!

all his previous records! Sells 52 U.S. Steel Homes in two weeks!

Town & Country Homes, Inc., United States Steel Homes' Dealer in Louisville, Kentucky, trimmed sales cost to less than 1% last fall, by the simple expedient of promoting a promotion. They had the biggest sales ever for an opening, and boosted total 1955 sales, to date, 60% above the previous year.

United States Steel Homes' national promotion created the excitement about Personalized Coronados*... set the stage for local success. Town & Country Homes, Inc., tied-in with this nationwide campaign. They ran newspaper ads of their own, in addition to those paid for by United States Steel Homes, Inc. Local suppliers tied-in and set up exhibits at the demonstration homes. It all paid off on opening day.

Ten thousand people came streaming out to the demonstration homes seen in LIFE magazine, or in the local newspaper. Some heard about it on television, or radio, by word of mouth, or saw a store display.

The homes were liked. Fifty-two were sold the first two weekends, at a total selling cost—including advertising, signs, publicity, promotion—of less than 1% of selling price.

To do it, Town & Country Homes, Inc., needed sales help... needed an exciting product and an exciting promotion. They got both from United States Steel Homes, Inc. They will get more in 1956. And you will too, if you sign up as a dealer now. Send the coupon.

*"Coronado"-trademark of United States Steel Homes, Inc.





More names on the dotted line with USS your site sign

WHAT AN OPPORTUNITY! Builders have doubled, some have tripled starts and sales their first year with United States Steel Homes, Inc. And at a time when we were just beginning to roll. We're in high gear now, and headed for our biggest year. It'll be your biggest year if you get aboard. YOU will be building revolutionary new homes with the rest of us. YOU will be selling. YOU will be saving money and making money with land planning, financing, and selling assistance from United States Steel Homes, Inc. BUT THERE'S NO TIME TO WASTEI Look at the calendar! Spring is almost here. Get this coupon in the mail today! Or wire right now! Or telephone! TODAY!

United States Steel Homes, Inc. Market Development Division Dept. H-125, New Albany, Indiana

I build at least 10 homes a year. I would like to build 20 or more. You say you can help me double or triple my volume. O.K.—if you can prove it, get in touch with me today.

ADDRESS.

CITY.

COUNTY. STATE

NOW, YOU CAN SPECIFY A LOWER-COST VINYL WALL BASE



NEW 2½" KENCOVE has all the advantage of 4" and 6" Kencove Base. It's greaseproof—alkali-proof—with a smooth, easy-to-maintain surface that never needs painting. And it molds easily around corners—will not break, chip, crack or bloom.

Tapered top and coved base assure perfect, dust-tight seal. Corrugated back grips tight over any smooth, dry clean wall not in contact with the earth. Choice of five smart colors:—black, brown, green, gray and sumac red.

America's largest Manufacturer of Resilient Floor Tiles

KENTILE, INC.

KENTILE, ING., 58 SECOND AVENUE, BROOKLYN 15, NEW YORK * 350 FIFTH AVENUE, NEW YORK 1, NEW YORK * 705 ARCHITECTS BUILDING, 17TH AND SANSOM STREETS, PHILADELPHIA 3, PENNSYLVANIA * 1211 NBC BUILDING, CLEVELAND 14, OHIO * 900 PEACHTREE STREET N. E., ATLANTA 5, GEORGIA 1016 CENTRAL STREET, KANSAS CITY 5, MISSOURI * 4532 SO. KOLIN AVENUE, CHICAGO 32, ILLINOIS * 4501 SANTA FE AVENUE, LOS ANGELES 58, CALIFORNIA

Quality-Variety-Dependability











For Complete Information, Call, Write or Wire

CENTURY Homes, Inc.

"Serving Builders Since 1946"

LAFAYETTE, IND.

TEL. 2-0171

TO:

New Century Homes, Inc.

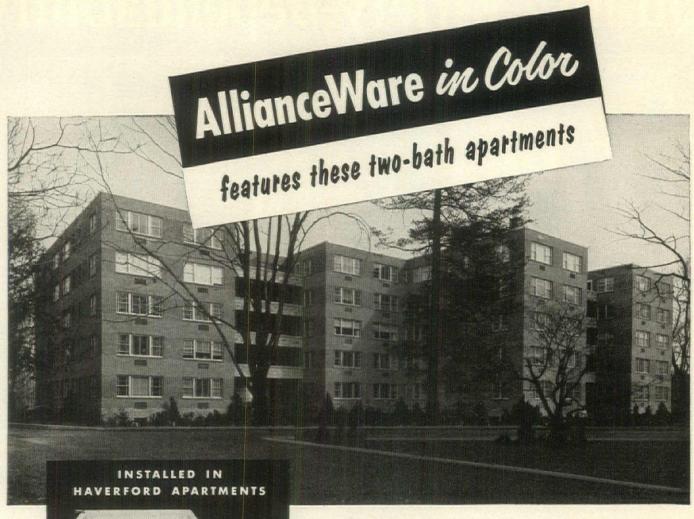
Ind. Hiway 26, East of U. S. 52 By-Pass Lafayette, Indiana

Please, without obligation, send complete information to—

Name___

Address_____

Storte



429 Apartments, Haverford, Penna.—Owners: J. M. Arovitch, K. K. Kaiserman; Plumbing Contractor: Wilmer W. Watson, Drexel Hill, Penna.; Plumbing Wholesaler: M. Sehnyder & Co., Inc., Philadelphia, Penna.



Styled as the "429 Apartments" in Haverford, one of the finest residential areas of Philadelphia, Pa., these attractive buildings comprise 60 apartment suites, each with two bathrooms. A similar apartment of 80 units is now under construction and follows the same specifications as the "429 Apartments."

AllianceWare—bathtubs, lavatories and closets—in color—are installed in every bathroom. Each kitchen is equipped with an AllianceWare flat rim sink with faucet ledge.

More and more discriminating builders and owners recognize the unusual values of AllianceWare—porcelain-on-steel. That's why you will find AllianceWare in the largest homes, apartments and hotels—and modest, one-family homes, too.

There is only one quality to AllianceWare—the very best we know how to produce. Every AllianceWare tub has a patented "grab-rail" construction for safety in entering and leaving the bath. The exclusive AllianceWare wall hung method of installation keeps tubs from shifting or settling. The AllianceWare wall-guard flange prevents seepage where the tub joins the wall.

Lighter weight makes handling and installation easier. And there's a choice of five beautiful colors as well as white. Write for complete specification sheets.



Bathtubs · Lavatories · Closets · Sinks



Families Said "YES"

This is "Belleville" where every design in the Colpaert Line is built and tested before being offered to our growing builder-dealer organization. Here in South Bend alone over 5000 families own Colpaert Homes, proving that practical design, quality construction and terms appealing to more than 85% of all potential home owners do pay off in sales!

To Build for Profit · · Permanency · · BUILD COLPAERT

Choose from over 60 outstanding designs with two to four bedrooms, basement or slab, from \$7,000 to \$18,000. We offer complete financing and builder service plus liberal cooperative advertising. With Colpaert you build more, faster, at greater profit. Make us prove to you our homes are the finest available...show you a smoother building operation than you ever thought possible!

The BELAIR. 3 bedrooms, full basement, 50 x 26 feet.

About \$16,000 including \$2,000 lot. All number one materials with Rusco windows, quality product of F. C. Russell Company.



For complete information . . . write, wire, phone at once

Colpaert



HOMES INC.

445 N. Sheridan Street, South Bend, Indiana



MARLITE WALLS ... beautiful way to build sales appeal into any priced home

Beautiful interiors of Marlite Plank and Block add so much in value and appeal, yet cost so little. This economical tongue-and-groove paneling holds down costs, speeds completion. It's easily installed. It eliminates on-the-job painting or finishing. And Marlite's melamine plastic finish wipes clean with a damp cloth; stays like new for years. That means less maintenance now-higher resale value later.

Make your next home project more attractive, more valuable with versatile Marlite plastic-finished paneling. Suitable for any room in the home, it is prefinished in 10 "Companion Colors" styled by Raymond Loewy Associates, plus distinctive wood and marble patterns. See your building materials dealer, refer to Sweet's File, or write Marsh Wall Products, Inc., Dept. 1222, Dover, Ohio.



that's the beauty of Marlite

PLASTIC-FINISHED WALL AND CEILING PANELING Another quality product of Masonite research





The AFFLECK Residence

The ARNOLD Residence

The AUSTIN Residence Greenville, S. C. The LINDHOLM Residence

The SCHABERG Residence Lonsing, Mich.

Frank Lloyd Wright

FOR THE HOT AND COLD WATER LINES IN MANY OF HIS RE-CENT HOMES, AMONG THEM ARE THE HOMES LISTED AT LEFT.

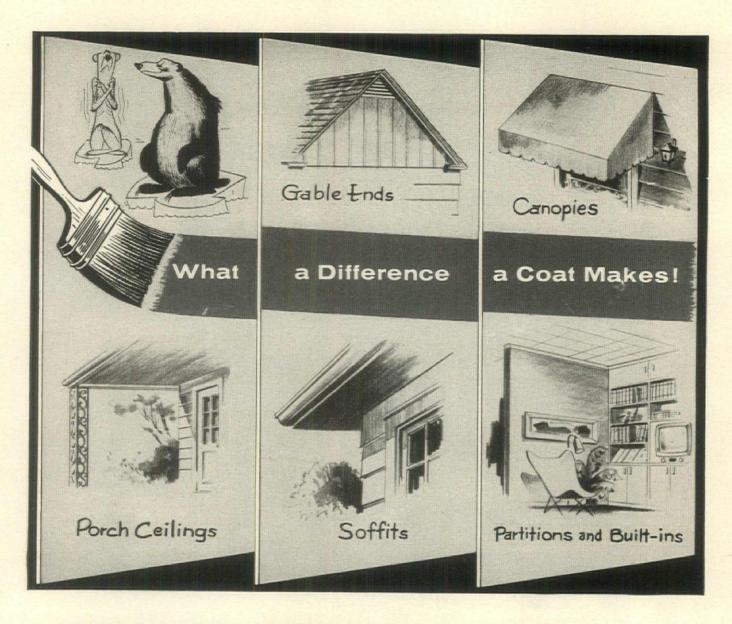
You will find copper playing an important role in much of Mr. Wright's work, both residential and commercial. What architects and builders like about copper, from a litarian standpoint, are its non-rusting and tim

standpoint o there is has all

less Steel Cooking Untensils . Revere Foil . Revere Copper Water Tube for radiant panel heating, air conditioning, hot and cold water, and service lines, waste lines and vent stacks, lawn sprinkler and snow melting sysswimming pools * Revere

THIS ADVERTISEMENT appeared in the Frank Lloyd Wright issue of House Beautiful to help build up a preference and acceptance by the homebuying public for Revere Sheet Copper and Revere Copper Water Tube in the homes you plan and build.

Remember: It's easier, more profitable and safer to sell the homes with the materials that people know, like and can trust!



When you're going to paint it... Use Primecote Presdwood!

It eliminates one-third to one-half the work of finishing the surface...cuts down the time and cost of painting. Also permits getting a better finished job than otherwise would ordinarily be possible.

Any Presdwood® product with a smooth surface, including both interior and exterior types, is available in Primecote.

Whether your finish coat be oil or emulsion paint, you'll find it goes on easier, lasts longer on Primecote Presdwood. The smooth, uniform primer coat, sealed on at the factory, resists chipping or flaking when sawed...has a neutral gray color to take light tones or dark colors equally well.

Remember, Primecote is a *plus* advantage. You still get all the time-tried benefits of sturdy, grainless Presdwood panels that solve so many building problems...better!

Get Primecote Presdwood at your lumber dealer. Or write for more information to Masonite® Corporation, Dept. HH-12, Box 777, Chicago 90, Ill.

Look for this man



He makes the difference

MASONITE PRIMECOTE PRESDWOOD

PANEL PRODUCT OF MASONITE CORPORATION

Not immediately available west of the Rockies

HOMES BOOSTS PROFITS CUTS TIME on YOUR own designed plans

or OUR own engineered 1956 plans

The CORONET: 38'2"x 32'2". back to front split level . 3 bedrooms . bath . powder room . very large den . living room . dining room . kitchen - utility room. Sells for \$15,500. on \$2,400. improved lot.



the JEFFERSON: 56'8"x 30'3"· 4 bedrooms - 2 baths - big carport · plenty of storage space.

Sells for \$15,500, on \$2,400, improved lot.



PEMBERTON

Presidential

delivers America's finest customized factory-built homes, to your exact schedule, in a radius of 300 miles from Pemberton, New Jersey. the LINCOLN: 8 rooms - bath - 25 ft. garage. 41'4''x26'0''
Sells for \$12,900. on \$1,900. improved lot.

Write for Builders Brochure and Our Representative to Figure Your Plans.

Presidential HOMES INC.

Choose from over 50 styles

Build on only 2 weeks notice

Build on scattered lots

Build any number - from 25 to 500 homes

Exact building schedules kept

No material or time losses

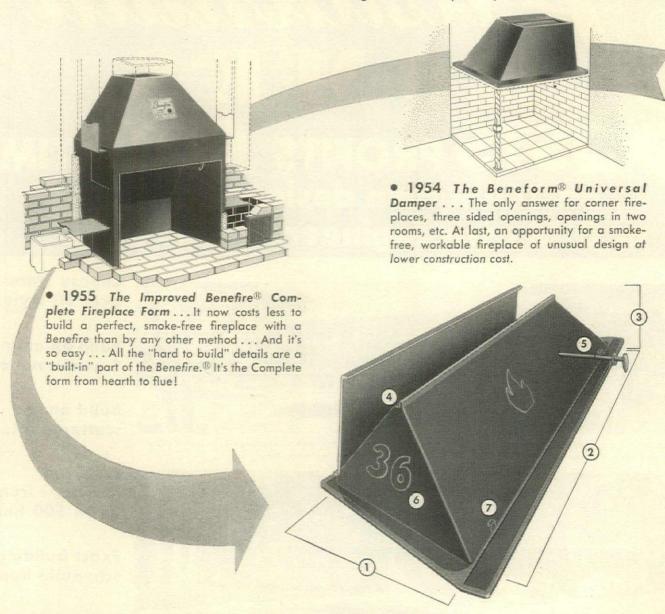
Special low finance plan

Extended credit no extra charge

Our plant and personnel are your building team

DESIGNED BY THE MEN WHO USE THEM!

• In our fifty years in the business we've learned the value of building our fireplace products to suit you — the men who actually install them. In just the past 3 years, your suggestions and specifications have resulted in the introduction of three outstanding Bennett fireplace products. Here's the record:



- 1956 BENNETT STEEP SLOPE CAST-IRON DAMPER. The quality you expect from Bennett's modern foundry in an all-new design. Here are the new features you asked for:
- 1. New deeper throat (10")
- 2. Full rated sizes
- 3. Height increased
- 4. New V-Seat Valve Closure
- 5. New easy Rotary Control
- 6. Sure Size identification from Stock
- 7. New Level-Stacking

• It's available with cast-iron valve or with unconditionally guaranteed steel valve. And of course we continue to offer the famous Expanslip® all-steel damper with the steepest slope on the market.

Write to 1255 Call St. for complete details and specifications.



Makers of Bennett ash dumps, cleanout doors, lintel bars, Flexscreen® safety fireplace curtains and accessories.

BENNETT-IRELAND INC. Chartered in 1906

NORWICH, NEW YORK MELROSE PARK, ILL

To make a good impression

... start with a panel of **Blue Ridge Patterned Glass**



Capitalize on the quick "sizing up" that every house

gets as prospects come up the walk.

Attractive? Up to date? Smart? Different, without being cute? With a panel of Blue Ridge Glass in the entrance hall, the answer is "yes" to all questions. Its practicality is easily recognized, too . . . for it floods the entrance hall with light.

This glass fits into decorating plans . . . for glass is neutral in color. Used as a partition material, this glass decorates two rooms at once, borrows light from

one room to brighten another.

There are many patterns—linear, checkered and over-all patterns. You can use plain, textured or Satinol* finishes. Thus, each of your houses can use this distinctive decorating idea in a way all its own. Your L.O.F Glass Distributor or Dealer can show

you samples. Look him up in your phone book . . listed under "Glass". Find out how little it costs to put this striking decorative feature in homes of any price class.

Ideas for Design. Our 16-page book illustrates many ways leading architects and designers have used this versatile glass for striking effects in homes. Mail the coupon.



Panels of Blue Ridge Glass in Flutex pattern add light and beauty to this entrance. Architect: Richard M. Dodge, North Chicago, III.

Patterned Glass

Made by BLUE RIDGE GLASS CORP.

Sold by LIBBEY OWENS FORD Glass Distributors

Libbey-Owens-Ford Glass C 608 Madison Avenue, Toled	
Please send me your book	showing ideas on decorating homes with Patterned Glass.
Name (please print)	
Name (please print)	

what does it take to make more money in the building industry?

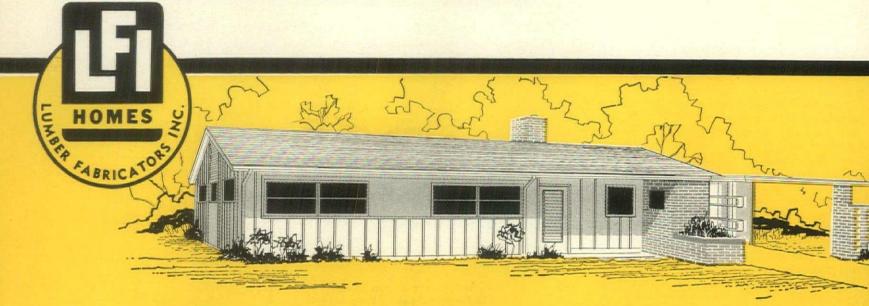
The answer is as simple as this: to make more money you need to build more houses, better houses—and sell them at a profit. But profitable building and selling doesn't just happen. Even in this housing boom year, biggest ever, successful building depends upon smart buying and rapid turnover of capital.

LFI helps you build profitably. At LFI you have a dependable source of quality materials — materials which have been engineered, pre-cut, assembled then promptly delivered to your building site. With LFI your costs can be accurately predetermined and there is little or no waste.

The uncertainties of conventional building, with which you are all too familiar, can be controlled. Labor, is no longer a headache. Much of the work is completed in the LFI factory under ideal conditions with precision machinery. Erection takes only one to three days — thus eliminating another bug-a-boo . . . weather. Rain or shine the LFI home is ready for occupancy on schedule.

A rapid turn-over of capital is the happy consequence of buying the LFI house package. LFI provides superior homes faster than any other building method.

When the ink is dry on the 1,300,000 contracts for new homes to be built this year, will you have completed your fair share of the contracts? Will the country's peak building year be *your* peak profit year? It can be — when you build the LFI way.



LFI's Home of Tomorrow...Today! as designed by Henry D. Norris, A.I.A.

A complete line of standard models, fresh from the architect's drawing board . . . outstanding contemporary designs ranging from low-cost economy models to luxurious homes. A home to suit every family's individual requirements.

The architect's styling has been deftly executed. The

clean, crisp lines are characteristic of the best in contemporary architecture, assuring you of long-lasting design.

Heating requirements and floor construction vary to conform with local building practices. Good news for the volume builder — some basic plans available in up to 240 variations!



does your program have these advantages?

Accurately predetermined cost control Fast completion time regardless of weather High return on investment because of rapid turnover of capital Predetermined quality control of materials and workmanship Easier financing because of recognized standards of quality Mass purchasing and assembly line production Virtually no waste materials / Minimum overhead for personnel Adequate advertising supplemented by suppliers

Lumber Fabricators, Inc. Fort Payne, Alabama

new...

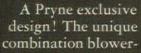
MULTIPLE MESH FILTERS

for pryme rhymes with FINE Ventilating Fans!

another Easy-to-See
Easy-to-Sell Feature
of pryme BLO-FANS
and AEROFANS!

remember, too, only

Blo-Fan



combination blowerand-propeller blade that scoops up smoke and odors . . . whisks them away like magic, without any backwash drag!





Multiple-mesh filters now make Pryne Blo-Fans and Aerofans even easier to clean—more popular than ever before! Simply snapping in behind the grill, the washable filter keeps blade and motor cleaner...guards against hazardous accumulations of grease in the flue!

Available as a separate unit, filters are available for all models except Blo-Fan No. 206.

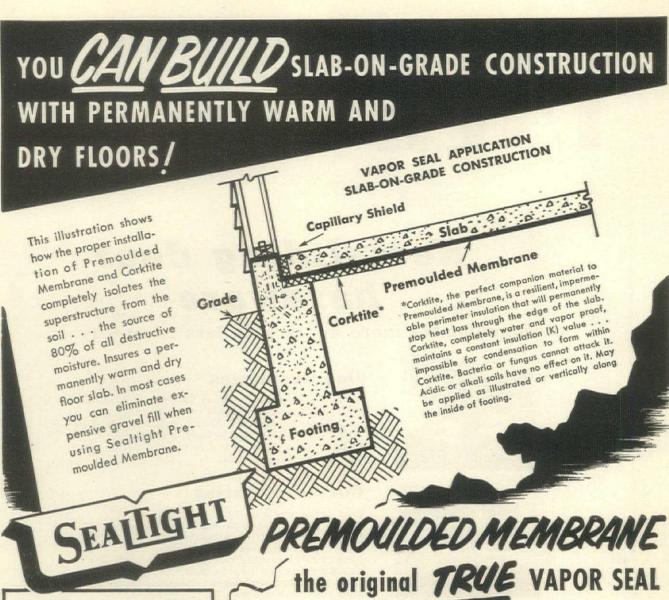
Prynes with FINE







PRYNE & CO., INC. BOX 698, POMONA, O	CALIF. HF-12
And the second s	ation about Pryne Blo-Fan and Aerofan.
Name	
Company	



Eliminates

- Excessive Window Condensation
- Slistering of Exterior Paint
- Deterioration of Adhesives
 Bonding Floor Finish Materials
- Deterioration by Mildew of Rugs, Furnishings and Clothing

The popularity and economy of slab-on-grade construction is a proven fact. Its feasibility, however, rests on the proper application of a true vapor seal to keep the slab dry plus a resilient, impermeable perimeter insulation to prevent heat loss.

Unfortunately the building industry has been guilty of the promiscuous use of permeable materials under the guise of vapor barriers. When purchasing any vapor seal material be sure it meets these Sealtight standards of quality: permeance rating of only .0066 grains per square foot . . . resistant to rot, mold and termites . . . strong enough to resist tearing and puncturing . . . expandable . . . quickly and easily installed—Premoulded Membrane has them all.

Don't risk your reputation by using an inferior "so-called" vapor seal material. We sincerely advise and invite your comparison of Premoulded Membrane against all other vapor barrier products . . . we're sure that once you do you'll also agree that there's only one true vapor seal on the market . . . Premoulded Membrane.

Equally effective for crawl-space or basement installation.



ARCHITECTS, BUILDERS, HOME OWNERS . . .

Remember, the time to "eliminate" destructive moisture is in the original construction, with the use of Sealtight Premoulded Membrane and Corkite... all other methods are merely temporary "stopgaps". A complete set of structural recommendations (tech-tips) on the applications of Sealtight Products is available 111 WRITE TODAY

for your copy.



YALE RESIDENTIAL HARDWARE

New sliding door hardware

accommodates more doors with less inventory



De Luxe Series

for 2, 3 or 4 by-passing doors. Double nylon wheels with permanently-lubricated bronze bearings glide on solid aluminum track. Mount on top or side of door with single or double track. Escutcheon or finger pulls, door stops and satin-finish aluminum guide strips included.

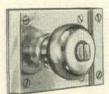


Costsaver Series

gives extra, space-saving convenience at budget prices. Use with single or biparting doors with or without wall pocket. Quiet single nylon wheel with permanently lubricated bronze bearings glides on extruded aluminum track. Escutcheon and finger pulls, door stops and aluminum guide strips also available.

Now-make the whole house a Yale Job

Designed to Complement Each Other



5300 SERIES CYLINDRICAL LOCKSETS FOR EXTERIOR DOORS

Offers single-key convenience in 4 distinctive basic designs, 8 escutcheon patterns and 3 metals; gleaming brass, brushed bronze and satin-finished aluminum. Famous Yale security.



5200 SERIES TUBULAR LOCKSETS FOR INTERIOR DOORS

Single-key convenience in brass or aluminum with 5 decorative escutcheons. Push-button locking, famous Yale quality, pintumbler security—all priced to fit your budget.

Complete line of Screen Door Closers

506 AIRLINER CLOSER

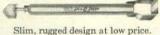
570 LIQUID DOOR CLOSER



Smooth, steady action with simple thumb turn regulation.



507 PNEUMATIC CLOSER



Slim, rugged design at low price. No exposed parts. Installation is done in a matter of minutes with only a screwdriver. 1011 PUSH-PULL CATCH

Easily installed on screen or storm doors by drilling only one hole. Easy action, secure closing. A home-owner's delight.

Write today for free, handy booklets on Sliding Door Hardware, 5300 and 5200 Series Locksets, Yale Screen Door Closers. Address:

THE YALE & TOWNE MFG. CO. LOCK & HARDWARE DIV., WHITE PLAINS, N. Y.



YALE & TOWNE

YALE REG. U.S. PAT. OFF.

An Invitation to Join ...

THE MOST SUCCESSFUL HOME-BUILDING TEAM IN AMERICA TODAY!



This is a message directed primarily to conventional home-builders.

National Homes is the country's largest producer of homes. It has created a brand-name product that is today purchased by one out of every 48 homebuyers. This demand is growing every day. There not only is a greater volume but also a wider variety of National homes

being bought by American families. National Homes now has a complete line that includes budget-priced Pacemakers, medium-priced Custom-Line houses, and higher-priced Luxury homes.

To satisfy this increasing demand for a greater volume and wider variety of National homes, we have expanded our production facilities and can now produce 290 homes a day—37,500 houses a year more than previously. For this same reason, we want to expand our builder-organization. We want

project builders who will concentrate on budget-priced Pacemakers. We want other builders specializing either on Custom-Line or Luxury homes. There is an opportunity for still another type of builder whose operations are suitable to scattered lot construction.

National Homes builder-dealer franchises are non-exclusive, so there is always an opportunity for other builders, even in areas where we now have builder-dealers. It has been our experience that any city with a population of 50,000 or more can easily justify the profitable operation of more than one National Homes builder-dealer. As a matter of fact, the increased public attention, interest and demand created by the added operations immediately causes an appreciable growth in the volume of National homes built in the area.

This increased public demand for National homes and the greater opportunity it offers builders is significant of the important change now taking place in the home-building industry.

The modern manufacturing methods used by National Homes to produce houses have

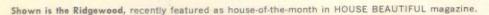
lowered the cost and at the same time improved the quality. Just as these methods have enabled the automobile industry to bring cars within the reach of every American family they have enabled National Homes to make home ownership possible for every American family.

The future demand for houses will be determined to a great extent by the price, quality and terms by which those houses can be bought. If those factors are favorable then there is no ceiling on the number of homes required in this country.

On the following pages we are presenting several exterior and interior designs typical of the new 1956 National homes, together with many of the advantages that you as a builder would have with a National Homes builder-dealer franchise.

You are invited to study these... and then contact me personally for details about how you may qualify as a National Homes builder-dealer.

James R. Price, *President*National Homes Corporation
Lafayette, Indiana







Customers can choose their National home from a variety of more than 100 different floor plans, more than 200 different exteriors-by far the widest selection offered by any pro-ducer of homes. Attractive masonry variations enhance the beauty of many new Nationals.

National Homes Give You COMPETITIVE ADVANTAGES in Every Price Range



National homes are designed by Charles M. Goodman, AIA, one of the country's leading architects in the home field. They are colorstyled by Beatrice West, nationally known authority. Brilliantly styled for beauty, comfort and livability, they are available in more than 100 different floor plans, more than 200 different exterior designs within a wide price range. Completely new, these are the homes that will be the best sellers of 1956!

Simplicity of design with every inch of space utilized are features of National homes that have won the acclaim of nearly 100,000 discriminating home buyers. National Homes offers a greater selection of customer-approved features than any other producer of homes.

Attractive picture windows are featured in many National homes. Carports and garages, patios and breezeways, terraces and complete outdoor living areas are included in many basic designs and are optional on all others. Only National Homes enables builder-dealers to offer such a wide selection.





Spaciousness and depth are achieved in a plan such as this. Meal serving becomes more pleasant, adding to the enjoyment of informal family living and entertaining.



That good planning makes a convenient, easy-to-keep, practical home is proved in the typical National home's kitchen—another reason for their universal popularity.

All bedrooms in National homes are designed for efficient furniture placement and greatest utilization of room.

A description of "compact yet spacious" can be given to virtually every National home . . . another reason why National homes are becoming increasingly popular among selective home buyers.

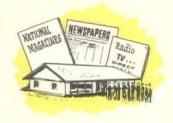
National Homes builder-dealers can offer a complete range of sizes and designs to fit the budgets and tastes of virtually all home buyers.



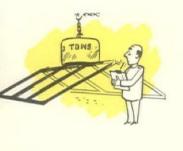


















Profitable Cost Accounting

National Homes dealers know their costs. Our experts will set up your books for you—give you a simple, easy-to-follow cost accounting system. You'll never wake up and find that you have the gross, but no net.

Incomparable Experience

No other company has so wide an experience as National Homes. We have had valuable experience with code, legal, buying, selling, financing, advertising, publicity, community relations, building, equipment, and materials.

Promotion

Twice each year National Homes puts on a promotion campaign in the great advertising media of the country to attract customers to the open house promotions of its builder-dealers. Over the years National Homes has spent millions to give its product "brand-name" acceptance. As a result, National Homes builder-dealers are customarily sold out ahead of construction and can work on a year-round continuing basis. This means less risk, smaller capital requirements, lower costs, better margins.

High Resale Value

National homes have demonstrated a high resale value. This means satisfied customers for the National Homes builder-dealers—and satisfied customers mean prospects and new customers.

Tested Products

National homes are a result of the incomparable testing experience of the greatest producer of homes in history. But they have also been tested to prove their structural strength by such laboratories as Purdue University's School of Civil Engineering and the Robert W. Hunt Laboratories of Chicago. Their walls, for example, are built three times stronger than required by performance standards of the U. S. Bureau of Standards. They have the approval of the Building Officials Conference of America, the Pacific Coast Building Officials Conference, the Southern Building Code Congress, and the New York State Building Code Commission.

Community Planning

Every National Homes builder-dealer has available to him the very great experience of National Homes in subdivision planning. Company experts on streets, sewage, water, landscaping, grading, etc., are available to advise you.

Shared Experience

Each year the company invites all of its builder-dealers to a national conference to share in a discussion of mutual plans.

Looking Ahead

National Homes builder-dealers can be sure that they will always have the help they need in the years to come. Recently, for example, National Homes introduced what the Wall Street Journal called the "Little Red Prefab" school-house—a modern answer to the school crowding problems which arise in areas where subdivisions are going up and population is growing. The first school, erected in Lafayette, was built in 21 working days, cost \$18,450 per classroom (compared with \$27,000 for a nearby conventional school started much sooner and finished long after, and \$32,000 for the national average schoolroom cost). National Homes takes a broad view of its responsibility to help its builder-dealers on all fronts.

Here's What You Can Count On as a National Homes Builder-Dealer:



Capital Requirements

Any builder, selling National Homes, can greatly increase the volume of his business without any increase in capital requirements. You can boost the earning power of your capital 200%, 300%, 400%, or more.



Mortgage Money

National Homes Acceptance Corporation has available mortgage money for National homes on the most favorable terms. More than 600 national lending institutions—including some of the country's largest savings banks and insurance companies—commit themselves in advance to take tens of millions of dollars of National homes mortgages. NHAC is now servicing mortgages valued in excess of \$162,000,000.



Homes Designed to Meet FHA and VA Requirements

National homes are designed to meet the rigid requirements of the Federal Housing Administration and Veterans Administration. Either one or the other of these federal agencies has insured mortgages of more than 90 per cent of the National homes that have been produced and sold in 41 states and the District of Columbia.



Market Advice

Company experts are always watching mortgage trends in order to give National Homes builder-dealers advance information of any change that might affect their business. For example, the 1955 change in FHA and VA requirements had little effect on fully prepared National homes builder-dealers.



Trouble-Free Homes

National Homes is the largest and most successful producer of homes in America today. Its assembly lines give you a closely inspected, quality-controlled product. There is greater customer satisfaction.



Competitive Advantages

No one can offer a better home at a lower cost in your market. Furthermore, you can build and sell homes to buyers at every economic level.



All the Advantages of a 25,000-House-a-Year Builder

The big builder has buying and selling advantages. He can usually offer higher quality at lower costs. He can afford the best materials and equipment especially designed for his needs. National Homes is the biggest producer of them all and can give you all of the advantages of a 25,000-house-a-year builder. Every builder-dealer, regardless of his size or location, shares in the advantages of this mass production and selling.

Conventional Builders are Switching to NATIONAL HOMES



Attractive outdoor living areas can be part of the basic plan of any National home.

One of the most significant trends in home-building today is the fact that an ever-increasing number of the nation's largest and most important builders are switching to National Homes. There is a growing awareness on the part of the local builder that a supplier like National Homes can give him very substantial competitive advantages in his local market and greatly increase his earnings.

Among many conventional builders who have switched to National Homes is Carnoy-American in Westchester County, New York—one of the best recognized builders in that area. Wallace Johnson, the largest builder in Memphis, Tennessee, has recently become a National Homes builder-dealer. Percy Andrews and E. O. Doggett of Tyler, Texas,

N. D. Woods in Oklahoma City, J. A. Peterson in Kansas City, Newlin-Johnson in Terre Haute, Indiana, and Bercaren Construction Company of Staten Island, New York—all among the biggest builders in their respective communities—have become National Homes builder-dealers.

It will pay you to investigate the advantages of a National Homes builder-dealer franchise in your community—to discover that the widespread adoption of prefabricated methods is inevitable. Let us prove to you that prefabrication is a better method—that it means better and more economical housing for the customer and larger earnings for the builder.

Write to James R. Price, President, National Homes Corporation, Lafayette, Indiana.

NATIONAL HOMES CORPORATION

Lafayette, Indiana . . . Horseheads, N. Y. . . . Tyler, Texas

MORE THAN ONE OUT OF EVERY 48 HOMES BEING BUILT IN AMERICA TODAY IS PRODUCED BY ...



Luxurious indoor and outdoor living are harmoniously blended in a National home such as this.





The floor that makes itself at home



The trend is to Higgins Hardwood Block Flooring because:

- The ONLY hardwood flooring completely practical on concrete. Not subject to extreme expansion and contraction.
- Super-Surface is thicker, (wears longer, can be sanded and refinished as often as necessary)
- Prefinish saves upward of a week job time
- Can be used over radiant heat
- Treated against vermin and rot
- Lifetime beauty, minimum upkeep
- Easy to install over any subfloor

Architectural 12J SEE SWEETS: Light Construction 7d Hi Industrial Construction 3h Hi

People are using Higgins Oak Block on walls and in many other decorative applications—when you see the unusual warm beauty of its graining and color you just can't help thinking of other ways to use it than as flooring.

It's still the most durable wood flooring you can buy, bonded under great pressure and intense heat, with a thicker, tougher, wax-treated wearing surface that can withstand many times the impact and abrasion it will ever receive in a home.

On the floor, on the ceiling, on the wall, anywhere—it's easy to install over any structural base, and the factory prefinish means it's ready for use as soon as it's in place. (Also available unfinished for custom finishing after installation.) Easy to care for and sensibly priced, it will wear a lifetime.

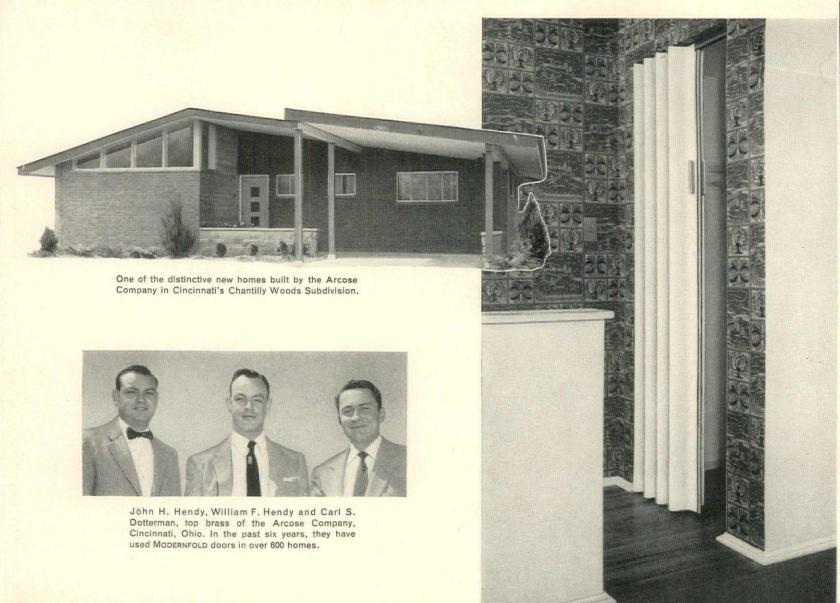
SEE THE HIGGINS EXHIBIT AT THE NATIONAL HOUSING CENTER, WASHINGTON, D. C.



HIGGINS INDUSTRIES INC.-BOX 8169-NEW ORLEANS 22-PIONEERS AND WORLD'S LARGEST MANUFACTURERS OF LAMINATED HARDWOOD BLOCK FLOORING

The wood made world famous in Higgins hardwood-hulled fighting craft





The Hendy Brothers Show

HOW MODERNFOLD MAKES HOUSES MORE CONVENIENT-MORE SALEABLE

"It's convenience that sells houses," says John H. Hendy, "and this closet is just one place Modernfold gives our houses so much more usable, convenient and efficient space. Modernfold's neat appearance blends with almost any kind of decor. And we've found that Modernfolds adapt to a scientific, assembly-line method of installation."

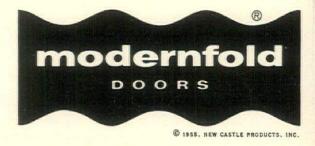
Take another look at the picture above as a prospective home buyer would. What would happen if they had installed a conventional hinged door? Certainly old fashioned door-swing would make this a congested area. But a Modernfold eliminates wasteful door-swing and gives this home a real "plus" in sales appeal.

Modernfold doors come in any size you specify and in a wide range of tasteful colors. Their double-strength all steel framework is covered in sturdy, washable vinyl, and they fold completely within the door frame. You can use Modernfold either in doorways or as a room divider. Overhead track mountings guide the door quickly and

quietly into place, for easy opening and closing.

When you want a sales feature that combines convenience, easy installation, good looks and lifetime service, call your Modernfold distributor. He'll help you from the initial planning stage to final installation, if you wish.

The Modernfold Custom line—for closures of any size—is available through installing distributors. Look under "Doors" in city classified directories. The Spacemaster line—for standard small closures—is available at your building supply dealer. Or write New Castle Products, Inc., Dept. M-20, New Castle, Indiana. In Canada: New Castle Products, Ltd., Montreal 6.





Buyers Can See the Design ... Do you Dare Show Them the QUALITY?



Whenever possible, Richmond Homes, Inc., dealers show a home without interior covering along with their show house. Why? Because Richmond Homes will stand comparison quality-wise with any home built, prefabricated or on the site. In spite of this, Richmond Homes are competitively priced! No wonder our dealers enjoy large volume sales!

New Contemporary

Nassau Executive

and

Richmond Homes new contemporary models, shown above, are well designed and planned. The Nassau has three bedrooms and is 40 or 44 feet long by 28 feet wide. The Executive has four bedrooms and is 64 feet long by 28 feet wide. An excellent selection of elevations, covering, carports, patio fences and garages gives full flexibility to lot placement and individualization. It makes little difference which side faces the street—all elevations are attractive!

A Complete Line of Traditional and Contemporary Homes Competitively Priced All structural lumber is No.1 and better, kiln-dried fir and hemlock. Structural strength is so great that all weight is supported on the outer walls, allowing freedom for interior changes without affecting building code requirements. Only proven, nationally famous products are used, including redwood prime-dipped siding on traditional models.

The QUALITY Home Factory Built For Particular and Capable Builders

Write Box H

RICHMOND homes . INC.

RICHMOND, INDIANA

Presenting...The New 1956 Kelvinator Electric Ranges with More Exclusives to Help Sell New Homes Faster!



Here is a feature that really shows you have built extra value in your homes . . . a Kelvinator exclusive that speeds the buying decision.

DISPOSABLE ALUMINUM OVEN LININGS

Women are sold on sight when they see how they can save hours of drudgery. Soiled oven linings slip out—can be replaced by shiny new ones in a jiffy! And this tremendous

selling feature is available on five models in both 30" and 40" ranges. Let us give you complete information about the new 1956 Kelvinator Electric Ranges. Write today!

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Every Heating Unit Self-Cleaning. Bake and Broil units are self-cleaning rod elements. All surface units self-cleaning.



House sales-not what they were

Reports from scattered cities suggest the day of 'hardsell' is approaching. But the US economy looks so healthy the dip should be short-lived

"Of course, the situation here isn't typical. But some of our boys are beginning to find it a lot harder to sell their houses."

Builders and lenders in more than a few cities were beginning to talk like that last month

Nobody was even suggesting that the total US housing market was in anything but sound shape. It was always "local conditions" or bad design or poor location or something else (but special) that had made the going tougher for home builders.

What is a trend? Yet reports kept trickling in from enough widely scattered places to suggest that something more than coincidence was afoot. For one thing, the impact of tightened FHA and VA terms had barely been felt yet; no-down deals were still being offered in realty ads. If some houses were hard to sell now, what would the picture be like in a few months? Some items:

In Portland, Ore., the semi-annual real estate research committee report revealed that the overhang of unsold houses (past plastering stage) had zoomed 50% in a year. It now stood at 500 homes, some 10% of a typical year's output. Biggest unsold inventory was in the \$12,500-\$14,999 bracket. Vacancies—highest since the war—stood at 2.1% for single-family homes and 8.1% for multifamily units. The Portland report gains significance from the fact that it is one of the nation's best surveys of a local realty market.

Wichita, Kan. builders reported a onemonth overhang of unsold homes.

Memphis realty experts called the market "not really soggy," but "very choosy." Said one: "There are a few too many houses from \$15,000 up." Hardest to sell: the two-bedroom, one-bath home.

A sampling of realtors in New York for NAREB's annual convention (see p. 44) turned up more evidence. Realtor W. Max Moore of Denver admitted the \$15,000-\$25,000 market was "getting a little sticky." J. W. Kalna of Cleveland called the \$18,000 bracket "strong," but noted projects were harder to sell since the FHA-VA credit cutbacks.

▶ On the west coast, the fabulous home building spree in Orange County (just south of Los Angeles) was beginning to catch up with demand, said local builders. In the San Francisco Bay area, several builders said sales in the low and medium price brackets had been in the doldrums most of the summer, though homes above \$18,000 on choice lots were going briskly.

In Philadelphia, mortgage men reported sales had fallen "back to normal." Said one: "You can't call things slow except by this spring's standards. But the direction is all toward slowing down. It's the same in Pittsburgh and Erie."

Sales in Jacksonville, Ft. Lauderdale and Miami, Fla. were characterized as "a little slow" by one big broker. But starts had slumped, too, and he was confident things would be in step again by January.

'Hard-sell' ahead? In many another city, however, the boom still wore its bloom. Summed up NAHB President Earl Smith: "It has been a good market. Not spectacular, but one in which the seller has to hustle."

If the day of "hard-sell" was at last arriving—and such evidence as was at hand was too flimsy for any sure judgment—it should come as no surprise to thoughtful building men. NAHB Executive Director John Dickerman, for instance, thought the time was approaching a year ago when he urged builders to step up their merchandising and sales promotion aids in a major way.

But close examination of the evidenceeven in spots currently rated as soft—indicates two comforting items:

- 1. Just the least little bit of retrenchment would bring supply and demand back into step in most cities with an unsold overhang of new homes.
- 2. The mortgage pinch, say fiscal experts, is almost certain to bring about that cut-back. Indeed, the production pace of housing tends to be self regulating (with all the help it gets from the federally managed economy) and this is a demonstration of it.

Ever normal boom. Moreover, the consensus of economists sampling the nation's business health seemed to be that the economy was still pointed for the clouds. The big source of strength-a newly dominant oneis the astonishing rise in plans for plant and equipment expansion, plus public facilities construction. Moreover, the high level of consumer expenditures will probably continue, bolstered by wage increases, a cut in taxes and a relatively stable cost of living. And government statisticians think the nation has probably now passed the celebrated mid-fifties low in family formation (a basic influence on the demand for housing) and can now look forward to a gradual increase until the inevitable spurt in the 1960s.

All these forces will tend to prop up home sales. The state of business—and the psychology it generates among buyers—plays a vital role in selling houses, particularly in the upper price brackets.

If home sales are about to undergo any kind of a slump, chances are overwhelming that it will be no more than a brief shakeout—a passing hangover from last summer's nodown binge. It will probably hit hardest at places that have been building fastest and at places that get mortgage money from afar.

The problem, as one highly placed government official suggested to NAHB directors recently, was still "how to get from here... to there."

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MORTGAGE MARKET:

When will the pinch end?

Experts think money will loosen up between January and March. So the question is: can builders step up their building plans fast enough then to avert a slump in starts?

The tight mortgage market will ease in the spring—and perhaps much sooner.

The degree of unanimity on that outlook was reaching proportions last month that would have been surprising except for one thing: the mortgage market was in the kind of trouble that comes from too much prosperity.

As Economist Miles Colean told NAREB's Mortgage Council: "It is a kind of monetary heartburn that results from forced feeding of long term loans temporarily beyond absorptive capacity of long term savings. We are going through a period of digestion, and there isn't anything to do but go through with it. . . The mortgage market has never had such a lush year as this one."

Statistics show just how lush it is. Mortgage recordings (which cover both old and new housing units) are running 32% above 1954. The year's total will probably reach nearly \$30 billion. And here is how much more than a year ago lenders were pouring into nonfarm residential mortgages:

* House & Home estimate

How quick a turnaround? The big question was whether the loosening of credit would come in time to prevent a drop in house starts in the first half of 1956. As cries of anguish sounded louder and louder from worried builders, federal housing officials were responding with soothing words. "Our restric-

tions," said HHFAdministrator Albert M. Cole, "were temporary and can be removed." Added FHA Commissioner Norman Mason: "You can be sure that if there is a decline in the volume of business, the restrictions will be lifted."

Unfortunately for builders, the restrictions Cole and Mason could most easily amendthe July tightening of FHA and VA down payment and amortization terms-were not the major worry. The crucial decisions will be made this month by the government's fiscal managers-the Federal Reserve, the Treasury. the White House. They will act to adjust the supply of money and credit to the whole economy, not primarily building. Says Colean: "If it is concluded that the general health of the economy demands further astringent treatment, the shrinkage is more likely to occur in house building than in other kinds of construction, or in other areas of the economy, which either are not so dependent on credit or are more readily able to pay a high price for money. If, on the other hand, the conclusion is that restraint has gone far enough, then whether the monetary policy becomes neutral or indulges in even slight ease, it should be possible for the mortgage and building interests to adapt themselves fast enough to a changing atmosphere to get the next building season off to a fairly good start. The tipoff may come from what the Federal Reserve Banks do or do not do about their discount rates within the next few weeks."

There were some signs last month that Washington was shifting its attitude on credit policy. Fanny May stopped selling the backlog of mortgages in its liquidation portfolio. In one of his rare talks, Henry C. Alexander, new board chairman of J. P. Morgan & Co. and a member of the Federal Advisory Council which advises the Fed, said: "Maybe we should be thinking in terms of somewhat less restraint. If I were writing the rule or coining the slogan for monetary policy, I would say: 'Easy does it.'" Undersecretary of the Treasury Randolph Burgess, in a talk noting that credit restraints this year were designed to keep the boom from turning into a bust, added: "We are all being very alert at this time for any change in the opposite direction."

Builders' dilemma. The dilemma builders face while waiting to see how the money managers are going to tilt things is not a pleasant one. It was summed up this way last month by President Ray Lapin of Bankers Mortgage Co. in San Francisco: "Builders starting tracts have the dilemma of obtaining a lousy firm takeout commitment now, or obtaining a standby price for a year which would give them much more flexibility in starting their tract as to terms of sale, and also enable them to wait for a more favorable market. But a standby involves obtaining a commitment at a very low price, which would be a risk to the builder if the market remains as tight as it is."

Even standby commitments were available only on a limited basis last month. Bargain hunters continued to pick up distress paper at bottom prices. Said one unhappy builder: "A return to some form of uncommitted warehousing by commercial banks is now the only hope for builders in planning their new operations."

Seattle builder shuts down. Seattle's Al Balch, who puts up (with partners) about 500 homes a year, said: "We could step up our plans pretty fast if money loosens up this winter, because we already own the land." But Seattle's Al LaPierre, who has built between 3,000 and 4,000 homes, announced he was shutting down entirely for the rest of the year at his big Mountlake Terrace project (see People, p. 51). As LaPierre saw it, the brakes were frozen tight to shut off mortgage money for homes priced under \$12,000.

Rise of discounts brings wave of business for Fanny May

Home building's perennial "Miss Financing," Fanny May, is enjoying a new wave of popularity.

Under the de-glamorizing treatment of the 1954 Housing Act, Fanny May (Federal Natl. Mortgage Assn. by her full but little used name) became little more than a wall flower. The law decreed that Fanny May could provide only supplementary aid to the mortgage market—and that at market prices. No more rigid support activities that had made her a dumping ground for mortgages nobody else would buy at Fanny May's price.

When the law became effective in November 1954, Fanny May primly set its "market" prices from 99½ (for FHA and VA 25 year or less paper with 10% or more down from states like New York and New Jersey) to a low of 95 (for 25-30 year, 95-100% paper from Hawaii and Puerto Rico). Additionally, it imposed (and still does) a purchase and marketing fee of ½ to 1% (depending on

Fanny May's estimate of a mortgage's marketability). Sellers also must buy at par three shares of \$100-par Fanny May common stock per \$10,000 of unpaid principal balance of mortgages sold. At first, the stock had no market; later one developed at about 50ϕ on the \$1. Thus the penalty for selling mortgages to the government's secondary market facility ranged from $2\frac{1}{2}$ to $7\frac{1}{2}$ points.

Upshot: no takers. At those prices, it was no wonder Fanny May did almost no business—for a while. She bought one mortgage in November '54 and another one the next month. Since then, the market has gradually caught up with Fanny May's prices. By the end of October, offerings were flowing in at a 1,000 a week clip and Fanny May had bought 4,872 mortgages worth more than \$42 billion.

Says phlegmatic President J. Stanley Baughman: "There's not much doubt we'll be getting more mortgages offered us if present conditions continue." (One indication of it: Baughman [see photo] appeared twice last month as a convention speaker—at NAREB and PHMI.) Some mortgage men think Fanny May could become a potent force in the secondary market "before we know it."

With purchases nearing a \$5 million-a-week pace, Fanny May is getting set to do some financing herself soon. Under the 1954 law, the agency can sell debentures up to ten times the value of her preferred stock sold the Treasury (\$93 million) plus the common stock sold to secondary market participants (now \$1 million). So Fanny May has a legal borrowing capacity of \$940 million.

The \$52 million left in her till might last until February. So the prospect is that Fanny May will go to the money market with debentures some time after Jan. 1 (to let the Treasury get a hunk of refinancing out of the way first). How big an issue? Officials are positive it "won't be anywhere near as much as \$500 million" for secondary market operations.

Official discounts. Fanny May's scale of discounts—still the same as a year ago—furnishes a lively rebuttal to the notion held by some Congressmen* that there is something sinister about mortgage money costing more in California and Texas than in the Atlantic seaboard money centers. In Texas, Fanny May will pay ½ point less than for the same loan in New York. Additionally,





FNMA PRESIDENT BAUGHMAN
The sleeping beauty was waking

for each 5% that down payments sink below 10%, Fanny May adds a ½ discount. The same principle applies to amortization.

Unsurprisingly, the bulk of Fanny May business has been from places like Houston, Phoenix, San Francisco and New Orleans.

IS THE MARKET BREAKING IN TWO?

Will FNMA's new policy of trying to buy only mortgages it considers marketable tend to break the mortgage market in half—making blue chip mortgages bluer (like blue chip stocks so coveted by institutional investors) and red mortgages redder?

Mortgage bankers began wondering if such a new trend was in the making last month. Good evidence, said one East Coast lender, was offering at 90 and 91 of 30-35 year old homes being financed VA in the Northwest, offerings at 91 and 92 of old homes being sold to Negroes in Detroit. Such properties, the lender inferred, probably would not be eligible for sale to FNMA.

Government forecasts 1,218,000 house starts in '56 with only 1% drop in dollar volume

The season for predicting what next year will bring to housing was in full blossom again.

Major effort of the month was the annual forecast by the Depts. of Commerce and Labor. They estimated that private, nonfarm housing starts would reach "about 1.2 million" in 1956—down about 100,000 from this year. Public housing will be up about 10%, the government experts prophesied. That would mean some 18,000 starts for a nonfarm total of 1,218 million*

1% drop in dollars. In dollar volume, Commerce and Labor predicted a 1% dropt for private housing next year, breaking down this way:

1955	1956	% change
(in m	Illiane)	

Private residential\$	16,345	\$16,200	-1	
New dwelling units	14,765	14,300	-3	
Additions, alterations	1,250	1,150	20	
Nonhousekeeping	330	400	21	

The federal forecasters blamed next year's expected drop in starts on the current mortgage pinch; if tightened FHA and VA credit terms were any part of their reckoning, the official announcement did not mention it. Added the government: "This [predicted] relatively high level of homebuilding in 1956 results from the widespread demand for better housing in prosperous times, a large volume of retirements (demolished, abandoned, or converted units) from the housing supply as well as from population increase and mobility."

For all new construction, the government predicted a 5% gain next year to a record \$44 billion. Private nonresidential building (stores, factories, churches) and local public works will account for most of the increase.

Other voices. Only a few prophets veered much from the concensus 1.2 million forecast for the year ahead. Items:

HHFAdministrator Albert M. Cole — the administration wants 1.2 million starts next year, but Cole personally believes they will reach 1.25 million. There will be enough mortgage money to finance at least 1.2 million homes. The mortgage market "hasn't gone to hell and it isn't going to hell."

Thomas J. Sweeney, assistant deputy VAdministrator for loan guaranty—"It is reasonable to assume 1.1 million new homes can be built and financed, and perhaps more. We anticipate veterans will buy at least 400,000 new homes in '56 and 200,000 existing homes with VA loans." The financial prospect: \$7 billion of mortgage money will pour into the GI home program, \$5½ billion of it new money.

† House & Home, which makes its 1956 forecast earlier than rival experts (Sept. issue, p. 136), predicted 1.250 million private starts, plus 15,000 public starts next year. In dollar volume, H&H foresaw outlays of \$14.6 billion for new private homes this year, with a slight gain in '56 as higher prices offset a slight drop in total units.

FHA Commissioner Norman P. Mason told a conference of business editors in Washington he thought the country needed between 1.25 and 1.3 million homes a year to meet the demand.

Mortgage Banker James W. Rouse of Baltimore—"2%, 25 year limits aren't going to severely curtail '56 output. The big thing is the state of the economy of the country, not the money market."

Study of flood insurance produces a flood of talk

What price flood insurance?

The experts were still arguing, seemed agreed on only one thing; the price would be too high if private companies wrote the policies.

And what the government could best do to help ease the impact of disasters was still hazy.

Sen. Herbert H. Lehman (D, N.Y.) proposed a \$12 billion federal program to insure people against smog, floods and volcanoes, among other things and criticized the administration for not having some specific proposals ready by last October. Sen. Prescott Bush (R, Conn.), also a member of the Senate banking committee, retorted that the group should quit focusing on "flood politics" and "get back to flood insurance." Asst. Budget Director Roger Jones, talking about only the possibility of "some kind of insurance system," offered a general outline for an experimental, three-year program backed by the government with limitations on the amount of insurance to be written and the private insurance companies doing the work of selling the policies and collecting the claims.

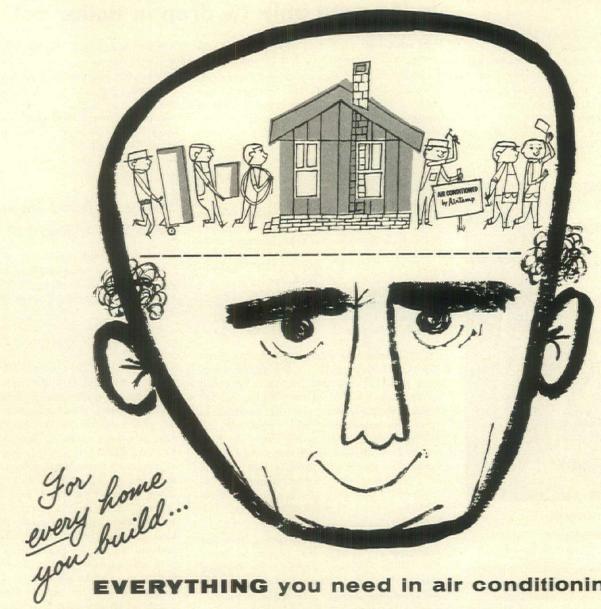
It was still possible that the housing agencies would play some part in an expanded government insurance program. HHFA held its third conference with insurance company executives, argued about how to give private business a chance to participate. "Any program that might be evolved," said Deputy Administrator Frank J. Meistrell, "would be with the thought in mind that the government should participate only to the extent that private industry is unable to provide such insurance at the outset."

Industry opposition to stuffing flood insurance into HHFA or FHA has been muted. Last month, General Counsel Sam Neel of the Mortgage Bankers Assn. broke the silence by observing: "HHFA ought to be a housing agency, not a catchall. Loss of houses in a flood area is only a minor part of the total picture. If this program has to be met as a social need it ought to be met as such and not imposed on a [mortgage] insurance program."

An alternative is flood control and prevention. Two speakers at a recent meeting of the American Society of Civil Engineers urged that potential flood areas be rezoned to exclude homes and businesses and be used for floodways, parks and farmland.

^{*} Rep. Wright Patman (D, Tex.) last month made headlines across the country with a charge that 5- to 9-point discounts on FHA and VA loans were "a shocking scandal" and a "shameful abuse" which tend to add \$600 to \$1,000 to the price of a \$12,000 home. He conceded "moderate discounts" are inevitable because of tight money.

^{*} Both Associated and United Press got it wrong, reported a prediction of 1.2 million total housing starts (omitting public housing).



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THE FORWARD LOOK IN

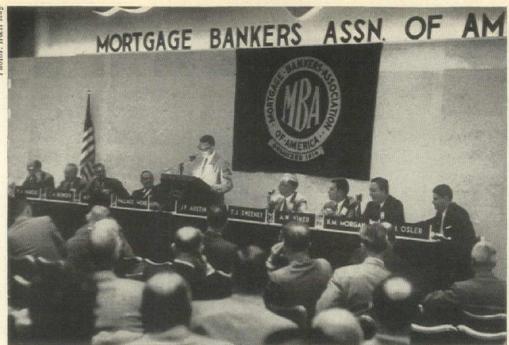
AIR CONDITIONING . HEATING FOR HOMES, BUSINESS, INDUSTRY

ous applause when he urged that VA and FHA be merged to do away with duplication. Other panelists noted that the President's housing policy committee urged a "much deeper" consolidation of appraisal and inspection than VA and FHA have yet

▶ When Mortgage Banker James W. Rouse, who helped father the urban renewal concept in the 1954 Housing Act, asked how many of the 1,000-odd listeners at one panel session had plans to make FHA Sec. 220 loans, only half a dozen hands went up. Pleaded Rouse: "In the next five years, 220 is the greatest opportunity to the mortgage banker. It doesn't have to be a public gleam in his eye. It can be profitable, reaching into mar-

▶ General Counsel Sam Neel warned that public housing advocates "will be far more of a problem this year" in Congress. Braintrusters in the CIO, the Natl. Housing Conference and

kets totally unreachable today.'



JOHN AUSTIN, NEW MBA VICE-PRESIDENT, PRESIDES OVER PANEL ON FHA, VA LOANS

Mortgage bankers rap warehouse curbs, see money_pinch as a good thing for nation

As with the NAHB directors' meeting the month before, the annual Mortgage Bankers Assn. convention in Los Angeles produced surprisingly little crying about mortgage money shortages.

One HHFA official, struck by the fact, commented: "There's an undercurrent of uneasiness, but business has been so darn good hardly anybody cares."

A more sophisticated explanation from an MBA staffer: "The boys have finally learned. This time they're covered—nearly 100%—with commitments."

Warehouse gripes. This is not to say the 2,389 registrants had no gripes about the pinch on mortgage credit. They had—but mostly over the way commercial banks had "misinterpreted" the New York Federal

Reserve's caution against abuse of ware-housing into a blanket prohibition. Robert M. Morgan, vice president of Boston's 5¢ Savings Bank, spoke up in the sharpest terms during a panel on FHA and VA loans (photo, above). Said he: "It's unfortunate—but this industry has had selective controls applied to it—even if the controls are supplied by innuendo and conferences in New York."

But most convention-goers seemed to agree with HHFAdministrator Albert M. Cole, who told them "the housing picture . . . will be a better and more enduring picture for the reasonable restraint that has been temporarily applied." Other news:

Senior Vice President William A. Marcus of San Francisco's American Trust Co. drew the convention's biggest touch of spontane-

other groups have put together a program calling, among other things, for: 1) 200,000 units a year of public housing, 2) keeping over-income families in public housing units, 3) creation of a new Federal Mortgage Bank to make 3%, 40-year loans to \$3 billion a year to co-ops on a 95% of construction cost basis, 4) more housing for the aged. "Don't underestimate that kind of a movement," warned Neel.

accomplished.



to Willis Bryant (r), vice president of American Trust Co. of San Francisco, by retiring MBA Chief Wallace Moir. In his major speech, Moir again called on FHA and VA to impose a minimum half-acre lot size in tracts (July, News).



EYE-STINGING SMOG cloaked downtown Los Angeles while Studebaker Chairman Paul G. Hoffman (r) and then Commerce Undersecretary Walter Willams (l) gave final convention talks. The attack was so bad that smog seeped into the Statler Hotel's air conditioning system and many a dignified listener wept, dabbed his eyes with a pocket handkerchief.

MBA'S NEW PRESIDENT, bespectacled Lindell Peterson (pictured in a convention huddle with MBA General Counsel Sam Neel), could almost be called a prototype of a mid-century mortgage banker.

He is a mild mannered and unspectacular man of 59 with a wife who was his college sweetheart, two grown sons, suburban Chicago home, (Dutch colonial stucco with a big lawn, soaks hedges and shrubbery), a seldom exercised penchant for barber shop singing, a hobby of billiards and a conscientious dedication to work that has carried him steadily up in the world of business.

World War I temporarily interrupted Chicago-born Peterson's education at the University of Illinois (he spent two years in France with Base Hospital 12). His realty career began with Chicago's Baird & Warner. In the mid-twenties, he Joined John Cummings Lindop to build suburban homes (\$7,500 to \$9,500) in such suburbs at Maywood, River Forest and Bellwood. In 1930, he switched to mortgage banking with Nelson Hunt & Co. Sixteen years later, he became president—the firm meanwhile having changed its name to the present Chicago Mortgage Investment Co.

Peterson, who won MBA's annual distinguished service award in 1953 for his work developing its educational program expects to stress similar matters as president.

NEWS continued on p. 43



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Soviet housers buy nailers, stud guns, one house

The ten Russian housing experts sailed home from New York last month after a month's inspection of US home building that covered 7,000 mi., 14 cities, 38 tracts, 17 factories, four exhibits and 12 miscellaneous industry-connected projects.

The delegation touring the nation as guests of NAHB did not catch the public fancy to the same degree as the Russian farm delegation in August. One reason: several months had elapsed since the Geneva summit conference which bathed the farm tour in warm bonhomie. Another: Minister of City and Urban Construction I. K. Kozuilia, head of the delegation, was a blunt personality who seemed determined to pay no extravagant compliments to US housing. The leader of the Soviet farmers, Minister Mtskevitch, was an outgoing type who did not hide his open admiration for some aspects of US farm life and methods.

Whatever the public thought, most of the builders who saw the visitors seemed to agree the stunt had been worth the trouble. NAHB Director August Rhalves told newsmen in San Francisco: "When NAHB first started talking about this trip, I was inclined to think the industry had a lot of better ways to spend \$20,000. But now I'm convinced. It would have been worth a lot more."

Eye for techniques. If the Russians were quick to carp at imperfections in the American building scene (shown an old-fashioned water treatment plant in New Orleans, one delegate said: "We have antiques in Russia, too; we thought we were here to see your latest methods") they were even quicker to photograph, jot notes on or even order samples of what impressed them. A lot of things obviously did. Items:

"You have made lots of progress in kitchen design in the last nine or ten years," said Kozuilia in his warmest compliment (he was here in 1945-7 as an UNRRA official). He was especially struck by new complete built-in kitchens.

Lift-slab construction, Kozuilia added, impressed the delegation. It "deserves attention" for multi-story construction, he said.

The delegation not only bought a complete speculative house (see photos) from Builder Andy Oddstad of Redwood City, Calif., but also ordered about \$7,000 worth of electrical appliances in New York, and many laborsaving devices like a plastering machine, a pneumatic nailing machine that pounded 98 eightpenny nails home in one minute, and a building gun which uses .22 caliber cartridges to fasten 2 x 4s to concrete slabs or foundations with steel pins. In Houston, they also picked up some Davy Crockett outfits.

The mysterious West. One point the Soviets appeared not to understand at all was the competitive system that makes US housing tick. In a San Francisco bar, one NAHB efficial tried to explain the setup of the trade group, whose members represent perhaps 80% of US home building. Said the Russian (probably thinking of the state trusts that control all Soviet building): "If you already control 80%, why don't you make all the other builders join and then you could raise the price of houses. You could charge

anything you like." The American could only spultter into his scotch (the Russians liked scotch, but found bourbon too strong).

The trip ended on a uniquely Soviet note. The day before the visitors sailed, reports from Moscow said one of them, Architect Alexander V. Vlasov, had been fired for a

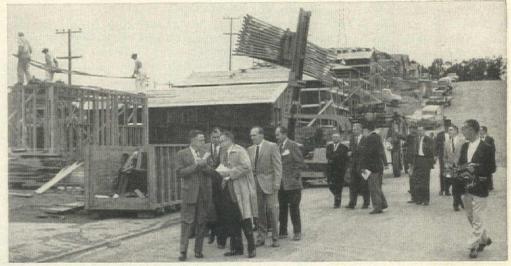


THE HOUSE the Russians will get—if the government licenses the export—looks like this. Oddstad offered it at cost (minus cement, bricks and the lot) for about \$8,000. But the Russians bought \$4,000 worth of model furnishings, too. Oddstad offers it locally as a no-down VA.

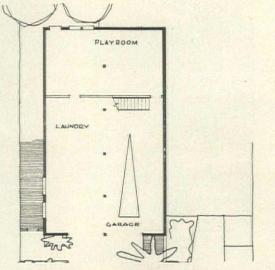
"western" trend in Soviet building which involved wasting money on skyscrapers and ornate decoration. Another version: Vlasov incurred the wrath of the MVD because he made an unescorted visit to Frank Lloyd Wright. Vlasov sailed with a smile, hinting that reports of his ouster must be in error.

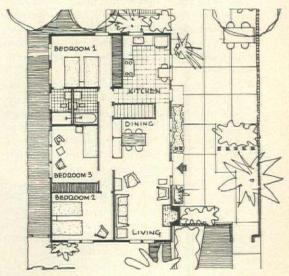


SOVIET HOUSING MINISTER I. K. Kozuilia (I) liked the 700-home Rollingwood subdivision in the San Francisco suburbs so much he asked Builder Andy Oddstad (r) to create and ship him a \$13,750 model for display near the Kremlin. "Send the bill to the embassy," he said.



MASS PRODUCTION methods were put on display for Russians by Oddstad, including a power-lift hoisting trusses to the top of stud walls. In Indiana, Prefabber William B. F. Hall refused to accept a Soviet order. Reason: no law could stop the Russians from imitating his prefab and marketing it.





THREE-BEDROOM, two-bath model with a two-car garage was picked by Russians. Kozullia asked many technical questions aimed at learning how Oddstad kept the price down.

Clarence M. Turley, new president of NAREB (above, right, with Outgoing President Henry G. Waltemade), has lived in the same three-bedroom home in the suburb of Clayton, Mo.—30 min. from downtown St. Louis—for 28 years. "It used to be sort of Old English," said his wife at the convention, "but we remodeled it three years ago and now it's just Turley."

The new president is a big, strong-voiced man of 62 who started in real estate in St. Louis in 1913 after taking a degree at Benton College of Law. He opened his own office in 1928—now called Clarence M. Turley, Inc.—and has concentrated since then on office buildings and commercial properties. Asked whether his preoccupation with these properties would lessen his interest in NAREB's program to promote 80% home ownership, he shook his head, commented: "I don't think so. It's a question of people in both cases. And you can't get away from people."

Turley is and has been a busy man (like Eugene Conser, he has not played golf in years) and expects to stay that way. But he said in his acceptance speech that 1956 would be a "year of transition for NAREB—streamlining our machinery for the years ahead" and implied that he would be sticking close to organizational business and not traveling as much as he used to.

He has served NAREB previously (he has been a member for 25 years and "could have been president any of those years," according to Chairman Ronald J. Chinnock of the nominating committee) as a director and member of the executive committee from 1948 to 1952 and in various capacities with the American Institute of Real Estate Appraisers. He was president of the St. Louis Real Estate Board in 1942 and in 1936 and 1937 was president of the Natl. Assn. of Building Owners & Managers—a distinction in that he is the first man to have headed both NABOM and NAREB.

The Turleys have two married children and five grandsons, spend what time they have with them and squeeze in two-day vacations at the end of out-of-town business meetings.

Realtors plan to make grassroots help for rehabilitation top aim

Directors vote dues increase from \$10 to \$15 per member to finance new program. Executive Vice President Conser announces stepped up public relations plans

The nation's 56,000 realtors have decided to make the promotion of urban rehabilitation their major program next year.

The National Assn. of Real Estate Boards adopted the new policy at its 48th convention last month in New York. To carry it out, NAREB directors upped dues from \$10 to \$15 a year (a move voted down twice before). This will add an estimated \$280,000 annually to the income of the country's biggest building industry trade group. Perhaps \$150,000 will go to NAREB's rehabilitation-promoting Build America Better Council when the higher dues take effect next year. (This year the council got by on \$25,000—up \$10,000 from 1954.)

Eugene P. Conser, new NAREB executive vice president, puts it this way: "We earlier came to the conclusion that the administration's urban renewal program was its basic program and needed all the help we could give it at a grassroots level. My pet subject now is to get this program rolling throughout the country."

Says Charles Stewart, NAREB public relations chief and secretary of Build America Better: "The council will step up from being a sideshow of the main organization to a position of basic policy." Such a move, urban renewal experts were generally agreed, was some of the best news they had heard in months. The realtors have a big enough nationwide organization—perhaps the only one in the housing industry that is big enough—to make fight blight programs effective on a broad scale.

No bulldozer approach. NAREB's big plans for neighborhood face-lifting got an added boost from FHA Commissioner Norman P. Mason. He told the 5,014 convention delegates that the realistic need now is for house-by-house and block-by-block rehabilitation. Mason bluntly conceded that this kind of clean-up operation is opposed by many public housing authorities not geared to what he called private enterprise thinking. These authorities, he said, favor "the bulldozer approach." He added: "Even with appreciable aid from the federal government—slum clearance, public grants, public housing—we have been losing ground in many sectors."

NAREB's Conser believes in enforcement of municipal housing codes as a primary way to fight slums. He had experience in this field in California. When he was secretary-manager of the Apartment Assn. of Los Angeles County in the late 1930s he did a study of housing unfit for human habitation, in 1941



ABOUT A THIRD OF THE 5,000 DELEGATES CROWDED THE BALLROOM THE LAST DAY

saw his definition of such housing written into state law. It gives cities the right to demolish unfit units and charge the owner—a slumfighting tool so far adopted by only a dozen or so municipalities and, as far as NAREB knows, no other states. NAREB's new program will aim at the same target: compliance with housing codes or demolition. And it will

FHA eases terms on loans under Secs. 220, 221, 222

FHA Commissioner Norman P. Mason gave urban renewal programs a shot in the arm last month. He disclosed that the additional 2% down payment imposed on FHA-insured loans last July was being removed for Secs. 220 (urban renewal) and 221 (displacees). In addition, maximum amortization for the two sections was restored to 30 years.

His announcement, made during his talk to NAREB, was immediately hailed by rehabilitation-conscious realtors as a "step in the right direction." Mason did not tell his New York audience of another credit-easing step. The maximum loan to value ratio for Sec. 222 (servicemen's loans) was upped from 93 to 95%. Top amortization remains at 25 years, however.

be backed by a specially-trained field staff. "I know from my own experience that it's practical," said Conser. "Instead of having the government come in and buy the land at an exorbitant price— thereby encouraging the owner to let the property deteriorate—the owner either has to fix it up or have the cost of demolition charged against his land. That's the way we can take the profit out of slums."

Money for expansion. Even if Build America Better gets a budget of \$150,000 for the coming year, NAREB will have \$130,000 more to spend elsewhere. Conser said the

REHABILITATION WINNERS: Mrs. Paul Pisculli of Dania, Fla. (left, below) won NAREB's prize for the best rehabilitation of a single-family, detached house. She purchased house and lot for \$8,000, spent \$21,000 fixing up the main building and doing over an old shed in the rear. Earl R. James of Philadelphia (r) won the award in the multifamily division with the renovation job shown at right.



public relations department would probably be expanded by 50%. Headquarters will send out more press releases for use by the local boards. Is there any chance that the press might now go directly to Conser for information without clearing through Stewart? "I'm an old newspaperman and I'd never say no to the press," smiled Conser, "but I'd prefer that you go through Charlie."

The dues increase will also allow an expanded staff in both NAREB's Chicago and Washington offices. Conser was asked whether his being in the Chicago office would not make it inconvenient for him to participate in NAREB's legislative activities in Washington. Conser-who said last summer when he was named to the post that he felt a trade association should not be headquartered in Washington-noted that even when he was living in Los Angeles he was able to keep in close touch with what went on in the legislature in Sacramento. NAREB will set up three zone offices next year, but Conser said "no substantial" change will be made in the Washington office.

Pressure for cooperatives. One of NAREB's oldest legislative aims—getting rid of public housing—may take a new tack, Conser indicated. Said he: "I'm not sure but that a large part of what's been built will be turned into cooperatives." He seemed especially hopeful that cooperatives could be run on an enlarged scale under a system of individual mortgages for each apartment. (There are now only a few such projects, one or two of them financed under VA, but most of them conventionally financed.

Did he think FHA would accept such projects for insurance in the foreseeable future? "It's quite possible," said Conser, adding that such cooperatives could become "a very important force" in keeping families in the cities.

Meantime, C. Franklin Daniels, adviser on cooperative housing from FHA's Washington office, told a panel of the "keen and renewed interest" in FHA's 213 program that had decontinued on p. 46



EXECUTIVE VICE PRESIDENT Eugene Conser reaffirmed NAREB's goal of 80% home ownership. Conser's idea of the "breaking point" on vacancies: 7% for apartments and 2% for homes.



HONORED for 33 years service as executive vice president of NAREB, Herbert U. Nelson (I) receives a check for \$15,000 from Leon E. Todd, chairman of the voluntary gift fund committee.



PRIZE WINNER in the small, multifamily division of NAREB's rehabilitation contest was a mid-city face-lifting job by Realtor Earl R. James of Philadelphia. James, who is associated with Robert J. Nash, Inc., says he is "dedicated to center-city living" and took pride in purchasing, refurbishing and selling nine substandard buildings 15 blocks from city hall. He cleared \$8,000 on the job. He bought the nine buildings



—plus another, which he demolished—for \$19,200 and spent \$70,000 improving them. Sale price of the three-story houses was \$14,500 apiece; for the six little ones (living room, one bedroom, one bath), \$8,950. "I'm after repeat business, of course," said James, "and I have 18 new houses across the street selling for \$16,900." James says mid-city buyers are willing to make higher down payments than suburbanites.

veloped since the shift from estimated value to estimated cost. There are now 33,000 cooperative units in 24 states, he said, with one-third of them in individual home projects under a blanket mortgage (not to be confused with the proposed individually-mortgaged, multifamily projects). Daniels thought that lower tenant turnover and lower maintenance and operating costs should make it possible for cooperatives to charge rents "20% to 25% lower than comparable commercial accommodations."

More tax deductions? The convention passed 27 resolutions, five of them concerning urban renewal and neighborhood conservation. In three, NAREB advocated these tax benefits:

▶ The residual value of a structure demolished for new construction or neighborhood improvement should be deductible on income tax—along with demolition cost—in from one to five years.

The cost of new construction or improvement of existing structures in conservation or urban renewal areas should be depreciated for federal tax purposes at a rate up to 20% per year. (The fastest write-off for such properties now is generally 20 years.)

An income tax deduction of up to \$500 a year should be allowed for maintenance and repair of homes in conservation or urban renewal areas.

NAREB also urged support of "a center for research in the economics of real estate and related subjects," as a division of its Urban Land Institute; commended FHA for its "notable contribution to the principle of home ownership in the United States"; deplored the "continuing evil of government ownership and subsidy of family shelter" and urged that the "taxing, spending, and borrowing practices of our federal government, now without limitations, should be restricted by Constitutional amendment."

Question of ethics. Delegates unanimously approved a new code of ethics, changed in only minor degree except for one item: Article 9 was dropped entirely. Its wording: "The realtor should charge for his services only such fees as are fair and reasonable, and in accordance with local practice in similar actions." This wording was itself a watered-down version of the old Article 9, which in the late 1940s included the premise that "the schedules of fees established by the various real estate boards . . . should be observed by every realtor."

Cutting the three-line paragraph from the code entirely meant to most observers that NAREB had decided to reduce chances of anti-trust action against them to an absolute minimum. In 1947, NAREB faced anti-trust charges of fixing brokerage fees based on the paragraph of the ethics code then in force plus a section of the organization's bylaws requiring that all members abide by the code. But NAREB won a favorable decision in US District Court in Washington and the Supreme Court upheld that ruling on appeal.

NAREB's official reason for the code change: "Since the remainder of the code deals with practices and since there is a disposition to regard any stipulation regulating fees as a movement toward the fixing of fees, it was decided to omit such a disposition."

Laws controlling esthetics of house design get another boost from US Supreme Court

A big new problem is looming larger on home-building's horizon: municipal control over the esthetics of design.

The trend was reinforced not long ago when the US Supreme Court refused to review a decision by the Wisconsin Supreme Court upholding the constitutionality of an esthetic zoning ordinance in Fox Point (pop. 2,585), a Milwaukee suburb.

The ordinance gave Fox Point's planning board the right to refuse a building permit for a house that would be "so at variance" with the architecture and functional planning of other houses in the neighborhood "as to cause a substantial depreciation in property values. . . ."

Commented NAHB's Washington Letter: "Coupled with a similar recent District of



TYPICAL FOX POINT HOME

Columbia decision this could pave the way for local governments to exercise wide veto power over housing design and architectural development." (The Washington case involved a unanimous decision by the US Supreme Court upholding the District of Columbia Redevelopment Act of 1945. Wrote Justice William O. Douglas: "It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well balanced as well as carefully patrolled.")

A different sameness. There are two basic formulas used by municipalities to influence architecture. One is the no-lookalike ruling; the other is the look-alike. Scarsdale, N.Y., for example, uses an ordinance that says next-door houses must not be of too similar appearance. West Palm Beach, on the other hand, says that new houses must substantially equal adjacent structures in appearance, square footage and height.

The no-look-alike ordinance has come in for some hard words recently, notably from Architect Julian Whittlesey, speaking at a Regional Plan Conference in New York. Said Whittlesey: "Communities have fallen for this no-look-alike legislation as if it were a magic formula assuring that neighborhoods would become as good as the good old days or as wonderful as the new day promised by architects and planners. This kind of legislation fails to achieve these results and its creators should realize how

superficial it is and how much more is needed than just diddling with facades." What a town gets by trying to lift monotony with this kind of ordinance, said Whittlesey, is "a feeling of general confusion and disorder." The towns have brought this on "not for lack of worthy objectives, but more in ignorance of what it takes to design and build a residential neighborhood."

More garage windows. Whittlesey described the esthetic ordinance of New Rochelle, N.Y. as "short, simple and very nasty." The rules are that no house shall resemble its neighbor in more than three of the following respects: height above first floor, roof pitch, length of main gable, front elevation, end elevations and the relative position of porch and garage. This makes for all kinds of useless modifying, according to Whittlesey. An end elevation may have a garage. To make it different from its neighbors, the builder puts in a side window, changes the position of the window in different garages.

In the tony suburb of Rye, N. Y., esthetic zoning seems to be working better. Rye has an ordinance that says its Board of Architectural Review must disapprove house plans if they show "excessive uniformity" or excessive dissimilarity to any other structure within 250' on the same street front. The five unpaid members of the board (one must be a registered architect) also rule against "inappropriateness or poor quality of design." According to Architect Esmond Shaw, who serves on the board, the group has approved about 450 sets of plans for singlefamily homes since 1951 and has disapproved only six sets. (In many cases the board invited applicants to submit revised plans rather than have their first set turned down.)

Beyond the facade. Henry Fagin, director of the Regional Plan Assn. in New York, recently outlined some of the thinking on the frontier of esthetic control that is being done by a joint committee of the American Institute of Planners and the American Institute of Architects on the subject of esthetic zoning. Said Fagin: "The regulations [in the municipality] should not be so much focused on facades and the front view, on the approval of an elevation or an architectural submission, but should be a sort of 3-D. The emphasis should be on the relation of the building in the three dimensions of space. . . . If you have to consider buildings one at a time, maybe Scarsdale's type is the only kind, maybe Rye's is the only kind. But we believe that communities must begin to think of the growing evolution of their various streets and that the important thing is the grouping of the buildings rather than the excellence of the individual

The AIP-AIA report is three-quarters finished. It will include a listing of regulations now in force, according to Committee Chairman Robert C. Weinberg, and "a critical review of these regulations as put in action, since we think that some of them are worse and some better than others."

MORTGAGE QUOTATIONS:

New, bigger version of exclusive report offers twice as much price data

So widespread has interest grown in House & Home's monthly mortgage quotations report (an exclusive feature of the magazine since Aug. '53), that this month H&H begins an improved and expanded version of this statistical service.

The changes were adopted after conferring with the leading mortgage bankers who contribute to the report. They constitute a consensus of industry thinking on a set of figures that reflects the bulk of financing for speculative home building across the nation.

Major change is the introduction of differing quotations for futures and immediate-delivery loans, in place of the former method of reporting separate prices for originations (i.e. price between mortgagee and builder) and secondary sales (to permanent investors). Builders should note that the mortgage prices quoted in the new table cover sales by an originating mortgagee who retains servicing. Under most circumstances (see footnotes) a builder would have to pay an originating fee or other charges for his money on top of the sale-to-investor price shown.

(Sale by originating mortgagee, who retains servicing.)
As reported to House & Home the week ending Nov. 18.

FHA 41/2s (Sec. 203) (b)

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	terms* N	laximum n	ew terms†	25 year, 1	0% down
City	Immediate I	Immediate	Future	Immediate	Future
Boston local	a	101	101	a	a
Out-of-state	961/2-98	97-98	97-98	981/2b	a
Chicago**	971/2-98b	par	99	par	99
Denver	a	99	981/2	99	981/2
Houston	98-par	98-par	98-par	99-par	99-par
Jacksonville	97-98	97-98	97	98-99	98-99
New York	99-par	99-par	99-par	99-par	99-par
Philadelphiad	99	991/2	991/2	par	par
San Francisco	99	_	99	par	99
Washington, D.C	. 98-99	98-99	971/2-981/2	98-991/2	971/2-981/

- * 30 year, 5% down on first \$9,000
- + 25 year, 7% down on first \$9,000

VA 41/25

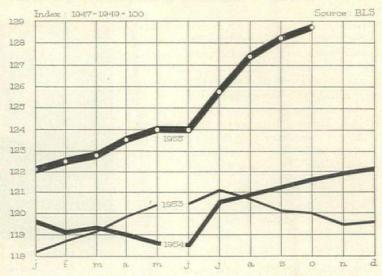
			A STATE OF THE STA		25 y	/r.,
	30 year, no-down		25 year, 2% down		5% down or more Imme-	
City	diate	Future	diate	Future	diate	Future
Boston local	par-101	par-101	par-101	par-101	par-101	par-101
Out-of-sta	ate 94-96	a	96-97	96-97	96-971/2	96-971/2
Chicago	a, e	a, e	a	a	99	981/2
Denver	a	a	981/2	98	981/2	98
Houston	96-7	96	96-7	97	98-99	971/2
Jacksonville	ef 96-71/2	96-961/2	97-98	97	98-99	98-981/2
New York	99-par	У	99-par	99-par	99-par	99-par
Philadelphi	a 98c	98°	99	99	991/2-par	991/2-par
San Francis	sco 96-98	95-97	_	95-97	98-99	98-99
Washington	n, DC 961/2	96	97-8	961/2-971/2	98	97-971/2

- Immediate covers loans for delivery up to 3 months; future covers loans for delivery 3 to 12 months.
- Quotations refer to prices in metropolitan areas; discounts may run slightly higher in surrounding small towns or rural zones.
- Quotations refer to houses of typical average local quality with respect to design, location and construction.
- ** Prices to builders average 1½-2 pts. lower to cover origination fee and construction payout charges. a—no market. b—very limited market at this price. c—covers typical package deal, with builder permitting only 10-33% of a block of mortgages as no downs. d—price to builder adds ½ point; plus 1 point by veteran. e—5% down, 30 years at 97½-98. f—25 yr. loans. y—all placed.

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cents Savinge Bank; Chicago, Maurice A. Pollack, vice pres. & secy., Draper & Kramer, Inc.; Denver, Aksel Nielsen, pres., The Title Guaranty Co.; Houston, John F. Austin Jr., pres., T. J. Bettes Co.; Jacksonville, John D. Yates, vice pres., Stockton, Whatley, Davin & Co.;

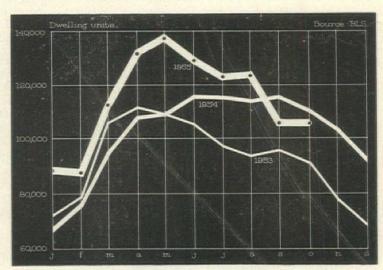
New York, John Halperin, pres., J. Halperin Co.; Philadelphia, Robert S. Irving, exec. vice pres., W. A. Clarke Mortgage Co.; San Francisco, William A. Marcus, senior vice pres., American Trust Co.; Washington, D. C., George W. DeFranceaux, pres., Frederick W. Berens, Inc.

BUILDING MATERIALS PRICES



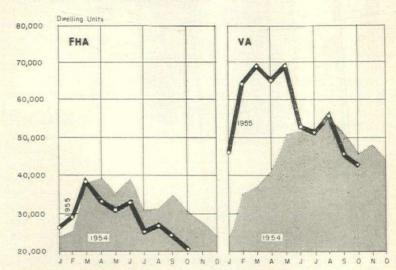
BLS' index of building materials prices rose 0.2 points from Sept. to Oct. (to 128.7), with increases in plumbing equipment (up 1.3 point) and window glass (up 6.7 points) barely counteracting a slight drop in lumber and wood products.

NONFARM HOUSING STARTS



Housing starts dropped in October to 107,000, but the seasonally-adjusted annual rate was up to 1,242,000—some 12,000 higher than the pace in September. A boost was provided by revision of the July total, up 7,600 from the original estimates. Private starts for the first 10 months of the year were 1,161,300, compared to 1,026.-200 for the same period in 1954.

FHA AND VA APPLICATIONS



VA applications continued to fall in October, ended up nearly 2,000 under the September figure for a total 43,143. The drop has been severe since August's high of 55,974. FHA continued downwards from 23,840 in September to 20,280 in October.

NEWS continued on p. 48

US S&L League cheered on outlook for money

Delegates to the 63rd US Savings & Loan League convention left Miami Beach feeling considerably better about the credit situation, the future role of the Federal Home Loan Bank System and what the future holds for the savings and loan industry.

Said retiring President J. Howard Edgerton of Los Angeles: "Our people came here considerably concerned over the credit picture, the role of the Home Loan Bank System, and what the overall economic picture will be next year and in the immediate years to follow. We believe they left with the feeling that the credit situation will ease before damage can be done the industry, that the role of the home loan banks will be worked out, and that

Controlled credit. Edgerton and other delegates were cheered by the convention-opening announcement of Walter W. McAllister, Home Loan Bank Board chairman, that the home loan banks would supply "a reasonable, controlled amount of credit to savings and loan associations in 1956."

the economic outlook is bright."

McAllister laid a broad hint before delegates convening in Miami Municipal Auditorium (estimated attendance 3,100). Said he:

"The recent board policy on credit restrictions was not to make you fearful. It was to suggest that you control future loan commitments so that you would operate more normally and your lending would be more largely confined to your net savings and loan repayments."

HLBB, said McAllister, certainly wanted no big reductions in lending. "From some reports received," he said, "I wonder if some associations are 'over correcting' and unwarrantedly reducing their lending. It never was



TWO SPEAKERS were US senators who aspire to higher things. Sen. William F. Knowland (R, Calif.), who would gladly carry the GOP standard in next year's presidential race if Ike does not run, flattered savings and loaners by choosing their convention for a major foreign policy address. Crux of his message: "Make no pact on reunification of Germany unless the Russians are also willing to lift the iron curtain" from enslaved satellites. Sen. George A. Smathers (D, Fla.) (r), is expected to make a bid for the Democratic vice presidential nomination.



HOME LOAN BANK Chairman Walter W. McAllister held an impromptu huddle with six regional Home Loan Bank presidents. Behind their chief (I to r): J. Curran Conway, Little Rock, Ark.; Walter D. Schultz, Cincinnati; J. M. Sink Jr., Greensboro, N.C.; Herbert N. Faulkner, Boston; Robert J. Richardson, Des Moines and Fred T. Greene, Indianapolis.

our desire or purpose to force too rapid a correction with those associations which were extended. We want you to continue your normal lending and we do not want construction loans to be eliminated."

Salute to independence. HLBB's newly-created independence was applauded by both sides. "This may well be the most important single accomplishment of the year, or even the decade," said McAllister, "so far as the long well being of the board and the savings and loan business are concerned. The board is now clothed with a prestige that simply didn't exist before. . . . Certainly we are in a better position to express the wishes and desires of this great business than ever before."

Past President Henry Bubb, introducing HHFAdministrator Albert M. Cole (see p. 49), said warmly that although Cole had spoken loyally for the administration's stand against the board's independence, he could assure the group that the action would not have gotten through Congress without Cole's help.

New committee. In his keynote address. Edgerton said: "The problems posed . . . by the credit policies of our Home Loan Bank System now constitute one of the greatest challenges facing our business today. As a business, we now have the opportunity of cooperating with our newly independent Home Loan Bank Board and our regional bank presidents to decide, first of all, just what kind of Federal Home Loan Bank System we need and want, and then to determine the changes that must be made to accomplish our objectives. It is our intention to assemble the best heads of our business and . . . the finest technical experts. . . ."

Following through on Edgerton's promise, the executive committee named this committee to study the problem: Ralph Crosby, Providence, R. I., chairman; Charles L. Clements, Miami Beach; Edgerton; A. D. Theobald, Peoria; Roy Larson, Minneapolis; Matt Dye, Salt Lake City; A. J. Bromfield, Denver; Robert Mitchell, Kansas City; Wallace Duvall, Atlanta. Also appointed to the committee were three home loan bank presidents: Fred Greene, Indianapolis; John Stipp, Chicago; Orval Adams, San Francisco.



OLD AND NEW LEADERS: retiring President J. Howard Edgerton of Los Angeles (c) congratulates his successor. Walter H. Dreier (1), president of Union Federal S&L, Evansville, Ind. and Roy M. Marr (r) of Memphis, Tenn., new league vice-president.

Dreier, 54, started in the savings and loan business 30 years ago as treasurer of the \$22 millionasset association he now heads. He is a former president of the Indiana S&L League and served two terms as a director of the Federal Home Loan Bank of Indianapolis. Marr, 60, is president of the \$60 million Leader Federal S&L. Before entering the savings field in 1941 as Leader director, he was president of Memphis Union Station Co. and terminal manager of the Louisville & Nashville Railroad.

Hot potato juggled. The executive committee ducked the question of what to do about conversion of savings and loan associations from federal mutuals to state chartered corporations. The committee had been asked by McAllister to come up with a recommendation which the Home Loan Bank Board could relay to Congress. Instead, the League appointed a new committee to explore the subject: Roy Marr, Memphis, new League vice president, Chairman; James Jerome, Saginaw, Mich.; Jonathan Fletcher, Des Moines; William P. Sawyer, Watertown, Mass.; Wm. Mosely Jones, Los Angeles. All are members

of the League executive committee.

Explained one committeeman: "We've got more pressing problems to solve before tackling that one. Let's get the Home Loan Bank System matter worked out first."

Leaders for a strong stand against conversions said privately, however, that they were sure they could win the battle in the months to come. Managers of some converted federals (there have been 26 so far—many in California) have pocketed millions of dollars in profit by the switch. Chief stumbling block to a League stand has been devising an "equitable" formula for requiring distribution of reserves to mutual owners. The new League committee hopes to come up with one, so the delay probably does not mean a recommendation will be pigeonholed.

Rosy forecasts. More psychological uplift came from speakers Leo Cherne, executive director of the Research Institute of America and Albert M. Cole, administrator of HHFA.

Cherne saw 85 million workers employed by 1965 spending 50% more than today, and relatively few down-swings in the economy because of government action.

Cole predicted that home building would continue at about 1.2 million starts per year or a little higher. He said it could be maintained at that rate during the months ahead without inflating the economy.

The trends and economic policies committee's report saw a "very good chance of the gross national product moving beyond \$400 million in early 1956."

Resolutions. The League adopted resolutions which:

Agreed with the principle of controlling the extremes of the business cycle and praised the Eisenhower administration for its courage in assuming the highly unpopular role of moderator for the business boom. However, it

added: the "overzealous application of the policy to institutions mainly engaged in conventional type of home financing can hardly be justified alongside the relatively mild restraint imposed on the liberal home loan terms where the government shares the risk."

Urged that public housing again be directly linked to slum clearance so that cities may not draw federal housing subsidies unless they can show that "the new public housing units are needed by families which are displaced by the city's drive to wipe out dwellings unfit for habitation."

Four new men were elected to the League's policy-making executive committee. They are: Wilton T. Barney, president, Oritani S&L, Hackensack, N. J.; Don L. Tobin, president, Central Ohio Federal, Columbus; Jonathan M. Fletcher, executive vice president, Home Federal, Des Moines; and M. L. Dye, president, First Federal, Salt Lake City.

SIDELIGHTS

VA spurns FHA MPR changes

VA has refused to go along with three relaxations of minimum property requirements adopted by FHA in August (Sept., News).

Affected are revisions that eliminated requirements for 1) finished flooring where the builder installs wall-to-wall carpeting, 2) gutters and downspouts and 3) floor anchoring.

One result of the impasse is that some VA field offices, among them Memphis, have announced they will require special final VA inspections where homes are built under FHA. President Max Ostner of the Memphis Mortgage Bankers Assn. said last month that VA's action will at least double the work of VA fee inspectors, may raise house prices.

Meanwhile, NAHB Executive Director John Dickerman wrote FHA that builders were "greatly concerned" over what the cost may be of MPR upgrading imposed at the same time. Dickerman said builders were complaining that increased insulation requirements might add \$200 to the cost of a home.

Trade-in appliances

One of the biggest obstacles to the builtin kitchen is that a lot of people already own one or more appliances.

Frigidaire thinks one big way it can help builders sell more houses by selling more equipped kitchens is to take a prospect's old appliances off his hands in trade.

Last month, the General Motors' division took a long step toward making appliance trade-ins as easy as auto trade-ins. It issued an appliance trade-in value book—first of its kind—and began distributing it to dealers. The four-page, manila covered booklet covers trade-in deals for all makes and types of appliances.

Supermarket S&Ls

One of the reasons for the phenomenal growth of savings and loan associations has been the aggressive way they have gone after business. S&Ls have led many other savings institutions in building handsomer offices, using advertising, adopting gimmicks to make it easier and easier to make shareholding deposits.

Delegates to the US Savings & Loan League's convention at Miami Beach chuckled last month at a spoof of such inventiveness (see cut). In Texas, the real news was only slightly less extraordinary: a Houston S&L began life doing business in 40 supermarkets.

The Benjamin Franklin S&L Assn. was established there recently by a group of leading business men, including Mortgage Banker T. A. Robinson Jr., Developer William G.



WATERY TELLER'S CAGE AT S&L CONVENTION

Farrington and President John F. Austin Jr. of the big T. J. Bettes mortgage banking firm (see p. 51). Results were immediate. In the first 30 days of operation, deposits represented by more than 1,000 accounts amounted to more than \$1 million.

In addition to their downtown office, the group set up facilities for deposit and disbursement of savings at the cashier's booth in 40 grocery markets. The association has a working agreement with Kroger Stores to pay each store 10¢ an item for their trouble. At the close of business each day the store mails items to the association and 48 hours later the customer can pick up his pass book or receive a check for withdrawal of funds from the cashier at his local supermarket.

Branch banking and branch savings and loan offices are not permitted under Texas law and the supermarket scheme is one of the first chances a depositor has had to save himself a trip downtown.

Wisconsin OKs housing sale

Less than half an hour before an adjournment, the Wisconsin legislature pushed through a bill providing that a public housing authority must sell its projects to the highest bidder when so directed by the governing body of the municipality or by referendum of the voters. The bill's passage was stormy. Gov. Walter Kohler vetoed an earlier version, which included a provision that public housing authorities could be abolished by vote of the common council. Kohler's objection was that this bill did not protect the holders of housing authority bonds. The new bill provides that no project can be sold unless the bid equals or exceeds "fair market value" and that the sale must include the payment of outstanding bond obligations.

Apartment vacancies: 4%

Another statistical tipoff on cities where the house sales market may be softening has come from the Census Bureau's first-time study of vacancies in rental projects with 100 or more apartments.

Last May, such units averaged 4% vacancy, the Bureau reported last month. But the rate varied from 1% in New York and northeastern New Jersey to a whopping 12.5% in Dallas. The figures:

las. The ngures:				
	Estimated	Estimated	Percent	
AREA	large rental	number of	vacant	
	properties1	apartments	for ren	
REGION:				
United States	2,900	702,000	4.0	
Northeast	1,500	344,000	1.5	
North Central	440	95,000	3.1	
South	840	223,000	7.3	
West	120	40,000	8.7	
STANDARD METROPOLITAN A	REA:			
New York-northeastern N. J	. 1,240	279,000	1.0	
Washington	270	83,700	3.5	
Chicago	. 180	34,000	3.1	
Philadelphia	. 85	29,500	3.1	
Los Angeles	. 50	17,500	7.1	
Baltimore		17,100	2.5	
Atlanta	. 45	12,000	4.1	
Norfolk-Portsmouth, Va.	. 30	11,000	11.6	
Dallas		8,500	12.5	
Detroit	. 45	8,200	1.9	
Cleveland	. 35	7,200	1.9	
Kansas City		6,500	1.9	
St. Louis		6,300	3.3	
Pittsburgh		5,300	4.3	

1 Rental properties with 100 or more units. Public housing projects are excluded.

NEWS continued on p. 51

Modern Home Comfort Means...

FRESH AIR in EVERY ROOM

with Exhaust Ventilation

IN THE KITCHEN



IN THE LAUNDRY



IN THE BATHROOM



IN THE RECREATION ROOM



The trend is toward two and three-fan homes

ALL YEAR AROUND

Electric exhaust ventilating fans assure fresh, clean odor-free air throughout any home, winter or summer. Stale, humid, odorous air should be discharged from each individual room—quickly.

Look for this insignia. It's your assurance of quality.



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PEOPLE: FHA names expert to push co-op housing; money squeeze leads Builder LaPierre to shut down

FHA appointed an expert to head up its cooperative housing program—a job the agency had vainly tried to persuade Congress not to create.

He is **Dwight D. Townsend**, 51, director of field education of one of the nation's largest cooperatives, Consumers Cooperative Assn. of Kansas City. Townsend has also been on the executive board of the Committee of Kansas Farm Organizations, one of the oldest organized farm groups in the country. He was president of the Kansas Cooperative Council for more than four years.

Harold Lockheimer, Jersey City, N.J. public relations and business management counsel, was named FHA director for Puerto Rico, succeeding Ogden C. Wilkerson who steps down to assistant director.

Seattle Builder Al LaPierre, president of the Seattle Master Builders Assn. and developer of the big Mountlake Terrace project, announced he was pulling up stakes because of the "tight mortgage money situation for low-cost housing" and will move operations to Vista, Calif. "There is nothing that could happen now to induce me to make new starts again before the first of the year," he said. "Builders, realtors, architects, bankers, institutional mortgage buyers—all of us—are blindly bringing on social housing for all who can't afford to pay \$11,500."

LaPierre, who has built more than 3,000 homes in Seattle since the end of World War II, predicted that housing for under \$11,500 "soon will become extinct." He added: "It is pitiful to see the money market dry up when demand is there."

He said that in Vista—a town of 895 population 35 mi. northeast of San Diego—he will build between 15 and 20 homes a year in the \$18,000-30,000 price range. "Controls," he said, make it impossible for him to make money on higher-bracket houses in Seattle.

Normaniel E. Kossack, 43, New York-born lawyer and onetime (1946-50) FBI agent, was picked to head a newly formed fraud section in the criminal division of the Justice Dept. The new unit, said Justice, is a direct outgrowth of last year's establishment of a National Housing Act unit to investigate 608 windfalls and FHA repair loan scandals, Kossack, who headed the National Housing Act unit from its inception, told House & Home that the new setup was an "administrative consolidation" which did not necessarily foreshadow a step-up in FHA fraud prosecution. He added: "It doesn't mean there is going to be a let-down, either."

The federal housing agencies lost another round to the Civil Service Commission in their efforts to jettison holdover Democratic appointees.

The commission ordered HHFA to reinstate Mrs. Corienne R. Morrow, who was fired July 25 along with Dr. Frank S. Horne, assistant to the administrator and longtime HHFA expert on race relations. Dr. Horne and Mrs. Morrow, his assistant, were two of the higher ranking Negroes in federal service. Both appealed their ousters, but at mid-month a decision had not yet been handed down in Dr. Horne's case.

Mrs. Morrow complained that her civil service right to displace another lower-ranking HHFA employe had been ignored by HHFAdministrator Albert M. Cole when he dismissed her. The civil service appeals examining office upheld this view, ordered HHFA to restore her to its payroll, either in a vacant \$10,065-a-year job as information specialist or in another spot at the same pay.

Former General Counsel Burton C. Bovard, also ordered reinstated by the Civil Service Commission because charges against him contained "substantial defects" (Nov., News), had not been taken back by FHA

"My responsibility is to exhaust all possibilities," said FHA Commissioner Norman Mason. "I wrote the chairman of the Civil Service Commission within the 10-day period allowed and asked him to reopen the case." The commissioner's action is the last "appeal" possible in the Bovard case.

So big and expanding has T. J. Bettes Co. of Houston grown—it is probably the nation's biggest mortgage banking firm—that one master of ceremonies at the Mortgage Bankers Assn. convention drew a laugh with the facetious announcement that Bettes had just bought the giant Bank of America.

Bettes' latest expansion is more modest: purchase of the Pacific Mortgage Corp. in Los Angeles from Walter Rolapp, Ken Gregg and Stanley Murphy. The deal adds some \$60 million to Bettes' servicing portfolio, now around \$800 million. Bettes' operations touch four states (Texas, Oklahoma, California and Arkansas) and Honolulu. President John Austin Jr. not only shuttles about that big domain, but last month took on the extra job of being MBA's vice president (p. 39)—a post that is traditionally the steppingstone to MBA president the next year.

For the second consecutive year, the Seattle Chamber of Commerce gave rotund Builder Albert Bolch one of its Paul Bunyan awards. The awards are presented annually for the most constructive jobs of creating favorable impressions of the city.

Balch, who (with partners) will build about 500 homes this year, comes by his talent for getting publicity from experience. Before he went into building and subdividing in 1935, he was promotion and news manager for Radio Stations KOMO and KJR in Seattle.

Balch, who loves a hearty laugh, gets attention for Seattle not only by building or staging gagladen beauty contests (see cut) but also through



BUILDER BALCH & FRIEND

his hobby of passing out membership cards in mythical, zany organizations at the rate of about four to everybody he meets every day. Samples: "If You Can't Bear them, Bore Them Association," "League of Hysterical Thinkers—No Thinker; Just Hysterical," "Society for the Prevention of Elevators Stopping Suddenly." Most of the gags are dreamed up by Seattle Newsman Jack Jarvis but Balch rates—even the cards say so—as No. 1 "enthusiastic organizer." In a year and a half, Balch figures he has passed out some 279,000 of the funny memberships.

Long Island home builders have voted to back Builder Leonard Frank for first vice president of NAHB at its Chicago convention Jan. 22-26. Anthony S. Zummo, chairman of NAHB's labor committee, was elected president of the L. I. Home Builders Institute, succeeding Emil M. Keen.

Personnel shifts in the prefab field were at a brisk pace. Among them: Lumber Fabricators Inc., Fort Payne, Ala., appointed Don Gott, formerly assistant general manager of Reynolds Metals Co.'s building materials division, as marketing vice president. . . . W. L. (Larry) Mainland, former sales vice president of Modern Homes, now heads Style-Rite Homes and its affiliate, Home Fabricators, Inc. . . . W. Garland Hiatt, former LFI general manager and an ex-associate of Mainland's, heads engineering and production. . . . Jay D. Baker, former prefab executive, and Edgar W. Archer, architect, builder and land developer, teamed up to start Fairlane Homes, Inc., Louisville. . . . Scholz Homes got Harold L. Funk, formerly vice president of Harnischfeger's Builders Acceptance Corp., to head Scholz Homes Acceptance Corp. . . . Kent Dawson, former sales manager of Harnischfeger, is now in Scholz Home Special Projects division. . . . Modern Homes named Ralph Dabe, former sales manager of Murray Corp.'s appliance division, as sales manager. . . Fairhill, Inc., Memphis, has a former Small Homes Council researcher, Walter Lewis, on its staff. . . . Thyer Mfg. Corp., Toledo, appointed Don Grant director of engineering and Norman Wiebusch, ex-ad agency executive, to be sales director.

CONGRATULATIONS: to Engineer Charles S. Leopold, of Philadelphia, for winning the Frank P. Brown medal from the Franklin Institute in recognition of "outstanding contribution to air conditioning, particularly in research and development;" to F. Stuart Fitzpatrick, manager of the US Chamber of Commerce's construction and civic development department, for winning the Producers' Council's award of recognition for outstanding service to construction; to Donald A. Lum of Rochester, N.Y., who was named "realtorof-the-year" by the NY Assn, of Real Estate Boards in recognition of his success, as chairman of the Build Rochester Better committee, in spearheading a drive that "prevented the expansion of public housing and influenced local legislation that provided the foundation for a practical program of rehabilitation and conservation."

ELECTED: John H. Stewart, president of Stark Ceramics Inc. of Canton, Ohio, as president of the Structural Clay Products Institute; new SCPI vice president: Kenneth W. Dunwody, head of Cherokee Brick & Tile Co., Macon, Ga.; Eldred Cayce, building products manager of Tennessee Products & Chemical Corp. at Nashville, as president of the Natl. Mineral Wool Assn.; C. Albert Carlson of Minneapolis' Aaron Carlson Inc. as

continued on p. 52

president of the Architectural Woodwork Institute succeeding Charles A. Rinehimer, who stepped up to chairman.

The presidency of the Natl. Assn. of Manufacturers will go this month to a long-time building product executive. He is Cola G. Parker, 65, retired president and board chairman of Kimberly-Clark Corp. of Neenah, Wis., paper and paper building material manufacturers.

Since 1954, Parker has been chairman of the Federal Home Loan Bank of Chicago. In 1953, he was a member of the Randall Commission on Foreign Economic Policy. He is a former chairman of the Natl. Industrial Conference Board.

Oliver F. Burnett Jr., president of Kelso-Burnett Electric Co. in Chicago, was elected president of the Natl. Electrical Contractors Assn. at its convention in New York. Burnett was chairman of NECA's business development committee from 1951 through 1954, last year won the contractor's medal under the James H. McGraw Award. Outgoing President Don B. Clayton won the award this year. Clayton warned the copper industry at the convention that it was pricing itself out of the market, said unless it could provide more dependable supply and lower prices the electrical industry would turn more and more to aluminum conductors.

NECA—its membership is now up to 4,487—also decried the percentage of electrical contract prices retained by general contractors and clients to assure proper execution of contracts. The practice, said officers, is freezing some \$2 billion in credit annually. NECA's solution: architects should institute a procedure under which holdbacks would not exceed 5% on work more than 75% complete, 10% on work less than 75% finished.

DIED: Ziegler Sargent, 73, retired vice president and treasurer of the hardware firm of Sargent & Co., in New Haven, Conn., Oct. 12 in New Haven; Marcus D. Fitzsimmons, 63, president in 1951 of the Los Angeles Realty board, a director of the Calif. Real Estate Assn. and a former director of the Society of Residential Appraisers, Oct. 17 in Los Angeles; Glen Walker Cole, 60, vice chairman of the board and former president of the Corning Glass Works, Oct. 18 in Corning, N.Y.; Herbert M. Baruch, 61, chairman of the board of the Los Angeles building firm of Baruch Corp., of a self-inflicted bullet wound, Oct. 20 in Los Angeles; Charles Partridge, 79, founder and president of the Charles Partridge Real Estate Co., Inc. in Brooklyn, N.Y., one of real estate's pioneer champions of rehabilitation and a former president of the Brooklyn Real Estate Board, Oct. 20 in Brooklyn; Bernard W. (Buck) Horner, 73, former FHA director in Memphis who was scheduled to become chairman of the Mortgage Bankers Assn.'s FHA committee, Oct. 18 in Memphis; Theodore C. Esser, 84, founder and president of the T. C. Esser Co., Milwaukee firm manufacturing paints, stained glass and decorators' supplies, Oct. 24 in Milwaukee; Nicholas J. Morrisey, 49, director of professional standards for the state of California, Oct. 26 in Sacramento; Blaine S. Smith, 71, retired president of Universal Atlas Cement Co., a subsidiary of US Steel Corp., Oct. 27 in New Rochelle, N.Y.; Harvey H. Richman, 47, well known Cincinnati home builder for the past 30 years, Nov. 5 in Cincinnati; Arthur T. McIntosh, 78, one of Chicago's biggest real estate developers and home builders who had expanded his operations into Florida and Iowa, Nov. 7 in Chicago.

FHA readies plan for 40-year, 41/4% loans to house the aged before public housers do

HHFA and FHA are cooking up plans to push private industry into housing for the aged before the public housers get there.

The two agencies plan to recommend a new FHA insurance program to persuade unions, church and fraternal groups to build apartments for the elderly. Probable terms: 90% of replacement cost, 40 years, 4½%! FHA would look to the sponsoring organization for loan payments, not to tenants of the building. Thus sponsors could rent apartments at less than cost, make up the difference from their general funds.

FHA also wants Congress to approve insuring mortgages on single-family housing for elderly people who are *not* acceptable credit risks—provided a relative or friend who is a good risk co-signs the mortgage.

No-cash deal. Housing officials hope the 90% loan-to-value ratio for apartments will encourage builders and architects to include costly features like non-skid floors, ramps instead of stairs, extra elevators, hand rails, central dining rooms, nurses and first aid quarters. With 90% loans, sponsors might well get buildings without putting up any cash—by contributing the land or (if the sponsor is a municipality) contributing tax abatement on the property.

FHA also wants Congress to change its rules to encourage builders of Sec. 207 rental units to set aside apartments for aged persons. Under present rules, to get a 90% mortgage a builder must average two bedrooms per apartment to accommodate families with children. FHA thinks builders should be allowed to set aside 25% of apartments in a project for older people—presumably one bedroom or efficiency units—without having that charged against the average for the project.

Plug from Mason. Broaching the subject last month to the Mortgage Bankers Assn., FHA Commissioner Norman Mason conceded: "At the mention of a new FHA activity, some of your members will shake their heads and talk of more government interference." But he stressed: "We do believe that some sort of a program should be provided to make housing for the aged a project for private industry-not just a bigger public housing program . . . it seems to me that there is a sound field for investment here. People are living longer. Average life expectancy has gone up to 65 years. And with pension funds, social security, and other forms of assured income, older people are more independent than they used to be."

Housing agency plans indicate that housing for the aged may become a major program of the Republican administration in the votegetting field of social legislation. The New York State Democratic administration of Gov. Averell Harriman has come up with some ideas for such legislation, too. A housing subcommittee at a three-day conference on problems of the aging held at Albany October 18-20 recommended:

▶ Communities should consider tax exemption for single-family homes, row houses or apartments built and reserved for elderly occupants to permit lower rentals.

- ▶ FHA should recognize in its valuations the extra cost of safety and design standards for occupancy by aged persons.
- Private housing for "middle income groups" should be encouraged by tax concessions, low interest state loans to limited profit corporations or limited dividend cooperatives.
- ▶ Both federal and municipal public housing should be boosted to provide more housing for elderly persons. (A NAREB representative on the 31-man subcommittee dissented; home builders were invited but not present.)

Prefabbers study forming acceptance corporations

At their biggest convention yet, the nation's prefabricated house manufacturers talked money, mortgages, merchandising.

Chief topic of conversation in corridors or in hotel rooms among the 200-plus persons who attended the fall meeting of the Prefabricated Home Manufacturers' Institute was acceptance corporations. The prefabbers were finding as much need to assure their builders a market for mortgage money as for the houses they manufactured. Several plan to set up acceptance corporations in the near future. Obstacles: the \$100,000 minimum needed to become an approved FHA mortgagee and a good man to run an acceptance corporation.

So far, National, US Steel, Page & Hill, General Industries, Admiral Homes and Harnischfeger have acceptance corporations. Most of them have been set up in the last two years. Companies about to set up acceptance corporations—some from floating stock issues—include Richmond Homes, Lesco, Scholz Homes.

Other evidence of prefabbers' financial preoccupation:

- The Institute published a booklet, "Financing Prefabricated Homes," authored by Neal MacGiehan who once prepared a guide to construction financing for HHFA.
- The accounting and statistical committee of PHMI, at work for a year on its task, released a suggested builder-dealer cost recording system.
- ▶ J. B. Graves, Jr., executive secretary of the Nashville office of Voluntary Home Mortgage Credit Program, told prefabbers VHMC was now making 1,500 loans a month but placing only a third of the mortgages it is asked to place. Reasons: owners are a bad credit risk, houses are below underwriting standards, housing is substandard or mortgagees ask too high a discount.

Sen. John Sparkman (D, Ala.) expressed belief that "the prediction that in another decade 40 to 50% of all new homes will be prefabricated does not seem impossible of attainment." President Peter S. Knox, Jr. predicted prefabbers would eventually produce 90% of all single-family dwellings. Greatest need of the industry, said Knox, was manpower and financial resources.

NEWS continued on p. 56



Vinyl-asbestos floor is Armstrong Excelon Tile, Style No. 787.

Sell the women, with a step-saving kitchen ... and

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Nothing makes your homes more appealing to women—wins their approval faster—than a beautiful work-saving kitchen. That's what you offer when you include all the latest type appliances arranged to save steps and a bright, colorful floor of easy-to-clean plastic. You can add the luxury appeal of such a floor to any home easily with low-cost vinyl-asbestos Armstrong Excelon Tile. The variety of colors and stylings in Excelon Tile—including Spatter® and a new tone-on-tone Designers Series—makes countless decorating schemes possible. Excelon is greaseproof and stain-resistant. It can be installed on any type of subfloor—suspended, on grade, or below grade. Put extra appeal in the next homes you build by specifying inexpensive plastic floors of handsome, long-wearing Armstrong Excelon Tile, "the modern fashion in floors."

Send for free detailed sketch plan showing arrangement of cabinets and appliances in this work-saving kitchen.
A list of furnishings and color scheme included. Write
Armstrong Cork Company, 512 Sixth Street, Lancaster, Pa.

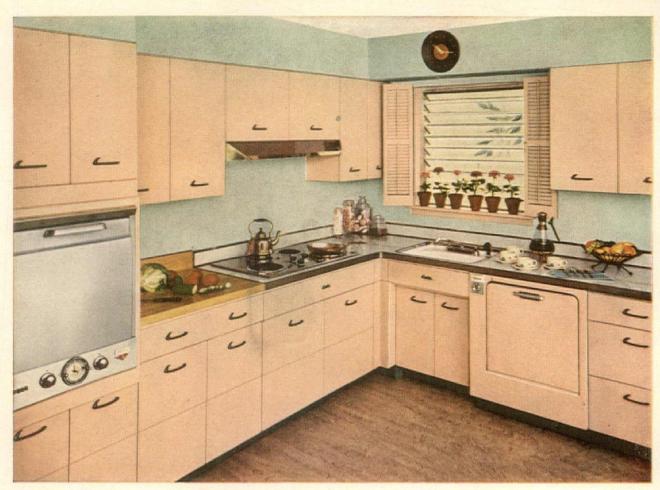


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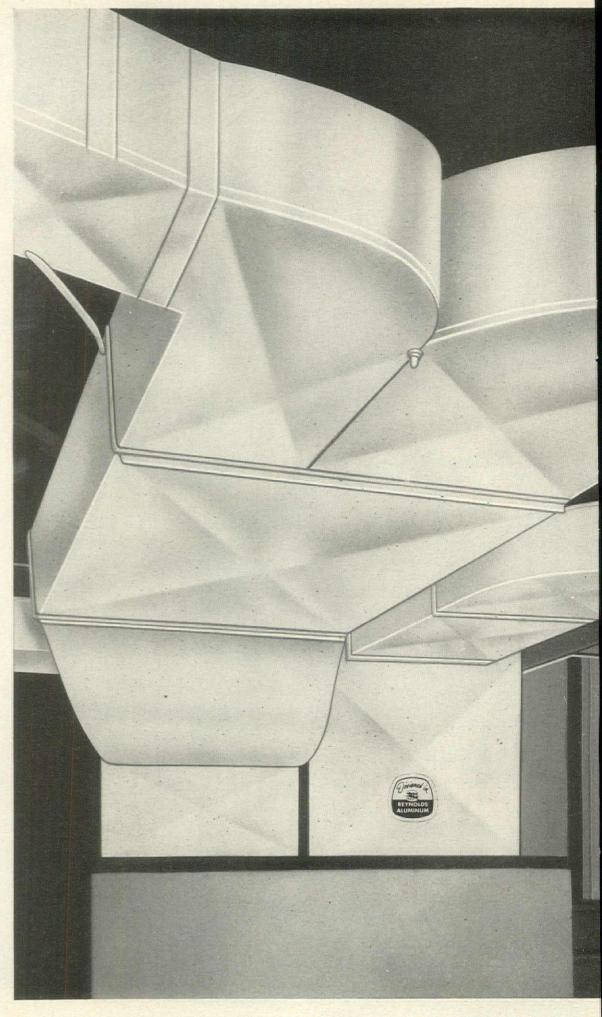
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This advertisement appearing in December BETTER HOMES AND GARDENS is one of a continuing campaign which also uses SMALL HOMES GUIDE and LIVING FOR YOUNG HOMEMAKERS...as well as Reynolds national TV program. It takes the story of aluminum ducts right to the homebuyer. It builds consumer insistence on this feature that modern air conditioning makes more important than ever-because with it, moisture condensation and the danger of rust are inevitable. You can tie in directly with Reynolds promotion by putting this seal on duct installations:



This Seal is extensively promoted in national magazines and on network TV. It comes in many sizes, color-printed on aluminum foil, to be affixed to products, parts and installations as identification of the quality material: Reynolds Aluminum. Write for complete information.



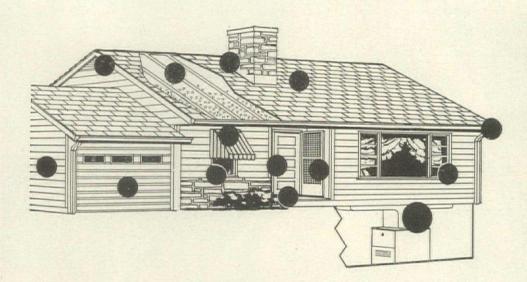
See "FRONTIER," Reynolds new dramatic series, Sundays, NBC-TV Network.



REYNOLDS

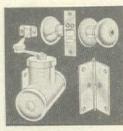
Buyers look for these Marks of Quality in

aluminum



Modern homes feature many more aluminum "marks of quality" than are shown on this house. Aluminum nails would be all over the picture—so would aluminum parts of electrical and heating systems. But this is a start. Besides the items illustrated, the list includes Garage Door, Louvers, Reflective Insulation, Flashing, Shingles, Gutters & Downspouts, Windows. In all those uses, aluminum offers long life and low cost...rust-free, maintenance-free. And wherever the use is visible—as in windows, gutters—aluminum adds the advantage of great beauty. For standard building products designed in Reynolds Aluminum, call your regular supply source. For other product requirements, call the nearest Reynolds office listed under "Aluminum" in classified telephone directories. For complete information, including use of the "Designed in Reynolds Aluminum" seal, write to Reynolds Metals Company, General Sales Office, Louisville 1, Kentucky.

For quick reference see Catalog $\frac{5a}{Re}$ in Sweet's Architectural File.



Aluminum hardware is preferred for its soft lustre, its modern white-metal look.



Aluminum makes neater, cleaner thresholds—easy to install, long lasting, modern looking.



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Aluminum storm-screen doors and windows never warp or bend always look good.



Weatherproof, heat-reflective aluminum awnings add comfort and color to any home.

ALUMINUM

Here's the latest of the new Regal line of Dexter Key-in-Knob locksets — The Regal Portrait Design — 5" backset with escutcheon 5¾" x 5¾", mounts either diamond or square. Portrait is available with pin or disc tumbler cylinder, deadlocking or spring latch.

Like other Dexter Regal locksets, exterior is solid brass, interior parts cold rolled steel. Available in standard or two-tone finishes.

two-tone finishes.

Knobs armored brass, steel reinforced. Lock reversible for any hand of door without disassembly. Requires only 15%" dia. hole through door.

DESIGN



Portrait mounted square.

Attractive mounted displays are available in Decorator Colors: red, blue, green or ivory.

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No lock installs faster than a Dexter

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Seven San Diego firms get together to put variety into a subdivision

Two San Diego builders have worked up plans to avert monotony in a 670-acre project by getting half a dozen other builders to come in and put up different varieties of house.

"It's not possible for one man or one firm to be original on 1.500 homes," says R. Marvin Jackson, secretary of Vinley Corp., (Stanley C. Scott, his partner in the building firm of Jackson & Scott, is president of Vinley. "Yet people want variety and a freedom of choice."

Their Del Cerro development—8 mi. from downtown San Diego by freeway—is also trying "low-pressure" newspaper advertising. One ad closed with "Don't bother rushing out today," but about 2,000 persons did just that, anyway. All 84 lots in Unit 1 of the project were sold by mid-September and 40 homes by five different builders were under construction there.



SCOTT



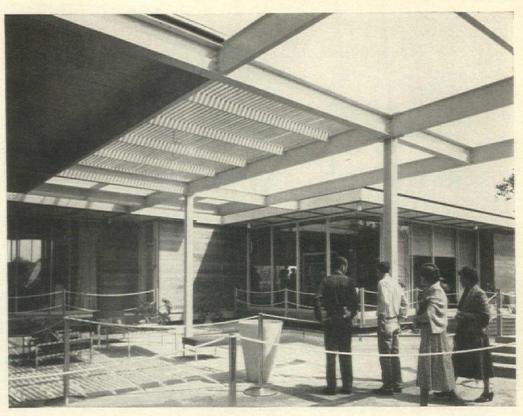
JACKSON

The corporation is developing its mesa site in small units to keep closely tuned to sales and to cut down on capital investment. The average sales price of a lot is between \$3,500 and \$7,000. Houses range from \$17,000 to \$25,000. The developers figure the homes will move up to the \$30,000-35,000 bracket as the work progresses. All kinds of financing are used. Other builders in the deal: Builders Enterprises, Inc., Engelstad Construction Co., Fuller & Coulter, Lloyd N. Sanford, Jack H. Seedorf Jr. and Henry L. Wheeler.

Chicago association saves GI project that went broke

Chicago Metropolitan Home Builders Assn. has come to the rescue of a VA project that went broke. In June, Cosmic Construction Co., an association member, went into bankruptcy without completing some 120 homes priced at \$13,900 on which veterans had paid an average of \$1,000 down.

Stepping in, the association arranged for a new firm, Orland-Palos Co., to complete the job. It offered to refund deposits or complete the homes. About half the buyers still wanted their houses, said CMHBA Attorney John F. McCarthy. Builder Tony Ross will do the construction. Suppliers and subs holding \$450,000 of claims against Cosmic (Hans Schaller, president) will be paid from proceeds of the completed buildings.



by the Building Contractors Assn. of California attracted 25,000 persons the first week it was on view at the Los Angeles County Fair. Architects Henry L. Eggers and Walter W. Wilkman borrowed the girder technique from big building, used 6", wide-flange uprights and 12" I-beams to form a skeletal steel box from which to hang

the walls. The house at the fair used four of these basic units, for a total living area of 2,900 sq. ft., but any number can be hitched together. Builder Wallace F. McDonald, who put up the house, figures the timetable as one to two days to prepare the footings one to two days for the frame and three to four days to finish the roof. Cost is about \$15 a sq. ft.

Farmland by the hundred-acres gives way to big subdivisions

Builders and developers were paying bigger and bigger money for suburban farmland destined for conversion to ever bigger subdivisions. Some major transactions:

▶ Builders Chris D. and George McKeon of San Francisco bought a 375-acre stretch of unincorporated hilly slopes just south of the city line for more than \$1 million. They announced plans for a \$70 million project of 4,000 homes plus the inevitable shopping center. Price bracket: about \$15,000. Site preparation will involve moving more than 10 million cu. yds. of earth. Realty broker was Ralph F. Clark.

▶ Two Beverly Hills attorneys, M. Philip Davis and W. Thomas Davis, bought 2,250 acres of irrigated truck crop farmland near Brentwood in eastern Contra Costa County, Calif. Sales price: just under \$3 million. The area is one of the fastest growing subdivision sectors of northern California.

Stegge Development Co. of Vallejo, Calif. acquired 2,440 acres of wooded hills and meadows of San Pablo Bay north of San Francisco, for an undisclosed sum. They announced plans for a 6,000-home tract, with the first 250 due for completion this year. Prices will range from \$16,950 to \$25,000.

▶ Sierra View Builders Inc. acquired 375 acres of rolling hills next to a golf course at Sacramento for a 1,500-house planned community. President Robert Netherby said prices will range from \$12,000 to \$14,500.

A Queens County, N.Y. syndicate bought

15,000 acres 60 mi. south of New York astride New Jersey's new Garden State Parkway, announced plans for two new communities totaling 200,000 inhabitants. President Louis W. Licht of Lane Realty Co., syndicate spokesman, said de-

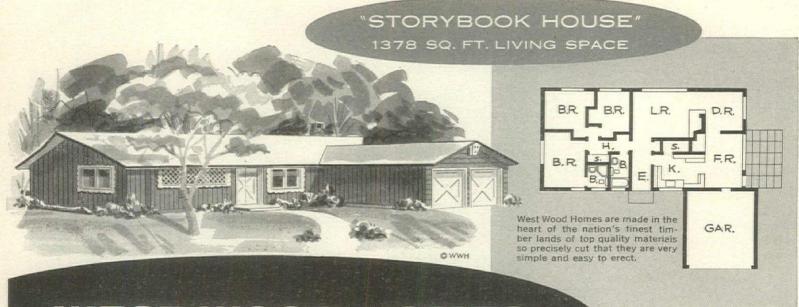
velopment should take 10 years.

Outside Kansas City, Praver & Sons bought 220 acres of flat farmland from Shelby Construction Co., New Orleans-headquartered firm which is having trouble with FHA over Sec. 608, and planned an 840-house subdivision. Architect Louis Geis has designed three- and four-bedroom homes to sell for \$10,700 to \$15,500 on lots of at least 7,500 sq. ft.

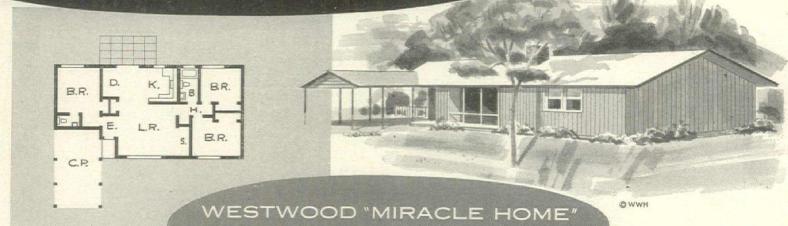
In Memphis, William D. Galbreath, president continued on p. 64



Hybridization of both houses and names to describe them has produced this "expansorancho" in Rochester, N.Y. Its shape suggests a telescoping nest of cottages. Its builders, Pepperidge Homes Inc., call it an amalgam of expansion attic and ranch. The third bedroom is upstairs, with finish optional. Pepperidge has sold 53 in a year at prices from \$13,100 to \$18,000, including full basement.



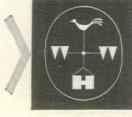
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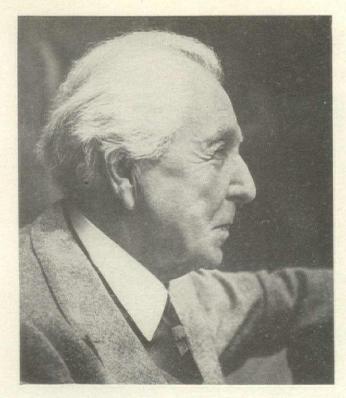


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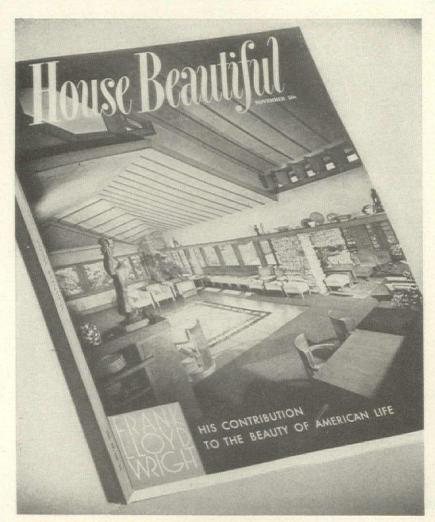


When a man, or a magazine, stands head and shoulders above the crowd the reason is creative genius. In a word, "Leadership". Frank Lloyd Wright possesses these qualities to an astonishing degree. He has deeply influenced American architecture and living in the 60 years of his career.

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House Beautiful's Revolutionary Climate Control Program—Showing how your house and your garden can tame the extremes of local climate.

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Annual average over 650,000 upper-income families 3½ million men and women readers Over 50,000 subscribers in retail trades

BUILDERS AT WORK

continued from p 61

of both Wilson-Galbreath Realty Co. and Percy Galbreath & Son Inc. (mortgage bankers), acquired 370 acres of mostly wooded country (by buying James Road Realty Co. for \$325,000) and revealed plans for a 400 to 500-home development. William Wilson of Wilson-Galbreath, nonstock owning president of the developing firm, Scenic Hills Inc., said plans call for two lots per acre, a lake and recreation park, and houses priced from \$12,000 to \$25,000. Said Wilson: "We are not going to permit builders to push over trees willy-nilly as they have in so many developments in the Memphis area."

Mobile Builder Dick Hughes offers extra bedrooms in \$9,000 home

Ex-NAHB President Richard Hughes, who has pushed his building operations into Amarillo, Borger and Wichita Falls, Texas and Bartlesville, Okla., has come up with a \$9,000 two-bedroom house (see photo) with optional year-around air conditioning and facilities to double the sleeping



HUGHES' \$9,000 TWO-BEDROOMER

accommodations, if the buyer so chooses. Hughes says 60% of his customers to date have taken the air conditioning and 60% have specified sloping-ceiling homes in preference to flat-ceiling or a half-and-half combination that he also offers. The house is open-plan and includes an old-fashioned porch next to the carport. An extra bedroom is available, says Hughes, behind a flexible wall at one end of the living room and there is space in the family room closet for a rollaway bed.

Items of value: a trained helper, mobility and the two-story house

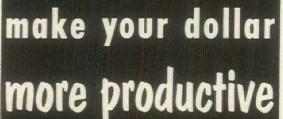
Ft. Wayne Builder-Realtor Ralph Shirmeyer, now at work in Columbus, Ohio, solved skilled personnel problems in an unusual way. He schooled an aspiring 25-year-old for a year in the fine points of the profession, feels he taught him "more and better than the chap could have learned in 15 years of blundering aorund in the building industry." . . . Builder Charles Searles of Colorado Springs will build in Grand Island, Neb., Cortez and Boulder, Colo. and maybe Ames, Iowa, One reason he wanted to expand from Colorado Springs: so many builders moved into town when the Air Force Academy was announced that "the supply was getting greater than the demand." . . . Sharp changeover from the usual one-story ranch-types covering suburbs in Portland, Ore. will go up in Sunbow Valley, where Builders Richard J. Orth and John R. Mahaffy expect to make threefifths of their 200 houses modern two-story homes.

U-shaped house in Tulsa built for presidents of US Junior C of C

Headquarters staff of the U.S. Junior Chamber of Commerce in Tulsa got tired of their annual search for a house for the new president (who is required to live in Tulsa during his one-year term of office) and put up a U-shaped home of glued laminated pine beams and stone. Architect: Leonard Lungren of Austin, Texas. Builder: Nuckolls Construction Co.

NEWS continued on p. 69









Patents Pending



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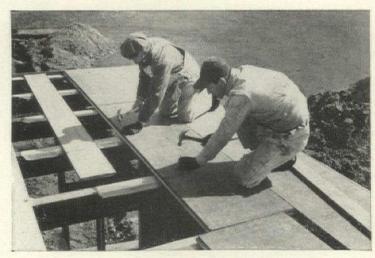


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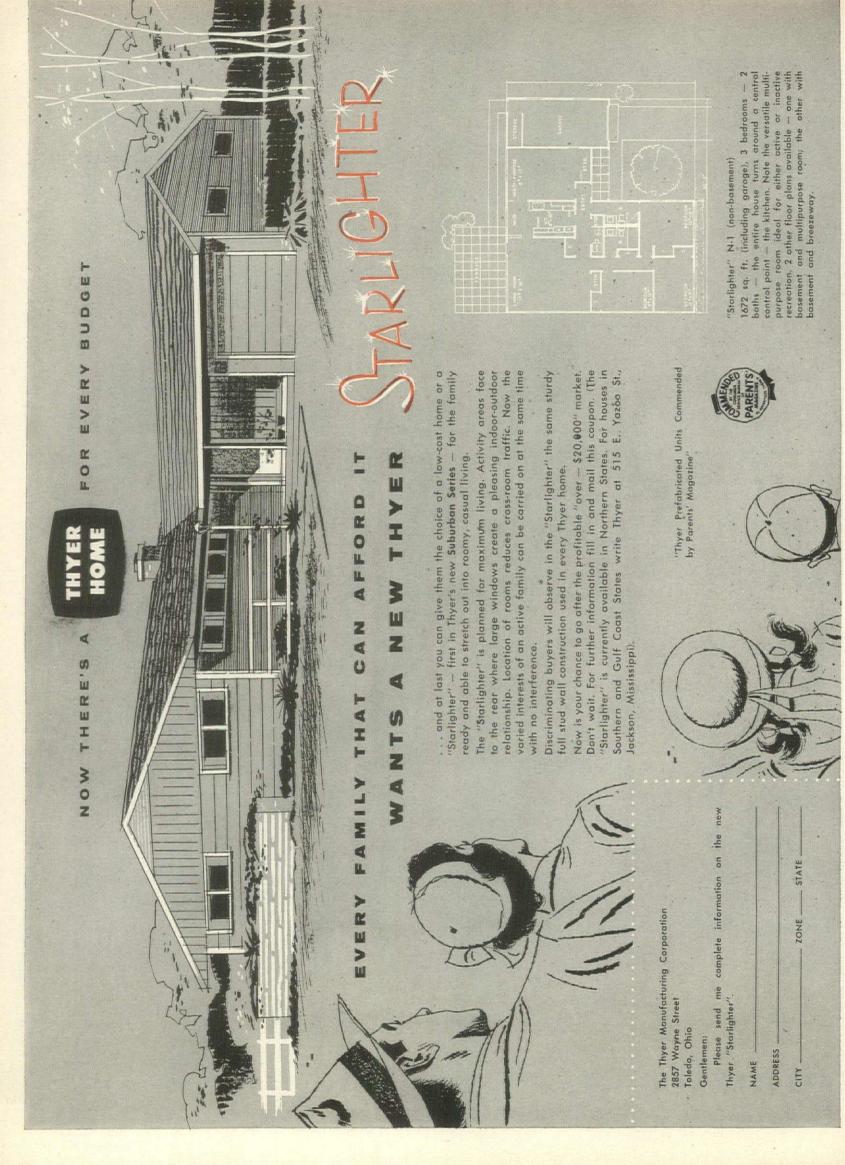


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Officials put new life in their old fight against red tape and federal 'domination'

Public housing and redevelopment officials meeting in Cleveland voted unanimously to castigate the federal government for its increasing "domination" over local authorities and municipal renewal groups.

The man-bites-Uncle Sam resolution was passed during the business meeting of the Natl. Assn. of Housing and Redevelopment Officials at their 22nd annual conference. Considerable suspense had surrounded the closed-door meetings of the committee working out the phrasing of the five-part resolution. Asked afterwards why he thought the document might have met resistance at the business meeting, Outgoing President Walter B. Mills Jr. told the press: "I was just afraid one or two of the boys who have friends in the government agencies might not want to go on record against them. I saw a couple of them right in the front row, as a matter of fact, but they didn't say anything."

Was the resolution a new leaf in NAHRO's book? Observers shook their heads, asserted that it followed last year's recommendations (the first year the organization introduced a so-called summary resolution) but used more pointed language this year. A summation:

• "We believe that the difference of viewpoint, approach and interpretation which we have unsuccessfully attempted to negotiate with PHA and URA have gone far beyond the normal differences to be expected in any program jointly administered by a centralized federal agency and a large number of separate local agencies." (A couple of points of friction: federal rulings on design of public housing projects and on proper methods of accounting for economical operation.)

▶ "We recommend a program based on annual production of low-rent public housing approximating 10% of total national housing production, and of sufficient duration to allow intelligent and economywise advance planning on the part of the federal and local agencies involved."

▶ "We commend the changes made in housing legislation this year for the purpose of making Sec. 220 of the Housing Act of 1954 operative. We urge, however, that the FHA show equal realism in its administrative rulings and procedures, particularly in regard to the so-called 'builder's profit'."

Rebman Photo Svce.



NEW NAHRO PRESIDENT Robert D. Sipprell (r) talks with Past President Walter B, Mills Jr. (c) and Second Vice President Walter M. Simmons. Absent from photo: First Vice President Paul S. Freedman.

President Mills had softened up the membership for a vote on the resolution with a speech incorporating its provisions and adding some others. Mills also wanted a redetermination of the rent paid by public housing tenants (why, he asked, had it been set arbitrarily at one-fifth of a family's income?) and legislation that would authorize the relinquishment of farm labor centers to local housing authorities. The only part of Mills' speech that backfired was a section devoted to recapitulation of an article by Lee F. Johnson, executive vice president of the National Housing Conference, in The Housing Yearbook. Johnson had written that one of the reasons proponents of public housing had "failed to exploit the 1949 Housing Act" was because "We are weary of the long fight." Mills elaborated on this, said that as he looked about him he saw "old, tired faces." Surprisingly, the audience broke into laughter and applause, apparently under the mistaken supposition that Mills was zeroing in solely and specifically on the Washington agency bureaucrats. Mills forged ahead, had to force a half smile himself when the laughter continued and NAHRO officers flanking him on the platform broke into grins themselves.

Hidden ball play. Lee Johnson, meantime, had made daily-press headlines the second day of the NAHRO convention with a fiery speech on the legislative aims of NHC.* Johnson explained to an audience of about 100 persons that NHC's housing program, as spelled out by Dr. William Wheaton of the University of Pennsylvania (1st vice president of NHC) would be introduced at the coming session of Congress. "We recommend a minimum public housing program of 200,000 units a year for three years," said Johnson. "In connection therewith we urge that over-income families who cannot find decent private shelter be allowed to remain in public housing. Single aged persons would be admitted. We recommend that when good private housing can be obtained for a favorable price, local housing authorities would have a right to buy it. We would make redeveloped land under urban renewal available to local housing authorities for public housing use at the same cost that it now goes to private developers."

Cut the red tape. Workshop and discussion sessions gave the rank and file of NAHRO a chance to ask questions. One of the main ones: is anybody going to simplify the operating procedures of the urban renewal program? URA Commissioner James W. Follin reminded delegates of a recent order to his regional offices telling them to make every effort to get Old Act projects into

*Overlapping memberships in NAHRO and NHC lead to a certain amount of confusion among the uninformed when either organization holds a convention. NHC's finance committee, for example, met during the recent NAHRO conference—in a room at the convention hotel carefully paid for by NHC. As one double-member phrased it: "I just change my badge and go down and see Lee." But Walter Mills, told that one delegate had referred to the NAHRO-NHC relationship as "the perfect interlocking directorate," snapped: "He's wrong."

the development or loan and grant stage by next June 30. "Some of these projects have been around for three or three-and-a-half years," said Follin. "I hate to admit this, because it makes us look bad. But it is possible to do this thing quickly. Now I know some one is going to jump up and ask why we don't simplify that government manual [The Local Public Agency Manual]. Well, I can tell you we are going to simplify it."

Some one jumped up and asked: "Do you understand the manual?"

Follin: "One of the things I've tried to do is not get confused by the manual." Some one else asked: "If you're at work

Some one else asked: "If you're at work cleaning up the old Title I projects, how are you going to take care of the new ones?"

Follin: "We haven't been flooded yet. I think if you flood us we'll work out some way to take care of it"

HHFAdministrator Albert Cole, without benefit of a question-and-answer period, told the conference: "Unless I completely misread them [the facts] we do not have to fear civic inertia. It exists-make no mistake about that-but it can be overcome. It has been overcome during the past 12 months in a substantial number of communities." Altogether, said Cole, URA has some 320 projects-old law and new-on its books, located in 200 cities and towns. He added: "I shall continue . . . to recommend, first, a realistic amount of public housing distributed over a period of two or more years; second, restoration of the workable program requirement."

Officers and governors: New president of NAHRO is Robert D. Sipprell, executive director of the Buffalo Municipal Housing Authority. Paul S. Freedman, deputy executive director of the Chicago Housing Authority, moved up to first vice president; Walter M. Simmons, executive director of the Memphis Housing Authority was named second vice president.

Elected to the board of governors: Edmund Horwinski of Oakland, Calif., Mrs. Edna Garrett of Corpus Christi, Mark K. Herley of Detroit, Oliver C. Winston of Baltimore and Charles L. Farris of St. Louis.

John R. Searles Jr. was elected to his third term as chairman of NAHRO's redevelopment section

Producers Council hears research, cost forecasts

What lies ahead in building technology?

Principal speakers at the Producers' Council's annual meeting in Detroit offered these

nuggets of prediction:

▶ Harold D. Hauf, head of Rensselaer Polytechnic Institute's department of architecture foresaw, after 1960, concrete floors that will not crack, flat roofs that will not blister. plaster that will not crack. Plaster, warned Hauf, is in danger of becoming obsolete. The building industry badly needs a product with plaster's advantages without its defects, he said, but the industry has not even scratched the surface of the problem. Because mechanical and electrical equipment account for an increasing percentage of building cost, Hauf predicted major savings may well come in these fields. Industry has a "social responsibility" to reduce the cost of housing, he



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Majestic offers a single source for quality heating equipment of many types—forced warm-air furnaces, matching summer cooling units, and factory-fabricated metal fireplaces and chimneys—all at thrifty prices and all designed for quick, simplified installation to save on-the-job costs.

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MATCHING AIR

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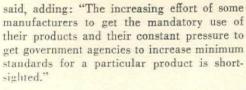
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- Editor-publisher P. I. Prentice of House & HOME forecast that home building costs could be cut by nearly \$1 billion yearly if manufacturers would adopt basic standard dimensions. On windows alone, builders could save \$100 a house-totaling \$100 million a year-if manufacturers adopt dimensions that dovetail with other wall components like framing, insulation, brick and wallboard, said Prentice. His estimates were based on findings of a series of industry Round Tables sponsored jointly by House & Home, the American Standards Assn. and NAHB's Research Institute (April issue, et. seq.).
- Watson Malone III, ex-president of the Natl. Retail Lumber Dealers' Assn., predicted retail dealers will continue the trend toward expanded service to customers and more diversified inventories. "Lumber dealers . . . not so many years ago dealt almost solely in lumber," he said. "They have been adding new lines each year with the result that, according to a recent nationwide survey, 83% now handle builders' hardware, 82% handle paint, 82% handle yard materials, more than one-third sell glass, hand and power tools and plumbing and heating equipment and more than 20% sell electrical supplies, garden supplies, chain, rope and ladders."
- Walter A. Taylor, director of AIA's education and research department, predicted that "one big school" will provide common training "in the not too distant future" for all types of building professionals - architects, engineers, contractors. Out of this should come a "better integrated industry," he prophesied.

PCBOC to change its name; agrees to certify prefabs

The Pacific Coast Building Officials Conference, long known as one of the nation's four major regional building code groups, has voted to adopt a broader name.

At its annual convention in Portland, Ore. last month, PCBOC decided to become the International Assn. of Building Officialsprovided two-thirds of its members ratify the move in a mail ballot. Although its membership is concentrated in the West, PCBOC claims members in some 800 cities including the Midwest, East and South plus Canada. Japan, Alaska, Mexico, Tasmania and Australia.

The 311 convention registrants also adopted in principle a proposal to add certification of prefabricators to PCBOC's existing practice of approving qualified building materials for the guidance of local building inspectors. A committee was named to recommend a procedure to the code group's executive board. The inspectors have in mind testing of prefabs at the factory thus benefiting cities that cannot or do not want to do their own testing. Glue-lam timbers and trusses, floor, wall and roof panels and prestressed concrete panels are to be included eventually, but PCBOC expects to begin slowly by limiting certification to glue-lam products.

continued on p. 76



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Heavier extruded aluminum; meets all requirements for tensile strength; will never rot, rust or need painting . . . integral fin completely surrounds window, takes brick fin or fin trim.

SEE UALCO'S CATALOG IN SWEET'S ARCHITECTURAL FILE 16A

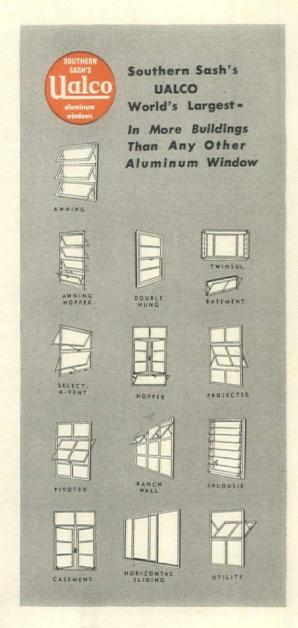
OR LIGHT CONSTRUCTION FILE 5A

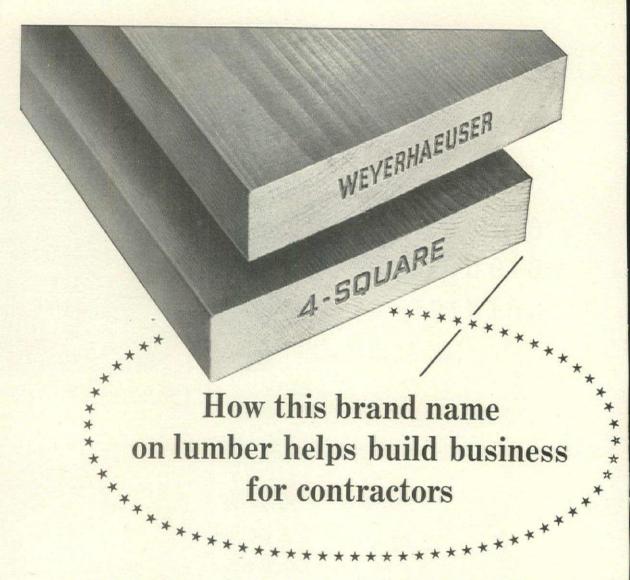
U

UALCO ALUMINUM WINDOWS ARE UNCONDITIONALLY GUARAN-TEED AGAINST DEFECTIVE MATERIAL AND WORKMANSHIP

WAREHOUSES & SALES OFFICES: CANTON, OHIO; ELIZABETH, N. J.; FLORENCE, ALA.; HIALEAH, FLA.; MONTGOMERY, ALA.; VAN NUYS, CALIF.; GREENSBORO, N. C.; RUSTON, LA.; KANSAS CITY, MO.; WASHINGTON, D. C.

SOUTHERN SASH SALES & SUPPLY CO., INC.





BUILDERS who use Weyerhaeuser 4-Square Lumber products in their construction find that this brand name helps them strengthen their position in several ways.

First, every piece of lumber bearing the Weyerhaeuser 4-Square brand name is kiln-dried—one of the features which contributes to the contractor's reputation as a reliable builder.

Second, consistent advertising over the years has made Weyerhaeuser 4-Square well-known and widely accepted by owners. It is easier to sell homes, for example, when they are constructed of quality products which the buyers know and trust.

Third, the uniformly high quality

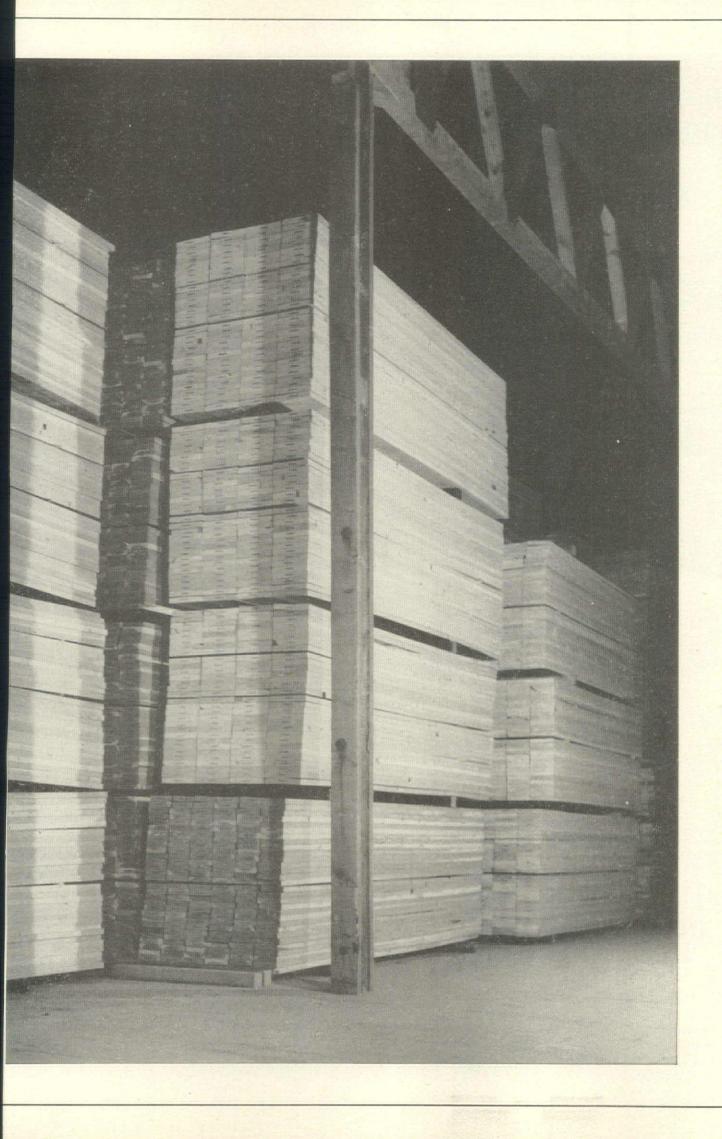
of Weyerhaeuser 4-Square Lumber helps reduce waste and promote sound, efficient construction. This lumber is carefully milled, accurately graded, and loaded properly to prevent damage in shipment.

Fourth, builders offering their prospects designs from the 4-Square Home and Farm Building Services gain the benefits of our continuous advertising in major national magazines.

Your local Weyerhaeuser 4-Square Lumber Dealer is prepared to give you full information concerning the extra values of Weyerhaeuser 4-Square Lumber and the 4-Square Home and Farm Building Services which he offers for your use.

Weyerhaeuser Sales Company

ST. PAUL 1, MINNESOTA



Efforts to stiffen flame spread requirements of PCBOC's Uniform Building Code (a revised 1955 edition has just been published) were sidetracked. The code's article 42, covering fire resistance of interior finishes, had been scheduled for a compromise amendment. Underwriters and fire marshals were urging a stiff restriction to replace the present liberal rule apparently favored by a majority of city building officials.

The conference elected C. S. McCormick, Tacoma building inspector, as president succeeding Gilbert E. Morris, Los Angeles superintendent of building.

Vacancies highest in West; incomes level off at peak

Changes in vacancy rates by geographical region have been substantial in the past five years.

The West, with 3.9%, has the highest, as it had in 1950, but it did not have the greatest proportionate increase for the five-year period.

The South has 2.9%, compared to the national average of 2.3%.

The North Central area shows 1.7% (the highest proportionate increase) and the Northeast 1.2%.

A revised report from the Census Bureau for the second quarter of 1955 also supplies the following information:

- ▶ The average increase from the 1.6% rate in 1950 was relatively much greater outside metropolitan areas than inside them.
- Year-round dilapidated units (not included in the available category) account for 1.2% of total housing, almost the same figure found in 1950.
- ▶ Approximately 80% of vacancies in 1955 are for rent. The for-rent inventory increased from 1.1% in 1950 to 1.8% in 1955. The forsale vacancy rate—comprising both new and used housing, with used housing in much greater proportion—stayed at the same level of about 0.5%.
- ▶ For nonfarm vacancies available for sale, the median sale price is \$10,200, compared to an \$8,500 median in 1950.

Incomes had reached a peak. They were about the same last year as in 1953—an average \$3,200 for men—but had risen 75% from the 1945 figure of \$1,800.

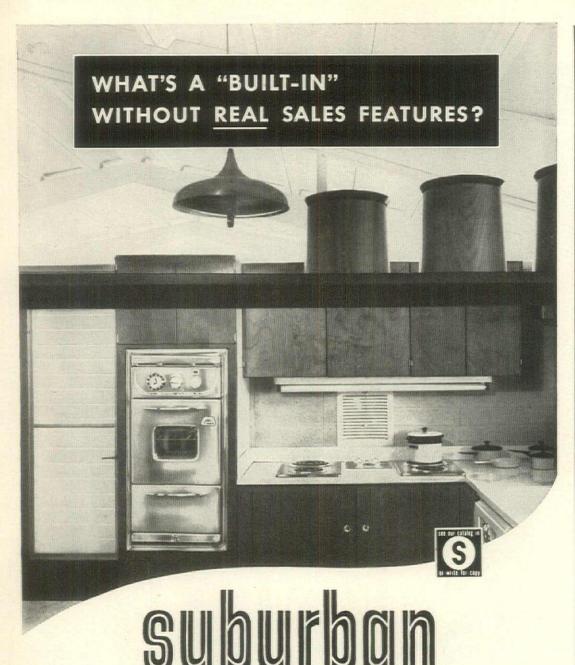
For some 28 million women last year—better than half the male working force—the average figure was \$1,200.

The percentage of nonfarm families with incomes of \$4,000 or more has climbed from 35% in 1949 to 55% in early 1955.

One-third more nonfarm families own their homes now than in early 1948. Three out of four families with incomes of \$7,500 and over own their homes.

Another Federal Reserve Board study shows that 20% of families are dissatisfied with their present housing. Renters are twice as dissatisfied as home owners, with nearly one third of them expressing dissatisfaction.

About 8% of the nation's families have "definite" or "probable" plans to build or buy this year or next. Another 10% said it was a possibility. The typical renter surveyed had an income of \$3,700 against \$5,050 for the typical family now owning a house.



America's Finest Built-In Range

BEST DEAL YET TO HELP SELL HOMES FASTER!

Builders everywhere report complete sellouts from model homes equipped with Suburban gas and electric ranges. And no wonder! One look at your Suburban kitchen and home buyers see more wife-saver features they want—than in any other built-in range on the market! Here are just a few of Suburban's real selling features you'll be interested in, too.

Only built-in that takes same size cabinet opening for gas or electric oven. Only built-in with exclusive "Coppertan" finish plus other distinctive porcelain enamel colors and stainless steel. First built-in with "Look-In" oven window (electric). First built-in with eye-level controls (electric). Want to know more? Send for the complete story today.

See the New 1956 Models

HOME BUILDERS SHOW

Space 782-783 Coliseum Jan. 22-26

SAMUEL STAMPING & ENAMELING CO., Dept. D-12, Chattanooga, Tenn.
At no obligation to me, please send complete information checked below:
Suburban Electric Gas
Name Address
City State

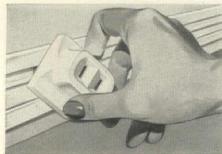
NEW BULLDOG Electrostrip

PROVIDES MOVABLE ELECTRICAL OUTLETS...



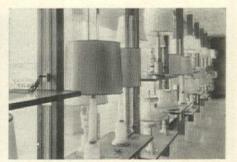
At last! Here's an electrical product that keeps pace with changing needs . . . one that provides outlets that can be moved in seconds-placed and spaced exactly where they are needed, as they are needed. It's BullDog Electrostrip® and it's as perfect for modernization as it is ideal for new construction. The strip is neat, attractive . . . completely safe. Listed by Underwriters' Laboratories. Rated at 20 amps., 125 volts, A.C.

IN HOMES, HOTELS, OFFICES, STORES, INSTITUTIONS!





Receptacle plugs twist into Electrostrip at Electrostrip mounts on walls, partitions, Electrostrip is a natural for showrooms any spot along its length—make it every baseboards, anywhere . . . bends around and shops. Displays can be changed and inch an outlet. The strip's ivory color obstructions and corners. Outlets can be arranged to best advantage for outlets blends perfectly with any color scheme. In- easily moved as furniture or office layouts are always handy ... always where needed. dividually fused plugs are also available. demand. No dangerous extension cords.



Sold only to electrical contractors through BullDog distributors. See yours, or write BullDog Electric Products Company, Detroit 32, Michigan.

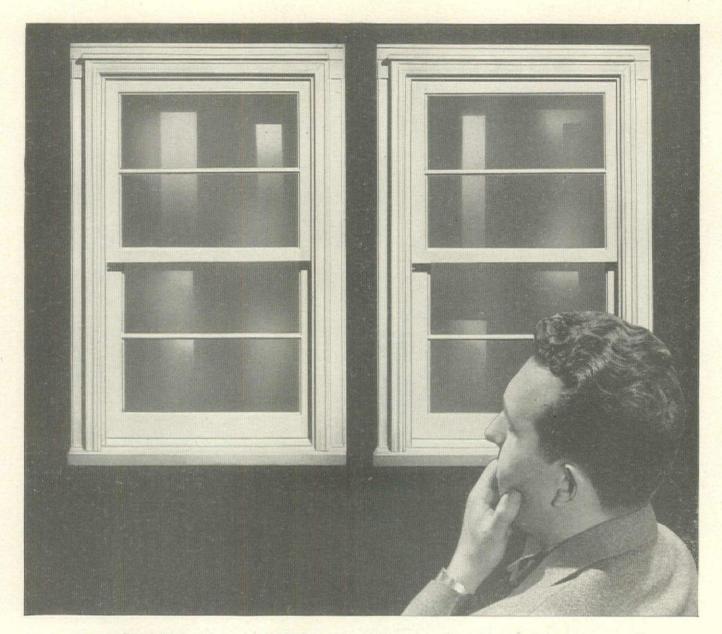
> IF IT'S NEW . . . IF IT'S DIFFERENT . . . IF IT'S BETTER . . . IT'S



ELECTRIC PRODUCTS COMPANY A Division of I-T-E Circuit Breaker Company

Export Division: 13 East 40th Street, New York 16, New York. In Canada: BullDog Electric Products Company (Canada), Ltd., 80 Clayson Road, Toronto 15, Ontario.

@ BEPCO



Which of these wood windows has its quality IDENTIFIED?

Here are two double-hung wood window units. Both may be of the same quality. The one bearing the A.W.W.I. Seal of Approval has such quality identified at a glance.

This seal is the fabricator's certification that the window unit meets the quality specifications of U. S. Commercial Standard 190-53. It is the fabricator's assurance that the unit is made of carefully selected wood—properly dried—preservative treated for long life. It is assurance, too, of effective weatherstripping and of easy, correctly balanced sash operation.

Today—when quality is the watchword in construction, the A.W.W.I. Seal of Approval is positive certification—to you and the home owner—of quality in windows. Get full information from your supplier or write Ponderosa Pine Woodwork, 105 West Monroe Street, Chicago 3, Illinois.



The use of this seal is not limited to members of Ponderosa Pine Woodwork. Any manufacturer or fabricator whose unit meets specifications can offer the quality seal under a licensing agreement.



Ponderosa Pine WOODWORK



Over 500 New Century Homes, each with a Van-Packer Chimney, have been built in Kokomo, Indiana, by R. D.

Robbins Co., Land Developer & Builder. The New Century above features Van-Packer DeLuxe Brick-Panel Housing.

Only one packaged chimney gives pre-fabricated homes masonry chimney permanence—Van-Packer

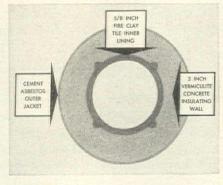
Longer chimney life for New Century customfabricated homes is assured by permanent, masonry Van-Packer Chimneys. John King, president of New Century Homes, says, "We use Van-Packer Chimneys because they are permanent, safe, good-looking, and economical."

The Van-Packer is a factory-engineered, all-fuel masonry chimney with a fire clay tile liner. It is the only packaged chimney that can give the pre-fabricated homes you build the permanence and lifetime safety of genuine masonry construction. All major pre-fabricated home manufacturers and all major building codes approve the Van-Packer Packaged Masonry Chimney. It is UL listed for coal, oil, or gas for all home heating plants and incinerators.

Completely packaged including flashing, the Van-Packer Chimney installs easily on the average prefabricated home in 1½ hours.



Brick-Panel Housing of rust-proof cement-asbestos has beauty of brick, will not dent or rattle. Available in standard brick red. Also available in buff or white, on quantity orders, at no extra cost.



Safe, permanent masonry materials go into Van-Packer Chimneys. Flue sections have insulating value of 24" solid brick. 5/8" fire clay tile liner withstands 2100° F. Built to last.



14" OD flue section installs between joists without joist cutting. Van-Packer Chimneys are stocked nationwide for immediate delivery to job. Write Van-Packer Corp. for quotations.



Send for special Pre-fabricated Home Manufacturers information today.





One of the many Page and Hill Homes located in the Lake Minnetonka area in Minnesota.

in the midwest...
prefabrication means
Page and Hill Homes!

Every Page & Hill Home incorporates the design, livability and comfort features that have proved their appeal to Midwest people.

It's basic policy with Page & Hill to give Midwesterners what they want, and it has paid off. For more than 50 years, Page & Hill has shown steady and substantial growth in the manufacture of wood products. For the last 24 years, it has been producing quality prefabricated homes exclusively for the Midwest. The advanced styling, ruggedness and honest value of these homes have earned Page & Hill its enviable reputation in the 15-state territory it serves.

If you are a Midwestern builder who believes in giving your home hunting prospects what they want, it will pay you to write for full information on the availability in your community of a Page & Hill dealer-builder franchise.



This 64-page brochure in color, "Homes for Today . . . and for a Lifetime" will show you the exciting line of Page & Hill Homes—more than 50 variations in style, design and size, that give Page & Hill dealer-builders a market with the broadest possible base. Ask for a free copy.



PAGE & HILL HOMES, INC.

211 PEIRCE STREET, SHAKOPEE, MINN.



Here is Proof that Dura-seal equipped windows save fuel

MAKE THE "LIT MATCH" TEST

Here is how you can prove to yourself and your prospective customers beyond all doubt that Dura-seal equipped window units stop drafts and save fuel. Light an ordinary match and hold it near a window sash. If there is a draft, the match will flicker, perhaps blow out. If there is no draft, it will not flicker and chances are, the window is Dura-seal equipped! Simple but conclusive proof that Dura-seal stops drafts, seals out weather, and means a warmer, cleaner house all year 'round!

And, Dura-seal serves a double purpose! Dura-seal's Sash Balance gives fingertip, feather-touch control of windows regardless of atmospheric conditions. Dura-seal windows always open easy, close easy.

Write for complete information about Dura-seal-how it provides 41/2 times better weather protection, saves 30% to 40% on fuel, adds comfort, ease and beauty to every house. Ask for Facts on Dura-seal!

Zegers, Incorporated 8092 South Chicago Avenue, Chicago 17, Illinois

ZEGERS
Combination
Metal Weatherstrip
and Sash Balance



Look For ZEGERS Dura-seal On The Metal!

See Dura-Seal in operation at National Housing Center, Washington, D. C.— Home Builders Association, Chicago— Architects Samples Corporation, New York City — and at leading lumber dealers.



Seven low-cost ways to built-in "buyer appeal"

Preferred GRANE

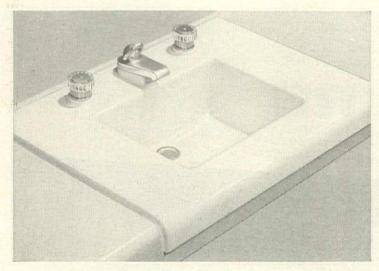
Whether you build project or custom houses your money never bought so much extra glamor

One of the best ways to add "buyer appeal" to new homes is the counter-top lavatory—the most popular and practical of all new bathroom ideas.

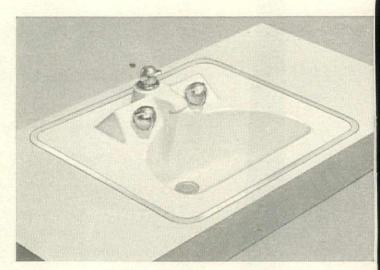
It's a deluxe dressing table with running water . . . combining the glamor of colorful materials with the efficiency of modern design . . . gives lavish space for toilet articles on top. With a cabinet underneath it provides ample extra storage space.

Naturally, Crane—the foremost name in plumbing—offers the most complete and colorful line of quality counter-top lavatories on the market. Seven modern models are available in white and seven beautiful Crane colors. Best of all, there are glamorous Crane lavatories in all price ranges...so you can include them in plans for all your housing—from competitive to custom jobs.

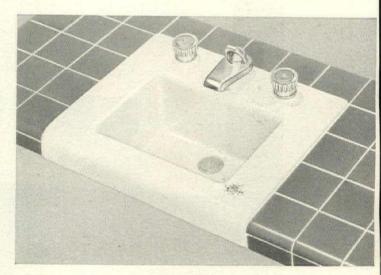
Look them over at your Crane Branch or Crane Wholesaler and you'll know why every prospect for a home has them on his wanted list.



Criterion. This fashion leader of Crane counter-top lavatories is a prize-winning design by famous designer Henry Dreyfuss. See how the smooth, wide, vitreous china top curves over in front to form its own counter edge. Also see the clear Lucite handles and brush-finish chromium trim. Dial-ese controls. Overall size $30\,\%$ x 22''. Basin, $16\,\%$ x $12\,\%$. Also available with legs of chromium plated metal and Lucite.



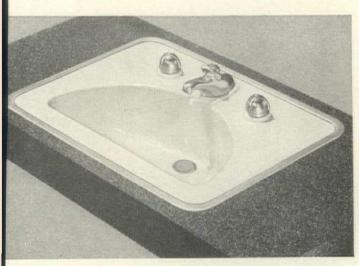
Marcia. Functional as an airplane's instrument board is the Marcia's beveled control panel. Has a large semi-oval basin. Made of finest vitreous china, including the integral spout. Metal trim is plated in sparkling chromium. Features Crane's exclusive easy-action Dial-ese controls and fast-draining Securo waste. Overall size 24" x 21". Basin, 17" x 10½".



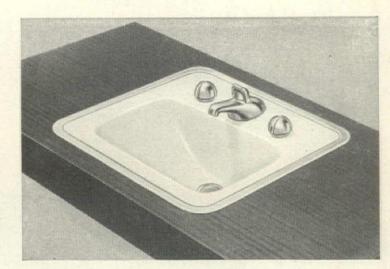
Criterion. The small Criterion has the same distinguished styling as the larger model: a dramatic rectangular basin with a rolled front that blends beautifully with counter-top tiling techniques. And it features the same fluted Lucite handles and brush-finish chromium plated spout, the same Dial-ese controls and Securo waste. Overall size: 21½" x 17¾". Basin, 14" x 9½".



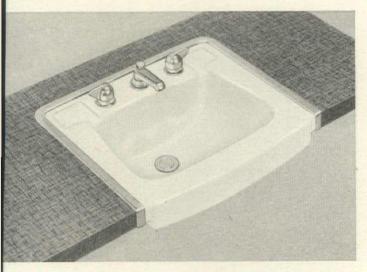
counter-top lavatories



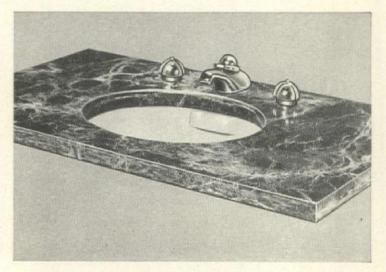
Elayne. Simplicity of design is the keynote for the Elayne's large semi-oval vitreous china basin—the largest basin of all Crane counter-top lavatories. Made of finest vitreous china in white or any of seven pastel shades, with Temple chromium plated trim, Dial-ese controls, lever action Securo waste for quick draining. Overall size: 27" x 20". Basin, 21" x 11".



Westland. Another Crane beauty for small space and small budgets. Features generous-size rectangular basin. Made of vitreous china, in your choice of Crane decorator colors. Has gleaming chromium plated fittings, Dial-ese controls and (illustrated) Securo waste for fast draining. Also available with other Crane quality trim. Overall size 20" x 19". Basin, 16" x 11".



Countess. Newest low-cost counter-top lavatory, the vitreouschina Countess combines small overall size with big-basin convenience. Basin is wider at front $(15\frac{1}{2}")$ than at back (14"). Overall size is only $20" \times 17"$, and lavatory can be installed (if desired) in a counter measuring only 16" front to back. Bright chromium plated fittings, Dial-ese controls, indirect-lift waste. Basin has integral soap depressions.



1-980. For a revival of an elegant old fashion: the marble counter-top. Crane's oval basin, with hooded overflow, fits under an oval cut in the marble. Lavatory comes complete with gleaming chromium Temple Dial-ese controls and Securo waste (your order should indicate thickness of the marble you plan to use). Two models, with overall dimensions of 18" x 15" and 21" x 16".

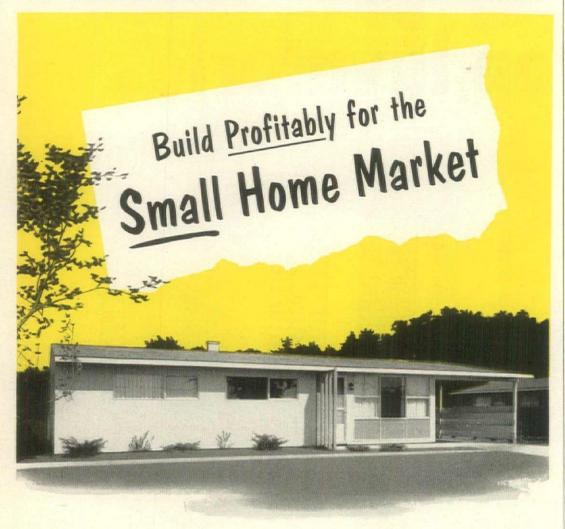
CRANE CO

General Offices: 836 S. Michigan Ave., Chicago 5, III. VALVES - FITTINGS - PIPE - KITCHENS - PLUMBING - HEATING

CRANE STARTS
ITS SECOND CENTURY
OF QUALITY

Founded July 4, 1855

SMALL HOMES



ALLEN HOMES CAN BOOST YOUR PROFIT!

Increased sales in a more competitive market? The answer comes through better designed homes, added features... at sensible prices! Allen Homes, designed by Donald H. Honn, American Institute of Architects, offer you a wide selection of attractive homes certain to give you a big competitive edge. Big home or small...you build the fastest selling home in your area when you build ALLEN HOMES... and at a comfortable increase in profits!

Get the facts! Let us show you the kind of results other builders are getting with the ALLEN HOMES package ... you should take advantage of the same opportunities!



* CUSTOM FLEXIBILITY * PRODUCTION LINE ECONOMY

Allen Industries, Inc. • Phone KEnmore 4917
P. O. Box 2497, Station C, Fort Wayne, Indiana

LETTERS

PEOPLE ARE TALKING . . .

Sirs

Even before the August issue reached me, I had heard about the feature article "Why People are Talking about this House."

I anticipated the excellent photographs. But I was afraid the article would be as lacking in pertinent architectural information as most of your recent ones have been. I was mistaken. This time you obviously had your ducks in a row right from the start. That inspired observation about the "giant potato chip" cleared up everything for me.

Small wonder people are talking.

RICHARD B. McKenna Killeen, Tex.

. . . ABOUT MR. CATALANO'S HOUSE

Sirs:

. . . Why didn't you mention the cable tying the two high points of the roof form together? I noticed it only after close inspection of some of the pictures. Was it an afterthought following deflection, or was it designed in the basic scheme as a structural element?

Esthetically it is beautiful, but without the structural knowledge of how the thing is standing, the form is of no use to the person who admires it.

> John Ramish Spokane, Wash.

• Techniques for building this kind of shell are still primitive. If the shell were a monolithic structure (eg. reinforced concrete or glued and laminated wood), the tension cable between the two high points of the roof would have been unnecessary. In this instance, the shell had to be nailed together rather than glued. This resulted in certain stresses within the shell and some settlement in the curvature which had nothing to do with the structural principle—ED.

MODULAR MOMENTUM

Sirs

I am co-chairman of the Producers' Council—AIA Joint Committee to promote Modular Coordination. Your stimulation of this basic idea in its most practical form is generating momentum for the whole program.

Tyler S. Rogers
Technical consultant
Owens-Corning Fiberglas Co.
Toledo, Ohio

MEN OF GOOD WILL (continued)

Sirs:

Your timely editorial calling on the builders and savings and loan association leaders to get together (Sept. issue) struck home.

For it is my firm belief that this editorial was instrumental in getting these men together, as reported in your October News, to iron out their differences. Congratulations.

RAY K. CHERRY Hadley-Cherry Inc. Builders and Developers Los Angeles

REALTOR'S STAND

Sirs:

As a realtor, I wish to congratulate your magazine on its coverage and accuracy: Realtor attack on public housing backfires (July News). Thousands of realtors applauded your position, and hope it will contribute toward the improvement of our organization's attitude, which has been dictated for years by a few top hands.

L. Walter Henslee Verkin, Henslee & Co. Galveston, Tex.

56 HOUSE BOON

Sirs:

Your magazine is a boon to small house builders!

RANICK & SONS
Los Angeles

LO, THE POOR INDIAN

Sirs:

. . . Some floor plans lack an entrance hall closet for clothes. Like the Indians, are we expected to drop hat and coat on the floor?

D. J. SWEENEY Idaho Falls, Id.

WALL HEATERS

Sirs:

I am interested in your report "How to do a Better Heating Job with Wall Heaters" (Sept. issue).

From experience we've found that few houses with five or more rooms can be adequately heated by a single wall heater unit. Excellent results can be obtained however, with two properly located, smaller units. Sometimes a dual wall model opening into two separate rooms can take the place of two units.

Teaming up two or more wall heaters, each serving separate zones, makes it possible to use wall heaters in larger houses and colder climates than recommended in the Bureau of Standards report. By following the principle of multiple units, it is easy to comply with FHA's rule on the proper distance from heater to center of rooms. Smaller units save floor space since they can practically be submerged between the stud spaces of the walls.

Our only disagreement with the recommendations you reported lies in the statement that wall heaters should not be used in cities where winter design temperatures are less than zero. In your examples you show a good wall heater application in a house in Minneapolis. This emphasizes the feasibility of exceptions to the rule, provided proper attention is given to construction of the house and the application of the equipment.

Jack Kice The Coleman Co. Wichita, Kan.

LARGE HOMES



ALLEN HOMES CAN LOWER YOUR OVERHEAD

Build more homes with your present capital investment . . . fewer manhours . . . material stockpiles eliminated. The Allen Homes system does all this for you and more! Whether you build small homes—large homes—or both: it will pay you to investigate ALLEN HOMES. You can face the future with confidence that your homes will meet any competition . . . for ALLEN HOMES have built-in sales appeal that will attract home buyers in any market!

Get the facts! Let us show you the kind of results other builders are getting with the ALLEN HOMES package ... you should take advantage of the same opportunities!



* CUSTOM FLEXIBILITY * PRODUCTION LINE ECONOMY

Allen Industries, Inc. • Phone KEnmore 4917
P. O. Box 2497, Station C, Fort Wayne, Indiana



Eye-appeal is *BUY*-appeal! And these handsome new Ro-Way garage door designs are loaded with eye-catching beauty that's bound to help sell your new homes faster.

With over 40 Individualized Designs to choose from there's almost no limit to the distinctive effects you can get, especially by the use of contrasting colors. What's more, there's a wide range of types available: Carved Raised Panels; Applied Rosettes; Accent Molding; Full Flush Sections.

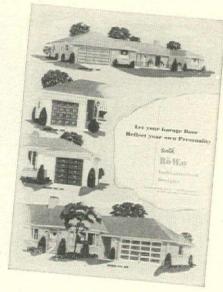
Best of all, these exclusive panel designs are available on all models of the famous Ro-Way Overhead Type Door. Ro-Way – the garage door that's quality built through and through for smooth, easy, quiet operation and lasting owner satisfaction. The door with Taper-Tite track and Seal-A-Matic hinges; ball bearing track rollers with Double-Thick tread; Power-Metered springs; and all hardware Parkerized and painted after fabrication for maximum rust prevention.

To help sell your new homes faster, include a garage with an Individualized Design Ro-Way door.

ROWE MANUFACTURING CO. RAL

1155 Holton St., Galesburg, Illinois

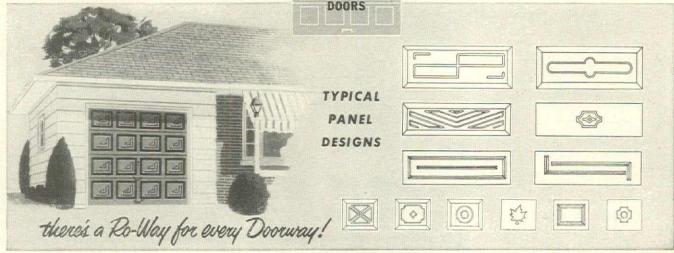




FREE! Full-color literature showing the complete range of Ro-Way individualized designs available. Write for a copy.

Nationwide sales and installation service. See your classified telephone directory for nearest Ro-Way distributor.





Practical as it is Beautiful...



MATICO CONFETTI TILE FLOORING

Decorators hail MATICO Confetti as the smartest, most exciting new tile style in years. Adaptable to almost any decorative scheme, Confetti's bright dots-of-color styling is equally at home with modern or traditional furnishings. But beauty is only half the story! Reinforced with plastic for extra strength

... greater resiliency and easier cleaning ...
MATICO Confetti is a practical flooring, too, that
performs equally well on above or below grade.
In ten striking multi-color combinations, Confetti is
now available at regular asphalt tile prices.
Consider Confetti for your next project.

MASTIC TILE CORPORATION OF AMERICA

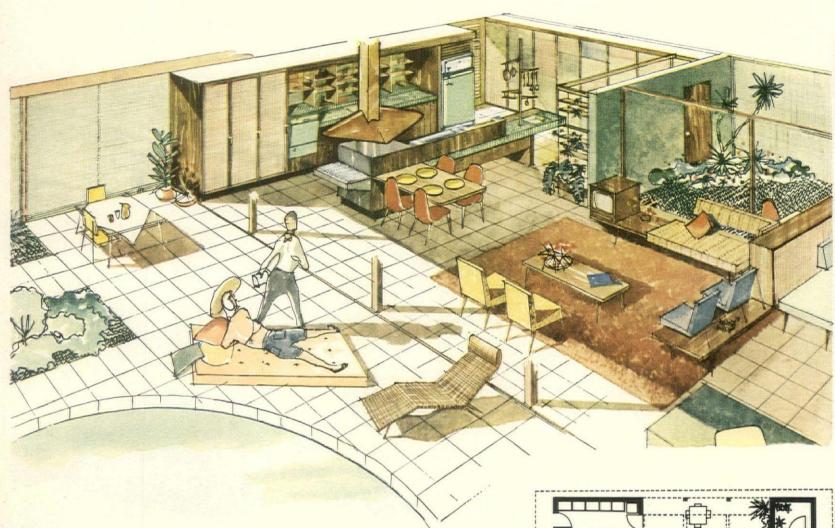
Joliet, III. . Long Beach, Calif. . Newburgh, N. Y.

Manufacturers of: Aristoflex • Confetti • Parquetry • Asphalt Tile • Cork Tile • Plastic Wall Tile



Florida home features step-saver kitchen

5th in the series of Frigidaire Kitchen Plans



Architect Rufus Nims brings the outdoors in — for pleasant, streamlined, modern living

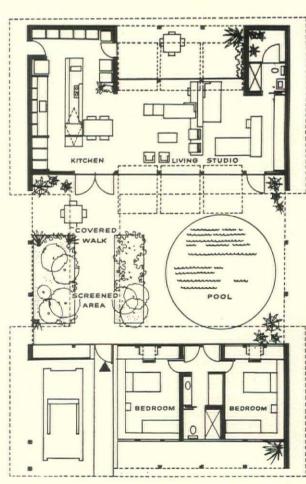


Graduate of the University of North Carolina, and architect for many motels, restaurants and housing developments, Rufus Nims has long championed the cause of regional architecture with inherent livability. Famous for his design for Jupiter, Florida's "Retirement Village," and other housing projects, Mr. Nims maintains his headquarters in Miami.

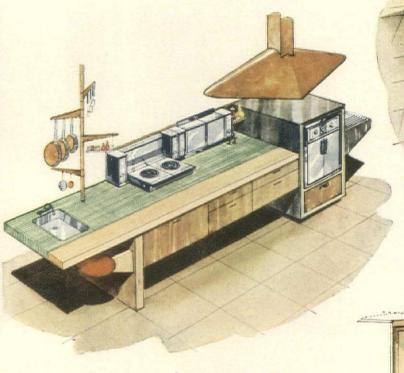
His concept and purpose in designing Frigidaire's fifth Kitchen Plan starts with this cryptic sentence: "A woman at home belongs near her family, her

guests and her work." He points out that she wants to take fewer steps in the kitchen while working and serving—wants to be heard and seen while preparing meals—wants storage spaces to be compact and easy to reach—wants a work area not visible to guests after a meal. And architect Nims' plan gives her what she wants. His unique plan, the most "open" in the Frigidaire series to date, is nevertheless readily adaptable to less tropical climes than his native Florida. Aluminum wall partitions may be dropped to enclose certain areas, the roof may be made solid, and several other measures can be taken in its construction to make this home suitable for building in almost any section of the country.

With this concept, the Frigidaire kitchen becomes an integrated part of regional living in a 1,400 square foot house designed to sell well under \$20,000.



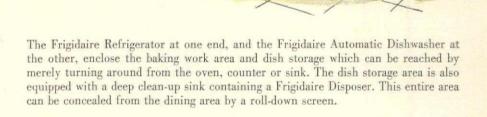
In this view of the kitchen, the Frigidaire Table-Top Water Heater and Automatic Washer and Dryer are seen beyond the Frigidaire Fold-Back Range Units. To the left is an ingenious "Pot tree" to hold most-used utensils. Linen storage is on horizontal shelving beneath the range units and is accessible from dining area. A roll-down screen hides the laundry equipment when not in use.



Because architect Nims believes people enjoy watching the preparation of a meal, he has designed an "open island" which houses a sit-down sink at one end, a work counter with a cutting board edge, Frigidaire Fold-Back Surface Units, Frigidaire's unique Wall Oven, and accessible storage beneath the counter. An open charcoal grille is at the far end of the counter.



Built and backed by General Motors



Frigidaire Division, General Motors Corp., Dept. 1005, Dayton 1, Ohio

FREE PLANS! Attach this coupon to your letterhead for free Frigidaire Kitchen Plan Kit BSD-105, which includes detailed drawings, specifications of materials, equipment and colors of the kitchen and related areas.

Name	***************************************	
Title	***************************************	
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Address		
City	Zone State	

The air-conditioning plan for this residence may be affected by geographic location, orientation in regard to solar heat, local codes and ordinances, and product availability. Products specified are subject to change by Frigidaire without notice. Consult the nearest Frigidaire District office for further information.

Vina-Lux floors give a warm welcome



To give guests in the home a favorable first impression, nothing is

more important in the entrance foyer than the floor which keynotes the entire decorative scheme. Vina-Lux, with its broad range of beautiful colors, can be used effectively to dramatize this important room.

Vina-Lux colors blend perfectly with today's new fabrics and furnishings — and, besides being beautiful, are practical. Here's a floor that is harder to get dirty and easier to get clean. Its built-in surface sheen simply does not permit dirt or grime to wear in. Food

greases and oils will not soften it, and it keeps its lustrous texture without waxing.

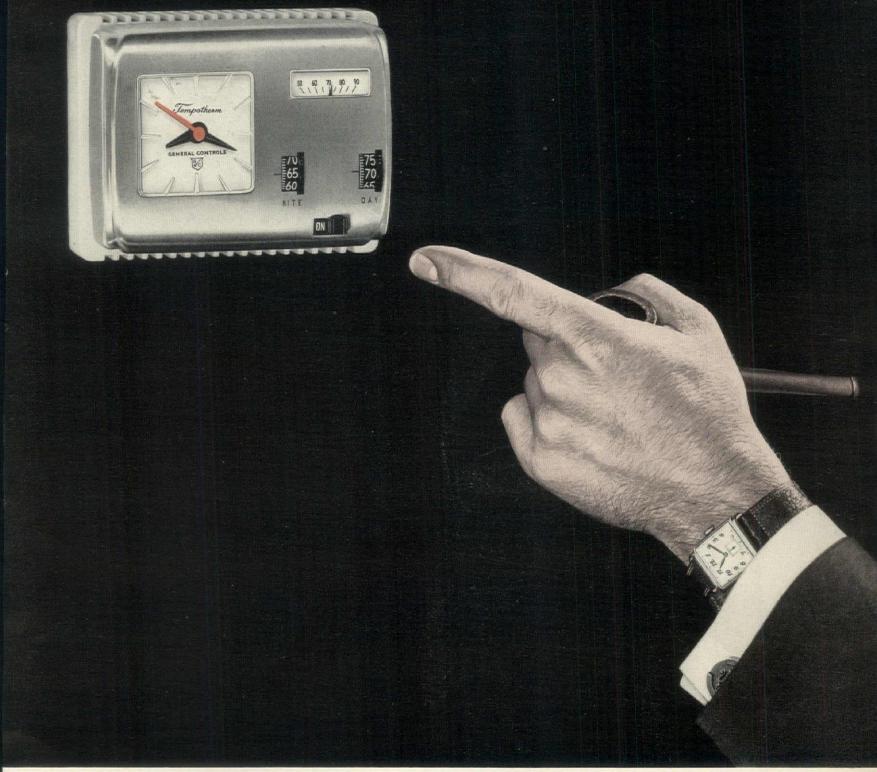
You can specify Vina-Lux, America's leading vinyl-asbestos tile, with the assurance that it will give complete satisfaction to your clients. Send today for the Vina-Lux catalog with color chart, product data and full set of samples.

Pina-Lux
REINFORCED VINYL TILE

AZROCK PRODUCTS DIVISION • UVALDE ROCK ASPHALT CO.

FROST BANK BUILDING • SAN ANTONIO, TEXAS

MAKERS OF VINA-LUX • AZROCK • DURACO • AZPHLEX



shown above: Tempotherm Clock Thermostat

KEEPING HOMES SOLD ... automatically!

We all agree that initial appeal sells the homes you design and build... but comfort must *keep* them sold. That's why it's a good feeling around this time of year to know that by using and recommending the best in materials, products, and appliances—you are keeping a family happy, and a home *sold*.

We hope in the process you've come to rely on General Controls, too. Because any product in the General Controls line—from the handsome *slim silhouette* thermostats to any of the precise "hidden" controls in a heating installation—are

superior products in every respect. And we intend to *maintain* that standard, by forward-looking research and development.

So, if you haven't already, please accept this invitation to get acquainted with General Controls in the coming year. You'll find our factory trained field service organization helpful, our product line complete—the most complete in the nation as a matter of record.

In the meanwhile, jot down a reminder for 1956: General Controls, at *your* service—*automatically!*



GENERAL CONTROLS

America's finest automatic controls for the home, industry and the military

"A definite SALES ASSET

in selling 260 houses within 1 month

at BIRCHWOOD PARK"

 says MORRIS SOSNOW successful Long Island development builder

LALUKILKUK

Builder of more than 8,000 houses on Long Island during the past 10 years, (\$15,000 to \$30,000 price range) Morris Sosnow decided to feature Aluminum Windows in his lovely new Birchwood Park development this summer... And here's what happened: 260 houses sold during the first month... More than \$10,000,000 in sales in 11 weeks time (including "slow" July and August).

When we asked Mr. Sosnow whether the aluminum windows played a part in this phenomenal success, here's what he said: "I am thoroughly convinced that aluminum windows are a definite sales asset. Prospective home buyers want good design, good construction and good materials. Both men and women recognize and appreciate the many money-saving features of these fine quality aluminum windows that never require painting or other costly upkeep."

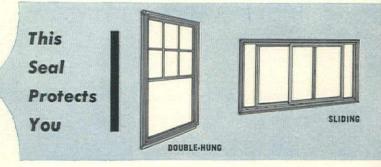
If you, too, want to make your houses more readily saleable in today's market, give them the magic "touch of quality." Include "Quality-Approved" aluminum windows complete with screens and storm sash. They are nationally advertised in leading home magazines and are readily accepted by home buyers and mortgage bankers as a mark of quality construction.

"Quality-Approved" aluminum windows are available through many manufacturers (see list on next page) in all sizes and styles (awning, casement, double-hung, projected and sliding). All are tested against rigid performance standards. All are Approved for quality of materials, for strength of sections, for sound construction and for low air infiltration.

For additional information, consult any of the manufacturers listed on opposite page, or write to Dept. HH-512.

Aluminum Window Manufacturers Association
75 West Street, New York 6, N. Y.



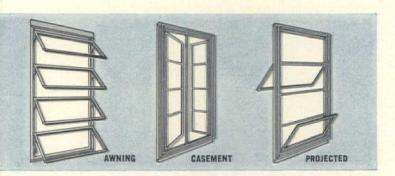




WIRECUS



One of eight different model houses selling from \$19,950 to \$29,750 at Birchwood Park, Jericho, N. Y., featuring aluminum windows.



These Manufacturers are ready to supply you with Quality-Approved Aluminum Windows.

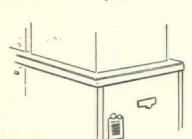
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Use These Armstrong Furnace Silent Salesmen to promote new-home sales



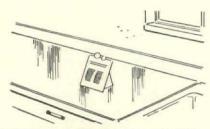
Nobody has seemed to care whether or not the home-buyer gets everything he should out of his new heating (and cooling) plant. Armstrong does. Hang this neat little booklet on the thermostat in your new homes. Gives tips on furnace and air conditioner operation. Makes friends . . . for you.



National advertising has given the Armstrong name sales power. But, in addition, a sticker on the Armstrong furnace and air conditioner exhibits the seals of approval of the American Medical Association and Parents' Magazine, and displays the written Armstrong guarantee.

Prospects for house sales put all heating (and cooling) plants on the same plane. But you can pull yours above that dead level. Armstrong is the only line of warm-air heating and summer air conditioning equipment which has been awarded the Parents' Magazine Seal of Commendation and is also accepted for advertising in Today's Health, published by the American Medical Association.

Around them, and the written



Kitchens help sell houses. Furnaces might too, but prospects barely see them. This unobtrusive easel display on the kitchen sink will put the furnace in the prospect's eye. Shows the American Medical Association Seal of Acceptance and the Parents' Magazine Seal of Commendation.



Prospects see the written guarantees which they get with every Armstrong furnace and summer air conditioner. They don't hope for the best, they get it . . . warranted . . . in writing. Sells, and takes the guarantee obligation off your shoulders.

Armstrong warranties, Armstrong has built a simple, effective New-Home Promotion Kit for you.

It's easy to use. It doesn't spoil the trim appearance of the home.

It puts the heating (and cooling) plant into the mind of the prospect, and sells it. It lets you put your time on other features and still does the only complete job of selling in the furnace industry.

Write for a sample kit, or mail the coupon below. You'll like it.

EVENTS

National Warm Air Heating & Air Conditioning Assn., 42nd annual convention, Nov. 30-Dec. 1, Hotel Statler, New York.

National Assn. of Mutual Savings Banks, fall bank meeting, Dec. 4-5, New York.

Alberta Assn. of Architects and University of Alberta, co-sponsors of conference, "An Exploration of Architectural Ideals and New Contemporary Approaches," directed by Richard J. Neutra, Jan. 12-19, Banff School of Fine Arts.

Small Homes Council of University of Illinois, 11th annual Short Course in Residential Construction, Jan. 18-19, Urbana, Ill.

National Assn. of Home Builders, annual convention and exposition, Jan. 22-26, Chicago Coliseum and Conrad Hilton and Sherman Hotels, Chicago.

American Society of Heating & Air-Conditioning Engineers, Inc., annual meeting, Jan. 23-25, Cincinnati.

American Bankers Assn., Regional Savings & Mortgage Conference, Jan. 30-31, Muehlebach Hotel, Kansas City, Mo.

American Institute of Electrical Engineers, winter general meeting, Jan. 30-Feb. 3, Hotel Statler, New York.

Mason Contractors Association of America, convention and show, Feb. 5-8, Kentucky Hotel, Louisville, Ky.

NERSICA, 14th annual convention and exposition, Feb. 11-13, Ambassador and Ritz-Carlton Hotels, Atlantic City, N.J.

Associated General Contractors, national convention, Feb. 13-16, New York.

National Adequate Wiring Conference, Feb. 23-24, LaSalle Hotel, Chicago.

National Electrical Manufacturers Assn., midwinter meeting, Mar. 12-16, Edgewater Beach Hotel, Chicago.

National Housing Conference, annual meeting, Apr. 9-10, Statler Hotel, Washington, D.C.

Gas Appliance Manufacturers Assn., annual meeting, Apr. 19-21, The Greenbrier, White Sulphur Springs, W. Va.

International Home Building Exposition, May 12-20, New York Coliseum, New York.

National Savings & Loan League, 13th annual convention cruise from New York to Bermuda, May 12-17.

National Retail Lumber Dealers Assn., spring meeting of board of directors, May 13-18, Shoreham Hotel, Washington, D.C.

National Association of Home Builders, 3d annual model home contest, open to students in grades 7 through 12. Entries must be submitted through local NAHB chapters (which have details on rules) by Aug. 31, 1956. First prize: \$1,000 scholarship and all-expense trip to Chicago.

Building Materials Exhibitors Assn., 1956 Building Materials Caravan, scheduled stops at Retail Lumber Dealer Conventions: Jan. 9-11, Kentucky Retail Lumber Dealers, Louisville; Jan. 17-19, Northwestern Lumbermen's Assn., Minneapolis; Jan. 25-27, Southwestern Lumbermen's Assn., Kansas City, Mo.; Jan. 31-Feb. 2, Michigan Retail Lumber Dealers Assn., Grand Rapids; Feb. 7-9, Illinois Lumber & Material Dealers Assn., Chicago; Feb. 21-23, Wisconsin Retail Lumbermen's Assn., Milwaukee.

ARMSTRONG FURNACE COLUMBUS, ONIO COMPANY DES MOINES, IOWA

Send for your free sample copy of the New-Home Promotion Kit

Mail to **Armstrong Furnace Company**, Dept. HH Columbus 8, Ohio or Des Moines 9, Iowa

	Send me a motion Kit solidated C	sample of you and a copy of catalog.	r New-Home your latest (Pro- Con-		OVERTISED THE
Name_						
Compan	y Name					
Address.						
City			z	one	State_	

Write for this Catalog

The Story of The Scientifically-Built The Scientifically-Built HOLLOW FLUSH DOOR...





The World's Finest!

TEE-COR HOLLOW FLUSH DOOR

MORGAN ompany · Oshkosh, Wisconsin

A-1-A FILE 19 E 12

Maryland builder finds ideal for new

... Selects it for ultra-modern new 500-house project

"We were looking for a new concept of siding for our modern homes. Insulating siding filled that need. We like Flintkote especially because of the attractive coloring and its exclusive back coating."

Those are the words of Jerome S. Cardin, Vice President and Secretary of the Admiral Construction Corporation, builders of Country Club Estates, Glen Burnie, Maryland.

And they aptly reflect the enthusiasm of this entire organization. Including the President, J. L. Cardin, and Morton J. Macks, Vice President and Treasurer.

Flintkote Shake Design Insulating Siding appealed to these value-conscious builders for many reasons. They like its textured beauty, simulated to look like natural graining.

They like its pleasing variety of colors. Its insulating qualities.

They like its dimensional stability in all kinds of weather. Because of the exclusive Flintkote back coating process. Plus the fact that this siding never needs paint to maintain its life.

These builders also found what they were looking for in other Flintkote materials. Colorful Flintkote Mist Grey and White Shell Thikbut Shingles for the roofs and Flintkote Stalwart* Insulation Sheathing.

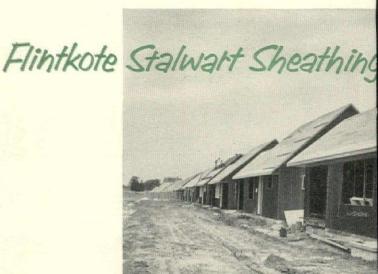
Whether you are interested in home improvement or new construction, you'll find what you want in the Flintkote line of building materials. Your Flintkote dealer is always ready to help you.

Country Club Estates homes are purchasable through V A financing.

The Flintkote Company, Building Materials Division, 30 Rockefeller Plaza, New York 20, N. Y.

*T. M. Reg. U.S. Pat. Off.

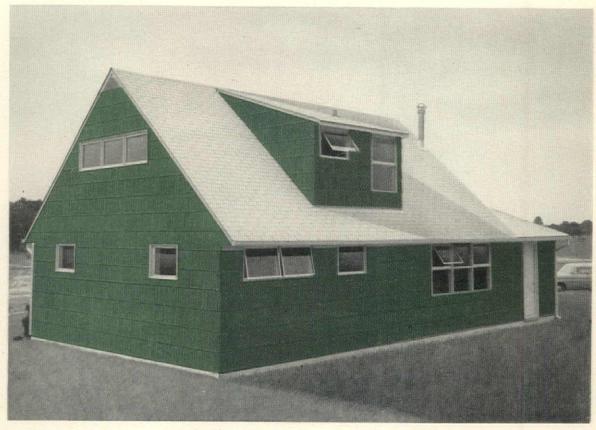




FLINTKOTE

Flintkote Insulating Siding construction



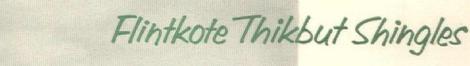


Flintkote Shake Design Insulating Siding is specified for all homes in Country Club Estates... in four beautiful shades. Heather Grey, Emerald Green, Canyon Red and Leaf Green. By using Flintkote Shake Insulating Sidings in different colors you, too, will have the decorative and sales advantages of a variety of color effects. Of course, there are other sales advantages and sales advantages of the sales advantages of color effects.

tages: Flintkote Insulating Siding is fire-resistant, rust-proof, weather-resistant. Gives a home year-round comfort. It insulates... keeps a house cooler in summer, warmer in winter. Reduces outside noises. Saves fuel bills. Never needs painting to preserve it. Builders are delighted with the dimensional stability assured by Flintkote's exclusive new back coating.



All 500 houses in the Country Club Estates will give buyers the advantages and extra value of Flintkote's Stalwart Insulation Sheathing Board. You, too, can build greater strength and economy into your new homes with this economical, efficient Flintkote product. Stalwart Sheathing is both asphalt coated and impregnated. It adds structural strength to the house itself ... is rigid ... has high racking strength ... and gives superior insulation.





Flintkote Mist Grey and Shell White Thikbut Shingles are regarded as tops in value and looks by the builders of Country Club Estates homes. Thikbuts provide the equivalent of "two shingles in one." They are built with an extra layer of protective asphalt and fire-resistant mineral granules on the exposed portion of the shingle. The heavier butts assure dependable roof protection at a practical cost. They create beautiful shadows that will make your roofs standouts in appearance, too.

Style and Color Leader since 1901



for originality in building...

another

SCHLAGE

MASTERPIECE

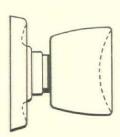


TULIP design

In recognition of today's emphasis on building quality and distinctive design, Schlage offers the new Tulip lock. Its unusually handsome lines feature a concave face and generous hand-pleasing grip. The Tulip is so designed to give doors greater originality, buildings greater sales appeal. Now available for both residential and commercial installations in wrought brass, bronze or aluminum with all standard finishes and lock functions.

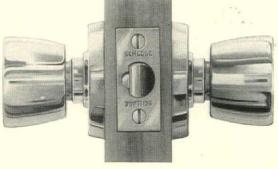
The Tulip lock is one of 5 new designs recently introduced by Schlage as further evidence of their modern lock leadership. These new additions now make possible an even wider selection of fine Schlage lock designs in many beautiful finishes to suit every building requirement.

Tulip
Adds Distinction
to Residential and
Commercial Doors



appealing asset for door decor.

The Tulip design lends a luxurious touch to all buildings...reflecting quality wherever it is installed. Combined with Schlage escutcheons or as a design by itself, it is an



As a lock mechanism, the Tulip offers a supreme standard of operating ease and locking efficiency. For with Schlage's name on the latchplate, you assure your customers quality and security for the life of the door.

SCHLAGE

SCHLAGE LOCK COMPANY • SAN FRANCISCO • NEW YORK • VANCOUVER, B.C. Address all correspondence to Schlage Lock Company, San Francisco

house & home

DECEMBER, 1955

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138 HOW NEAR CAN YOU GET TO AN ALL-STEEL HOUSE?

Home builders used to consider steel a useful stand-by when wood proved inadequate for a task. Recently architects and builders have come to realize there are now so many ready-made steel components on the market that you can assemble a whole house with them.

150 NEW PRODUCTS

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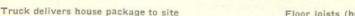
Data on prefabricated and package house manufacturers.

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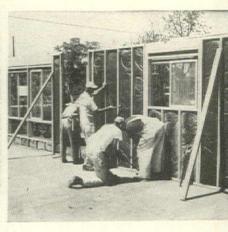
Cover photo: J. C. Allen & Son







Floor joists (here steel) are laid



Wall panels go up over floor panels

What's new in prefabrication?

This year one house out of every 12 built in the US was prefabricated. In some areas of the Midwest the ratio may be nearer six out of 12.

When that many new houses are factory-built, it is news. The prefabbers are also making news by experimenting with advanced ideas.

In their factories and on their building sites they are trying out new designs, new materials, new techniques. Everyone is free to see which ideas succeed and which fail. And everyone can keep alert to changing market trends by watching the prefabbers who sell over a wide area and are quick to pick up shifts in buyers' preferences.

These are some of the reasons why prefabrication is important in 1955, far more important than its 8% share of the market might indicate. To report prefabrication's news, show some of its ideas at work, interpret its trends and look briefly into its future is the major assignment of this issue of House & Home.

1955 was a good year for prefabbers. They produced more houses than ever before: over 90,000 compared with 76,000 last year. Consumers showed their faith in the product by paying out an impressive \$1,080,000,000 for prefab homes—some \$56 million more than in 1954.

But with the industry's growing markets there also came growing problems. While many prefabbers believed building codes and public acceptance were their greatest hurdles, others found more serious trouble in shortages of manpower and money. In 1955 few firms had the financial resources to exploit the millions of dollars worth of favorable publicity which the industry was receiving. Several prefabbers went to the market for money; even more are contemplating stock issues

in 1956. As for the manpower shortage: almost no firm had enough good men. Raiding a competitor's shop became common practice.

Trucking costs plagued many prefabbers. At a time when conventional builders were increasing the size of their houses to meet buyers' larger families, prefabbers were confronted by limitations imposed on them by truck sizes. A big house, requiring two trucks, costs twice as much to deliver as a house that fits on one truck.

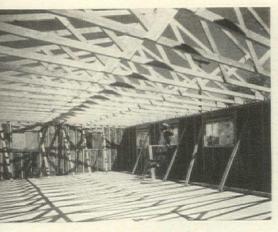
Still another obstacle was how to design a single house that would appeal equally well to buyers in a score of different towns and cities in several states. If, as it sometimes seemed, every area wanted its own model to meet local prejudices and preferences, the prefabber could easily end with more models than are good for plant efficiency.

Along with avoiding the danger of overemphasis on local market peculiarities, prefabbers had to exert themselves by making changes of a different sort. Basic models were redesigned to meet the new requirements of larger families and higher incomes. Still other adjustments were necessary. Kitchens, for example, had to be rearranged to accommodate appliances which were undergoing fundamental design revisions like the separation of the oven from the range top.

As if all this were not enough, the prefabbers everywhere felt increasing competition from big and efficient builders who borrowed and used such well-tested prefab methods as precutting, panelized techniques, roof trusses and storage walls.

Faced with problems, prefabbers on the eve of 1956 could nonetheless look back on a year of impressive accomplishment:

• They enrolled 1,000 more builder-dealers this year than last.







Soffits quickly slip into place



Finished house does not look prefabbed

- They captured the biggest part of the low-cost market in cities like Indianapolis and St. Louis.
- They saw their higher-priced models (some even marked over \$50,000) making a debut in prestige markets like Birmingham's Vestavia Hills, New York's Westchester, Cleveland's Forest Hills.
- They were shipping their first houses into holdout areas like Long Island.
- They could point to at least two insurance companies which had set up special million-dollar mortgage allocations for prefab houses.
- They were receiving aid and comfort from product manufacturers who started to pay more attention to the prefabbers' special needs.

But nowhere was there ground for complacency. If you could count more dealer-builders this year than last, still most resistance to prefabrication seemed to be coming from within home building itself, rather than from the public. If the low-cost market was the prefabber's private preserve in some areas, it belonged to almost anybody else in such important and growing cities as Houston and Los Angeles. As for the upper-bracket market, at best the prefabbers had penetrated only here and there; the great majority of higher-priced homes continued to be the work of custom builders using conventional methods.

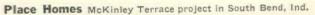
The mortgage pinch was at least as painful to prefabbers as to other builders. And their sponsorship of acceptance corporations was as much an admission of need for special financing to help sell their houses as it was a measure of their new maturity as merchandisers.

One thing could be said without risk of contradiction: the prefab industry was not static. During 1955 the biggest prefabbers grew bigger; some of the smaller ones grew smaller; a dozen companies quit; another dozen were just starting.

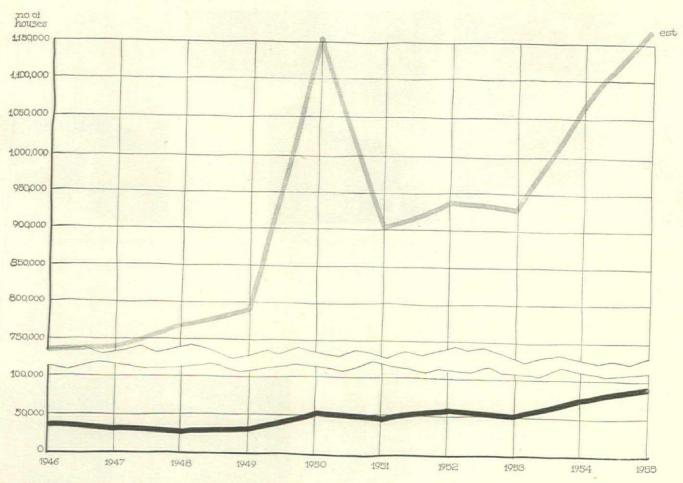
These are the broad outlines of prefabrication's immediate past. For a look at what it has to offer in the year ahead, see the following pages.



172-house project of Modern Homes (foreground) in Garden City, Mich.







Measured against single-family, nonfarm housing starts (light line) the prefabricated house industry (black line) shows steady but modest growth

New survey gives statistical picture of prefabrication

The big three of prefabrication—National, US Steel and American—will have manufactured over 30% of all the prefab houses built this year. In an industry where official statistics are not published, House & Home's annual survey of prefabrication (88 respondents) discloses that the top five companies manufacture over a third of all prefab houses built, the top ten over half and the top 20 over 75%. Experts might not agree on the ranking of the companies, but no reasonable reshuffling would change the basic fact of the industry's concentration.

At the same time the industry is far from stratified: not all the companies who rated top ten last year do so again this year. In approximate order of size, here are 13 companies who claim 1955 production of 1,500 or more houses: National, US Steel, American, Swift, Thyer, Inland, LFI, Harnischfeger, Pease, Presidential, Page & Hill, Place, Huber. Swift and Place are precutters. Several companies who produce fewer houses may have greater dollar volume because of a more expensive house package. Production shown on the chart above does not include firms who sell directly to consumers, or companies who did not respond to House & Home's questionnaire.

	7333	1954
Companies reporting	88	86
1955 house production	90,000	76,000
Dollar volume of output		
(est.)	\$360,000,000	\$300 000,000
Consumer expenditures		
(w/o land)	\$1,080,000,000	\$1 000,000,000
Plants controlled by 88		
firms	113	115
Firms owning one plant	54	ф
Firms leasing plants	33	20
Capital investment in)	
plant	\$33,412,000	
Capital investment in	· · · · · · · · · · · · · · · · · · ·	\$50,000,000
equipment	\$19,620,000	
*Not available		
Ownership of compani	ies 1955	1954
Privately owned	23	0
Management owned	44	*
Publicly owned	10	章
Builder-dealers or build-		
er customers	6,009	5,000
Employees of 88 firms		
Production 7 226		
Clerical 1,018		
Sales 738		
Total	8,892	
*Not available		

1955



Prefabrication is breaking out of the Midwest triangle

Prefabricators are making a concerted attempt to break out of their traditional Midwest stronghold. Their sale in states other than Ohio, Indiana, and Ilinois is on the increase (see table below). Of 14 new plants built, abuilding or leased in 1955 (mostly by new companies), six were outside the prefab triangle (see map).

During the year several new firms started business in the Midwest, but more started business outside the area. National made a multimillion dollar bet on the Southwest and built a new plant deep in the heart of Texas. Modern Homes, with a plant in the East (Port Jervis, N. Y.) and its main plant in Dearborn, built its most fully mechanized plant in Ottumwa, Iowa. Inland Homes, expanding rapidly, built its own plant in Piqua, Ohio, at the same time continuing production in a leased plant.

Characteristically confident, 35 companies are proposing to build an aditional 40 plants next year. Although their plans may not jell, the areas they choose are an indication of their bets on future markets. Favorite locations chosen: Midwest (13 firms), East (11 firms), South (4 firms), Southwest (4 firms), and Southeast (1 firm). Some propose plants in South America, Puerto Rico, Cuba.

The big prefabricators admit they intend to build plants all over the country. Their reason is based partly on plant economics: a prefab house factory can be just so big and remain efficient. Says National Homes' Tyler plant manager, "We lose control of the product if flow lines become too complicated."

But prefabbers are not attacking their distribution problems only with new plants. Several have investigated the piggy-backing of truck trailers on flatbed rail cars. National exjects to ship its first piggyback load out of Lafayette, early in '56.

Although over 440% of prefab houses are still built in Ohio, Indiana, and Ilinois, shipments are growing heavier into Pennsylvania, New York, Kentucky, and Missouri.

Where the prefabs are built*

	vv nere the pr	erabs are built	
% of national total		% of national total	
	Ohio 20.2	Maryland	1.4
	Indiana 15.1	Virginia	1.2
	Illinois 13.7	. Georgia	.8
	New York 9.5	North Carolina	.4
	Michigan 4.8	Kansas	.4
	Pennsylvania 4.2	Alabama	.3
	Kentucky 2.2	Florida	.3
	Missouri 2.0	Minnesota	.2
	* Based on a distribution	of prefab houses built in	1954

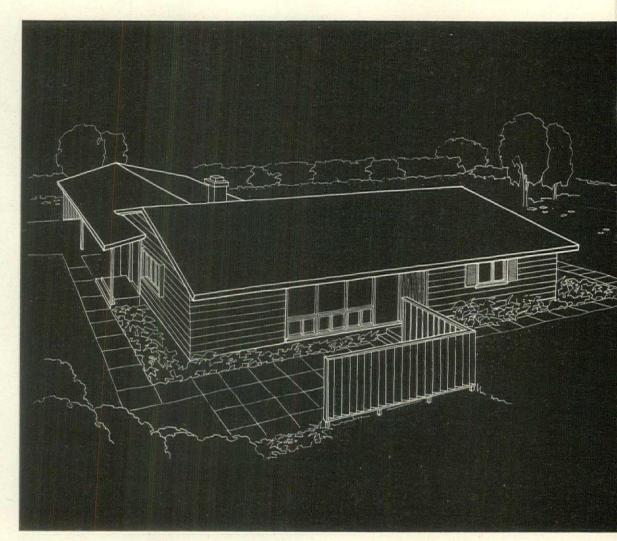
and first nine months of 1955.







Old: LFI models show influence of builder's design specifications.



New: Lumber Fabricators' new Southeast house by Architect Henry Norris shows influence of trend toward brand name merchandising. Line will include other models for specific regions.

Brand-name merchandising is growing trend

The prefabbers are giving much more attention to the merchandising end of their business.

They are emulating the two big-business patterns set for them by the auto companies and already tested and proved by the bigger prefab makers.

The first pattern is product merchandising. This is epitomized by a brand name and an individual and recognizable style. Although today many prefabbers still sell the builder a house as he wants, the important trend in '56 will be to sell a standard product—with color and style variations comparable to those auto makers offer.

Inland, Style-Rite, Midwest, LFI feel strongly that only through brand-name merchandising can prefabrication grow. LFI, for example, will offer standard models for various geographical regions and only do special designs, which accounted for a large share of its business in the past, for bigvolume projects. Listen to prefabbers on the subject of brand-name merchandising:

"We charge plenty for modifications because we

can't track down their costs."

"We've been selling prefabrication so long we were slow to learn we must sell the product."

"Merchandising under a brand-name will clearly force more mergers and consolidations."

The second big-business pattern is smoother financing which goes hand and glove with the merchandising of big purchase items like autos and houses. It is epitomized by the General Motors Acceptance Corp. Today less than ten prefabbers have acceptance corporations. Next year there may easily be a score. Prefabbers are realizing they can sell more houses if they can assure builders of a mortgage market.

To set up an acceptance corporation, prefabbers need \$100,000 (FHA's floor for an approved mortgagee) and connections with mortgage investors. Today many prefabbers are looking for a man to start a new acceptance corporation. Undercapitalized prefabbers may soon be floating stock issues to meet this newest form of competition.



National's school, erected in 11 weeks, cost \$18,444 per class, less than half national average



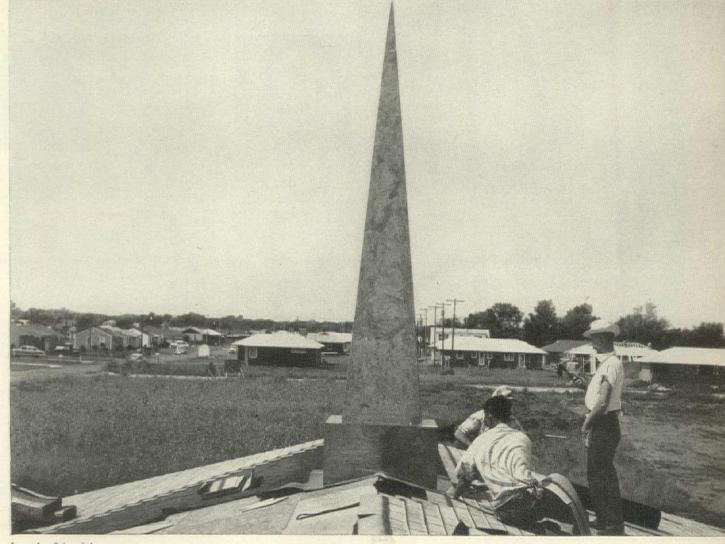
School looks conventional

Prefabricators are producing schools, churches motels, shopping centers

Each year prefabricators are enlarging their market. First they added schools and churches and this year several new commercial types. National Homes has contracted to do motels for the Holiday Inn chain, will build the first of its shopping centers in Lafayette, Ind. National's Jim Price foresees time when nonhousing structures may account for large part of National's business.

US Steel and others believe that motels, medical and dental clinics, churches and small commercial buildings offer an attractive future. Today Armco Steel, J&B Mfg. Co. and Structo are all doing schools.

US Steel Homes church was popular because it arrived in package, could be put up by the church members



LIFE: Joe Scherschel



Carl Mitnick, Merchantville, N. J., secretary of NAHB, now builds Presidential Homes Pemberton, N. J.

"I save \$75 per house on construction money alone"

"I find my house package costs me from \$250 to \$300 more than I could duplicate on site, but I actually save \$150 on the finished product. I save \$75 alone on construction money since the house goes up so much faster. With a prefab there is no wasted lumber and no pilferage because we don't have to maintain an inventory. We didn't find prefabs hard to take because we had been prefabbing on site. My prefabber provides me with cabinet-maker quality on site.

"People love prefabs. We're now selling faster than ever before."



Nicholas Molnar, Cleveland, 1953 vice president of NAHB, now builds Expan Homes, Cleveland

"I wanted to avail myself of good contemporary design"

"Faster completion time of the house means faster turnover of money and a saving in financing charges. If we only cut a month off completion time, we save money for ourselves and the buyer.

"I regularly built from \$1,000,000 to \$1,250,000 worth of houses in the \$30,000 price range, and I wanted to reach a market in the \$23,000 to \$25,000 range, so I went to Expan which had a fine design selling for about \$13,000. I got the company to increase the size, and I am putting in an extra bath and a brandname kitchen."



Richard Hughes, Pampa, Tex., immediate past president of NAHB, now builds houses from US Steel components.

"I have broken down the barrier against sale of a whole house"

"I am not a regular prefab dealer. I am a component manufacturer and assembler. I put together the house I think is best and will sell best in my areas: Bartlesville, Okla.; Borger and Pampa, Tex.

"I've broken down the barrier against sale of the complete house package. I think whole-house prefabrication is going to be tough in areas where builders and customers have their own ideas.

"There is little doubt that panelization of the house is streamlining the entire building operation. Panelized houses are naturals because they are economical."

Big name builders are bringing prestige to the prefab industry



Leonard Besinger, Carpentersville, Ill., now builds US Steel Homes, New Albany, Ind.



Wallace Johnson, Memphis, a volume builder for years, is now building National Homes with Kemmons Wilson in Jackson, Tenn.



Nathan Manilow, Chicago, NAHB ex-vice president, now builds Scholz Homes, Toledo.

"I could site fabricate but I won't"

"I build 1,000 houses a year and I could site fabricate but I don't want the overhead. I can't get the skilled labor force that a prefabber substitutes for by shipping me a more completed product.

"A prefabricated house is a better house than a conventionally built one. I just can't put the quality in a lower-priced house that I put in the \$18,000 to \$35,000 houses I used to build at he rate of 200 a year.

"I figure US Steel Homes makes about \$300 profit per unit on houses they sell me, but I can turn over my own money two or three times faster using prefabs."

"I'm joining instead of fighting prefabbers"

"I prefabbed houses myself on site and studied the operation thoroughly. I didn't carry prefabrication as far as many of the prefabbers. For instance, I did not panelize my interior partitions. But when I saw what prefabbers were doing I decided they were ten years ahead of me; so I joined them instead of fighting them.

"The prefabricators today have a far more acceptable product than they ever had in the past. Their merchandising techniques are improving. I can build and sell more houses with less capital through prefabrication than I could any other way."

"Prefabs are overcoming biggest barrier—sameness"

"I know there's not a prefab house on the market that I can't produce cheaper conventionally on site—if you leave out of consideration time and what time costs.

"The prefabbers can beat my time—the time it takes to plan a good house, the time it takes to determine its cost, the time it takes to buy, and the time it takes to build.

"Up until now I believed prefabs had nothing to offer a development builder because of their sameness. But today's prefab design eliminates the biggest barrier—sameness. I'm getting excellent design, variety for a \$30,000 house development."

Portrait of

a typical prefab firm in 1955

The prefab industry is often compared with the automotive. Each makes a product in a factory, ships it out to dealers, sells it to the public, perhaps with the help of acceptance corporations. But here the resemblance ceases.

For unlike the auto industry, the prefab industry is not homogeneous. Even back in the early 1920s when new auto companies were springing up the way prefabbers are now, there was a certain similarity about auto makers. Each firm produced a car which looked like a car and was more or less like other cars. But the package that comes out of a prefab plant does not look like a house and it may look very little like what comes out of other prefab plants. When a builder says he is buying a prefab house you cannot tell from his words whether he is getting a load of precut lumber, or a package containing practically all the makings for an entire house, including panels finished both outside and inside. There are vast differences in what prefabbers sell.

So, with the knowledge that the prefab industry is made up of individualists and there is no such thing as an "average firm," here is an actual case study of the ABC Company, a prefabber who typifies some of today's leading firms and their pattern of growth:

Started by men experienced in prefabrication and building, ABC Company is more highly capitalized than any of its builder customers. Over a 10-year period it has shown consistent and sometimes surprisingly good profit margins.

ABC puts its major emphasis on the physical package. Its panels are sheathed, sided and painted, windows installed and glazed, soffits prime painted and cut to size, interior partitions built up. The package includes all interior finish and trim, plus precut flooring.

Uses 2 x 4 framing

Like the majority of prefabicators, ABC uses 2 x 4 stud framing instead of stress-skin plywood construction. Principal reason for staying with the traditional 2 x 4 framework is its widespread acceptance by both codes and consumers.

ABC likes to add extras to its package without increasing the price. Most recent addition: kitchen cabinet backs up. In the near future the Company hopes to include combination screen and storm doors, again with no increase in the sales tag.

Additions to ABC's package are all in what the Company calls "the lumber-carpentry area of construction." Says an ABC executive, "We're not ready yet to get into plumbing or other items that require local servicing. For example, we do not include water heaters because we know the home buyer will look to us, rather than to the builder, for satisfaction and we are not ready to give this service."

Although ABC is continually adding to its package, it does not do so on a piecemeal basis. Each new item is complete in itself. "When we start applying interior dry wall, we'll insulate the panel, make provisions for wiring and even prime paint the interior surface."

ABC's mass market house consists of 864 sq. ft. but it will soon be increased to 960 sq. ft. The Company also has three- and four-bedroom houses in its line and offers them with dozens of elevation changes. ABC will soon add roof alternatives. Says a Company spokesman: "We've got to get away from the deadly monotony of seeing a single roof-line all the way down a street."

Not assembly line production

Although it is growing, ABC is not yet big enough to take full advantage of straight-line auto assembly methods where materials move continuously in front of the worker. ABC's workers have to move around to the materials. And the Company has yet to adopt overhead cranes to handle bulky items. But in spite of these limitations, ABC has designed some special machinery for processing materials and is steadily spending for plant and equipment in order to lower in-plant costs.

ABC prefers to call its house factory-built rather than prefabricated. The Company thinks of itself as primarily in the business of manufacturing houses at lower costs than builders can site-fabricate them. It does not feature extra services in its basic package. But ABC does offer interim financing to help the builder pay for the package.

Recruits small builders

ABC regards its dealer organization as a major asset, believes its "own growth and profit depends on the growth and profit of the dealers." The Company likes to recruit new builders who are doing from 5 to 20 housse a year and build them into the 100-house a year class. ABC keeps hunting these builders and never lets the ratio between small and big builders get below 60-40. This year it turned down one big builder that another management might have been eager to welcome. Reason: "If we tooled up to produce for a 500-1,000-house a year builder and he left us, we would have to scramble around to get a lot of customers to replace him." ABC uses the term "builder franchise" loosely. It will franchise several builders in a county, but will not let its builder-dealers operate next door to each other.

In 1955 the ABC Company produced approximately 1,000 more houses than it did in 1954./END.



Modular Homes' beautiful Craig Woods tract in St. Louis County, Mo. These houses sold for \$25,000 to \$35,000 (including large lots)

The new look in prefabs:



Inland Homes' appealing Newcom Knolls in Piqua, Ohio. Here houses sold for a maximum of \$10,000 (including land)



you can't tell them from the other houses



The "prefab look" has all but disappeared.

Inside and out, you can hardly tell a new prefab from a conventionally built house. If anything, today's factory product is most apt to be conspicuous for good design.

Inside the prefab, technical advances account for much of the new look. Case in point: interior joints are now hidden, eliminating the "panel look" of earlier years. On the exterior, many influences have worked together to erase the differences between factory-built and site-built houses. This results from the same market factors and technological ideas working on both kinds of house.

Every year an increasing number of prefabricators have turned to architects to improve their models. The trend is to contemporary—in fact, encouraged by lenders' growing approval of modern design, more prefabricators than ever are bringing out the newer elevations and floor plans.



Lens Art Studios

Modern Homes' \$14,200 Windsor appears to use much brick, actually limits it to front wall.

The new look in prefabs:

More are built of brick and stone

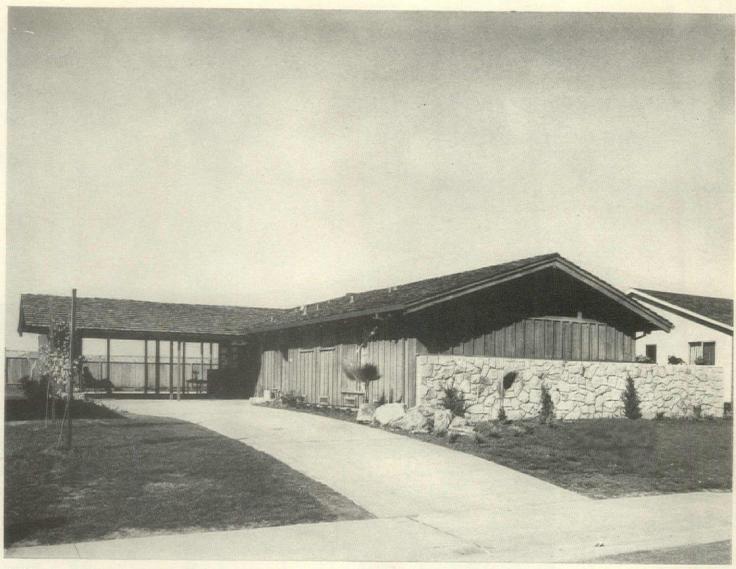
Sheldon Hines



Allen Industries' \$13,400 Van Nuys model

As the pictures on these pages show, prefabbers are using brick and stone with much care. Most try to avoid undue interference with the basic house construction. Thus a trend which could easily create technical problems has not usually had an adverse affect on design or economy.

Brick veneer on the house at the left adds \$800 to the price. Entirely aside from its easier maintenance factor, brick is often worth that much more to the home buyer. In fact, many buyers demand brick or stone even when it is not handled as expertly as in this sensible vertical panel design by Architect Donald Honn.



California modular contemporary house at \$16,750 uses a lot of stone, but all goes into wide front fence.

Pope Studios

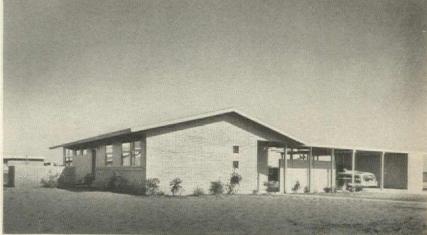
to symbolize quality and meet a market preference

Suter, Hedrich-Blessing



Harnischfeger's 1956 Cody priced at \$12,300

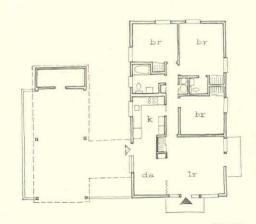
Mears Photography



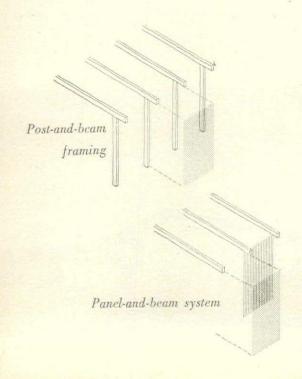
Fabricon's \$14,000 Forecaster house



Noncontemporary two-bedroom National model



Knox \$16,000 Gulf Coast and other new contemporaries will be featured in 1956



The new look in prefabs:

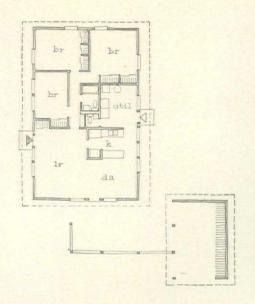
They are growing more contemporary

Nearly all prefabricators agree that success depends more on good design than on anything else.

To better than half the industry, good design now seems to mean contemporary. As these examples show, the trend in the new models is to sloped ceilings, window walls, indoor-outdoor living arrangements and top-notch floor plans. Most of these houses are constructed on a panel-and-beam frame (rather than post-and-beam), with the load-bearing outer wall posts in-

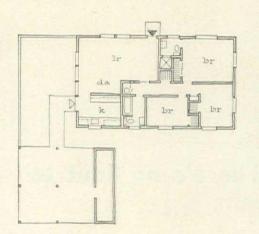
corporated in panels (see diagram, left).

The majority of prefabs sold today still lean toward conventional house designs like the small National model (shown above, top). These so-called "bread-and-butter" models usually outsell the more advanced architecture. Yet today most factories turning out these models now also produce contemporaries (for National's, see pages 116-117). And Style-Rite's contemporary (opposite page) already outsells the company's conventional line.





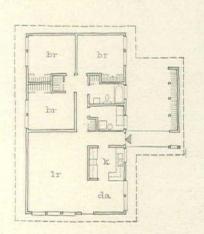
Richmond's Nassau sells for under \$15,000, has 1,330 sq. ft.



Western Pictures Service



Westway Homes' Model 32 sells for \$9,750, has 1,044 sq. ft.



Burt & Charlton, Inc.



Style-Rite's Fiesta sells for \$12,000, has 1,162 sq. ft.

Rodney McCay Morgan



American Houses' Independence sells for about \$25,000

Split levels

Contemporary >> →

Large houses



Place Homes' 1,650 sq. ft. "Plan 50" sells for \$20,500

Pease Woodwork's Longwood with two baths sells for \$21,500



The new look in prefabs:

There's no limit to

Yes, all these houses are prefabs—which may even surprise some prefabricators.

Hodgson Houses, perhaps the oldest prefabber, has been building homes like the one shown opposite for many years, but it is only recently that the industry as a whole has offered much beside the standard one-story rectangular ranch model.

Now prefabricators (some singly) cover all price ranges and many styles. Almost all producers are increasing the size of their models. Many, like Scholz Homes, are well into the quality market. In only three years, Scholz has demonstrated that widespread demand exists for such large, open-planned contemporaries as its colorful house shown at top, opposite page.



Scholz has introduced this 1,040 sq. ft. glass gable model at about \$14,000

the range of today's prefab models



Cape Cod

Hodgson House was completed for about \$21,000

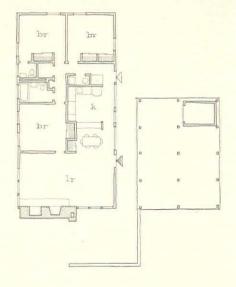
Small houses



Engineering's Niagara: under \$10,000



US Steel houses cost \$9,250 to \$11,700





Brick patio wall gives Canterbury model additional privacy

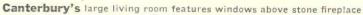
The new look in prefabs:

They use lots of color

This National Homes model shows how a prefabricator can meet a demand for brick or stone without having to compromise his techniques.

The new Canterbury model, above and below, is not a brick house. It just looks like one. Architect Charles Goodman handled the problem skillfully to create the illusion. Actually, his exterior use of brick is confined to the patio, terrace and garden walls where it adds variety and helps to fit the house to its grounds.

National's Canterbury has about 1,150 sq. ft. of living area, sells for \$17,750 fully equipped (including air conditioning).







Individual site planning is offered on each Ridgewood house to any builder sending in a contour map

The new look in prefabs:

More are big and handsome

This house may do more than any other ever prefabricated to raise the public's estimation of prefab quality and design.

The Ridgewood is National's first really high-priced house, selling for \$30,000 to \$40,000 including lot and landscaping. Its 1,700 sq. ft. of living area wastes little space, provides an excellent circular traffic flow, with the kitchen at the center of the family life.

A house could hardly look less prefabricated. / END



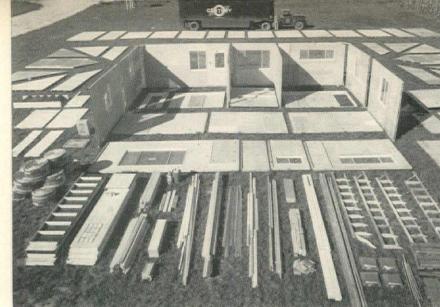
Sliding doors can completely shut off kitchen from living room





Family room, open to kitchen, is larger than living room

A few years ago the typical prefab package consisted of not much more than some rough panels and a sheet of instructions. As shown, right, the typical package today contains almost every structural element except the foundation. Exterior wall panels, for example, are not only sheathed and interior finished, but the windows and doors are installed and glazed. Look closely and you can even see wall cutouts for the electrical outlets. Some firms are adding many other important components. You will not find everything in any one package, but everywhere . . .



I C 411 ...

The prefab package is getting bigger

1. Plumbing is being added

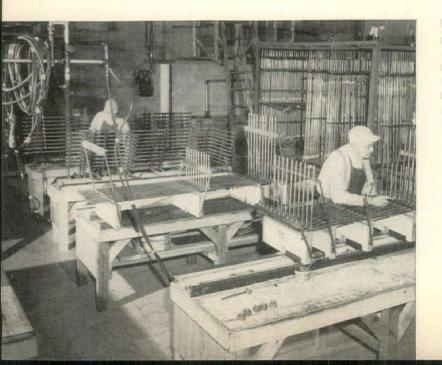
Today ten of the 55 members of the Prefabricated House Manufacturers' Institute include some prefabricated plumbing (pipe assemblies and fixtures) in their house package. Two years ago not more than two did. Most of today's ten treat it as an optional item,

Significantly, an increasing number of builder-dealers are beginning to order the plumbing package. National Homes says 60% of their house sales now include the complete plumbing package. Half of the other 40% are shipped with the three main fixtures.

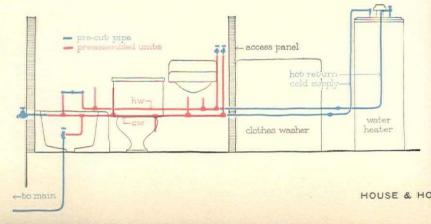
Pipe assemblies are designed to meet all

requirements of the National Plumbing Code. This satisfies inspectors in most rural areas and generally necessitates only minor changes to meet strict codes. Because most prefabbers have their plumbing assembled in the plant by union labor, labor at the site does not complain. But resistance is sometimes encountered from local plumbers. One prefabber told H&H: "Local plumbers hate to lose the markup they normally make on parts." Mass purchasing permits the prefab manufacturer to sell his plumbing at rockbottom. Savings to builders are reported at from \$75 per house up to \$300, according to the house size.

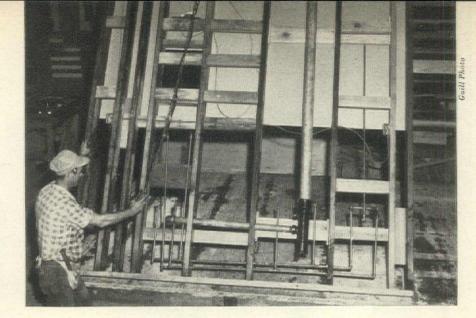
What's in the plumbing package is illustrated by the photos on these two pages.



Hot and cold water supply manifolds are only partially assembled before shipment by National Homes. Final assembly is made at the house so builders can easily vary the hook-up to meet local codes and the different needs of National's line of houses. Cast iron drain pipes are also provided. Pipe manifolds in plan (below) are shown stacked in factory.



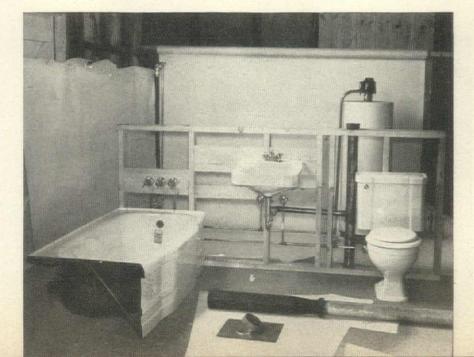
Complete plumbing tree is installed in 6" thick wall and shipped by Precision Built Homes. All kitchen and bath fixtures, can be included at builder's option. Cost to builder for this complete prefabricated plumbing package, including fixtures, for a one-bath \$10 000 house is about \$400. Builder saves up to \$200 a house, compared with cost of buying his plumbing locally.

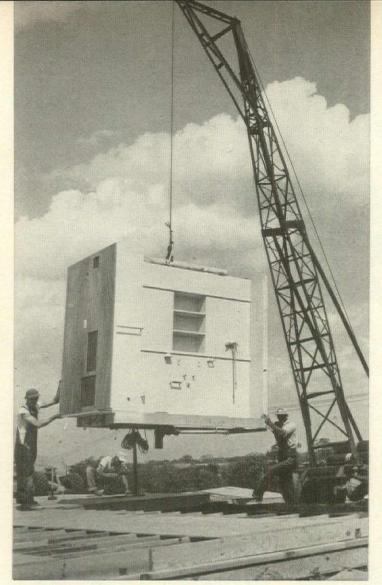


Two plumbing walls per house are shipped by Scholz Homes, one for bath pipes, one for kitchen. Each wall holds complete preassembled copper water supply system. For installation, panels are pushed into place on each side of soil stack assembly. As shown (right) soil stack is locked in place by precut floor slot. One plumber can make final installation in about six hours.



One 6" plumbing wall used by Allen Industries contains not only all hot, cold water pipes but also has 4" soil stack. Like most prefabbers, Allen lets his dealers order plumbing at their option. But unlike other prefabbers shown on this page, Allen does not make up his own plumbing package; he orders the assembly (right) from large Indiana plumbing supplier who mass produces similar units for many buyers.

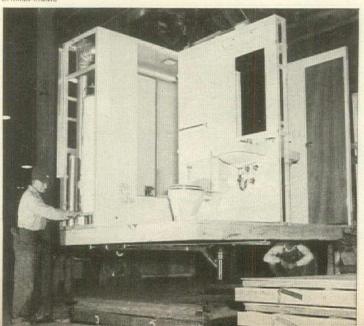




Warner Studio

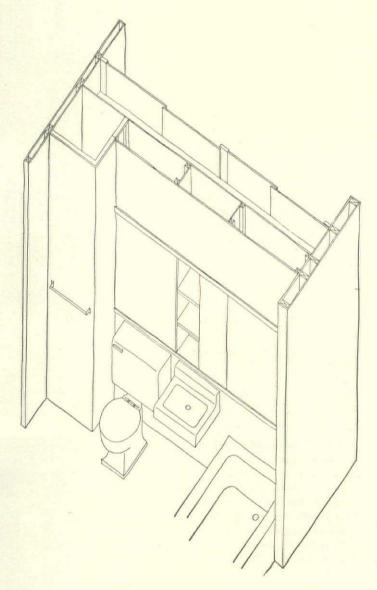
Ever since early experimental units failed in the late 1940's many building experts have turned down the idea of using a utility core. One who has not is Architect Neal O. Reyburn, president of Home Building Corp. He has successfully used units like those shown here in more than 2,000 houses. Reyburn's houses range in price from \$10,000 to \$17,500. He sells in Missouri and nearby states. He estimates his packaged core saves builders at least \$350 on plumbing and wiring. Even bigger savings result because construction delays are sharply reduced: six men can put together an entire house in one day.

Lehman Studio



2. A utility core is being added

Utility core weighs less than 2,000 lbs. without fixtures, is lowered in place with crane so "prefinished panels will not be scarred." Final plumbing, wiring connections cost about \$100. Core can be delivered with fixtures when the local code does not require a pipe test. Unit at left is for one-bath house.



Complete units contain plumbing, wiring, domestic hot-water heater, chimney flue (furnace goes in crawl-space below floor). Shown left is two-bath unit of the type used in Kansas City suburb where the National Plumbing Code is acceptable. Details, above.

A. Electrician selects precut wire assembly



B. Wiring is threaded into wall panels



C. Electrical outlet is installed



Guill Photo

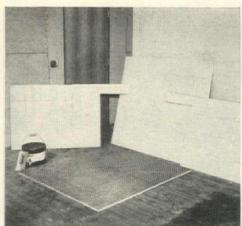
3. Electrical wiring is being added

Main reason for wiring the wall panels is to permit manufacturers to ship them complete with interior wallboard applied. Finished panels could, of course, be shipped with only "fish cords" installed (the wiring to be pulled through on the job). But as one prefabber puts it, "If you close in your panels you might as well go all the way and put in the final wiring, too." Code problems are solved by designing the wiring to meet the stiffest requirements encountered.

A good example of how wiring is being prefabricated is illustrated by the Precision Built Homes' photos above:

- **a.** Plant electrician selects a precut wiring assembly from stock where a variety of assemblies are available.
- **b.** Wiring is put in exterior wall panels after the insulation has been applied.
- c. The wiring is completed by attaching the electrical outlet. Coil at the other end of the panel is connected to main electrical conduits on the job.

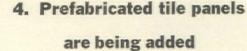
Tiles are applied to thin backing board

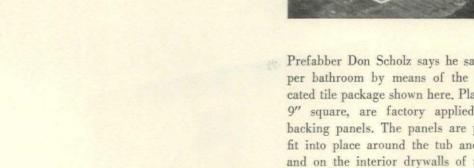


rd Presized nan

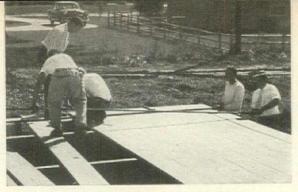
Presized panels are quickly set in place

Prefabber Don Scholz says he saves \$150 per bathroom by means of the prefabricated tile package shown here. Plastic tiles, 9" square, are factory applied to 3%" backing panels. The panels are precut to fit into place around the tub and shower and on the interior drywalls of the bathroom. Similarly, a prefabricated ceramic tile floor panel (not shown) is dropped into place. On-site labor costs are reduced sharply—total labor and materials are estimated at \$90 per bathroom, vs. \$250 for conventional tiling.





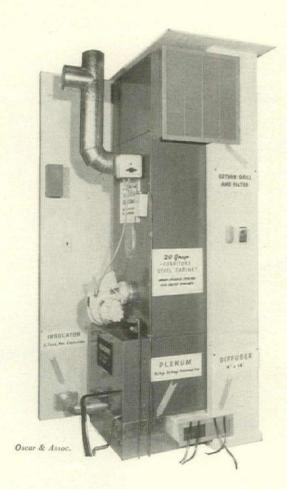




Plank flooring is pulled taut by pipe vises

5. Complete flooring is being added

Scholz Homes offers its dealers a new flooring system that enables a four-man crew to install a complete floor "in a matter of three hours." This includes preparing the foundation, setting floor beams and, in effect, supplying rough and finish flooring for an average 40' house. Secret of the system is the use of 1½" laminated oak floor planks which serve as both rough and finish flooring. The planks run full width of the house and are nailed to three 4" x 16" beams which span the length of the foundation. Scholz uses the system together with crawl-space construction to achieve a fast building pace the year-round. (See p. 152 for details on the laminated planks.)



Cooling-coil section is combined with downflow wall heater, is pipe-connected to air-cooled refrigerating unit outside. As shown above the heater (671/2") high) fits atop the coil section (15" high), which in turn fits over a sheetmetal plenum (91/2") high). Over-all: 9134" high, $25" \times 30"$ at the base for 2-ton cooler, 90,000 Btu oil-fired wall heater.



Installed planks eliminate subflooring

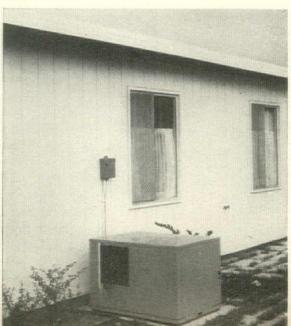
6. Ductless air conditioning is being added

Air conditioning is now being offered as an optional extra by 30 prefabbers out of 88 surveyed by H&H. Some firms just supply a cooling unit on order; others provide a complete air-conditioning system.

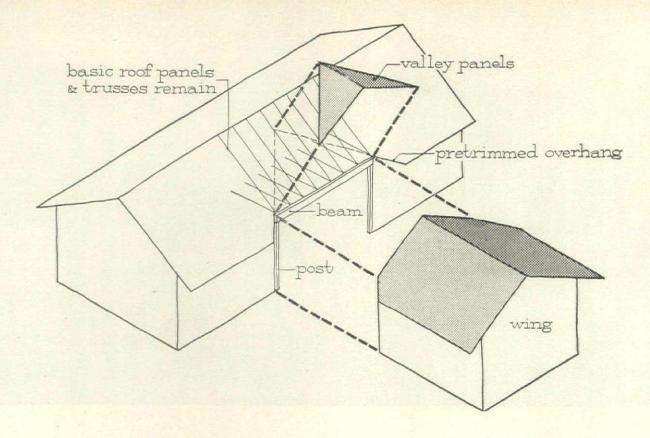
Latest idea in the field is a cooling system without ducts just introduced by National Homes. The system was designed by Frigidaire engineers specifically for National's low-price house line. The 2-ton size, shown at left, will sell to home buyers for "\$500 to \$600" (over cost of the regular heating plant).

Air circulation depends upon central location of the equipment. Conditioned air is supplied at floor level directly into two rooms and a central hall. (One of three diffusers used is shown.) Return air is pulled in from the house through a 20" square grille at the heater top. An extra large fan circulates air the year-round, with the furnace on in winter, the refrigeration in summer. For cooling, a normal volume of air is supplied at the usual 60° temperature.

Frigidaire emphasizes that this ductless system is not "complete air conditioning." Without ducts, circulation to all rooms cannot be assured, nor can drafts be completely eliminated. Complete air conditioning will be guaranteed only if ductwork is added at an extra cost of "about \$150." The same equipment is designed for installation with preplanned ductwork in National's higher priced houses.



National Home



Exploded diagram shows how the breakout principle works. In this example a 24' wide wing is added to a rectangular house. Key to system is "dropped beam", usually 4" x 12", which bridges open space in exterior wall of main house where wing is to be added. Beam lines-up flush with top of adjacent wall panels, rests on two posts and provides support for trusses which normally rest on panels. Two precut triangular "valley panels" connect roof of wing with roof of main house.

Breakout permits "Emancipation of Rectangle"

An important new technique developed for National Homes by Architect Charles Goodman permits mass production of non-rectangular houses with ease and efficiency never before possible. Aptly named the "breakout", the new development promises:

- 1. Greater design flexibility for prefab manufacturer. For the first time the prefabber can add wings or ells to his standard rectangular houses without stopping his production line. In fact, the prefabber can mass produce a variety of irregular shaped houses practically to order.
- 2. More nearly custom plans for the builder-dealer. To the extent the prefabber makes breakout units available as optional components, the builder will be able to achieve custom effects by adding bays, ells, or large wings to basic prefab model. This would give his customers an almost unlimited choice of optional plans to meet special requirements.
- 3. Increased flexibility for conventional builders, too. The breakout system can readily be adopted by the conventional builder who wishes to make irregular additions to a standard rectangular plan without chopping up the roof of the basic house.

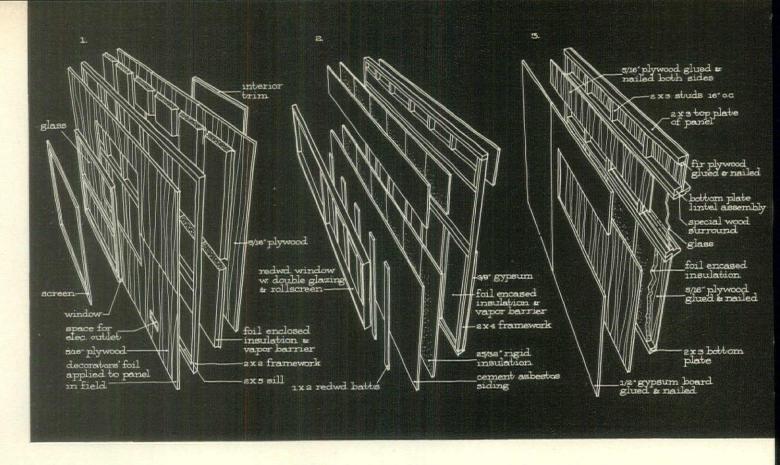
Big feature of the breakout is that it makes possible the addition of large or small wings on a rectangular house without inter-

ference with the normal flow of roof trusses (see drawing above). Without this new technique, the only simple way to break out of the rectangle is to use flat roofs. Otherwise, the roof structure must be cut into and new framing built out in two directions from a valley in the main roof.

National Homes has already incorporated the breakout principle in the basic design of many of its standard models. For example, a big, family-room wing is one of the features of the Ridgewood model, shown on page 117. This new T-shaped Ridgewood is, in effect, National's Ridgeley, a basic 52' long rectangular house, with an added 24' wide breakout wing. Buyers of the Ridgeley can have the breakout wing as a later addition. When the details are worked out, National hopes to offer its dealers a wide choice of similar additions to other basic houses in its line.

Because National uses 4' panels, breakouts could be developed in lengths of any multiple of 4'. Widths could be 12', 16' or 24', dimensions which conform to National's standard truss system. With a system like that, even U- or H-shaped houses could become optional alternates to the basic prefab rectangle.

The new breakout principle offers such wide flexibility for both manufacturer and builder that Goodman calls it the "Emancipation of the Rectangle."



Plywood, stress-skin panel (New Century) is strong, thin, lightweight structure utilizing 2x2s for skeletal framework. Panels are joined by nails tongue and groove fashion and panel joints are hidden when decorator's felt is glued to interior, covered with texture paints. Windows are installed and glazed.

Thompson's



Closest to conventional construction is 2x4 panel (Scholz, Lu-Re-Co) which doubles up studs at panel joints. Most panels are shipped with exterior sheathing applied, sometimes with siding materials already on. Tendency now is to ship panels with interior gypsum ready for taping on site, insulation in and provision made for wiring.

Stress-skin properties are achieved in this panel (National) which has plywood glued and nailed on exterior, gypsum glued and nailed to interior. Framework is 2x3s laid long dimension to wall depth to make it thicker than actually needed for structural strength. Windows are installed, glazed; taping is done on site.

Look what's happening

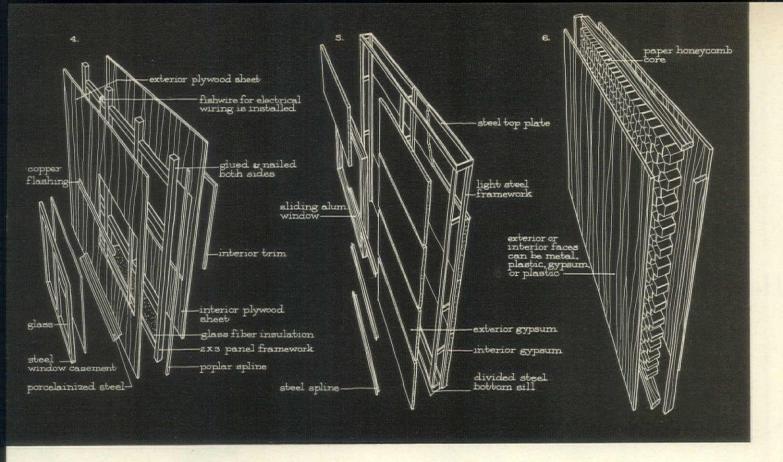
Two important trends are taking place in prefabricated panels.

- 1. The paneled look that marked the prefab is fast disappearing.
- 2. More prefabbers are making their panels more complete.

Panels that gave prefabrication its initial impetus were a marvel of light construction technology but a merchandising hazard. They showed their seams. And people did not put great stock (or money) in 4' or 8' panels whose joints were everywhere apparent.

The prefabricators are correcting this. Whether they hide panel joints completely or obscure them by even more joints (see photo, right) they are erasing the paneled look.

Panels are also becoming a more nearly complete wall. Following the lead of the bigger prefabbers who always strived to supply the complete house package, other firms are now installing insulation in panels and making provisions for wiring. The more complete panel makes sense to builders who would like to buy all of their materials, if possible, on a single purchase order and complete their houses faster.



Interior face of this panel (US Steel Homes), unlike others, is factory-finished. A stress-skin panel, it utilizes a 2x3 framework to which plywood is glued and nailed. Panel is insulated, windows installed and glazed and provision is made for pulling through electrical wiring. Random scoring of interior face obliterates actual panel joint.

Steel panel (J&B Mfg.) is shipped with windows installed and glazed and interior and exterior gypsum sheathing applied only under windows. Since panel is longer than room size, bulk of gypsum faces are applied on site to avoid unwieldy panel weight. Gypsum is clipped by splines to steel frame. Panels are bolted together.

Bright future is anticipated for paper honeycomb cores (Union Bag & Paper) because of high structural strength, light weight. Says Forest Products Laboratory: "Research on sandwich construction is already well ahead of application. Honeycomb paper with suitable resin fortification appears to have great possibilities for prefabricated panels."

Modern Home



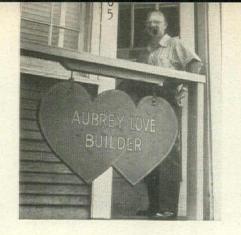
to the prefab panel

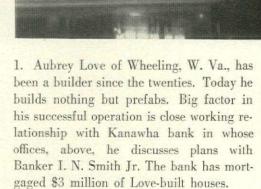


Random scoring of plywood panel hides actual panel joint



Flat, smooth wall surface is result of tape over gypsum

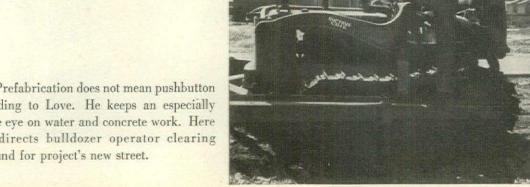




How a prefab builder makes a living



2. Another reason for Love's success is his foresight in keeping a jump ahead of the land shortage. First West Virginia builder to develop farm acreage, he never buys a new tract without first studying site's possibilities and surveying potential market.



3. Prefabrication does not mean pushbutton building to Love. He keeps an especially close eye on water and concrete work. Here he directs bulldozer operator clearing ground for project's new street.



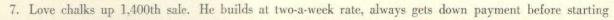
4. Love makes systematic checks with his superintendent who is responsible for carrying out all construction details.

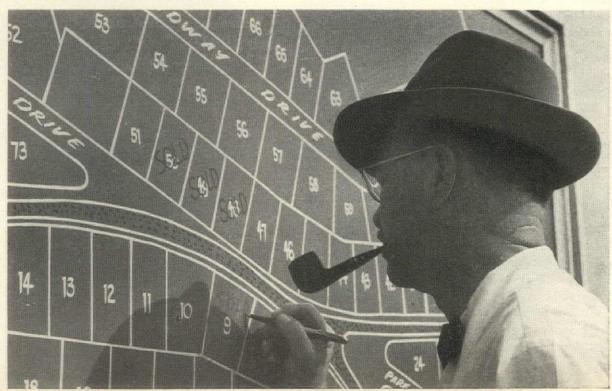


5. Model house is Love's stock-intrade and heart of his sales effort. He never builds a house before it is sold.



6. Love spends many hours in model houses watching prospects' reactions and listening to their comments. They like built-in appliances, seem less interested than formerly in basement.





Is there a prefab in your future?



Here's what prefab makers say you need for success

Here, in order of importance, are the five qualifications manufacturers say you should have to succeed as a prefab dealer:

- 1. Capital. The builder should possess sufficient capital (minimum \$10,000), have a good credit record and some financial know-how.
- 2. Merchandising. The builder should be alert to the value of promotion, advertising and aggressive salesmanship. Most manufacturers admit that builders respond more to merchandising helps than construction advice.
- 3. Experience. Although the myth prevails that no prefab builder knows how to build, and was everything from a haberdasher to a lawyer before becoming a builder, most manufacturers prefer successful businessmen who have some building or realty experience.
- 4. Organization. The builder should be capable of creating a good construction and sales team, be able to plan ahead and systematize his operation.
- 5. Reputation. He should have a good standing and reputation in the community.

Other qualities listed include: a knowledge of land acquisition and development, cost consciousness, appreciation of quality ("every builder should have a little of the artist in his soul"), an understanding of FHA and VA, "enthusiasm and drive."

If you are slightly under 40 and have had ten years successful business experience—preferably in building, real estate or related fields, like appliance selling—you have the typical background of a successful prefab dealer.

Of course you need something besides background. Statistically, you need to have capital of \$22,239—or, at least, access to it. Given all this, together with the desire to become a builder of prefabricated houses, you will (if you continue right on average) put up 13 houses your first year. Within two or three years you will be doing 38.

This composite picture of today's successful prefab builder takes no account of those who tried and failed. And some do fail, for in the highly competitive world of prefabrication nobody can guarantee anybody a successful career.

Yet the number of builder-dealers is steadily increasing. This year the count is up by 1,000—net after all drops. This makes the national total 6,000.

One reason many builders are attracted to prefabs is suggested by G. W. Mefferd of Modular Homes: "The builder must look after the 'big three' of building—land, capital and customers. That's a big enough job in itself. Why should he spend his time and effort on purchasing, manufacturing and scheduling when most of it can be done for him?"

On the average (House & Home's survey of 90-odd prefab- and package-house manufacturers shows) the dealer pays a little less than \$4,000 for the manufacturer's "package." To prepare the foundations costs him \$900. Plumbing, heating and electrical work is subcontracted. His own crew of five men erects the house. Total completion time is 150 man-hours.

This average dealer's average house sells for a little over \$10,000 without land, but including profit and all fees. The profit: 10%.

To run his business the average prefab builder drives a car or station wagon, rather than a \(^1\)/4-ton pickup truck, and he spends at least as much time in his office as he does on job sites.

Some prefab builders are big operators

Any picture of the average prefab dealer is inevitably influenced by the fact that the big dealers, though few in number, tend to be very big indeed.

Big builders like Hubert Layne of Springfield, Leonard Besinger of Chicago and Ralph Shirmeyer of Fort Wayne have built 1,000 prefabs in one year. As in home building generally, the bigger prefab builders account for the greatest part of the market. Slightly under 5% of all prefab dealers build 50 or more houses each. These big operators are responsible for about half of all the prefab houses built.

Many reasons are offered to explain a big builder's conversion to prefabrication. One heard frequently is vaguely inclusive: "He became convinced that prefabrication offered him something he couldn't provide as well for himself." The "something"? Sometimes it's lower overhead resulting from the convenience of the package. Sometimes, especially for fast-growing dealers, it's financial help. Often, it's merchandising aids, better design, or a way around the shortage of skilled labor.

The big builder sometimes switches from one brand of house to another. But he seldom does it out of dissatisfaction with the quality of the product. Says one builder: "I've built three different brands and think one is as good as another; naturally I have to convince myself that my present brand is superior." Chief reasons big builders switch brands: better financing (through acceptance corporations set up by the manufacturers), dissatisfaction with a particular design for a particular area, better price.

There are small prefab builders

The small-volume operator turns to prefabrication when he is sold on the merit and quality of the product and when he wants either to build more houses or to work less hard.

Small builders are also known to switch around from one brand to another, frequently building several different kinds of prefabs simultaneously. One critic described these builders as seeking a panacea: "They are looking for better ways to build and think the way the product is put together is the total answer. It's not."

Many prefab firms view the small builder as the heart of their business and maintain a small-to-big builder customer ratio of 60-40, 75-25, 70-30. Prefabbers make every effort to convert the small builder into a big one since, ideally, they want all their builders to be 100-houses-a-year customers. The manufacturer who sells his customer two houses a week steadily over the year can provide him with the best service and the greatest economies.

How does the builder pay for the package?

Almost a third of the prefab manufacturers reporting in House & Home's survey, generally require payment for their house packages before shipping, although several in this group will extend credit for from 15 to 30 days to established builders with good credit records. About 40 companies regularly ship on a line of credit of from 15 to 30 days, sometimes with a partial payment. An increasing number (26 of those surveyed) will wait 90 days for payment. This gives bona fide builders enough time to erect the package and make the first construction draw from their banks. This advance frequently covers the package cost.

Trend is to serve the dealer more

The prefab builder's "best friend" is his manufacturer's salesman (who should rightly be called a representative).

This man visits the builder regularly and often takes on the builder's problems as his own. He stimulates the builder to do a better merchandising job, frequently tells him what other builders are doing successfully. He supplies the builder-dealer with sales aids, checks to see that he is getting good financing and prods him to keep looking ahead for land.

Robert Lytle of Modern Homes says: "It takes effort to keep a builder looking ahead to future problems when he is in the midst of building eight or ten houses. But if he doesn't, he may lose a year's building. Our representatives try to prevent that."

The best way to describe the function of the manufacturer's representative, says one prefabber, is to say that he checks to find out how many houses a builder has completed—not how many new ones he's started. "It's just as much the salesman's duty to keep a builder from building more houses than he can handle as it is to help him grow."

Whether the prefabber's service includes color coordination, advertising aids, or advice and furnishings for a model house, the salesman is the man who sees the job is done right.

Prefab dealers have gripes, too

Most of the prefab builders' complaints play into the hands of the manufacturer. Biggest is for a single source for all purchases, right down to the last nail.

Next most-heard of complaint is against the lack of variety in floor plan, elevation, and roof lines. Several manufacturers are adding new models and flexible floor plan arrangements to meet this problem.

Other complaints: need for better storage during construction, slowness by manufacturers to adopt new products even when present choices are not working well and lack of mortgage facilities.

These builders tried prefabs—and like them . . .



McDonald

Someone has to break the ice

"Everyone is afraid to try prefabrication. When we started in 1950 there was one dealer here selling about three prefab homes a year. We ran into every obstacle in the book. Subcontractors were particularly uncooperative. The first year we sold only two houses, but we continued to bang our head against the wall. Finally the wall gave a little and we wedged our way through. The next year we sold 15 homes and we were on our way." Robert A. McDonald, Manitowoc, Wis.

You can sell a good prefab anywhere

"Prefabrication is definitely superior to conventional construction in the lower and medium-price field." Crawford Hamilton, Kamloops, B. C., Canada

We can schedule work more efficiently

"I built 10 to 15 houses a year as a conventional builder, now do 50 to 75 as a prefab builder. We have a salesman's visit once a week, visits approximately every two weeks from field engineer and periodic visits from other officers and representatives." Lindsay Wiggins, Charlotte, N. C.



Brosius

More house for the money

"The design service we get is alone worth \$200 to \$300 per house. We are furnished with expert assistance in site planning, color styling, furniture for open houses, advertising assistance, technical assistance on call-backs and construction problems. All of these items mean a better package for the home owner, put us in a better competitive position." J. William Brosius, Jr., Frederick, Md.

Nationally advertised product is a plus

"We sell 1,000 prefabs a year because we have the advantage of selling a nationally advertised product. The mortgages on our houses are acceptable to the largest investors. We get a financing setup with adequate construction funds, regardless of size." H. B. Layne, Springfield, Ohio

Prefabber's staff becomes my staff

"The extra service I get outweighs the additional money I pay for the package. The service is an outright bonus.

"If a builder is a 10-house builder, when he starts using the factory system, he will very soon be a 50-house-a-yearman. Prefabrication gives me more time to spend on sales and promotion." Raymond S. Barry, Columbus, Ohio

I've sold 700 prefabs since 1948

"We build prefab because we feel it is the fastest, simplest, and most economical way to build. It simplifies estimating the cost of a house and prevents us from getting caught by rising prices in the middle of a project." Ralph Rocks, Washington, D. C.



Zenot

I build 10 times more with prefabs

"I find mason, electrical and heating contractors bid \$100 lower than if we were building the same house conventionally. Their experience with builders of prefabricated homes taught them they could give lower bids for a prefabricated project because they know that the house is completed speedily, the money for their work does not drag out into months and their men can report to the project and proceed right down the line." Ben Zenoff, Milwaukee, Wis.

Prefabrication is the way to profit

"I tried all kinds of building—conventional, precut, stressed skin, panel systems, so I think I know prefabrication's merits. We built 37 houses in 60 days—30 days from start to movein, and sold them all. I always thought that you could sell prefabrication in over-\$10,000 houses. We tried putting on a top hat (brick veneer) and selling prefabs for from \$15,000 to \$16,000. It worked." Stanley Valinet, Indianapolis, Ind.

But these builders still say "not for me"



Ferland

Building's greatest controversy today

"Certain parts of the country are definitely more favorable to prefabs. In this typical New England area, people may accept slab construction but want plastered walls. The combination of both slab and dry wall construction seems too much for them to accept." Roland O. Ferland, Pawtucket, R.I.

I don't want to go broke

"Prefabs in Knoxville just don't give the value that we can. Four builders that I know of have tried them in six years and all have gone broke." Alec Harkness, Knoxville, Tenn.

OK only for small builders

"Prefabs can save time for a builder up to and including the roof. From there on it takes longer to build a prefab. But most small builders haven't the know-how to get houses through FHA and VA. Prefab manufacturers have men doing this full time. They find mortgage money for the small builder. Prefabs offer most to the builder who puts up from 1 to 25 houses, because a bigger builder can do these things himself." L. D. Ashbacher, Defiance, Ohio



Sampson

Prefabs are not always economical

"Prefabrication is not always as economical as it might appear. In 1940 we set up an assembly line prefabricating the walls, floors, partitions and roof sections; we found costs higher for the completed house. Assembly-line labor savings were offset by the higher cost of transporting bulky sections, bracing, packaging to prevent twisting, yard handling and site handling." Glenn Sampson, Pittsburgh, Pa.

Lack of variety is biggest drawback

"People generally resist regimentation; they want something different. I don't use prefabricated houses because there is not enough freedom of design. My houses are better, and can be adapted and oriented to different sites and deed restrictions are easier. Prefabs help a builder with no design ability or buying power." Truett A. Bishop, Dallas, Tex.

Tried panelized construction once

"Once we used panelized construction and ran into some serious problems; houses were shipped missing a few parts. When things were running smoothly, we found that the other trades could not keep up with the two-house-a-day schedule." Richard C. Goodwin, Haddonfield, N. J.



De Meo

No market in Miami

"Prefabs seem more favorable in certain parts of the country, but not in South Florida. The preference of the public is for concrete block-stucco and that is out of the question. Prefabs have been used in this area with indifferent success. Experience proves there is no difference in cost." V. J. De Meo, Miami Shores, Fla.

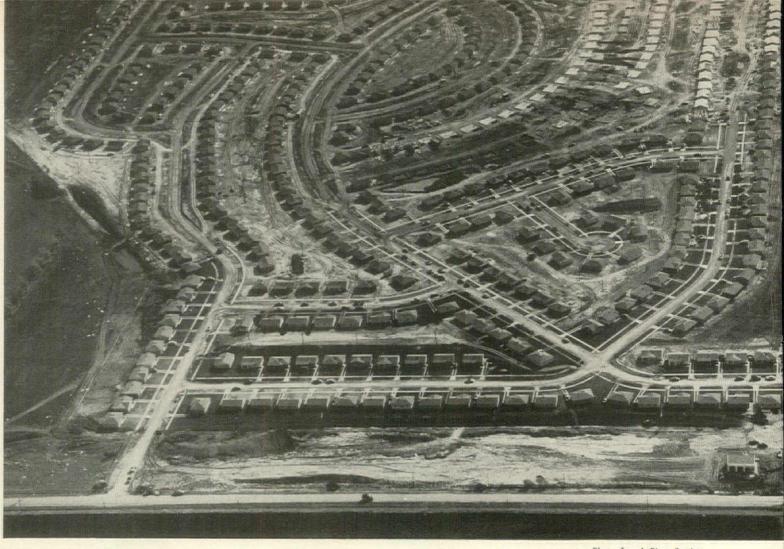


De Blase

Prefabs are not for high priced homes

"In the \$20,000 to \$50,000 price bracket, I offer my customers greater variety in design and floor plans than I would be able to with prefabrication. Prefabricated homes in my area were built in a volume situation to satisfy a 'shelter market'. Prefabricated houses have a bright future where there is need for increased housing because of commercial or industrial expansion." Fred P. De Blase, Rochester, N. Y.

/END



Raw farm land last April, project will have 474 families in residence by New Year's Day

Photo: Loree's Photo Service

Prefabs can step up the pace

By switching from conventional building to prefabs, this year E. A. Herzog, at 36, has become one of the Chicago area's top builders. By Dec. 31, Herzog will have done all this in nine months:

- 1. Bought 370 acres of farm land which he had optioned earlier.
- 2. Planned and then developed the land with his own men and his own equipment.
- 3. Built nearly 500 Harnischfeger prefabs on it.
- 4. Constructed a \$542,000 sewage disposal plant which he arranged and then financed.
- 5. Sold \$2 million worth of land for industrial buildings in his industrial park. These factories go far toward solving future school tax problems.
- 6. Optioned land and made plans for 500 to 1,000 houses annually for the next five years.
- 7. Completed the final third of a 250-house conventional project which he had started two years ago in another Chicago area.

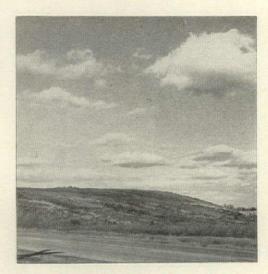
Herzog's new project, shown in the large photo above, is in Wheeling, Ill. about 25 miles northwest of Chicago's loop. His whirlwind performance is significant to all builders because it is a demonstration of how prefabrication's speed can pay off.

Building 500 houses a year is no longer news but how Herzog built them is a real accomplishment. His whole operation rested on an exceedingly tight schedule and on the assurance that he could build prefab houses faster than he had ever built before.

After he had run out of land in nearby Des Plains he found attractive farm land next to the village of Wheeling, population 900. But while Wheeling had land, it had none of the other amenities that look good to a builder: water, sewers, and industry to help pay local taxes. Furthermore, the state board of health had ruled against septic tanks in the area.

Under these conditions, lenders were cool to requests for money for land or utilities. From experience they knew that to turn raw land into fully developed lots, with streets, sewers, water and completed houses ready for occupancy takes a long, long time. But Herzog's answer was a bold program of action. Prefabrication gave him a basis for a fast construction schedule. He took on the sewer, water and land development work himself. He got money by showing how he could complete 474 houses by end of the year.

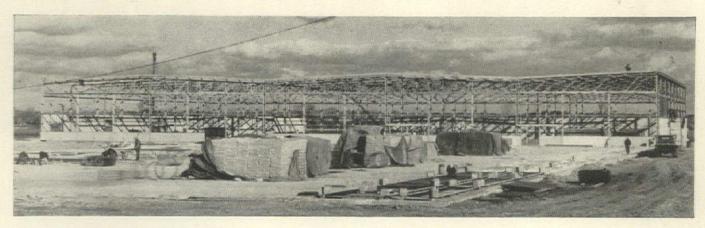
Photos: Kranzten Studios, Inc.



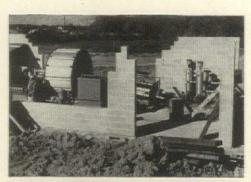




Herzog's problem: how to develop raw farm land near small village which had no funds to pay for sewers, schools, wells



This \$5 million Ecko-Alcoa plant was attracted to Wheeling by Herzog. He has signed three more for his industrial park





The sewage treatment plant was absolutely essential to Herzog's operation. He assured the village that, if it would vote a bond issue for both sewer plant and deep water wells, he would buy the 5%, 40-year bonds for a total of \$542,000. The village approved the issue and work on the sewage plant was started May 1. The plant began operation under a temporary permit on September 18, in time for the first families to move in on schedule.

The agitator tank, shown in lower photo at left, is being used temporarily as a settling tank in this bio-filtration system until the whole plant is completed. Then sewage will go from the agitator to the two larger settling tanks shown at the rear. Part of the plant, in operation, is shown in the upper photo (left), Plant can now handle a population of 5,000, will later be expanded to take care of 54,000. Bonds will be retired through a \$100 tap-on charge for both old and new houses.

Builder Herzog's installation of his own sewage treatment plant not only made his farm land usable but gave his buyers permanent sewers, which health authorities regard as better than septic tanks.



This small staff handles whole Herzog operation. Permanent office staff of 21 breaks into three groups—financial (left) construction (center) and sales. All report to E. A. Herzog, center foreground with assistants. Sales team does general brokerage business.

Prefabs and small staff did big job

With his staff shown in the photo above plus the help of a team of six experts, E. A. Herzog was able to squeeze the most out of prefabrication's great gift to the harassed builder: speed of construction.

By switching from conventional houses to prefabrication, Herzog gained these five advantages:

- 1. He could cut his construction time in half.
- 2. He could hold his overhead to a minimum.
- 3. He could speed up favorable action on interim financing and final VA-approved mortgages.
- 4. He could be assured of stable material costs through a six-month price commitment from Harnischfeger and of stable labor costs from subcontractors who were willing to guarantee their bids under bond.
- 5. With these advantages and the firm, fast schedule, he could make his entire program attractive to a private investment group, to construction lenders and to mortgage buyers.

Every aspect of the land development, construction and financing was carefully worked out early this year to fit an exact schedule. Arrangements were made to subcontract all work except excavation, backfill and carpentry. Harnischfeger, picked to supply the houses, secured nomoney-down financing for about a fourth of them. Financing for the others was based on 5% and 10% down payments. Prices of houses were set at \$13,850 to \$15,350. Attorneys worked out all zoning, bond and other legal problems. Land options were picked up; sewer construction plans completed.

But all his plans might have come to nothing if he had not had these men on his planning team:

Clifford Carlson, architect and engineer.

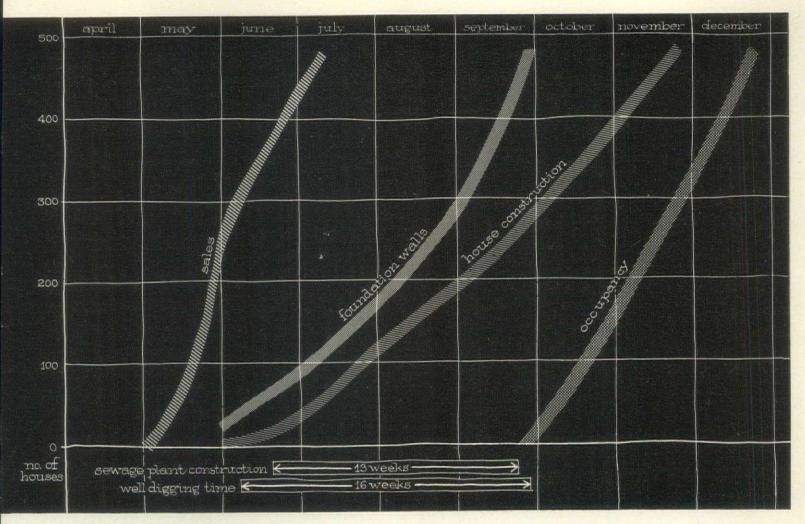
Edward Gieseke, Jr., president of the Wheeling village board.

Earl Weber, president, Hoyne Savings & Loan Assn., long-time lender to Herzog.

A. W. Pipenhagen, vice president of Harnischfeger Homes Acceptance Corp.

John B. Simmons, Willoughby & Co., Chicago, handling "industrial park" sales.

DeSoto B. McCable, head of engineering firm that planned sewage system.



Herzog's entire effort and financial program depended on fulfilling this tough schedule. Sewage plant, water wells, sales foundations, houses and occupancy were all carefully timed. As of mid-November he was on schedule.

How Herzog planned for a fast pay-off

Chart shows how Herzog scheduled 474-house project on timetable of nine months from raw land to last occupancy. Fast pace, plus need to provide both water and sewage facilities, required close coordination of each step in over-all operation and permitted advantageous financial planning.

Program began in April with preparation of site for two model homes from which all sales were to be made. Three weeks were allowed for completion of models and sales were to start in May with goal of 474 houses to be sold by early July. Foundation work and actual construction was slated to begin one month after opening of sales drive. Last house completion was set for late November. Buyers could not start moving into houses until sewage plant was ready and well system had been completed—three steps planned for late September. Last of 474 houses was scheduled for occupancy by end of December.

Financing before mid-April was limited to risk investment in options, staff time, overhead and engineering studies. At this point the plan called for substantial investment in land and in development work, Maximum risk exposure (i.e. total investment, plus credit commitments) was phased for late June. From then on, as buyers signed mortgages and made down payments, the plan called for Herzog's risk exposure to be progressively reduced, reaching zero at year's end. Construction loans were based on each individual lot, with first pay-off when house was under roof./END

Kranzten Studios, Inc.



This backhoe is one of three Herzog owns. Company also owns graders, trencher, earth movers and trucks, but rents FM system for communication with field supervisors. Herzog learned about earth moving in the Seabees, owns machines to avoid delays.

You can

sum up prefabrication

like this:

progress is steady

growth is slower than anticipated

prefabbers and conventional builders are heading in the same direction

Since 1945 prefabrication has had its ups and downs, as the chart on page 102 indicates. The curve has been generally upward and in the last two years prefabbers have had their best sales and have made steady progress.

On paper prefabrication seems the most logical part of home building. Builders who use it and like it are so enthusiastic you wonder why everyone doesn't build that way.

But after many years of talk about prefabrication taking over home building, it still accounts for only 8% of the business.

Why has the growth been slow?

Truth is that to many builders prefabrication is not as logical as it sounds. Most big builders say they don't need it. Most little builders say that prefabrication leaves them with too many of the hard parts of the job. They still have to find their land, develop it, do their grading, put in basements, slabs or other foundations, install a subfloor, do the plumbing, wiring, heating, painting, finishing, selling and financing. They may get prefab parts for plumbing, heating and wiring but must install them locally. Some lucky builders get financing help, but the vast majority do not.

For every action, an equal reaction. One of the most important reasons why prefabrication has not captured more than 8% of the market is that the building industry has become far more efficient than it used to be. If home building had remained as backward as it was in the 1930s, prefabrication could have taken over US home building as easily as the Germans took Paris in 1940.

That this has not happened can be explained by referring to Newton's third law, which high school physics students learn: for every action there is an equal and opposite reaction. Translated to house building terms this means that for every improvement the prefabbers make there is an equal improvement in the conventional home building industry. Prefabbers are not moving in one direction and conventional home builders in another. They are all going down the same road toward greater efficiency.

Site fabricators who build from 50 to 1,000 or more houses a year use practically the same methods the prefabbers do and many are more efficient. They buy in carload lots, engineer their houses and can do more for themselves than most prefabbers can do for their customers. They don't need help with land, streets and sewers, house construction, sales or financing. They have their own experts to do these things.

Mobile builders are a new phenomenon who were efficient site fabricators in their home towns, and who now move from town to town wherever the market looks good. They have learned how to build fast and efficiently. They have the money for land and land development, know how to get financing at good terms. When they move into a new town they set up their yards, do their precutting or panel making and can build as fast and as cheaply as a prefabber can.

Small-volume builders are becoming more efficient and can offer competition to the prefab builder. They are learning "how to build better for less", buy precut lumber, use tilt-up construction, fast methods. They are at their best in cities like Knoxville where house buyers want individuality and where it is common practice for conventional builders never to put up more than a few houses that look alike. In Knoxville the conventional builders give a lot of house for the money and prefabrication has never offered them much competition.

Local conditions in other areas provide special advantages to conventional builders. In Arizona and Florida, for example, the typical construction is of concrete block. Builders and their crews are familiar with it and the public likes it. Woodframe prefabs have little chance to get into this market. In highly competitive markets like Long Island and Los Angeles there is very little prefabbing. In Los Angeles most builders are largevolume operators who can build as cheaply and as fast as prefabbers. On Long Island there is a system of subcontracting which has developed specialists who work fast and competitively. In Pittsburgh the rough, hillside lots and public desire for brick have kept almost all building conventional. Other areas, like Texas, have been too far from a prefab factory to make shipping costs acceptable until last month when National opened its new plant in Tyler.

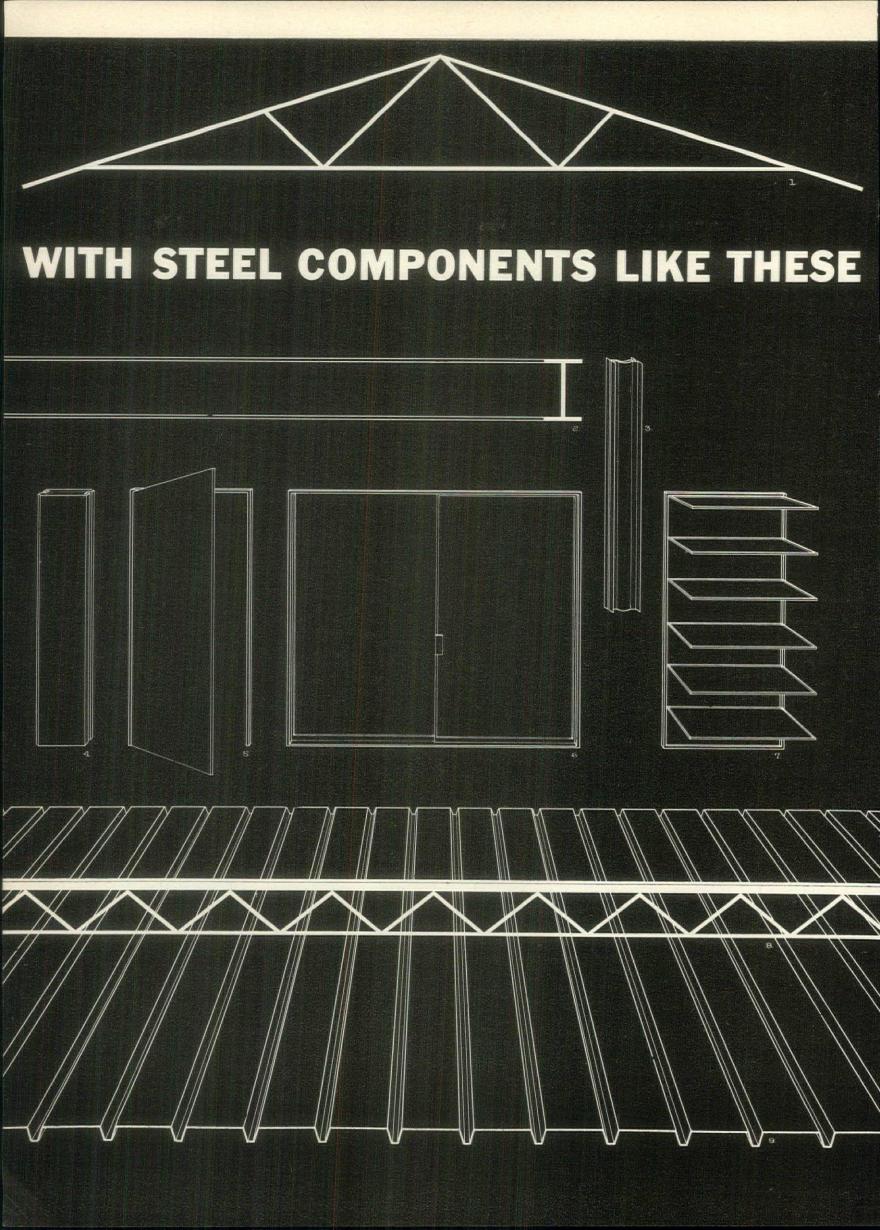
Lumber dealers are one of the best examples of the action-reaction theory. When a prefabber moves in on a town he cuts the lumber dealer out of considerable business. To get back lost business many lumber dealers are now giving local builders a number of services not available before. They are precutting lumber to sizes the builder can best use. Lumber dealers are selling a package deal which may include finished lots, financing and sales help. If the lumber dealer offers real help on land and financing he develops a tie with his local builders that an outside prefab firm finds difficult to break.

The Lu-Re-Co panel system, developed by the Lumber Dealers Research Council, is helping local builders to meet competition from prefabs. The lumber dealer fabricates panels, trusses and other parts, sells them to local builders in the same way a prefabber might do. This movement is still new but it is growing each year.

The component system of building may offer builders the greatest competition to prefabrication. By using components a builder can use a few large parts for his houses rather than hundreds or even thousands of smaller pieces. It is a logical method and builders have been moving in that direction ever since they found they could buy completely glazed and assembled windows from a factory rather than making and glazing their windows on the site. Most builders would rather buy their gable ends complete with louvers and bird stops than to make them on the job. They would rather buy their trusses than make them, prefer readyhung doors if they cost no more, window walls in big sections, storage walls and many other big parts which a factory has put together in a subassembly. As builders are beginning to ask for "parts, not pieces" the national manufacturers of such items as kitchen equipment are beginning to sell their equipment assembled in units. The utility core, which had a poor start in 1946, is on its way back. It is significant that some of the country's most influential builders who do not want to build a prefabricated house agree that the use of components makes a lot of sense and is sure to come.

As standardization of dimensions becomes more commonly accepted by manufacturers, the use of components will offer even greater advantages to conventional builders. Parts for such important rooms as kitchens and baths will be built to an accepted standard which any builder can use. But standardization goes much farther than this-it offers economies and faster construction all through the house. (See H&H Round Table reports in April, June, July, Aug., Sept. issues this year.) It can save builders millions of dollars in reduced prices due to inventory savings and in more efficient building. Standardized components permit a conventional builder to achieve basic economies and still build a house of individual design to suit his particular customers.

Who knows but what the prefabbers themselves will begin selling components? If this should happen the question would be whether the prefab idea took over home building or whether the component idea took over prefabrication. In either case, it is clear that prefabbers and conventional builders are moving down the same road.



YOU CAN BUILD A HOUSE

THERE'S really nothing new about using steel in houses—or is there?

Certainly there's nothing new about an occasional I-beam in the basement, or a steel window, or a steel door frame. There's nothing very new about a steel roof truss, or steel-framed sliding glass doors, or light steel joists and studs. People have been using some steel in some places for a good, long time.

But they haven't been using it as a material in its own right. They've been turning to steel where wood wasn't quite strong enough. They've been using it as a second-choice material, a stand-by to call upon if and when wood gave trouble.

And because they've always looked at bits and pieces of steel, a lot of people have missed one of the biggest stories in home building, the story of steel.

What are the advantages of steel?

First, there are the obvious ones—strength. precision, rigidity. Plus greater cost-stability than some traditional materials. But now there are other advantages. Steel today is not a raw material to be fashioned on the site, but a vast catalogue of reasonably well-coordinated components. And the truly astonishing fact is that you can now find a completely shop-fabricated steel part for almost any wood part that goes into today's house.

Obviously, not even steel's most fanatical advocates will claim that today's steel components are the answer to every house problem. There are still problems and some of the problems are big (see p. 144).

For instance: if you are planning to build a traditional house, by all means build it in a traditional way—it will probably be much cheaper.* If you are build-

if you want a lot of structural flexibility and no dimensional standardization, by all means use materials you can easily cut on the job to fit your special conditions.

But if you have none of these problems, you might find, as others have, that a steel house may cost no more (and can

ing in areas where condensation and/or rust are serious problems, use steel only

if you can be sure of avoiding both. And

steel house may cost no more (and can cost less) than a conventional house. Because a number of builders in Houston, Los Angeles and elsewhere had a hunch that this was (or might soon be) true, they included steel houses in their Parades of Homes this year.

And because production-builder Joseph Eichler had a similar hunch, he commissioned Architect (and steel pioneer) Raphael Soriano to design the first all-steel builder house in the US. Last month the experimental Soriano-Eichler house (below) was open to thousands of visitors from all over the San Francisco Bay.

Ernest Braun

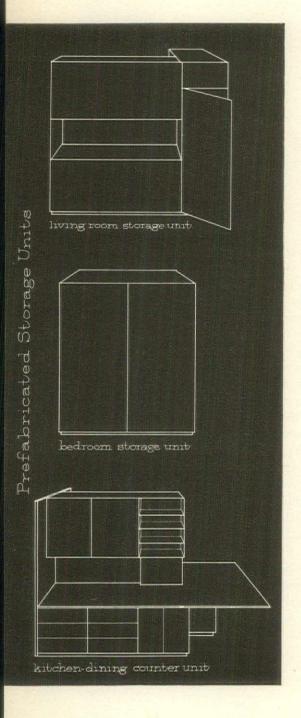


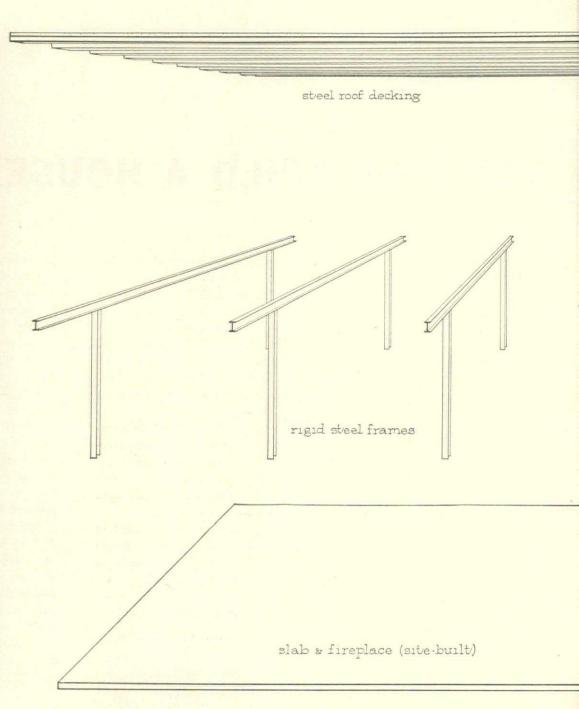
Opposite:

Familiar steel components-

- 1. roof truss;
- 2. light joist;
- 3. nailable stud;
- 4. wall panel;
- 5. prehung door;
- 6. sliding glass doors;
- window assemblies;
 open web joist;
- 9. decking.

^{*}But steel won't commit you to only one type of modern design: the J & B Mfg. Co. of Houston has been building steel-framed ranch-type houses (see June '56 issue and p. 144) and claims they're cheaper to build than wood houses.





BUILDER EICHLER'S NEW EXPERIMENTAL HOUSE IS AN ERECTOR-SET ASSEMBLY

On a 1,560 sq. ft. concrete slab in Palo Alto, Calif., Architect Soriano and Builder Eichler have just erected an assembly of prefabricated steel, glass, plastic and plywood parts that makes most 1955 houses look like Model Ts. And the advanced look of the Soriano-Eichler experiment is not skin-deep: the importance of this house lies in its bone-structure, a new approach to building technology.

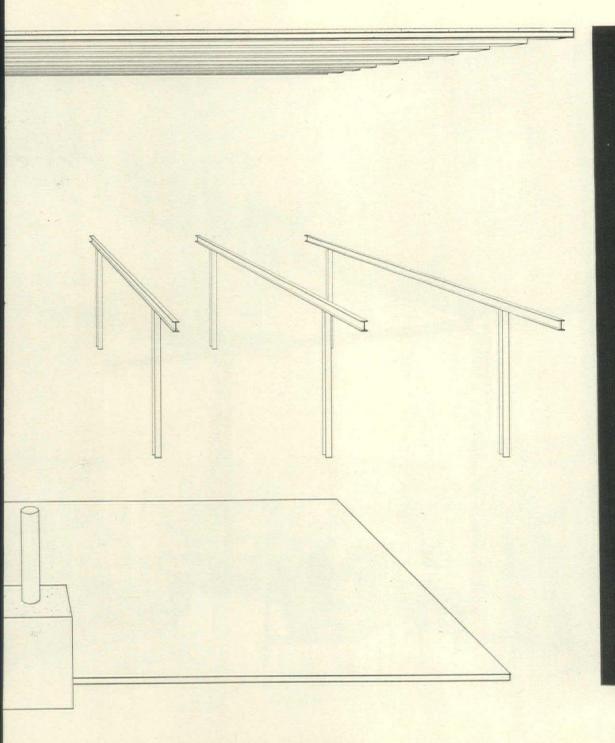
The bone-structure consists, basically, of seven identical, welded, light steel frames spaced 10' apart. Each frame weighs about 700 lbs. This

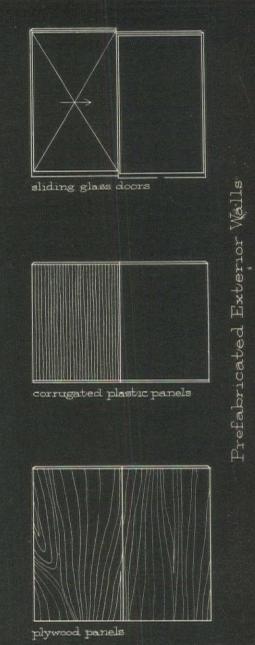
steel cage is topped off with a fluted steel deck (plus insulation), and closed in with three types of wall panels: a floor-to-ceiling fixed or sliding glass unit; a plywood unit in a steel frame; or a glass fiber-plastic panel.

The interior partitions were similarly prefabricated: all consist of factory-made storage walls that were trucked to the site, then rolled into position on dollies. The only site-fabrication involved some masonry, plumbing and wiring.

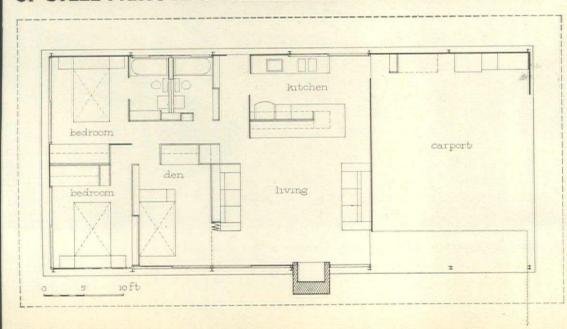
Says Ned Eichler: "In a sense a steel house is the most highly prefabricated house there is, since its parts are processed at the mill and then site assembled."

All first experiments are costly, but this custom-built experiment compares quite favorably with the production houses Eichler builds by the hundreds on neighboring tracts. Architect Soriano took bids on his steel house, found that he could build it for \$7 per sq. ft. in lots of 100, including all the handsome cabinetwork. Said Soriano: "Two men could erect this house in 2½ days, aided only by a crane."





OF STEEL PARTS AND PREFABRICATED WALL UNITS



3-bedroom, 2-bath plan is extremely compact, saves space through elimination of fixed interior partitions. All were replaced by storage walls of veneered plywood.



Wall units are 8' high, reach up to underside of dropped steel girders. 8" deep space between girders is filled with glass



Ernest Braun



Because there are no interior structural supports, plan can be adjusted almost at will

ELEGANCE MARKS STEEL HOUSE INTERIORS

Must steel houses look cold? The Soriano-Eichler house — being an exhibition model—appears unlived-in. Yet even in its present form, this house suggests ways and means of softening an industrialized house through the introduction of warm textures, colors and small-scale patterns.

To keep the house from looking cold, Architect Soriano introduced the grain of wood and the texture and color of fabrics in his prefabricated storage partitions. Elsewhere, Soriano used spots of bright color, as in the lemon-yellow finish of the steel frames around sliding glass units. Are acoustics a problem in a steel house? Soriano says that this house is "a joy to any hi-fi enthusiast" like himself. One reason: the fluted steel ceiling cuts down reverberation (in addition to supplying another handsome pattern).

Will steel bring a new approach to home building? "Yes," says Soriano. "A complete departure from conventional design thinking is involved. Most previous attempts at steel house construction have imitated conventional wood structures, ignoring the fact that steel is an entirely different medium with a language of its own."

Prefabricated counter-unit separates kitchen from living area, serves also as dining table



THE NEW LANGUAGE OF STEEL

You can build almost any house in a modern material like steel, but steel works particularly well in a modern house. Here is why:

- Steel makes big spans easy, and big spans are the *sine qua non* of open plans and large glass walls.
- Steel has great rigidity, and rigidity is important in houses with lots of glass because such houses are difficult to brace.
- Steel allows precision-detailing, and precision-detailing is highly desirable both in prefabricated houses and in modern sitebuilt houses—for precision-detailing gives much modern architecture its elegant look.

These arguments tend to suggest that the most reasonable solution in steel is a simple rectangular flat-top with walls of glass or other sheet-inserts—i.e., exactly what Soriano and Eichler did in their experimental house (see previous page).

But steel is more flexible than you might think. It is quite true that steel framing tends to produce rectangular cages, but steel roof trusses (like Architect Ned Cole's prefab truss) can be made in any shape or form-and can thus radically change the house silhouette. It is quite true, also, that exposed steel framing will tend to give a house a very modular, "Japanese" look, but the truth is that steel should not be exposed at all in houses in more than half the US (at least not until problems like permanent rustproofing and condensation have been more convincingly solved) -so that the "skin" of the house can take on whatever color, texture or pattern might seem desirable (left). And it is finally quite true that steel tends to commit you to some sort of modular plan -but, then, isn't that what all home builders are working up to, and haven't they found that modular planning does not mean frozen planning?

Actually, steel in home building hasn't quite made the grade—yet. One problem: a lot of steel is still scaled to bigger and heavier construction. For example, steel warehouses in cities like New York and Chicago stock light structural steel sections in 60' lengths—so that if you need it in 28' lengths, say, you pay for some pretty expensive waste. Elsewhere, jobbers stock shorter lengths (20's, 30's, 40's, 60's and 65's)—and in crazyquilt Detroit they stock steel in 31', 33', 42' and 47' lengths.

These stock lengths all have one thing in common: they disregard the dimensional standards rapidly being developed by the home building industry—see April, '55 H&H. It is true, of course, that manufacturers of open-web joists and steel studs have long scaled their products to the dimensions of the house—and this has paid off handsomely. But the manufacturers of light, hot-rolled structural steel sections still have to follow suit.

The same thing holds true for some manufacturers of sliding glass doors, prehung door assemblies and sliding closet doors. Many of these components are beautifully made and reasonably priced; yet few bear any relation to the dimensional standards being developed in homebuilding.

These are not minor problems: anybody can saw off a 2" x 10" on the job, but a saw wouldn't make much of a dent on a 6" Junior I-Beam. By its very nature, the steel house of tomorrow will have to be largely shop-fabricated.

As for today, steel houses are still in the experimental stage—but the experiments are multiplying fast and furiously all over the US. Here, on the next four pages, are some of the most exciting recent experiments in steel: custom houses now, perhaps production houses tomorrow.



J & B's steel-framed builder-house (above and below) has a "skin" of wood and brick to make it more palatable to home buyers.





Photos: Julius Shulman

Steel-framed patio house is set on a concrete slab base, has lower-level carport facing street.

In this glamorous little 2-bedroom house, Designer Pierre Koenig has shown a way to domesticate steel.

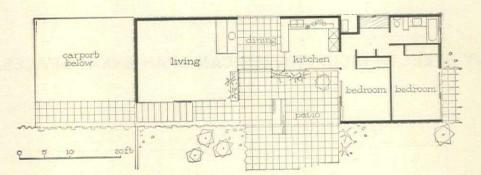
Structurally, this house is very similar to the Soriano-Eichler experiment: a light steel frame, roof decks and some walls of fluted steel panels, other walls of sliding or fixed glass, and a few touches of plastic, mahogany plywood and masonry. Result: a very attractive and livable structure, planned around a small central patio. Profuse planting contrasts pleasantly with the precise lines of the house.

Like the Soriano-Eichler house, the Koenig house (though a custom job) consists of prefabricated components assembled on a slab. Cost: less than \$12,000.

Detail-photos show simple, repetitive rhythm of steel frame. Bays are 10' x 20', spanned only by steel decking.



STEEL HOUSES NEED NOT LOOK COLD



PIERRE KOENIG, designer
WILLIAM PORUSH, consulting engineer
LOCATION: Los Angeles, Calif.

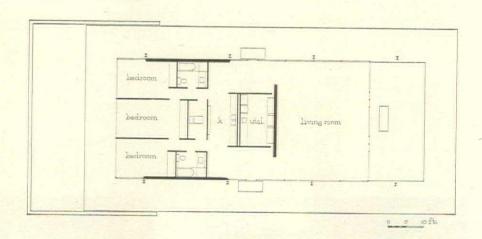






Big covered porch (16' wide and 32' long) is an outdoor extension of the living room.

HEAVY STEEL IN RIGID FRAMES CAN SPAN GREAT SPACES



JACQUES C. BROWNSON, architect

LOCATION: Geneva, Ill.

The four monumental rigid frames of steel that span this extraordinary glass house were too large to be shipped in one piece from the fabricator.

Even so, all connections were made ready in the shop for easy assembly on the site and four men (two of them amateurs), aided only by a crane, were able to erect and weld all the frames in $1\frac{1}{2}$ days. The frames weighed some 3,000 lbs. each.

Architect Jacques Brownson, who designed and built this house for his own use, suspended the roof plane from the rigid frames, thus left the whole interior space free of columns and the whole ceiling free of dropped beams. Result: a completely open and flexible plan, utterly divorced from the structural cage.

However "special," this house is a dramatic demonstration of the great strength (both in tension and in compression) of this precise material.



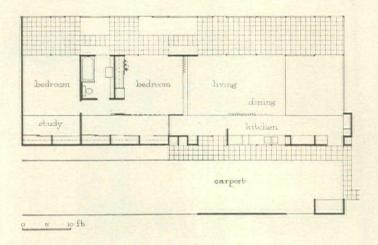
6'-3" wide bays create small, domestic scale



Screened porch 8' wide, runs down entire east side of house. Right: living-dining area.

Where the Brownson House (opposite) uses heavy steel in monumental frames, this house built by Architect John York for himself, shows steel scaled down to domestic dimensions. Both approaches are valid, but York's is likely to be less expensive and more readily acceptable to those who like more intimate houses. The comparison suggests some of the changes steel will have to undergo to compete successfully in home building: not only recognition of the dimensional standards developed by the home building industry, but also acceptance of a more domestic scale.

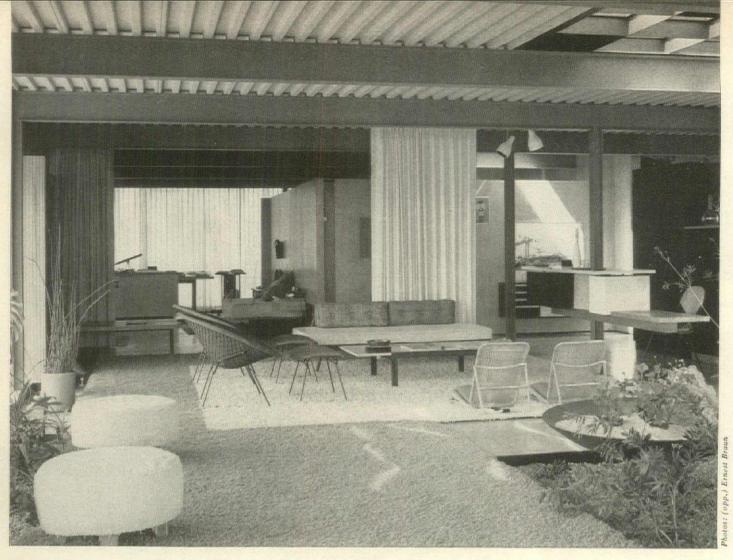
This steel house is supported entirely on 1½" diam, pipe columns which carry bar joists specially made out of 1" pipe and ½" reinforcing rods. The supporting structure in turn is topped off with steel decking and closed in with glass, screening and sheets of asbestos. Result: a graceful house, reminiscent of the glass-and-iron tracery of the Victorian era.



LIGHT STEEL FRAMING

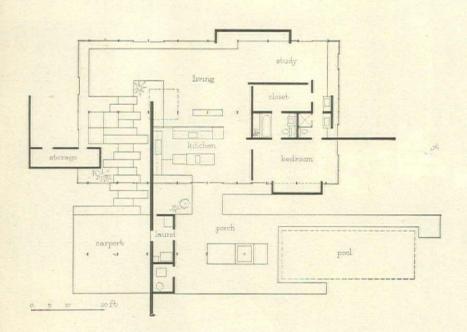
INTRODUCES NEW DECORATIVE PATTERNS





Open plan measures 40' x 72', is subdivided only with screens, curtains, sliding walls. Steel columns are hardly visible

STEEL FRAMING OPENS UP THE HOUSE PLAN



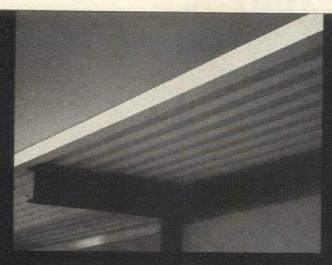
A. QUINCY JONES & FREDERICK E. EMMONS, architects LOCATION: West Los Angeles, Calif.

Architect Quincy Jones' own new house is sheltered under a 3,000 sq. ft. roof, and that roof is supported on less than 3 sq. ft. of column area. To put it another way: his house plan is literally 99.9% open, free and unobstructed.

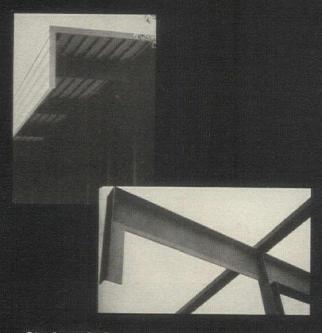
This amazing ratio of floor area to load-bearing structure is today economically feasible in steel framing. It is true that Jones could have spanned his 40' house-depth with a triangular wooden roof truss. But with such a roof it would have been difficult to bring light into the center of his big house through two big skylights. He had no trouble doing this with a flat roof.

It is also true that Jones might have used a wooden post-beam-plank system to achieve a very similar effect, but such a system would have required considerable cross-bracing. This, in turn, might have meant elimination of glass walls and "freezing" of some partitions to coincide with column lines.

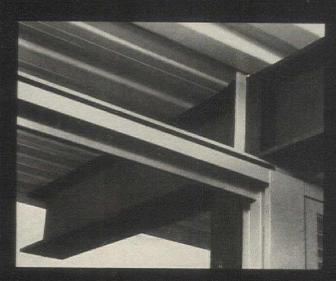
Jones used the right material—steel—to achieve the kind of house he wanted—open, glassy, and flexible. In doing so, he demonstrated the advantages of both structure and plan./END



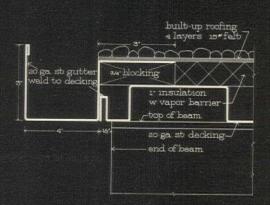
Steel framing combined with fluted steel decking makes 2-way cantilevers simple, thus permits roof overhangs on all four sides of house. Neatly integrated roof gutter makes usual fascia and gravel stop unnecessary. Architect: Raphael Soriano.

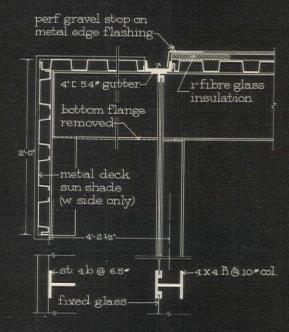


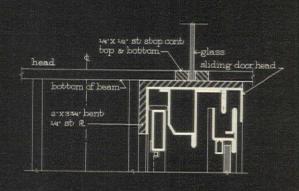
Steel sunshade can be suspended from cantilevered girder and faced with standard steel decking, as in this detail from Quincy Jones' own house. Note another kind of integral roof gutter, in this case a simple steel channel laid on its side. Architects: Jones & Emmons.

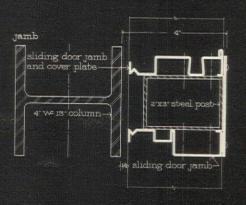


Steel-framed sliding glass doors were erected just inside of column line, are thus quite free from structure. Note how welded steel house does away with many flashing problems—a weld being about as tight a joint as you can get. Architect: Raphael Soriano.





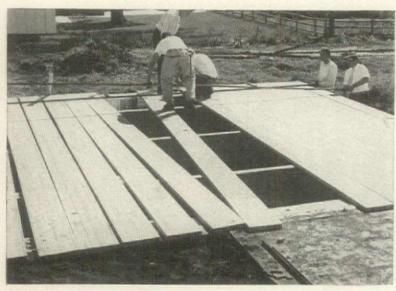




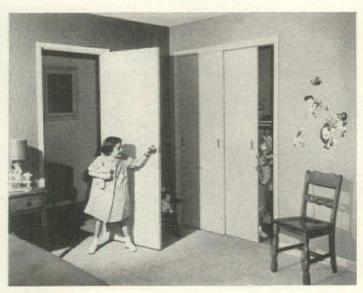
NEW PRODUCTS FOR PREFABBERS

Industry seeks innovations that mean low shipping costs and easy on-site assembly, plus customer appeal

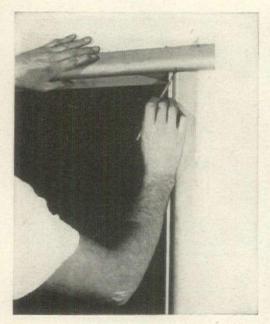
for further details check numbered coupon, p. 232



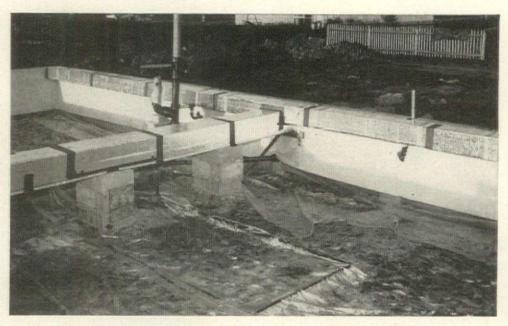
LAMINATED PLANK FLOORING serves as structure, rough and finish flooring (Scholz Homes). Planks are 1' wide and 1½" thick, built up from strips of kilndried oak, Spiral steel dowels bind the strips, Only 43 planks need be handled in an average 1,000 sq. ft. house, Manufacturer; Edge Grain Timber Products, Inc.



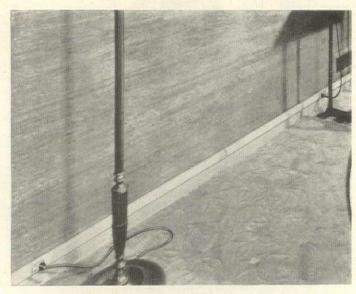
STEEL DOORS, mounted in steel frames (US Steel Homes), are mortised for hardware at the factory. Swinging and sliding doors used are preprimed, and sound deadening and reinforcing eliminates any "tinny" resonance, Manufacturers: United Steel Fabricators & Steelcraft, Inc.



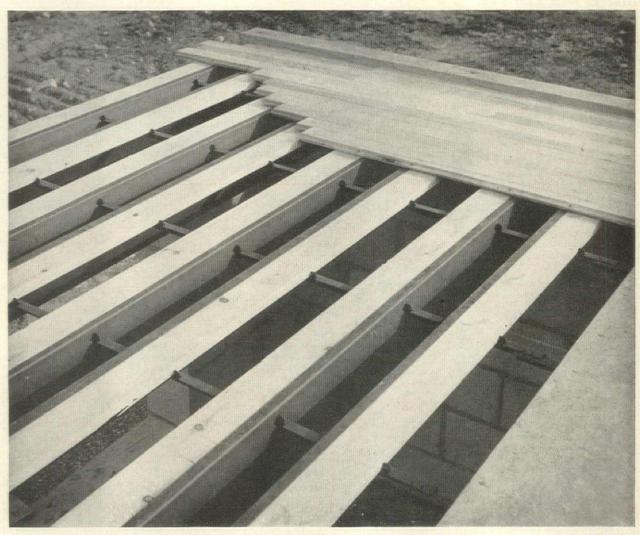
STEEL CASING for window and door openings (Scholz) snaps into a saw kerf in the jamb, needs no nailing, Bullnose shape prevents damage to preapplied trim, Manufacturer: US Gypsum Co.



GLASS FIBER DUCTS are integrally insulated, and have good sound deadening properties, especially important in forced air systems (Scholz). Perimeter ducts are strapped to the foundation wall just below the plate line. Fiberglas sheets are shipped flat, folded into rectangular ducts on the job, and joints are sealed with pressure-sensitive tape. Manufacturer: Owens-Corning Fiberglas Corp.



CONTINUOUS ELECTRICAL STRIP has outlets every 30", and can be installed last, so as not to delay other trades (Scholz). Wood baseboards can be routed out at the factory so that steel raceway is partly recessed. Couplings for interior or exterior corners permit the use of this raceway even in irregular rooms. Manufacturer: The Wiremold Co.



STEEL FRAMING system by Webcore (Cessna Homes) is a series of grid sections formed from four 16 ga, steel joists locked together by traverse support angles. Wood

nailer strips are atop the joists, locked into flanges by means of turned up tabs, and finish strip flooring is nailed into place without need for subflooring. Only four hours continued on p. 184

DECEMBER 1955

DIRECTORY

prefabricated and packaged house manufacturers

Alabama

LUMBER FABRICATORS, INC.

LFI Homes

Fort Payne, Ala.

President: T. E. Stokes

Sales manager: Donald H. Gott

Plant: Fort Payne

Package: room-size exterior panels sheathed and sided; windows in place; doors framed; partition panels; trusses; precut floor, roof framing and sheathing; gables; garage or carport.

Optional: air conditioning.

California

CALIFORNIA MODULAR HOMES INC.

Sacramento County, Calif.

President: E. L. Schutt

Sales manager: J. W. Schutt

Plant: East Del Paso Heights, Calif.

Package: smaller-than-room-size panels sheathed and sided; windows in place and glazed; prehung doors with hardware; trusses; storage walls; cabinets; carport or garage.

Optional: insulation, kitchen range, fences.

CLIFF MAY HOMES

Los Angeles, Calif.

President: Cliff May

Sales manager: Arthur Bohnen

Plants: Tacoma, Los Angeles, Dallas, Denver, Minneapolis, Louisville, Logan, Utah; Stamps, Arkansas; Lancaster, Pennsylvania.

Package: exterior wall panels sheathed and sided; storage walls; partition panels; garages or carports.

MOBILE HOME CORP.

Mobile Homes
Bakersfield, Calif.

President: Hugh Curran

Sales manager: L. D. Ford

Plant: Bakersfield

Package: completely assembled house shipped; includes air conditioning, forced air heating, ceramic tile baths, composition or shingle roof, attached or detached garages, aluminum sash, hardwood floors.

WESTWAY HOMES, INC.

Los Altos, Calif.

President: L. B. Nelson

Sales manager: Donald Tanner

Plant: Goleta, Calif.

Package: room-size and smaller exterior panels with sheathing and window sash installed; partition panels; prehung doors; storage walls; roof panels with precut joists and rafters; cabinets; garage or carport.

Connecticut

FABRICATORS INC.

South Norwalk, Conn.

President: P. William Nathan

Sales manager: Paul D. Levine

Plant: South Norwalk

Package: smaller-than-room-size exterior panels sheathed and sided; separate window and door units; bare partition panels; trusses and gables; unassembled storage walls; cabinets; vanity-lavatories; carport.

Optional: heating plant.

Florida

FLORIDA BUILDERS, INC.

St. Petersburg, Fla.

President: John T. Haynsworth

Sales manager: Joe E. Lively, Jr.

Plant: St. Petersburg

Package: room-size or larger exterior panels sheathed and sided; windows in place and glazed, unless casement or jalousie type; prehung doors with hardware; partition frames; trusses; storage walls; cabinets; ceiling and roof panels for some models; vanity-lavatories; garage or carport.

Georgia

KNOX CORP.

Thomson, Ga.

President: P. S. Knox, Jr.

Sales director: R. H. Denton

Plant: Thomson

Package: room-size exterior panels sheathed and sided; windows in place and glazed; insulation in; interior gypsum applied; prehung doors with hardware; partition panels; trusses; precut floor system, joists and rafters and roof decking; carport.

Optional: heating, wiring, complete kitchen, air conditioning.

YETTER HOMES, INC.

Savannah, Ga.

President: George K. Yetter

Sales manager: Willard C. Silva

Plant: Savannah

Puckage: room-size exterior panels with sheathing; windows and doors in place; partition panels; storage walls; roof and floor panels; trusses; precut roof sheathing; carport.

Optional: air conditioning for some models.

Illinois

W. G. BEST HOMES CO.

Effingham, Ill.

President: W. G. Best

Sales manager: Lawrence J. Nordine

Plant: Effingham

Package: room-size panels sheathed and sided; roof panels; windows in place and glazed: insulation in; interior gypsum applied; prehung doors with hardware; all trim applied except on doors; exterior and interior wood surfaces prime painted; storage walls; vanity-lavatories; heating plant; thin wall conduit to plat.

Optional: air conditioning.

GBH-WAY HOMES, INC

Walnut, Ill.

President: Clifford M. Hill

Plant: Walnut

Indiana

ACME BUILDING MATERIALS, INC.

Precision Homes Indianapolis, Ind.

President: John E. Bauer

Sales manager: Robert O'Keefe

Plant: Indianapolis

Package: room-size and smaller, exterior panels framed and sheathed only; windows in place and glazed; doors prefit; assembled trusses; partition panels; carport.

Optional: heating plant.

ALLEN INDUSTRIES, INC.

Allen Homes

Fort Wayne, Ind.

President: Robert J. Allen
Sales manager: Ralph W. Eaton

Plant: Fort Wayne

Package: 4' modular panels with sheathing; room-size partitions; gables; trusses; windows glazed; prehung doors; cabinets; furnace and packaged flue; garage or carport.

Optional: bath fixtures, acoustical tile, plumbing.

COLPAERT HOMES, INC.

South Bend, Ind

President: A. C. Colpaert

Sales manager: J. Colpaert

Plant: South Bend

Package: smaller-than-room-size panels with sheathing; windows assembled with glazing and storm sash but not in panels; partition panels; gables; carport or garage.

Optional: bath fixtures, vanity-lavatories, heating plant.

This directory includes only those manufacturers who

sell through builders or dealers.

At least two dozen other house manufacturers or packagers

who sell directly to the home buyer are not included.

GENERAL INDUSTRIES, INC.

Fort Wayne, Ind.

President: William B. G. Hall

Vice president (sales): George S. Brown

Plant: Fort Wayne

Package: larger-than-room-size exterior panels with sheathing and building paper; windows, storm sash, screens, in place; trusses; ceiling and roof panels; insulation in place; storage walls; predecorated interior; cabinets, plumbing assembly; wiring in place; all trim installed and painted; bath fixtures.

Optional: air conditioning.

NATIONAL HOMES CORP.

Lafayette, Ind.

President: James R. Price

Sales manager: William A. Shearer

Plants: Lafayette, Ind.; Horseheads, N. Y.;

Package: complete panels for exterior and interior walls, partitions and roof; insulation in place; all windows and doors factory-installed; precut interior and exterior trim; heating; water heater; cabinets; plumbing package; electric fixtures and wiring; all assembly parts precut.

Optional: wood floor package, garage or carport, air conditioning, kitchen appliances, washer, drier, storm sash or doubleglass, outside storage units, porches, fences, attic fan.

NEW CENTURY HOMES, INC.

Lafayette, Ind.

President: John T. King

Plant: Lafayette

Package: room-size exterior panels with framing and plywood; windows and doors installed and trimmed; insulation and vapor barrier in; ceiling panels; roof panels; gable panels prime painted and trimmed; floor beams; fish wire for panels, cutouts for electrical receptacles; garage.

Optional: hip roof panels instead of gable panels.

PLACE HOMES, INC.

South Bend, Ind.

President: Robert B. Place

Sales manager: William Yeoman

Plant: South Bend

Package: all framing and blocking precut; trusses; gables; interior doors prehung with hardware; furnace and ducts; vanity-lavatories; room divider screens; garage or carport. Planning interior panels for some models in near future.

Optional: air conditioning.

RICHMOND HOMES, INC.

Richmond, Ind.

President: Charles F. Travers

Sales manager: H. Quentin Ramsey

Plant: Richmond

Package: room-size exterior panels sheathed and sided; windows in place and glazed; prehung doors with hardware; trusses; partition panels; storage walls; precut joists and rafters; garage or carport.

Optional: air conditioning.

IL S. STEEL HOMES, INC.

New Albany, Ind.

President: H. D. Moulton

Sales manager: E. E. Miller

Plants: New Albany, Ind. and Harrisburg,

Package: smaller-than-room-size exterior wall panels, with sheathing siding, insulation and finished interior; windows in place and glazed; prehung doors with hardware; insulation and fish wire in; partition panels; trusses and roof panels; storage walls; gables; heating plant; all kitchen equipment; garage or carport.

lowa

KOZY MANUFACTURING CO.

Exira, Iowa

President: T. J. Godwin

Vice president (sales): T. H. Godwin

Plant: Exira

Package: panels up to 20' long sheathed and partially sided; windows in place and glazed; partition panels; prehung doors with hardware; trusses; gables; precut rafters; garage or carport.

Optional: electrical wiring.

Kentucky

FAIRLANE HOMES INC.

Louisville, Ky.

President: Jay D. Baker

Plant: Louisville

Package: room-size exterior panels sheathed and sided; windows in place, glazed and screened; prehung doors with hardware; partition panels; trusses; storage walls; precut trim, roof sheathing; carport.

Optional: vanity-lavaotries, heating plant, air conditioning.

Louisiana

CRAWFORD CORP.

Baton Rouge, La.

President: W. H. Crawford

Sales manager: Paul Walker

Plant: Baton Rouge

Package: wall-size panels sheathed and sided; windows in place and glazed; exterior doors prehung, sheathed roof panels; precut joists, rafter; partition panels; heating plant and ducts; vanitylayatories; carport.

Optional: air conditioning.

UNITED MORTGAGE CORP.

Popular Homes

New Orleans, La.

New Orleans, La.

President: Malcolm A. Coco

Sales manager: Frank J. Frey

Plant: New Orleans

Package: room-size exterior panels sheathed and sided; windows in place and glazed; prehung doors; assembled trusses; framed interior partitions; storage walls; overhangs assembled in sections; vanity-lavatories; carport.

Maine

WARD CABIN CO., INC. OF MAINE

Houlton, Me.

President: Wendell L. Phillips

Plant: Houlton

Package: precut logs for exterior walls and gables; precut materials for floor, partitions and roof; exterior doors and windows factory-framed with hardware; garage or carport.

Maryland

MARYLAND HOUSING CORP.

Baltimore, Md.

President: Joe C. Browne

Sales manager: R. E. Kanode

Plant: Baltimore

Package: smaller-than-room-size exterior panels with sheathing and insulation; windows in place and glazed; all doors prehung with hardware; roof and partition panels; trusses; electrical wiring; garage.

PRECISION BUILT HOMES, INC.

Baltimore, Md.

President: William F. Chew

Sales manager: Roy H. Robertson

Plant: Baltimore

Package: full length exterior panels sheathed, sided and insulated; windows in place and glazed; prehung doors with hardware; storage walls; panels for partitions and floor; trusses; finished ceiling applied; wiring in; plumbing assembly; garage or carport.

Optional: heating, bath fixtures, vanitylavatories, air conditioning.

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Directory

prefabricated and packaged house manufacturers

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Massachusetts

Franklin Homes, INC.

President: James T. Cochrane

Sales manager: David Schwartz

Plant: Franklin

Package: room-size exterior panels sheathed and sided; windows in place and glazed; prehung doors with hardware; partition panels; trusses; storage walls; precut roof sheathing; garage or carport.

Optional: bath fixtures, vanity-lavatories, heating plant, wiring.

HODGSON HOUSES, INC.

Dover. Mass.

President: Kenneth W. Spalding

Sales manager: Richard L. Spalding

Plant: Dove

Package: larger-than-room-size exterior panels, sheathed and sided; windows in place and glazed; prehung doors with hardware; precut partitions, roof sheathing; subfloor panels.

Optional: garage or carport.

PRE-BILT CONSTRUCTION, INC.

North Dartmouth, Mass.

President: Joseph Blum

Sales manager: Damon Mosher

Plant: North Dartmouth

Package: room-size exterior panels sheathed and sided; windows in place and glazed; prehung doors with hardware; partition panels; roof and floor panels; precut joists and flooring; carport.

TECHBUILT, INC.

Cambridge, Mass.

President: Carl Koch

Soles manager: Paul Herrick

Plants: Concord, Mass.; Huntington, L. I.;

Urbana, Ill.; St. Paul, Minn.

Package: modular wall panels 4' and 8' wide with sheathing; glazed window units; all doors prehung with hardware; floor and rafters, stairs; heating plant; wiring; garage or carport.

Optional: air conditioning.

Michigan

MICHIGAN LUMBER FABRICATORS, INC.

Elkton, Mich.

President: N. J. Smith

Sales manager: Peter Zahariadis

Plant: Elkton

Package: room-size and smaller exterior panels, sheathed and sided with choice of materials; aluminum or wood windows installed and glazed; interior doors prehung; interior and exterior trim.

Optional: dry wall, prefab chimney, shingles, complete kitchen.

MODERN HOMES CORP.

Dearborn, Mich.

President: Robert J. Lytle

Sales manager: Ralph L. Dabe

Plants: Dearborn, Mich.; Port Jervis,

N. Y.; Ottumwa, Ia.

Package: room-size and smaller exterior panels, sheathed, sided and prime painted; windows in place and glazed; insulation in; pre-hung doors with hardware; floor panels; prefabricated steel bar joists for floors; trusses; precut partitions; cabinets; vanity-lavatories; garage or carport.

Optional: power operated windows, acoustical ceiling, heating, air conditioning.

NEW MOON HOMES, INC.

Alma, Mich.

President: W. H. Redman

Sales manager: Norris Winslow

Plant: Alma

Package: room-size exterior panels with sheathing: partitions framed only; assembled floor, roof sections; trusses; storage walls; heating plant; kitchen equipment and appliances; carport.

Optional: air conditioning.

SECURITY HOMES MFG. CO.

Kalamazoo, Mich.

President: Fred J. Sopjes

Sales manager: James E. Harper

Plant: Kalamazoo

Package: smaller-than-room-size exterior panels with sheathing; windows in place and glazed; prehung doors with hardware; partition panels; storage walls; trusses or precut joists and rafters; precut framing materials, roof sheathing; furnace and ducts; garage or carport.

SEMICO INCORPORATED

Seney, Mich.

President: Duncan T. MacKenzie

Sales manager: Milo F. Gonser

Plant: Seney

Package: smaller-than-room-size panels with sheathing; glazed window units ready for installation; partition panels; trusses; floor and roof panels; storage walls; cabinets; vanity-lavatories; garage or carport.

SERVICE HOME MANUFACTURING CO.

Grand Rapids, Mich.

President: Lyle Hoogeboom

Sales manager: Philip LeBlond

Plant: Grand Rapids

Package: smaller-than-room-size panels with sheathing; glazed window units ready for installation; partition panels; gables; trusses; prehung doors; floor and roof panels; storage walls; cabinets; garage or carport.

UNIVERSAL HOMES, INC.

Universal Production Engineered Homes Detroit, Mich.

President: W. G. Brownlee

Sales manager: Robert Byers

Plant: Milan, Mich.

Package: exterior wall sections sheathed and sided; doors and windows in place; partition panels; trusses and precut roof sheathing; precut floor joists and sheathing; garage or carport.

Minnesota

PAGE & HILL HOMES, INC.

Shakopee, Minn.

President: Roger R. Page

Vice president (sales): M. D. Clements

Plants: Shakopee, Albert Lea, Waterville, Minn.

Package: room-size exterior panels completely finished; complete partitions; windows; prehung doors with hardware; storage walls; gable or hip roof panels; ceiling panels; most trim installed, some precut; bath accessories.

Missouri

HOME BUILDING CORP.

HBC Homes Sedalia, Mo.

President: Neal O. Reyburn

Sales manager: Arthur Dahlman

Plant: Sedalia

Package: larger-than-room-size exterior panels, sheathed and sided; windows in place and glazed; insulation; interior wall board on; prehung doors with hardware; partition panels; storage walls; roof and floor panels; kitchen-bath mechanical core with plumbing and wiring; all surfaces fully painted; bath fixtures; water; garage.

Optional: heating plant.

MODULAR HOMES, INC.

Kirkwood, Mo.

President: Burton W. Duenke

Plant: Kirkwood

Package: smaller-than-room-size exterior panels sheathed and sided; windows in place and glazed; interior partitions; storage walls; precut posts, beams, rafters; vanity-lavatories; cabinets; closets; garage or carport.

WILSON HOMES, INC.

St. Louis County, Mo.

President: Clarence T. Wilson

Plant: St. Louis County

Package: room-size exterior panels with sheathing and insulation; windows in place and glazed; all doors prehung with hardware; assembled trusses; partition panels; storage walls; precut roof sheathing; cabinets; bath accessories; some kitchen appliances; garage or carport.

Optional: floor panels, joists and rafters; air conditioning,

Montana

NATIONAL LOG CONSTRUCTION CO.

Thompson Falls, Mont.

President: Stephen D. Babcock

Plant: Thompson Falls

Package: all material for walls, partitions and roof of precut logs, ready for assembly on job; door, window jambs and sills also precut; electrical wiring.

Optional: carport.

Nebraska

PERMCO MFG. CO.

Perma-Bilt Homes Peru, Neb.

President: Peter G. Holdorf

Plant: Peru

Package: room-size exterior panels with sheathing: window and door openings framed: partition panels; trusses; precut roof sheathing, floor joists and subflooring: storage walls; precut soffits; eaves and cornices made up in sections; garage or carport.

continued on p. 160

WHY YOUR HOMES SELL FASTER WITH WHIRLPOOL



1. Complete Freedom From Washday . . . that's what the woman of the house wants and that's what you can give her *only* with Whirlpool. New, exclusive two separate washing actions . . . one for regular clothes, the other for sheerest fabrics . . . eliminate *all hand washing*. Now, everything can be washed automatically.



2. Savings In Soap and Hot Water . . . a woman wants economy of operation and Whirlpool has it! Exclusive, built-in, fully-automatic Suds-Miser stores hot sudsy water after first load, then returns it for re-use on next load. Suds-Miser saves over half the cost of soap and hot water each washday.



3. Distinctive Beauty and Quality . . . a woman wants pride of ownership and beautiful Whirlpool gives it to her. The new, 1956 Imperial with matching dryer has distinctive Guide Lite control with dual illumination to add enduring charm and convenience to any kitchen, utility or laundry room.



4. Enthusiastic Acceptance... the woman of the house *knows* and *wants* Whirlpool. The Milton Berle-Martha Raye shows, Tuesday nights on NBC-TV plus a flood of advertising in LIFE magazine sell the advantages of Whirlpool to millions. This helps you close the deal faster at more profit!

SEE YOUR WHIRLPOOL DISTRIBUTOR...LEARN HOW EASY IT IS TO ADD WHIRLPOOL TO YOUR HOMES WITH THE NEW, ECONOMICAL BUILDER PLAN

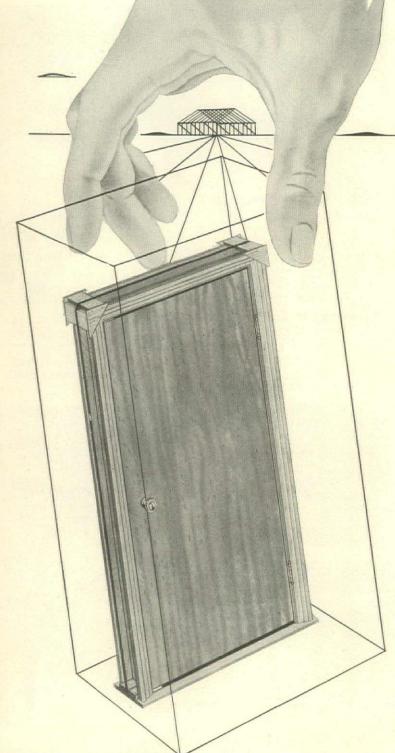
Builder Division, WHIRLPOOL-SEEGER CORPORATION, St. Joseph, Michigan

IN CANADA: John Inglis Co., Limited, Toronto, Ontario

See the Milton Berle and Martha Raye shows on Tuesday nights, NBC-TV.

MORE THAN EVER ... IT'S EASIER TO SELL WHIRLPOOL-EQUIPPED HOMES

JUST WHAT THE NAME IMPLIES ...



SOLD THROUGH LUMBER DEALERS READY HUNG DOORS MADE BY:

ALBANY, N. Y. Iroquois Millwork Corp.

BALTIMORE, MD. Central Building Supply, Inc. DAYTON, OHIO 210 E. Monument St. Dayton Sash & Do

BIRMINGHAM, ALA. National Woodworks, Inc. P. O. Box 5416

A. W. Hastings & Co., Inc. Somerville 44, Mass.

BUFFALO, N. Y.

CINCINNATI, OHIO Acme Sash & Door Co. 1250 Tennessee Ave.

CLEVELAND, OHIO
The Whitmer-Jackson Co.
Box 556, Massillon, Ohio

Dayton Sash & Door Co. 8 Norwood Ave.

DENVER, COLO. Lumber Dealers, Inc. Box 6886 Stkyds. Sta. GRAND RAPIDS, MICH. Haskelite Mfg. Corp. 701 Ann St., NW

HOUSTON, TEXAS The Whitmer-Jackson Co., Inc. Southwest Sash & Door Co. 367 Hamburg St. P. O. Box 124

LOS ANGELES, CALIF. Ready Hung Door Mfg. Co. 200 S. Victory Blvd., Burbank

MARION, IND. General Millwork Corp. 325 E. 2nd St. 325 E. 2nd St.

NEW YORK, N. Y.

Bailey-Whalen Co.

Box 183, Orange N. J.

PITTSBURGH, PENN.

Iron City Sash & Door Co.

36th St. and B&O R.R.

ROCHESTER, N. Y.

The Whitters Lackson Co. The Whitmer-Jackson Co., Inc. P. O. Box 686 P. O. Box 686

SAN ANTONIO, TEXAS

Ready Hung Door Mfg. Co.
Box 398, Grayson St. Sta.

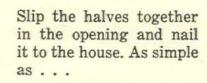
OAKLAND CALIF.

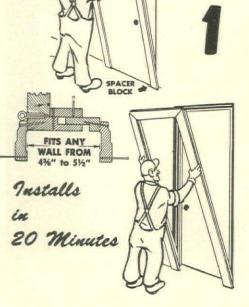
Ready Hung Door Mfg. Co.
2690 Petroleum St.

READY HUNG DOOR CORP., Fort Worth 2, Texas

Ready Hung Doors THE DOOR AND FRAME PACKAGED UNIT

Just what the name implies, the Ready Hung Door is a door and frame packaged unit having the door hinged, the lock installed, and the frame trimmed both sides, ready to install in any rough opening. The unit is job engineered for easy installation in 3 simple steps.





SEATTLE, WASH. Acme Millwork, Inc. Box 668, Kirkland, Wash. SIOUX FALLS, S. DAK. Jordan Millwork Co. ST. LOUIS, MISSOURI Imse-Schilling Sash & Door Co. 4217 Beck Ave. 4217 Beck Ave.
51. PAUL, MINNESOTA
Minnesota Wood Specialties, Inc.
Box 216, St. Paul Park, Minn.
SYRACUSE, N. Y.
Iroquois Door Co.
TORONTO, CANADA
C. Lloyd & Son Limited
N. Park P. O., Ontario
WACO, TEXAS
Frank Stevens Sash & Door Co.
P. O. Box 1490





PAT. NO. 2489029



tell the home buyer about what he can't see Here's How It Can Help You...

Plumbing and drainage systems can be hidden assets—when you use what you know is best... Cast Iron Soil Pipe. For east iron is the *only* material proved *permanent*...high-strength...really root-proof...and non-absorbent. It's the *only* pipe that meets *all* State, City and Local codes, for use from street to roof.

So, when you use Cast Iron Soil Pipe throughout your

house-tell your buyers so. You'll find it's ...

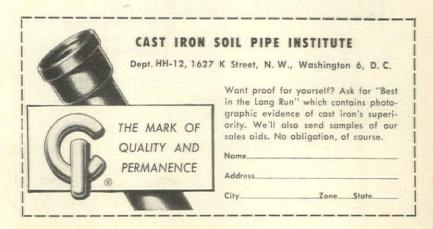
A talking point for your agents

A cast iron installation can be a powerful selling tool for you. When your agents explain its advantages, they prove that, in *your* houses, there's nothing but the best—even where it can't be seen. And your houses will be that much easier to sell.



FREE SALES AMMUNITION.

Offer your owner prospects a 16-page booklet "What You Should Know About Plumbing Drainage." It will help your agents put across their talking points. And to identify cast iron installations there are colorful tags to attach to cellar pipe. Mail the coupon for free samples.



good look at INCENSE CEDAR



one of 10 woods from the

WESTERN PINE region

Great resistance to decay, fine dimensional stability, high insulation quality make Incense Cedar a superior wood for all weather-exposed jobs. Lightweight, workable, it is an economical wood to handle . . . keeps construction costs down. Its reddish-brown color, silky surface and delicate grain lend distinction to interior paneling and woodwork — its spicy fragrance suits it for closet linings.

Incense Cedar comes in 3 select and 5 common grades. Your local lumber yard carries Incense Cedar from the Western Pine region—or can get it for you quickly!

the Western Pines

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RED CEDAR
LODGEPOLE PINE



get the facts on INCENSE CEDAL Write for the FREE illustrated booklet to WESTERN PINE ASSOCIATION, Dept. 314-V, Yeon Bldg., Portland 4, Oregon

Directory

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prefabricated and packaged house manufacturers

New Jersey

Pemberton, N. J.

President: Richard L. Duffield

Plant: Pemberton

Package: room-size and smaller exterior panels with sheathing and insulation; windows in place and glazed, except for fixed lights; partitions framed and assembled; precut floor and roof components; garage or carport.

New York

ALLEGHANY HOMES CORP.

Homer N Y

President: Stanley T. Nadolski Sales manager: Sam Hendrickson

Plant: Homer

Package: up to 16' insulated panels with sheathing; precut floor; insulated ceiling panels; sheathed roof panels; prefabricated gables; prehung doors with all hardware except knobs; windows in place and glazed; fish wire in panels; entrance, kitchen and hall lights; cabinets; garage or carport.

Optional: heating and plumbing.

AMERICAN HOUSES, INC.

New York City

President: Chris D. Geisler

Vice president (sales): T. G. Barber

Plants: Allentown, Pa; Lumberton, N. C.; Cookeville, Tenn.

Package: smaller-than-room-size exterior panels with insulations and sheathing; window walls; floor and partition panels; windows in place and glazed; prehung doors with hardware; storage walls; precut closet shelves; carport or garage.

Optional: air conditioning, lavatories, kitchen sink.

FEDERAL HOMES CORP.

New York City

President: H. N. Durston

Plant: Canaan, Conn.

Package: smaller-than-room-size exterior panels sheathed and sided; prehung windows, doors with hardware; partition panels; roof and floor panels, trusses; storage walls; carport.

IVON R. FORD, INC.

Ford Homes

McDonough, N. Y.

President: Ivon R. Ford
Sales manager: H. C. Belmore

Plant: McDonough

Package: wall-size and smaller panels with sheathing; partition panels; roof trusses and panels; finished floor panels; insulation and wiring installed; windows in place; prehung doors; storage walls; ceiling panels; precut trim.

Optional: heating plant.

NORTHERN HOMES, INC.

Glens Falls, N. Y.

President: Thomas I. Eastwood

Plant: Hudson Falls, N. Y.

Package: room-size and smaller exterior panels with sheathing; exterior windows and doors in place; 4' partition panels; floor panels with subflooring; partial trusses; precut joists and rafters; garage or carport.

Ohio

ACACIA LUMBER CO.

Acacia Modular Homes Dayton, Ohio

Plant: Dayton

Package: room-size exterior wall panels sheathed and sided; windows in place and glazed; all doors prehung with hardware; roof trusses; partition panels; precut bridging; garage or car-

Optional: kitchen cabinets and floor covering.

EXPAN HOMES, INC.

Cleveland, Ohio

President: Alex Bruscino

Sales manager: Minor F. Monroe

Plant: Cleveland

Package: room-size exterior wall panels completely sheathed and sided, hangars; windows in place and glazed; all doors prehung with hardware; roof trusses and gable ends completely assembled; partitions; factory assembled plywood subfloor and roofing.

H. C. HUBER CONSTRUCTION CO., INC.

Huber Homes

Dayton, Ohio

President: Mrs. Edna B. Huber

Sales manager: William G. Brennan

Plant: Dayton

Package: room-size exterior panels open-framed; prehung doors; partition panels; roof panels; all finishing lumber precut; garage.

Optional: heating, air conditioning,

INDEPENDENT LUMBER CO.

Heo

Cleveland, Ohio

General manager: George H. Ballinger

Sales manager: John G. Von Vleck

Plant: Cleveland

Package: modular 4' exterior panels with sheathing; window walls to 12'; windows in place and glazed; prehung doors with hardware; partition panels; trusses; precut joists, rafters, roof sheathing, floor and deck; gables; cabinets; garage or carport.

INLAND HOMES CORP.

Piqua, Ohio

President: E. E. Kurtz

Vice president (sales): Roy E. Hunsaker

Package: room-size exterior panels sheathed and sided; windows in place and glazed; prehung doors; partition panels; storage walls; trusses; roof and floor panels; joists, rafters, and all floor materials precut; all interior finish and trim; soffits; heating plant; garage.

Optional: air conditioning.

INTERNATIONAL HOMES, INC.

Youngstown, Ohio

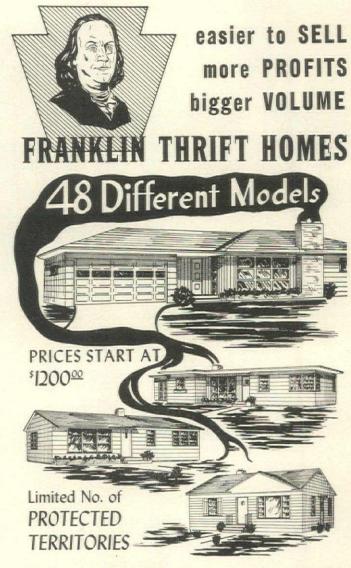
President: Myron Agrenovitz Sales manager: E. B. Osterhout

Plant: Mineral Ridge, Ohio

Package: larger-than-room-size exterior panels sheathed and sided; windows in place and glazed; prehung doors; partition panels; trusses; roof panels with sheathing; storage walls; ga-

Optional: heating plant.

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QUALIFIED tor

New, protected territories are being made available by Franklin Thrift Homes to meet the growing demand for more and better housing. Government figures estimate the need for 40% to 50% more homes by 1965 and an increasing share of this demand will be for homes of pre-assembled construction. Here is a ground-floor opportunity you cannot afford to overlook—a chance to become a bona-fide dealer for Franklin Thrift Homes.

Attractive, new contemporary homes designed for gracious living. Homes with the sales appeal that insures generous profits at prices to fit every budget. Homes you can sell as a complete package with no inventory or estimating problems. Investigate this opportunity to sell the kind of high quality that builds a profitable, assured future.

Send For FREE Profit Plan

Gentlemen, Please send details on dealerships available for Franklin Thrift Homes in this area. If accepted, I am to receive

special assistance on local promotion. I also enclose 25¢ for an advance copy of your catalogue of 48 homes with floor plans.

NAME	
ADDRESS	

FRANKLIN THRIFT HOMES, Inc.

Dept. HO

Box 631

State College, Penna.



Photo, courtesy Ador Sales, Inc.

How Woven Pile Weatherseal keeps wind and rain out lets light and scenery in

You can keep rain, dust and drafts out of the homes you design or build (and keep conditioned air inside) by specifying doors and windows weathersealed with Schlegel Woven Pile.

Only Schlegel Weatherseal gives you these advantages:

- Positive sealing action. You can drench a door or window sealed with woven pile with a torrent of hurricane velocity. Not a drop will seep through. The most subtle draft can't get past.
- 2. Friction-free action. Listen as you lift a window or glide a door on Schlegel Woven Pile Weatherseal. The flexible fibres are thousands of lively bearings which the door or window rides easily, quietly.
- 3. The best of both. Only Schlegel Woven Pile, developed over half a century, offers those operating advantages balanced so well. For every type of window and door—wood, steel, aluminum...riding, sliding, swinging—there's a Schlegel flush design that provides friction-free action while sealing out the weather.

For samples and catalog of Schlegel Certified Woven Pile Weatherseal, in its many designs, write us a letter.



Directory

continued from p. 161

prefabricated and packaged house manufacturers

Ohio continued

METROPOLITAN HOMES INC.

Springfield, Ohio

President: Charles E. Fry Sales manager: Gordon Boole

Plant: Springfield

Package: room-size exterior panels complete except for final paint coat; partition panels framed only; trusses; storage walls; carport.

MIDWEST HOUSES, INC.

Mansfield, Ohio

President: John L. Morley

Vice president & sales manager: Charles A. Swain

Plant: Mansfield

Package: smaller-than-room-size exterior panels with sheathing; windows in place and glazed; prehung doors; exterior and interior finish applied; partition panels; trusses; floor panels; vanity-lavatories; garage or carport.

Optional: heating, air conditioning.

PEASE WOODWORK CO., INC.

Pease Homes Hamilton, Ohio

President: John W. Pease

Plant: Hamilton

Package: smaller-than-room-size exterior panels sheathed and framed; window and door openings framed; partition panels; trusses; precut beams, bridging, trim, roofing, siding, cabinets and millwork.

Optional: garage or carport, vanity-lavatories.

RAY-MEL HOMES, INC.

Columbus, Ohio

President: Mel K. Armbrust

Plant: Columbus

Package: room-size and larger exterior panels sheathed, sided and insulated; interior gypsum applied; windows in place and glazed; prehung doors with hardware; trusses assembled; precut partitions; storage walls; basement stair assembly; garage or carport.

SCHOLZ HOMES, INC.

Toledo, Ohio

President: Donald J. Scholz

Sales manager: Harry C. Smith

Plant: Toledo

Package: smaller-than-room-size exterior panels sheathed and sided; windows in place and glazed; insulation in; interior gypsum applied; prehung doors with hardware; partition panels; storage walls; floor and roof panels; kitchen cabinets; double glazing; garage or carport.

Optional: bath fixtures, vanity-lavatories, plumbing, heating, electrical wiring, air conditioning.

STYLE-RITE HOMES CORP.

Columbus, Ohio

President: W. L. Mainland

Vice president & sales manager: W. J. Kuehnel

Plant: Columbus

Package: 8' wide wall panels, sheathed, sided and insulated; windows in place and glazed; prehung doors with hardware; partition panels; insulated ceiling panels with finished ceiling; precut roof rafters and beams; precut window and door casings; carport.

Optional: garage, extra half-bath.

THYER MANUFACTURING CORP.

Toledo, Ohio

President: Leonard Thyer

Sales manager: Norman Wiebusch

Plants: Toledo, Columbus, Ohio; Collins, Miss.

Package: room-size and smaller exterior panels sheathed and sided; windows in place and glazed; all doors prehung with hardware; assembled trusses; roof panels, assembled partitions; precut joists and rafters; cabinets; vanity-lavatories; garage or carport.

WEAKLEY MANUFACTURING CO.

Newark, Ohio

President: Robert K. Weakley Sales manager: E. J. Ellingson

Plant: Newark

Package: room-size exterior panels sheathed and sided: windows in place and glazed; interior gypsum applied; partition panels; trusses and precut roof sheathing; precut floor framing and exterior trim; electric outlets with pull wires installed; garage.

Oklahoma

SOUTHERN MILL & MANUFACTURING CO.

Sturdybilt Homes Tulsa, Okla.

President: W. H. Ahrens

Sales manager: J. W. Fellers

Plant: Tulsa

Package: 4' wide exterior wall panels with sheathing; windows in place and glazed; insulation in; interior gypsum applied; prehung doors with hardware; panels for floor, roof and partitions; trusses; bath fixtures; furnace and duets; wiring; garage.

Optional: vanity-lavatories, air conditioning.

Oregon

WESTWOOD HOMES, INC.

Westwood Pacific Trend Beaverton, Ore.

President: Ralph Holmes

Sales manager: C. A. Reynolds

Plant: Beaverton

Package: room-size and smaller exterior panels with sheathing, siding and insulation; windows in place; all doors prehung with hardware; semiastembled trusses; vanity-lavatories; garage or carport.

Pennsylvania

ADMIRAL HOMES, INC.

West Newton, Pa.

President: Frank A. Baldus

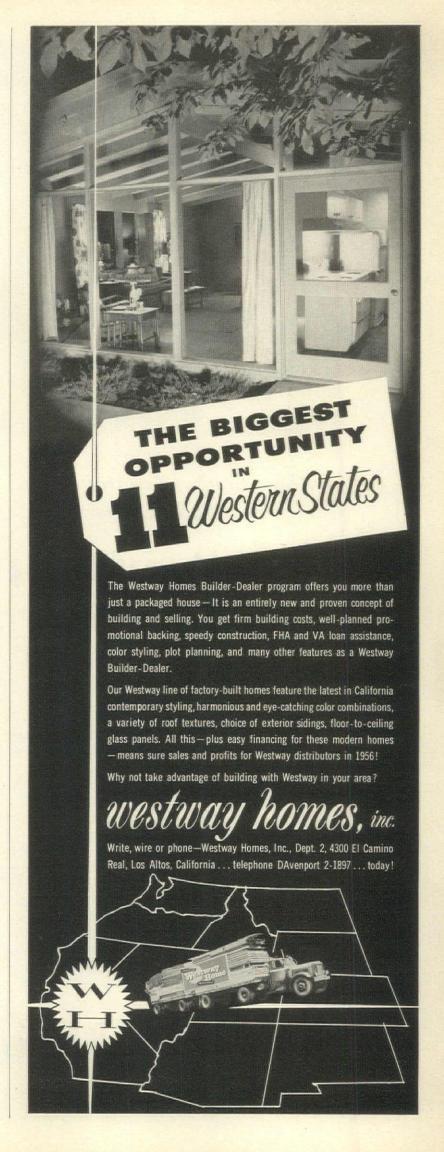
Sales manager: James J. Gallagher

Plant: West Newton

Package: up to 30' exterior panels sheathed and sided; windows in place and glazed; prehung doors with hardware; prefabricated gables; interior framing; precut floor materials; partially precut ceiling and roof materials; garage or carport.

Optional: bath fixtures.

continued on p. 166



America's Foremost Builders Know the Sales Value of G-E Light Conditioning



LaGasse Brothers Construction Co., Sarasota, Fla., reports:

"G-E Light Conditioning doubled our traffic, increased sales 50%"

Before their Sarasota homes were G-E Light Conditioned, LaGasse Brothers had between 1200 and 1500 people at an "open house."

After using G-E Lighting recipes, traffic jumped to 3,000. And, most important, sales went up 50%.

The LaGasse homes include three different applications of valance lighting; accent lighting over a painting in the living room; and floodlights on the outside to light the house at night. All floor and table lamps were positioned according to G-E Lighting recipes. Florida Power & Light Co., which cooperated with LaGasse Bros., is one of many utilities working with builders all over the country helping them use General Electric's light conditioning as a powerful sales tool. For more information on how G-E Light Conditioning can help you sell more homes, write to General Electric Large Lamp Department HH-12, Nela Park, Cleveland 12, Ohio.

LaGasse Brothers have built more than 300 homes in Sarasota, Fla. As a result of this experience with G-E Light Conditioning, they're using several G-E Lighting recipes in each new home.



This modern, G-E Light Conditioned house was built in South Gate subdivision, Sarasota, Fla., by LaGasse Brothers Construction Co. Prices range from \$15,000 to \$18,500.



This lighted valance is one of three in the model G-E Light Conditioned home in South Gate subdivision. It's a visible sales feature that has a strong appeal for women.





All lumber kiln-dried to specific, and uniform moisture content.

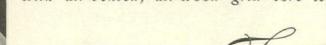
Before and since CS200-55

. . or by any other standard of comparison

PAINE



with air-vented, all-wood grid core is





Stiles and rails securely fitted. Stiles are 11/6" instead of 11/8".



Hand-matched face veneers; the panels 1/8" thick—instead of 1/10".



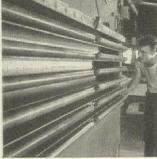
America's Finest

The Paine REZO Door is the only flush door manufactured since 1935 backed by 103 years of millwork experience and 8,000,000 successful installations. Paine's manufacturing standards not only comply with - but they exceed by

far - every requirement of the new Commercial Standard 200-55. Step by step manufacturing process photos at left show why, by any standard of comparison, the Paine REZO Door is



A complete coating of resin glue is applied by machine.

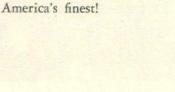


Accurate assembly is assured by controlled heat and pressure.





Doors are carefully belt-sanded to a cabinetmaker's finish.



Write today for descriptive literature



Doors pass through a complete conditioning cycle in special kilns.



Special doors are custom-made by experienced craftsmen.



Each door must be painstakingly inspected in oblique light.



THE ONLY COMPLETE DISAPPEARING STAIRWAY



Please send free Catalog, Wall Chart, Prices and Discounts.



For school beauty and stamina **Curtis New Londoner Doors**

Ahead in beauty! Curtis New Londoner hollow-core flush doors display beautifully grained, native wood face panels that fit modern school designs. Ahead in stamina! Patented all-wood, locked-in, sealed core for extra durability, stability. Also in solid core construction-in all sizes-several woods. Sold by lumber and building material dealers everywhere. Write for full information.



Directory

continued from p. 163

prefabricated and packaged house manufacturers

Pennsylvania continued

CRESTWOOD HOMES CO.

Greenville, Pa.

President: Silas F. Moss

Vice president & sales manager: Charles D. Rissell

Plant: Greenville

Package: smaller-than-wall-size panels with sheathing: windows in place; prehung doors with hardware; load-bearing partition panels; precut joists; stairs; storage walls; heating plant and ducts; light fixtures; garage or carport.

Optional: bath fixtures, vanity-lavatories, air conditioning.

FRANKLIN THRIFT HOMES,INC.

State College, Pa.

President: Albert Houck

Sales manager: Carl E. Temple

Package: room-size exterior panels: partition panels; precut joists and rafters; storage walls: bath fixtures; plumbing assembly; vanity-lavatories; heating plant; wiring; garage or carport.

Optional: air conditioning.

HOG ISLAND LUMBER CO.

Hilco Homes Philadelphia, Pa.

President: Martin Cohen

Sales manager: Daniel M. Gurst

Plant: Philadelphia

Package: smaller-than-room-size exterior panels with sheathing; insulation in; precut joists, rafters, interior studs; windows;

Optional: garage or carport, bath fixtures, vanity-lavatories, heating, wiring, cabinets.

SWIFT HOMES, INC.

Elizabeth, Pa.

President: Ira H. Cohen Sales manager: Jack Levin

Plant: Elizabeth

Package: all materials precut, including framing, windows, doors, siding, interior finish, wallboard, trim; garage or carport.

Optional: bath fixtures, vanity-lavatories; electrical wiring.

South Carolina

BERKELEY HOMES INC.

North Charleston, S. C.

President: Thomas C. Stevenson, Jr.

Plant: North Charleston

Package: room-size and smaller panels with sheathing; panel

partitions; trusses; windows and prehung doors planned.

Optional: air conditioning.

Tennessee

FAIRHILL, INC.

Memphis, Tenn.

President: Charles H. Freeburg Sales manager: Philip A. McCarthy

Plant: Memphis

Package: room-size panels with sheathing and trim; windows in place, glazed and screened; prehung doors; room-size interior panels; storage walls; roof panels, trusses; gables; carport.

Optional: bath fixtures; heating plant, air conditioning.



Making Homes and Making News for over 60 Years!

NOW BUILDERS can take advantage of the prestige of the Hodgson name, on a speculative basis.

NOW HODGSON'S NEW Structural Design meets all builder needs as well as all V.A., F.H.A. and local code require-

NOW Prefabrication takes on NEW meaning; because Hodgson Houses are built to builders' plans if desired.

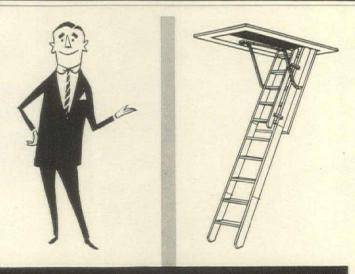
Inquiries Invited from Builders in the Northeast.



DOVER, MASS., TEL. DOVER 8-0057

N. Y. Sales Office • 730 Fifth Ave. • CIrcle 7-1691





HOW TO MAKE A SALES POINT OUT OF WASTE SPACE

If a prospective home buyer sees that he has to pull himself through a scuttle hole to reach the attic, you've turned much of that attic space into waste space as far as he is concerned.

But if you pull an EZ-Way Disappearing Stairway through that scuttle hole, you seem to be adding a whole extra story to the house. Many builders use the EZ-Way unit to

climax their sales story. EZ-Way units turn "waste space" into a selling point, add value to

your homes at very low cost. Five handsome models—one even works in a closet! All disappear completely, smoothly, easily—without counter-weights! Obviously safe and sturdy. Packaged complete and ready to install. For more information, write today to

EZ-WAY SALES, INC.

BOX 300-4 ST. PAUL PARK, MINN.

Texas

COOPER HOMES, INC.

Amarillo, Tex.

President: E. E. Cooper

Sales manager: Donald V. Livoni

Plant: Amarillo

Package: exterior walls sheathed, insulation applied; windows in place and glazed; doors prehung with hardware; roof trusses with 1/2" sheathing cut and ready to apply; roofing materials furnished; material for interior walls and ceilings cut to size and marked; floor joists cut to size; sheathing for subfloor cut to size; flooring furnished; partition walls; all closets and cabinets shipped assembled.

FARRICON

Austin, Tex.

President: Ned A. Cole

Sales manager: Henry Fenderbosch

Plant: Austin

Package: exterior structural parts; window walls; partition panels; prehung doors; windows, sash glazed; trusses and gables; roof panels for flat deck only; storage walls and cabinets for complete interior; lavatories, vanity-lavatories; heating plant and ducts; lighting fixtures; garage or carport.

Optional: air conditioning.

HOUSTON READY-CUT HOUSE CO.

Houston Homes

Houston, Tex.

President: J. C. Suttles

Package: smaller-than-room-size exterior panels with sheathing: window units; prehung doors; partition panels; trusses; garage or carport.

Optional: heating, air conditioning,

J & B MANUFACTURING CO.

Houston, Tex.

President: H. D. (Jack) Thompson

Vice president: Robert (Bob) W. Clemens

Plant: Houston

Package: larger-than-room-size exterior wall frames of steel; partition panels; storage panels, windows and doors prefabricated; steel trusses and precut roof deck; storage walls; garage

SOUTHWEST AMERICAN HOUSES, INC.

Southwest Homes

Houston, Tex.

President: M. Lawrence Westbrook

Sales manager: George E. Finch

Plant: Houston

Package: room-size exterior panels with sheathing: windows in place; room-size partition panels; trusses and precut roof sheathing; prehung doors with hardware; precut flooring; cabinets; garage or carport.

TEXAS HOUSING CO.

Dallas, Tex.

President: Winfield Morten Sales manager: Sargent Hill

Plant: Dallas

Package: smaller-than-room-size panels sheathed, sided and insulated; windows in place and glazed; prefitted doors with hardware; panels for partitions, floor and roof; trusses; storage walls;

Optional: garage, heating, air conditioning.

continued on p. 170



WOOD FOLDING DOORS

Beauty works for you with wood folding doors

The rich-grained beauty of PELLA WOOD FOLDING DOORS will give your homes the appealing, "luxury-look" that reflects extra value. Home buyers like the warm, friendly veneers of birch, oak, pine or Philippine mahogany that blend with or match woodwork and furniture.

Use PELLA DOORS as room dividers to make small rooms serve as large ones . . . use them for closets, storage walls, regular doorways, kitchen pass-throughs. Achieve the open planning with maximum privacy that today's home buyers appreciate.

Doors fold to 2" or less per foot of opening width. This "tight stack" is due to PELLA'S exclusive concealed spring hinging, which also enables doors to open and close quietly.

PELLA DOORS are sturdily constructed with <u>solid</u> wood laminated cores . . . aren't subject to deterioration or warpage, even in below-grade rooms where humid conditions may exist.

Available in stock or custom sizes, finished or unfinished, factory assembled, complete with all hardware and concealing track mould. There is no costly fitting on the job. Send for sample of laminated PELLA Door Panel today. Mail coupon below. Or see our catalog in Sweet's Light Construction File. Representatives in principal cities of U. S. and Canada.

Pella

WOOD FOLDING DOORS

CLIP AND MAIL TODAY!

ROLSCREEN COMPANY, Dept. G-95, PELLA, IOWA

Gentlemen: Please send FREE sample of laminated PELLA Door Panel and literature on PELLA Wood Folding Doors.

NAME

ADDRESS

CITY

ZONE STATE

Directory

prefabricated and packaged house manufacturers

Utah

INTERMOUNTAIN PRECISION-BILT HOMES

Ogden, Utah

Partners: Alton E. Wade and Wallace H. Wade

Sales manager: Robert Wade

Plant: Ogden

Package: room-size exterior panels sheathed and sided; windows in place and glazed; partition panels; storage walls; floor panels; trusses; gables; precut trim and cornices; cabinets.

Virginia

LESTER BROTHERS, INC.

Lesco Homes

Martinsville, Va.

President: L. L. Lester, Jr.

Sales manager: Ben A. Harris

Plant: Martinsville

Package: room-size exterior and interior wall panels sheathed and braced; all doors and windows prehung and cased both sides; complete closet wall; complete gable ends primed; basement stairway complete; linen and kitchen cabinets complete; roof trusses or roof panels; precut material includes joists, girders, headers.

Washington

VIRGINIA LEE HOMES INC.

Kirkland, Wash.

President: C. F. Dally

Sales manager: G. N. Hain

Plant: Kirkland

Package: smaller-than-room-size exterior panels sheathed and sided; windows and doors in place; precut joists, rafters and roof sheathing; built-up trusses; storage walls; garage or carport.

WEST COAST MILLS

Farwest Homes

Chehalis, Wash.

Partners: Robert Thompson and Ben L. Jones

Sales manager: Eldon Reiley

Plant: Chehalis

Package: exterior walls completely finished; all doors prehung with hardware; precut interior partitions; storage walls; wardrobes, closets also precut with hardware installed; trusses partially assembled; garage or carport.

Optional: air conditioning.

Wisconsin

HARNISCHFEGER HOMES, INC.

P & H Homes

Port Washington, Wis.

President: Fred J. Samerdyke

Sales manager: Kent Dawson

Plant: Port Washington

Package: room-size exterior panels sheathed and insulated; windows in place and glazed; room-size partition panels; prehung doors with hardware; trusses and roof panels; exterior and interior trim; precut stairways; gables; floor furnace (with some models).

Optional: kitchen cabinets and sink, fences.

Canada

COLONIAL HOMES LTD.

Scarboro, Ontario, Canada

President: S. Walter Lindal

Sales manager: Thomas Fergusson

Plants: Scarboro and Hawkesbury, Ontario

Package: room-size panels with sheathing; partition panels; precut joists, rafters; storage walls; prefabricated stairs; cabinets; garage.

ENGINEERED BUILDING LTD.

Engineered Homes

Calgary, Alberta, Canada

President: Harry Thompson

Vice president & sales manager: A. L. Knight

Plants: Calgary, Alberta; Regina, Saskatchewan

Package: room-size panels with sheathing; windows in place; interior partitions framed only; trusses; heating plant; bath fixtures; plumbing assembly; carport or garage.

GLENWAL LIMITED

Calgary, Alberta, Canada

President: G. H. Allan

Sales manager: N. J. Oliver

Plant: Calgary

Package: 4' exterior panels with sheathing; partition panels; prefitted windows, doors; trusses; roof and floor panels; storage walls; electrical conduit only; carport.

PRECISION PREFAB PRODUCTS, LTD.

Toronto, Ontario, Canada

President: Percy M. Shearer

Plant: Toronto

/END

This directory includes

only those manufacturers who

sell through builders or dealers.

At least two dozen other house manufacturers

or packagers who sell directly

to the home buyer

are not included.



Left to right: William H. Pearce, Vice-President; Howard W. Pearce, President: Peter W. Braun, Vice-President

"Better living within your budget" is the protection offered buyers of ranch homes in suburban Green Acres Village, newest planned development by Pearce & Pearce Co., Inc.

To put teeth into this offer, Pearce & Pearce install Janitrol quality heating systems. The extra quality and satisfaction delivered by Janitrol cost so little in proportion to the total price of a home, that Pearce & Pearce figure Janitrol is good insurance for their reputation.

Fact is, many leading builders are saying—"I can't afford not to install Janitrol equipment". They've discovered the puny savings they get by buying on price alone are quickly washed out by service call-backs and complaints.

Get the facts on Janitrol advanced design, performance and dependability. See for yourself why Janitrol is your best buy, bar none! "We have protected ourselves and our buyers with

Janitrol

quality heating equipment"

PEARCE & PEARCE CO., INC. Buffalo 14, New York



Homes in Pearce & Pearce Co., Inc. Green Acres Village range in price from \$14,900 to \$18,990. 46 designs are offered, all featuring perimeter heating.

FREE! THIS VALUABLE BOOK



It shows you the difference between Janitrol and ordinary equipment . . . proves that Janitrol offers more built-in quality. Ask for No. JS-212 "You Can Measure Heating Quality". Write Dept. HH-512.

JOIN
Janitrol's
CRUSADE
FOR
BETTER
HEATING

Banitrol HEATING AND AIR-CONDITIONING

Surface Combustion Corporation, Columbus 16, Ohio In Canada: Alvar Simpson, Ltd., Toronto 15

There's pride in selling prefabricated homes



on what PREFABRICATION can do for you!



...and more profit, too!



Prefabricated homes are designed by the nation's leading architects. They're years ahead in styling. They're precision-engineered and produced to uniformly high standards of quality and workmanship.

You'll find prefabrication's mass production methods have many advantages for you. As one builder puts it, "You can build and sell three times more homes with one-third the overhead and one-third the grief." His statement helps explain why sales of prefabricated homes increased well over 200% between 1948 and 1955, compared to a 50% increase in total housing starts.

Phmi

GROW WITH

PREFABRICATED HOME MANUFACTURERS' INSTITUTE

929 20th Street N.W., Washington 6, D.C.

For sample copy of R the Magazine of Prefabrication, send request on your letterhead.



You'll find one or more of the following members of the Prefabricated Home Manufacturers' Institute equipped to serve the area in which you are located . . . and glad to give you full information on how you can "grow with prefabrication."

Admiral Homes, Inc. 300 Mt. Lebanon Blvd., Pittsburgh 34, Pa. American Houses, Inc. 165 W. 46th St., New York 36, N. Y.

New York 36, N. Y. R. H. Best, Inc. 1545 Rockville Pike, Rockville, Md.

W. G. Best Factory-Built Homes, Incorporated U.S. 45 South, Effingham, III. Bush Prefabricated Struct, Inc. 2nd St. and Lenox Rd. Huntington Sta., L. I., N. Y.

Colonial Homes Ltd. Box 40, Station "H", Toronto 13, Ont., Can,

Colpaert Homes, Inc. 445 N. Sheridan St., South Bend 19, Ind.

Crestwood Homes Company P.O. Box 311, Greenville, Pa. Dixie Homes

Dixie Homes Rt. 1, Box 339A, Upper Marlboro, Md. Engineered Bldgs. (Canada) Ltd. 504 4th St., S. E., Calgary, Alberta, Can.

Expandable Homes, Inc. P.O. Box D, Sheboygan Falls, Wis. Fairhill, Inc. 2165 Latham St., Memphis 6, Tenn.

Florida Builders, Inc. 700 43rd St., South, St. Petersburg, Fla.

Ivon R. Ford, Inc. McDonough, New York GBH-Way Homes, Inc. Walnut, Illinois

General Industries, Inc. 3033 Wayne Trace, Fort Wayne 5, Ind.

Glenwal Limited 3601 Bonnybrook Road, Calgary, Alberta, Canada Halliday Company Ltd. Burlington, Ontario, Canada

Harnischfeger Homes, Inc. Port Washington, Wisconsin N. O. Hipel, Ltd. 307 Hespeler St., Preston, Ont., Can.

Hodgson Houses, Inc. Dover, Mass. Houston Ready-Cut House Co. P.O. Box 124, Houston 1, Texas Inland Homes Corporation P.O. Box 915, Piqua, Ohio

Knox Corporation
Thomson, Georgia
Lesco Homes, Division of
Lester Brothers, Inc.
P.O. Box 751, Martinsville, Va.

Lumber Fabricators, Inc. Fort Payne, Alabama Maryland Housing Corp. P.O. Box 7345, Halethorp Baltimore 27, Md. Metropolitan Homes, Inc. 721 W. Columbia St., Springfield, Ohio

Midwest Houses, Inc. P.O. Box 334, Mansfield, Ohio Modern Homes Corporation 14507 W. Warren Ave., Dearborn, Mich.

Modular Homes, Inc.
Barrett Station & Dougherty
Ferry Rds., Route 13,
Kirkwood 22, Mo.

Kirkwood 22, Mo.

National Homes Corporation
Lafayette, Indiana

Page & Hill Homes, Inc. Shakopee, Minn.

Pease Woodwork Company 900 Forest Ave., Hamilton, Ohio Precision Built Homes, Inc. Milford Mill Rd. & WMdRR., Pikesville, Baltimore 8, Md.

Precision Homes Division, Acme Building Materials, Inc. 5235 Winthrop Ave., Indianapolis 20, Ind. Precision Prefab Products, Ltd.

1330 Bloor St. W., Toronto Ont., Can. Richmond Homes, Inc. Sheridan & N. W. "L" Sts., Richmond, Ind.

Scholz Homes, Inc. 2001 N. Westwood Ave., Toledo 7, Ohio

Semico Incorporated Seney, Mich.

Service Home Mfg. Co. 395 54th St., S.W., Grand Rapids 8, Mich. Sherwood Redi-Bilt Homes

180 Ferguson Ave., North, Hamilton, Ont., Can. Southern Mill & Mfg. Company Box 1087, Tulsa 1, Oklahoma

Box 1087, Tulsa 1, Oklahoma Southwest American Houses, Inc. P.O. Box 16, Houston 1, Texas

Sunnibilt Prefab Products, Ltd. 1345 Dufferin St., Toronto 4, Ont., Can. Sweet Lumber Fabricators, Inc.

Sweet Lumber Fabricators, Inc. 4500 Roe Blvd., Kansas City 3, Kansas Texas Housing Company

Texas Housing Company 9003 Denton Drive, Dallas 9, Texas Thyer Manufacturing Corp. 2857 Wayne St., Toledo 9, Ohio

Unit Structures, Inc. Peshtigo, Wisconsin United States Steel Homes, Inc. New Albany, Indiana

Universal Homes, Inc. 3500 Guardian Bldg., Detroit 26, Mich.

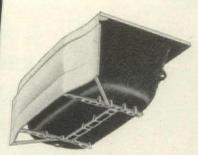
Weakley Manufacturing Co. P.O. Box 28, Newark, Ohio Westway Homes, Inc. 458 Forest Ave., Palo Alto, Calif.

Wilson Homes, Inc. 10401 Trongate Place, St. Louis 15, Ma.

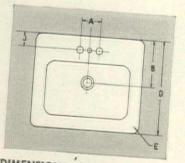
Yetter Homes, Inc. P.O. Box 505, Savannah, Ga.



BRIGGS BEAUTYWARE -DESIGNED FOR PRODUCTION BUILDING AND VOLUME SELLING



INSTALLATION—All fixtures and fittings are engineered for faster home building schedules.



DIMENSIONS—Rigid control of sizes and tolerances assures exacting fit in modular construction.



BRAND NAME—A nationally advertised and recognized product identified in model homes by this personalized plaque.



colors complement any bathroom design or decorating scheme.



QUALITY—Highest standards of manufacturing and inspection assure product dependability.



FEATURES—A long list of important features to attract and please your prospects and buyers.

BRIGGS MANUFACTURING COMPANY . 300 BUHL BUILDING . DETROIT 26, MICHIGAN

Pollman selects Insulite for fabulous "House of



HOUSE & GARDEN'S 1955 'House of Ideas," Birmingham, Mich. Designer-builder: Richard B. Pollman, Richard B. Pollman Building Co., Detroit, Mich. Architects: Irving Palmquist & Clifford Wright, Detroit, Mich.

Build better and save with

Roof Deck Ideas"

Money-saving Insulite Roof Deck is just as at home in the 1955 "House of Ideas" as it is in an economy 3-bedroom rambler.

Designed to meet the highest structural and decorating standards, Insulite Roof Deck still returns an \$80 to \$300 saving per thousand square feet of surface. It reduces building costs, yet adds a touch of quality to any home as these photographs of Richard Pollman's "House of Ideas" clearly demonstrate.

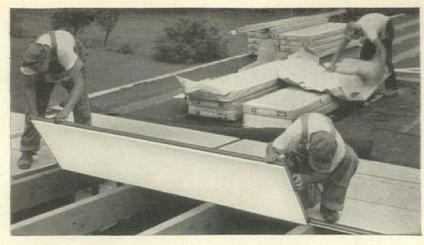
Here's how Insulite Roof Deck can help you build better and save:

Cuts application time as much as 45%. Only one material to handle. New Insulite Roof Deck eliminates need for separate roof boards, insulation, lath and plaster and ceiling finishing. Roof Deck can save 12 man-hours per 1,000 sq. ft. of surface compared with 2"x6" D&M roof sheathing.

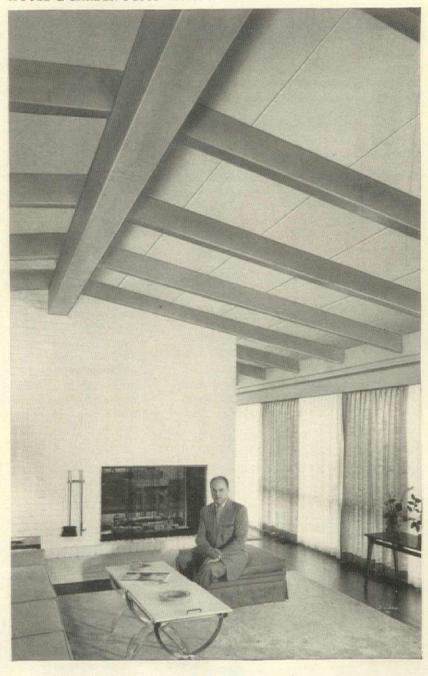
It's insulation with vapor barrier. No need for other insulation. Two-inch Roof Deck is comparable to 2" wood deck plus 1" fiberboard insulation. Available in 3 thicknesses to meet insulation requirements in any climate. Built-in vapor barrier membrane protects against condensation within the unit.

Builds finished ceiling. The underside of Roof Deck is factory-finished in white. Lay Roof Deck over prefinished beams and ceiling is done. No need to plaster, paint, stain or wax. Available in 2′x8′ units, 1½″, 2″ or 3″ thick with or without vapor barrier membrane—depending on climate.

Send for complete information now. Actual onthe-job pictures and construction details show how to use new Insulite Roof Deck to build better for less. Write Insulite, Minneapolis 2, Minn.



BELOW: Richard Pollman, designer-builder of HOUSE & GARDEN'S 1955 "House of Ideas."





Made of hardy Northern wood

INSULITE DIVISION—Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota



Coming: super-strength plastics

New chemical process creates heavy-duty materials, offers lightweight structural components

A new polyethylene plastic being developed by the chemical industry may be the longsought answer for plastic materials strong enough to be used structurally in houses.

Anticipated end products for builders include lightweight, high-impact wall and roof panels, load-bearing window units, doors that will not stick, rigid heating ducts and a heat-resistant plastic pipe which will withstand water up to 250° (present plastic polyethylene begins to soften at about 120°).

Some scientists also predict new plastic windows which will not break or shatter (although others point out that such windows decolor in the sun and until a cure is found the windows will be impractical). Significantly, engineers have told H&H that most of the products noted above have already been laboratory tested.

How it came about. High-strength polyethylene is the result of a new chemical process discovered by a German scientist, Professor Karl Zeigler. The process gives manufacturers a way to make all-important changes in the molecular structure of polyethylene.

This means that "specific physical properties can be made into new plastics to meet a wide range of structural needs," said a US scientist interviewed by H&H. In effect, high strength could be added to plastics to conform to an architect's specifications, and the plastics could be made to order under relatively low-cost factory conditions

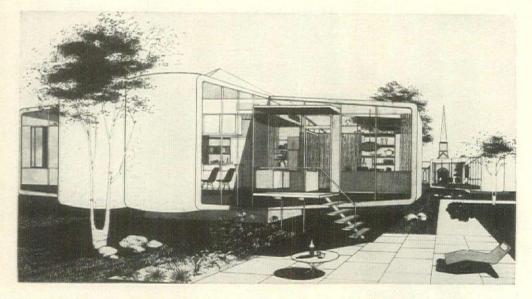
The process will also allow high strength to be built into many common plastics already on the market. This will mean stronger styrenes, vinyls and phenolics, which so far are limited to low-impact uses, for example, in door knobs or sun blinds.

Where it stands. Top American chemical firms think so much of the process they are speeding plans to make it under license arrangements with Zeigler. These firms include Bakelite, Dow Chemical, Du Pont, Koppers, and Monsanto. A sixth firm, Hercules Powder, just announced the start of a \$10 million plant in Parlin, N. J. to make the new polyethylene. Several makers have also started big research programs to find out how the plastics can be best used structurally by the building industry.

It should be noted that top-strength plastics are also possible by means of two other methods. One was developed by Phillips Petroleum Co. scientists. The second method, reported by Architectural Forum (Sept. '54 issue), uses atomic irradiation. Forum said experimental tests with irradiation made "an ordinarily soft sheet of plastic stronger than the same thickness of today's structural steel and so resistant to heat it could be used in the after burners of jet engines."

What it all means. Whichever method proves best, experts say that the whole technology of building may well change since lightweight, structural plastics will replace many of today's heavy conventional materials.

First indication of what this can mean to builders and architects is the unique plastic house, shown below, to be built by Monsanto construction experts. Eventual goal is a house "where practically everything but the occupants will be a form of plastics."



First plastic house will be built in 1956 by Monsanto Chemical Co. Preliminary design, above, by MIT Architects Marvin Goody and Richard W. Hamilton, uses 8' wide molded structural modules, bent to form roof, wall and floor. Modules are cantilevered in pairs 16' out from central utility core to make four wings, each 16' square. Modules can also be arranged in variety of ways for different house sizes, shapes. Core contains kitchen, bath, laundry and heating. Conduits, pipes and ducts will be built into skin, which will also incorporate foam plastic for insulation.

New building board is made immune to atomic radiation

A cheap radiation-proof building board has been developed for the Army Chemical Corps by the US Forest Products Laboratory.

The new material, called "diffusion board," is a wood-fiber product that looks much like conventional fiber board "with secret chemicals added to filter out poison gas, germ particles and radioactive fallout."

Production tests show the new board can be manufactured on equipment similar to that used to make regular fiber board. Any wood suitable for pulping can be used in the manufacturing process.

Initial production is earmarked for such military shelters as troop barracks and airplane hangars. The board has equal value, however, for homes and other civilian buildings. "It will put protection within everyone's reach when it becomes [commercially] available," says Major General Wm. A. Creasy, Chief of the Army Chemical Corps.

Study shows how orientation alters cooling requirements

A new study pinpoints one of the biggest problems encountered by builders of air-conditioned houses: why some houses need twice as big a cooling unit as similar houses in the same development.

The study was made by Engineer Herb Gilkey of the National Warm Air Heating & Air Conditioning Assn. Gilkey chose a 1,040 sq. ft. Urbana, Ill. house for test purposes. The house faces south and its computed summer heat load is 22,300 Btu's per hr., based on maintaining the usual 75° indoors when it is 95° outdoors.

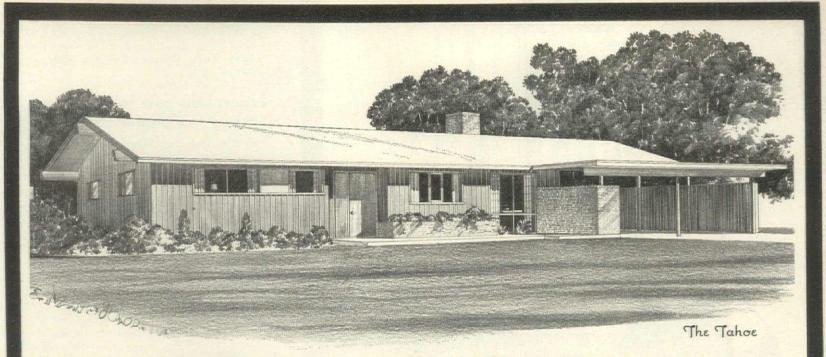
Gilkey computed what the heat load would be if the house were oriented differently. He found the load varies from as little as 22,000 Btu's per hr. up to 41,800 Btu's. The orientation figures: north: 22,000 Btu's per hr.; east: 33,000 Btu's per hr.; south: 22,300 Btu's per hr.; west: 41,800 Btu's per hr.

Minimum cooling is needed when the house faces north or south. The heat load goes up about 50% when the house is turned to the east, about 100% when turned to the west. The increase is due chiefly to the greater sun load on the exposed glass and wall area. Orientation does not affect the load on the roof.

The test house is a typical one-story frame structure with insulated walls and ceiling. Several windows are shaded by awnings. A big picture window is shaded by a 46" overhang when it faces south, partially shaded when it faces east or west.

Poorly oriented houses, the study shows, require larger and more expensive air condition-

TECHNICAL NEWS continued on p. 178



MR. BUILDER: Look Ahead to '56! Predetermine your profits—with FARWEST HOMES! Beautiful contemporaries—like the "TAHOE" shown above—or your choice of numerous traditional designs ... styled for your market!

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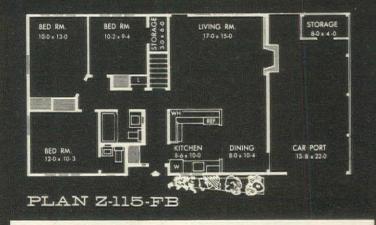
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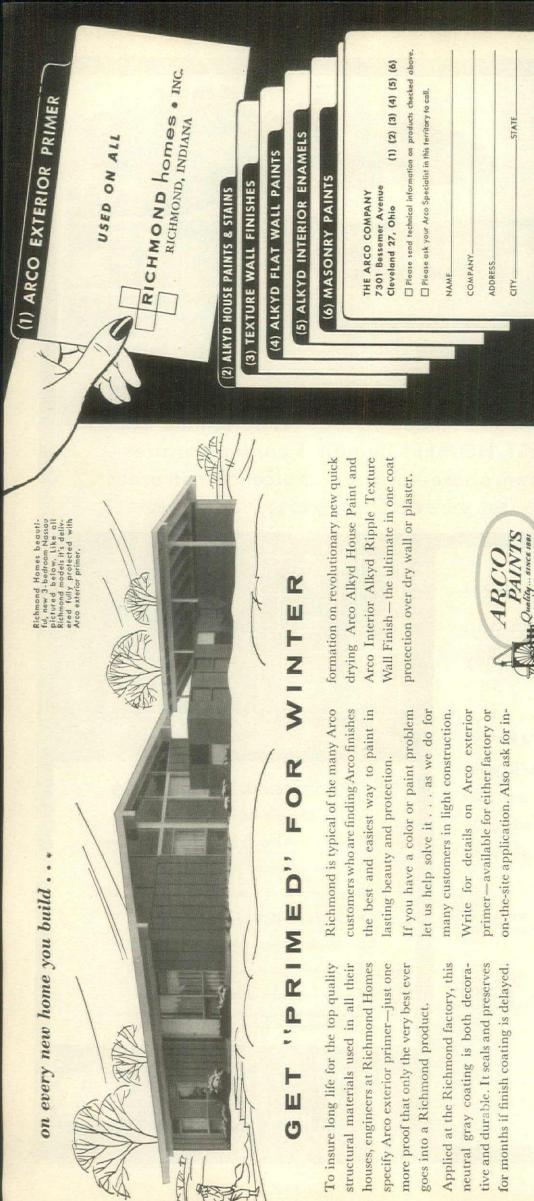
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JANUARY 22-26



CONRAD HILTON HOTEL, 3RD FLOOR, BOOTH 371



TECHNICAL NEWS

continued from p. 176

ing systems unless shading devices are put over all big windows facing east or west. Also helpful: extra insulation for long walls exposed to hot sun.

Expert tells how to remedy kitchen heat, odor problem

"Good kitchen ventilation requires removal of *specific* air, not just any air," says ventilation expert Miles Woodall, General Manager of the Vent-A-Hood Co.

This principle is being overlooked in many houses today, Woodall claims. As a result kitchen exhaust fans and range hoods often fail to get rid of cooking heat and odors.

Why exhaust fans fail. Woodall cites two widespread reasons why kitchen fans fail to do their jobs, even when the fan itself is properly installed:

Poorly insulated ovens radiate heat in all di-



WOODALL

STED FIRST TO LAS T

rections, far beyond the range of any fan's effectiveness. Woodall says, "walls, ceiling and everything else in the kitchen heat up and radiate heat back for hours." You must use a well-insulated, vented oven and then most of the heat will go up into the waiting fan.

Carelessly located heating or air-conditioning outlets blow air straight at the range. "Then you can be sure any fan above the range is removing only conditioned air," says Woodall. The incoming air is immediately

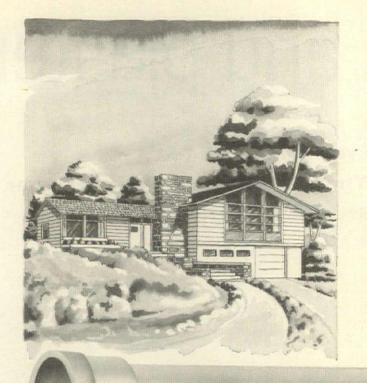
Woodall. The incoming air is immediately blown outside, while cooking heat and odor remains in the kitchen. Proper removal requires spotting air outlets so they blow conditioned air away from the range.

How hoods should work. Even adding a hood over the range does not assure removal of heat and odors unless the hood is properly designed. Woodall's ideal hood: "a deep round funnel with an exhaust fan at the small end." The hood should spread over the whole cooking area and reach down within 2' of the top of the range. If placed higher the hood must be proportionately bigger to trap all of the rising hot air.

The heat of cooking rises in a pattern much like the mushrooming effect of an atom bomb. Woodall says, "only a small volume of air is heated by the range but in a very short interval it mushrooms out, absorbs room air and reaches the ceiling at many times its original volume." The more air heated, the faster the rise.

Rising heat is not caught in many kitchens because of two common mistakes:

1. Many hoods are too small. Instead of drawing in the mushrooming hot air from around the range, the fan sucks in the closer room air from around the hood. Most of the rising heat simply diffuses into the kitchen. 2. Many hoods are too shallow. Sufficient vertical depth is needed to hold the mushrooming air until the fan can exhaust it. Obviously best is a deep, funnel-type hood. Worst of all is a flat hood with no vertical depth. When a flat hood is used, Woodall says, the rising air simply piles up against the flat surface and escapes around the sides before the fan can draw it outside.



Every Home Cottage or Mansion

Deserves the Permanent Protection of

SOIL PIPE

and Fittings



"Can't you figure out some way to cut down the cost?"

Architects or contractors are often asked that question, after final plans are drawn. Usually the home builder wants plans trimmed "where it won't show."

But recognizing their responsibility to clients, reliable architects and contractors refuse to cut down on essentials that are vital to the permanent protection of a home and its enjoyment by the owner.

They know, for instance, that it never pays to compromise on quality in plumbing drainage, which once buried in the ground or house is there to stay. That's why they specify permanent Cast Iron Pipe even where investment in the home is a very modest one.

Permanent Cast Iron Pipe costs a little more, but its first cost is *final*. It will last forever, never need root reaming or break down under heavy truck loads or ground settlement. Through the years it will perform its function—smoothly and without care or trouble.

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Every day, builders and contractors are discovering the big advantages of building with plaster reinforced with Keymesh, Keycorner and Keybead.

For example, Keymesh adds 50% greater fire safety to plaster ceilings in frame construction. It triples the fire endurance limit of open web, steel joist construction. And when you fireproof steel beams and columns with Keymesh reinforced plaster, the reduction in the insurance rate soon pays for the fireproofing.

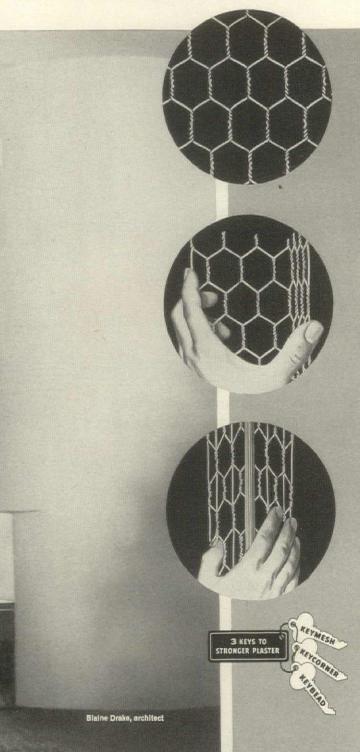
Keycorner economically provides the extra strength

that takes the worry out of trouble spots like corners, wall-ceiling junctures and joints.

Keybead allows exacting work on outside corners where ordinary beads fail. You save time and money.

In addition to these hidden values, the Three Keys help make plaster even more beautiful, more easily adapted to any design requirement.

For far better construction that costs very little, ask your plastering contractor to figure your jobs with the Three Keys to Stronger Plaster.



KEYMESH

Tests prove that Keymesh-type Galvanized reinforcing lath increases fire safety of plaster ceilings a minimum of fifty percent... in some cases many, many times more. Since this is true by actual fire tests*, imagine the extra strength that a Keymesh ceiling or wall has against ordinary, day-to-day stress and strain. The hex mesh is a network of reinforcement. Plaster completely embeds the steel wires to make a solid, reinforced ceiling or wall. Keymesh stops plaster cracks before they start. It makes lath and plaster better than ever. *Bullding Materials and Structures Report 141 National Bureau of Standards.

KEYCORNER

Keycorner is the only Galvanized strip lath preformed to fit corners, joints and wall-ceiling junctures. Just flex it—it bends to corner shape. It goes up quickly, easily. And what reinforcement! Corners and joints are no longer trouble spots when you build with Keycorner. It knits the plaster into a single, solid unit, reinforced at points of most strain. And it costs so little for this protection, this extra life for your plaster job. Keycorner pays big dividends in client satisfaction. See that it is used when you build with plaster. It makes lath and plaster better than ever.

KEYBEAD

New Keybead Galvanized lath makes possible exacting plaster work where ordinary corner bead fails. Keybead is straight, end to end. No waste. It's easy to true up. And Keybead makes a solid plaster corner! Plaster is easily troweled through open mesh flanges to fill corner and completely embed every reinforcing wire. Twenty-three gauge Galvanized steel nose—no other regular corner bead provides such protection against shock. Keybead is also available with solid zinc nose for use in highly corrosive atmospheres. Ask for Key Z Bead.

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Seal-O-Matic[®] Shingles have been proved in use on thousands of homes. They have weathered full-force hurricanes intact, while nearby roofs were severely damaged. Seal-O-Matics grip tight—stay flat. Wind and rain can't get under the edges, even on roofs of low slope (2" minimum).

Cash in on this remarkable advance in roofing today! For full particulars about Seal-O-Matics call your nearest J-M Office or write Johns-Manville, Dept. HH, Box 111, New York, N. Y.

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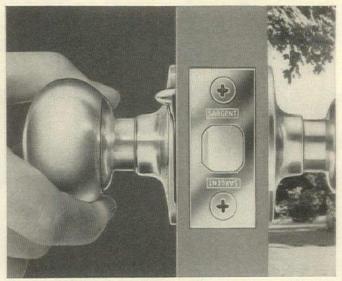


When the first thing prospects see in a new house is this guarantee . .



and then when they notice this sign on a window sill or mantelpiece...





and later pick up and look through this colorful they are getting very sold on the house that has this lock —the handsome Sargent AlignaLock!

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Above, you see a couple making up their minds to buy a house.

AlignaLocks and AlignaLock Sales Aids have convinced them that quality products have been used throughout their "new home."

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Put these sales aids to work for you. As shown above, hang the guarantee certificate on door knobs. It unconditionally guarantees AlignaLocks for the life of the house . . . and makes a tremendous impression on prospects.

Take full advantage of the house signs . . . the home

owner brochures...the colorful literature. Sargent gives them to you free. Use them to put sell in every room!

Get in touch with your supplier today and ask him all the facts about Aligna-

Lock. Or write direct to Sargent & Co., New Haven 9, Conn. Dept. 11-M.

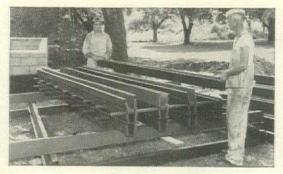


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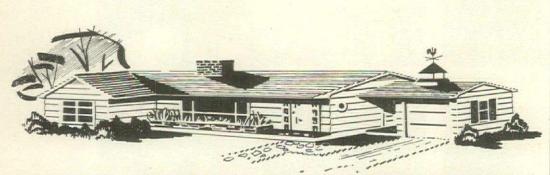
NEW PRODUCTS

continued from p. 153
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Four joists make up one section in on-site assembly. Two man crew is all that is needed to make up and install floor framing.





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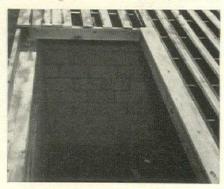


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are required to assemble and lay in place the entire floor framing for a 1,000 sq. ft. house, and less than an hour to fasten nailing strips. No nuts. bolts or loose connectors are required, and the only tool needed is a tab bender, used to interlock abutting sections.

In residential construction, access holes are provided for hot and cold water lines and electrical conduit. These openings in the web of the joist permit fast installation of mechanical lines, without need for boring holes. Ceiling materials are easily fastened to the bottom of Webcore joists, through a series of slots, 4" o.c., that receive the usual spline clips.

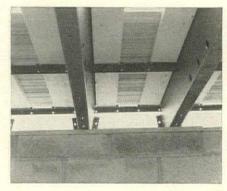
The Webcore system can be installed by only two men, as assembled sections weigh only 160 lbs. Where basements are built, special framing members are used to form the



stairwell. Load tests indicate that live load capacities will not make the floor deflect more than the 1/360 of the span recommended for optimum comfort. Joist spans available range from 8' to 16', with 1' increments.

Costs on the Webcore system are quoted at approximately 51½¢ psf. installed (41½¢ for steel framing, 5¢ for nailing strips, 5¢ for assembly), compared to an estimated 54¢-60¢ psf. for conventional wood framing with 2" x 10" joists.

Manufacturer: Webcore Steel Framing Systems, Inc. 215 Lincoln Ave. Youngstown, Ohio



continued on p. 188



Here's the only tool
you need for all
stud fastenings

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REMINGTON STUD DRIVER

Sets both 1/4" and 3/8" studs in steel or concrete-in seconds!

Light-, medium- or heavy-duty fastening, the new Model 455 Remington Stud Driver speeds the job. It sets two different size studs...up to 6 studs per minute, either size . . . and offers new possibilities in anchoring conduit clips, steel frames, wood forms and many other fixtures.

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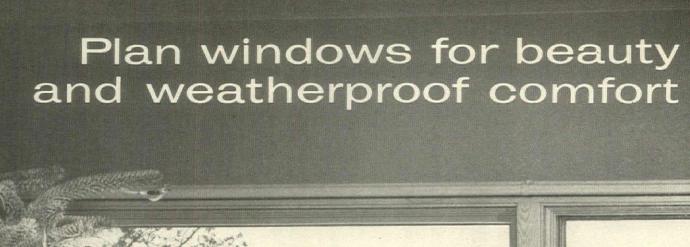


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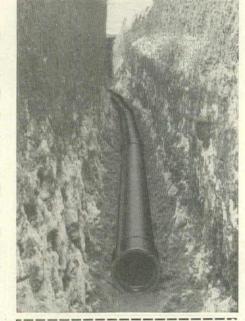




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Perma-Line is the only fibre pipe available in 5, 8, and 10-foot lengths. It goes in fast, resists ground heaving; tapered joints are root-proof and leakproof, and the pipe lasts for a lifetime. It can't rust, shatter, crack, or leak. It's strong, light, tough. In solid pipe for sewers and drains; perforated for field tiling, footings, and septic tank beds. Full line of couplings, fittings, bends, and adapters to connect to soil or sewer pipe. Many uses, in homes, farms, industry.



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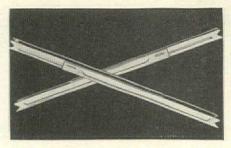
Send full information about Perma-Line Pipe and name of nearest distributor.

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Company	
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NEW PRODUCTS

continued from p. 184

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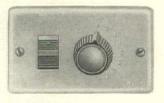
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Lateral support for joists is provided by Steel-X bridging, which snaps into place with just a hand motion, and requires no cutting, sawing or nailing, as does wood bridging.

Built of 20 ga. galvanized steel, Steel-X is adjustable to 16" centers of various joist thicknesses. When snapped into place, 16 anchor prongs hold joists rigid, and reduce the chance of squeaky floors. Bridging can be installed after all trades have finished their jobs, and can be removed easily if alterations are made later. The manufacturer estimates the installation time saving over conventional wood bridging at 80%.

Price: approximately 35¢ per set (50 sets per case)

Manufacturer: Taber, Bushnell & Co., Inc.
Metropolitan Bldg.
Minneapolis 1, Minn.





REMOTE CONTROL lighting system uses low voltage current to control circuits

All the electrical circuits in the average house can be controlled from one central location with Bryant's *Multi-Control* low voltage wiring system. Relays mounted in each switch box are connected by light bell wire to the master control, and any circuit can be turned on or off from this central location.

With this system, lights can be controlled remotely from as many master locations as are installed. Low voltage wire can be fished through partitions without protection, and may even be stapled to walls where required. Switches are of the instantaneous touch type.

Price: \$35-\$50 over cost of conventional wiring installation

Manufacturer: Bryant Electric Co.
Box D, Barnum Station
Bridgeport 2, Conn.
continued on p. 194





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Remarkable how inexpensive it is to give drainage lines two-way extra quality, with Chase copper drainage tube (DWV). Far longer service life and greatly improved efficiency are assured.

Drainage lines of Chase copper tube resist corrosion—can't clog with rust—stay efficient over the years! Their interior is smoother; flow is unobstructed at joint connections—larger volumes of waste water can pass through them because friction is reduced!

Chase copper drainage tube is 4 times *lighter* than ordinary drainage pipe. Can be pre-assembled and installed with great savings in time! It can be cut to length right on the job. Requires fewer joints because it comes in 20 foot lengths. And rugged, leakproof solder joints fit within standard partitions, eliminating expensive furring out!

Insist on Chase copper drainage tube (DWV). Add extra-value to every home—with little or no extra cost!



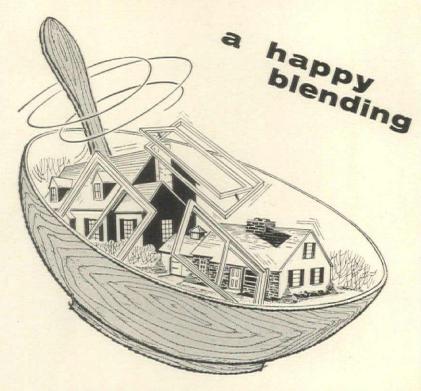
Longer-lasting radiant heating installations are economical, quick and clean when made from Chase copper water tube. No worry about leaks or repairs—can't clog with rust!



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when you mix in the magic of MALTA!

Know-how in blending produces fine cigars and smooth whiskey. When remodeling a home . . . MALTA wood windows blend with every type and style of architecture as a dramatic example of how the new goes with the old to produce greater charm.

These three distinctive designs provide beauty and adaptability for every type of architecture. Malt-a-Matic popular doublehung unit with removable sash Malt-a-Vent swing-out awning or casement type windows Malt-a-Glide horizontal sliding unit with removable sash REMOVABLE SASH ... convenient to builder and buyer. Installation is easier, faster ... means greater saving. Home buyers love the ease of MALTA "take-. lets them out" windows clean the outside, inside. JAMB LINERS make it possible to adapt Malta frames to walls of varying thicknesses from 51/4' to 41/2".

Now for as little as \$15.00 more per house ...

New Honeywell decorator TAP-LITE switch adds sales EXCITEMENT to your houses





light's on!





Approved by Underwriters' Laboratories, Inc.

Color styling - matches any decor

An exciting new development in light switches for your homes—that's the new Honeywell Tap-Lite! It's a smart looking switch that will attract prospect's eyes in every room.

Pastel inserts - four colors come with each switch - or any wallpaper or fabric may be inserted behind the cover.

Installation is easy - simple snap-in wiring does the trick! It uses regular line voltage, and you don't have to fuss with unsightly wall plate screws.

For complete information and prices, call your local Honeywell office, or write Honeywell, Dept. HH-12-81, Minneapolis 8, Minn.



Honeywell

TAP-LITE Light

Switches



112 offices across the nation

complete information. Member Ponderosa Pine Woodwork Assn., and N.W.M.A.

For modernization that blends in new charm . . . it's MALTA. See your nearest dealer or write for

Sales Office: Athens, Ohio



The professional gift that spells PRESTIGE

Christmas is closer than you think—and so is the answer to one of its biggest shopping problems. Right on the opposite page is the gift order form that sends house & home to your clients, customers or employees: builders and contractors, architects, realtors, finance executives, and material supply dealers—everyone active in the home building field.

Each will receive the handsome gift card pictured. Each will receive 12 big issues of **house & home**, bringing your good wishes every month.

So avoid the holiday rush. Give your associates a gift that opens the door to better relations. Take advantage of our Christmas Gift Rates shown with your order form on the opposite page.

house & home

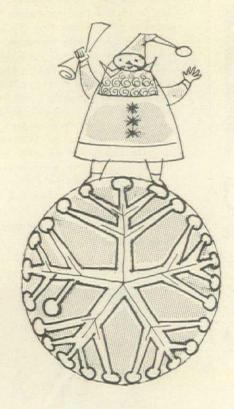
THE GREATEST INFLUENCE IN HOMEBUILDING: DESIGN . CONSTRUCTION . FINANCE . SALES . MODERNIZATION



SPECIAL house & home

Do your Christmas shopping right on this page . . .

Mail this cut-out order form
and give your clients,
customers and friends
a gift that sends your good wishes
every month of the year.



Save with these Christmas Gift Rates:

10 or more subscriptions (your own subscription may be included)	\$3.50 each
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These are one-year subscriptions to building professionals in USA, Possessions or Canada. To take full advantage of these low group rates, you may include your own subscription, new or renewed, in your order.

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Send additional names and addresses on a separate sheet of paper.

PROFITABLE APARTMENTS

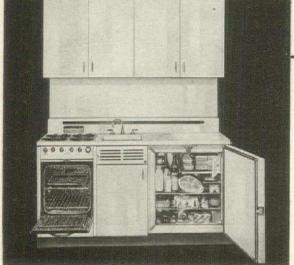


DWYNER KUTCHENS

COMPLETE KITCHEN CONVENIENCE IN COMPACT SPACE



The interior was remodeled to make apartments with kitchendining areas like this...apartments quickly rented. Each has a Dwyer Kitchen...concealed by louvred doors when not in use.



4 SIZES...39 to 69 inches wide Genuine vitreous porcelain on all exposed surfaces...easy to clean

Gas or electric ranges (AGA and Underwriters approved), refrigerator with freezer compartment and push-button door, one-piece sink and work top, storage cupboards . . . streamlined into compact units 39 to 69 inches wide.

One-piece range top, sink and counter area has no cracks or crevice to harbor dirt.

Dwyer Kitchens are made complete in our own plant . . . by an organization specializing in compact kitchens for over 27 years. Thousands of installations . . . nation-wide . . . have proven their durability in the hard usage of rental properties.

DWYER PRODUCTS CORPORATION Dept. D125, Michigan City, Indiana

SEND FOR FREE	BULLETINS ON DWYER KITCHENS
Name	M2 70 THE RESERVE
Address	
Town	
State	

DWYER PRODUCTS CORPORATION Dept. D85, Michigan City, Ind.

NEW PRODUCTS

continued from p. 188
for further details check numbered coupon, p. 232



WALL TILE needs ceramic surface to aluminum body in a chip-resistant finish

Newest product on the lengthy list of Vikon wall tiles is their porcelain-on-aluminum tile, in which a Du Pont ceramic coating is fused to an aluminum base. To avoid confusion with clay tiles, commonly called ceramic, Vikon calls their finish "porcelain".

This lightweight tile (with mastic, only 18 oz. psf.) can be used where weight limitations restrict heavier materials. It can be cut and bent to fit, and will not chip or craze. It is resistant to most chemicals and cleaning agents. Heat will not mar the finish or warp the aluminum, so the tile can be used safely around heating panels, ovens or radiators.

All necessary trim tile and shapes are made in the 12 colors (plus black and white) in which the tile is offered.

Price: 98¢ psf. (tile, trim and mastic)

Manufacturer: Vikon Tile Corp.

Washington, N.J.



i. FOLDING DOOR is Philippine mahogany sandwiched between vinyl coatings

One of the thinnest and lightest room dividers yet is the ForestFold, a veneer of Philippine mahogany fused to two sheets of flexible vinyl. Veneer panels are either 2½" or 4" wide, with the plastic film acting as a hinge between sections. No damage is caused by opening and closing this hinge, and the vinyl will not separate or peel.

ForestFold dividers are hung from ceiling tracks by brass rollers, and are available in a range of widths and two heights, 6'-8" and 8'.

Prices: 6'-8" x 4', \$44.25; 8' x 4', \$47.50

Manufacturer: Pacific Door & Mfg. Co.
3800 Seventh Ave. South
Seattle 8, Wash.

AIR CONDITIONING SELLS TODAY'S HOMES



"Home buyers today are demanding the comfort and convenience found in air conditioned homes," says Mr. Lunt. "That's why my partner and I are building air conditioning into every one of the 368 homes in our developments."

Lunt and Thomason are building homes priced from \$13,000 to \$18,000 in Irving and Carrollton, Texas.

"We've often heard a buyer comment that air conditioning was the difference that gave us the sale," says Mr. Thomason.

THESE ADVANTAGES SELL TODAY'S AIR CONDITIONED HOMES:

Year-round comfort • Less cleaning and redecorating
Street noises eliminated • Basement humidity reduced
Odors removed • Better sleep • Higher resale value

Sales resistance falls flat when you point out the advantages of living in an air conditioned home. Home buyers today know that residential air conditioning is here to stay. That's why successful builders all over the country are keeping ahead of competition and selling homes faster by including year-round air conditioning in the homes they build. It's the modern way to sell the prospect.

Why you should insist on units charged with "Freon"



Mr. Thomason and Mr. Lunt beside the installation of a 3-ton Gibson unit. Even on hottest Texas summer days this unit, charged with "Freon", maintains a cool 68° indoor temperature.

Be sure to specify Du Pont "Freon" refrigerants for the equipment you select to air condition the homes you build.

Building codes everywhere endorse "Freon" refrigerants. They are safe—non-flammable, nonexplosive, virtually nontoxic. For nearly 25 years Du Pont has manufactured "Freon" to strict laboratory standards. The result is a product of uniform purity which contributes to long, efficient, trouble-free service for all types of air conditioning equipment. "Freon" refrigerants are the most widely used of all refrigerants; there is one for evaly type and size of air conditioning equipment.

Learn how air conditioning has helped others sell homes. Send for your copy of the DuPont brochure, "What Successful Builders Think of Home Air Conditioning." For your free copy write to E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division 1212, Wilmington 98, Delaware.



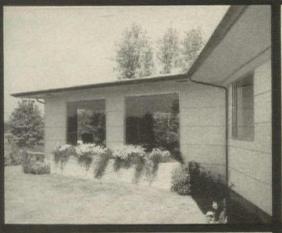


SHOWN ABOVE- (left to right): Rough sawn hemlock board and batten; Tree Life Texture One-Eleven (4" groove spacing); PlyAloy Overlaid Siding.

WHAT'S NEW

New ideas and improved manufacturing techniques result in materials that offer striking good looks... give builders really fresh sales features... are easy to install and finish, afford major application economies.

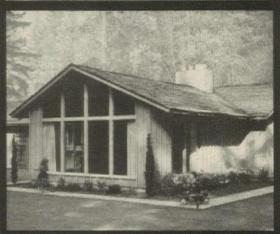




PLYALOY OVERLAID PLYWOOD provides the finest and most durable paint base of any siding on the market today. It takes paint easily, evenly. Eliminates grain raise and checking. The smooth, durable overlay is a medium-density resinimpregnated fiber permanently fused to Exterior fir plywood in modern hot-plate presses. Pre-cut to standard 12", 16" and 24" widths; 8' long; lower edge beveled for drip. Comes packaged by the square, complete with wedges and shadow-line furring strips.



TREE LIFE TEXTURE ONE-ELEVEN is the exciting new grooved Exterior plywood that combines rugged strength with striking pattern and texture. Merchandising-minded builders like National Homes, world's largest prefabricators, report that it helps attract buyers and clinch sales. Designed for inexpensive stain finishes. For greater economy, panels can be applied directly to studs on unsheathed walls. Comes packaged in 16", 32" or 48" widths; 8' or 10' lengths. Grooves either 2" or 4" o. c.



WEST COAST UPLAND HEMLOCK - an old favorite newly improved by factory treatment (at buyer's option) with a truly effective water repellent that virtually eliminates paint failures caused by water coming though paint film. Tree Life Hemlock comes in all standard patterns, both vertical and flat grain. Rough board and batten siding is increasingly popular for inexpensive yet good looking installations. Tree Life Hemlock takes paints and stains very well, works easily, makes wonderful economy siding.

in siding



Hemlock Lumber . Douglas Fir Lumber . Fir Plywood • Plyaloy Overlaid Plywood Siding • PlyGlaze High-Density Overlaid Plywood . Moire "Brushed" Plywood

• Texture One-Eleven • Knotty Pine and Cedar Plywood

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Department HH, Tacoma 2, Washington

Please send literature and other data on:

☐ PlyAloy

☐ Texture 1-11

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Zone State

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This builder knows that this sign on every house he builds attracts buyers already sold on the beauty, livability and spaciousness found in every Admiral Home. With Admiral his starts are faster... completions are made on time... profits are assured. And he has a choice of more than a score of different models, including ranch, Cape Cod, split-level and two-story designs—all with several variations.

If you are located within 500 miles of Pittsburgh, join the growing list of builders who know the Admiral sign means business—who know they will make more money this year and every year selling Admiral Homes. For full information on specifications, prices, shipping data, sales aids, etc., get in touch with Admiral Homes today.



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NEW PRODUCTS

continued from p. 194 for further details check numbered coupon, p. 232



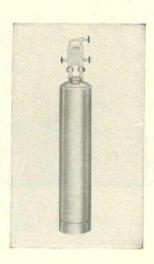
WATER SOFTENER electrically times softening and regeneration cycles

An appliance-styled automatic water softener, the *Du-Wal*, provides a 10-gal. per min. flow, with up to 24,000 grains of hardness removed between regenerations. The unit's cycle is controlled by a solenoid valve, which puts the softener into its clarifying stage according to the volume of water drawn and its specific hardness.

Tanks are lined inside and out with two coats of porcelain. Plastic insulation between dissimilar metals prevents any electrolytic corrosion. *Dowex* softening resins used retain their filtering properties for 20 years or more without replacement.

Price: \$450, installed

Manufacturer: Du-Wal, Inc.
2813 N. Thatcher Ave.
River Grove, Ill.



PLASTIC COATING makes water softener tank corrosion-resistant

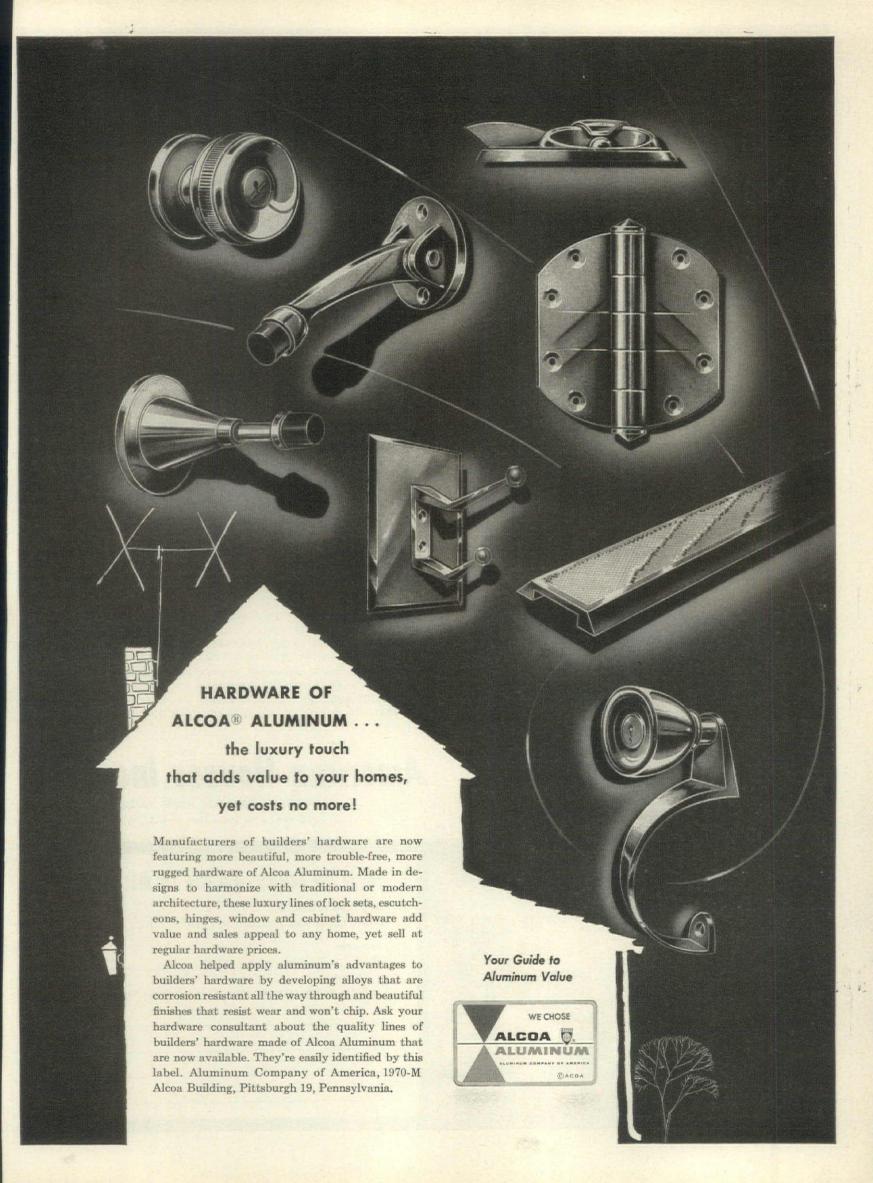
Fifteen years of research and over 500 experiments went into the plastic lining featured in the new Culligan water softener line. Because of extreme corrosion in some areas, galvanized tank linings sometimes were eaten out in less than three years. Now the corrosion resistance of the baked-on epoxy resin lining makes a 10-year guarantee possible.

Tanks are first sandblasted to assure good adhesion of the resin lining, then go through a triple lining spraying, then are baked and cured for 30 minutes. Finally, the zeolite absorbing agent and electric controls are added to the unit.

Prices: \$249-\$395, depending on capacity

Manufacturer: Culligan, Inc.
Northbrook, Ill.

continued on p. 202







The 980 sq. ft. "Volunteer": 3 bedrooms and family room; low price range.

The "Cumberland", an outstanding home value in the medium price range.

Move Ahead Fast

as a franchised American Houses builder-dealer

You can zip past your horse-and-buggy style competitors! American Houses dealers are riding the crest of a brand-new wave—and you can ride with them!

You'll get more use out of your capital, a longer building season, and the kind of advertising, promotional, and decorating help that assures fast sales. 39 basic designs plus all their variations, ranging from low price to luxury class, give you all the variety you could want.

Each of the 39 American Houses designs gives you all these features:

- Exterior Flexibility, letting you give the customer any outside treatment he desires.
- *Many Variations, for the custom-built look without custom-building headaches.
- Pre-Testing at the factory, by engineers, assures you of precision construction resulting in faster erection.
- Quality in design, engineering, material and workmanship assures the home buyer of maximum housing value.

PROJECT BUILDERS—American Houses, Inc., is America's leading prefabricator of large housing developments.





The "President": 1747 sq. ft., 3 baths, 5 bedrooms and a family-room den; in the quality bracket.

American Houses Inc.

AMERICA'S GREATEST HOME VALUE 165 West 46th Street, New York 36, N.Y.



Fill in the coupon right now for more details

American Houses, Inc.

Dept. H-12, 165 West 46th Street, New York 36, N.Y.

Gentlemen:

- Please send me more information about your Builder-Dealer franchise program.
- Please send me more information about your Project Builder program.

MANT

FIRM NAME....

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The best-known garage doors feature Masonite Dorlux guaranteed panels!

"Overhead Door"...Raynor...Ro-Way. These and many other famous doors offer you a visible sales feature by including Masonite exterior grade Dorlux panels.

A prospect will have added confidence in your selection of products when he sees the Masonite Lifetime Guarantee sticker. It tells him the panels won't split, splinter, delaminate or crack in normal use.

What's more, these strong, rigid panels resist

shrinking and swelling. They won't rot or corrode. And they withstand plenty of rough treatment. Their smooth surface takes paint beautifully; there's no grain to rise and check the finish.

Look for the Lifetime Guarantee on the panels the next time you buy a garage door. Dorlux® is one of the many famous Presdwood® products helping the industry put more livability in today's homes. Masonite® Corporation, Dept. HH-12, Box 777, Chicago 90, Ill.

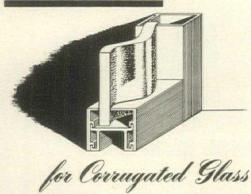
Look for this man He makes the difference



MASONITE CORPORATION

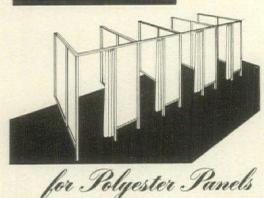
MANUFACTURER OF PRESDWOOD PANEL PRODUCTS

CONTOUR MOLDINGS



Specifying STELZER CONTOURED ALUMINUM MOLD-INGS solves the Builder's problem with engineered details and setting methods, eliminates improvised moldings and inadequate materials.

PARTITION MOLDINGS



Decorative Plastic materials serve many new and interesting uses with STELZER MOLDINGS in Office Partitions, Fixed Screens, in Baths and Exterior Installations.

ALUMINUM STRUCTURES



for Plastic Canopies

Colorful translucent MARKAY Canopies are designed for modern architectural Storefronts, Entrances, Ter-race Roofs and Shelters — Engineered to meet Building Code requirements — Prefabricated for quick assembly and erection.

Corrugated Materials require engineered Installation Methods and accessories. Enlist the aid of STELZER MOLDINGS by writing for literature listed below.

- CORRUGATED GLASS MOLDINGS
- MOLDINGS FOR PLASTIC PANELS
- MARKAY CANOPIES

STELZER MOLDINGS 4918 Keller St., South Bend 28, Ind.

NEW PRODUCTS

continued from p. 198 for further details check numbered coupon, p. 232



REFRIGERATORS and FREEZERS can be built in, with compressor in a remote location

Definitely slanted for the built-in market, the Sub-Zero line of refrigerators and freezers comes in a wide variety of sizes and styles, all intended to be slid into place with a minimum of installation work,

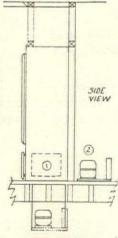
All cabinets have a 3/4" flange around the perimeter which acts as trim for the framework. Standard color is white, but blue, yellow, pink or black are available at no extra



cost, and coppertone or stainless steel may be had for a premium.

When desired, the compressor condenser unit may be located at a distance from the cabinet (up to 15'). This may be in a crawl space below the kitchen, or in a utility room backing on it (below). A dry storage bin can be installed below the cabinet.

For nonfloor-standing models, framing must be provided to support 500 lbs., and mounting brackets are provided.



Prices: Refrigerator (10.4 cu. ft.) \$326; freezer (9.5 cu. ft.) \$318; side-byside combination (24.2 cu. ft.), \$908

Manufacturer: Sub-Zero Freezer Co., Inc. Rt. 3, P.O. Box 2017 Madison, Wis. continued on p. 206



elementary...

. . the way pre-fab houses and Arcadia go together. Distinguished pre-fab builders like the Knox Corp. of Thomson, Georgia, know that well planned homes meet buyer's needs better-and sell faster-when topquality, nationally known products are used throughout. That's one of the reasons why Knox Homes feature Arcadia sliding glass doors.

Two important reasons why builders like Knox specify Arcadia are: Twin-Seal Wool Pile Weatherstripping, the positive four-side weather seal that locks out wind, rain, cold, dirt and bugs for keeps; and Arcadia's new Interchangeable Moulding Strips that make it easy to glaze with either 1/4" plate or 1" insulating glass. The sections below illustrate both of these exclusive





Knox Homes 1955 "CONFEDERATE" jeatured at Jekyll Island, Georgia

Better weatherstripping and simplified glazing are just two important points of difference between Arcadia and other sliding glass doors. For complete details on Arcadia steel and aluminum sliding glass doors, see your local Arcadia distributor. Check the Yellow Pages under "DOORS, Sliding."



ARCADIA METAL PRODUCTS . FULLERTON, CALIF.

Distributors in Canada, Puerto Rico and throughout the U. S. National member Producers' Council, Inc., and National Association of Home Builders.



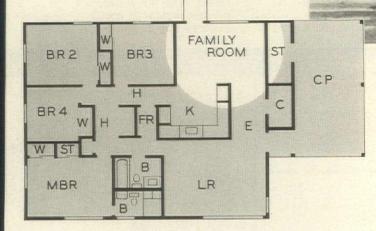
Help build a better America...

See an architect



portrait of an architect

Just look at the "Family Room" in this MIDWEST PROTOTYPE home! It is a room designed to bring "Bud" into the family life—a room where he can become a more integral part of the family, yet still be "a boy", carefree and happy!



This typical "All-American" boy is one of Midwest's architects, even though he may not know it.

It is for him that every Midwest House has been designed — designed to give him the kind of house a boy proudly calls "home" — designed to give him the feeling of space and comfort that contributes so much to his normal development.

It is this kind of designing that makes MIDWEST HOUSES easier to sell!

YOU'LL SELL MORE HOUSES IF YOU BUILD MIDWEST!!

There are still opportunities for independent distribution representatives in Ohio, Illinois, Indiana, Michigan, West Virginia, Kentucky, Pennsylvania and New York. Write for full information.



MIDWEST HOUSES, INC. . BOX 334 . MANSFIELD, OHIO



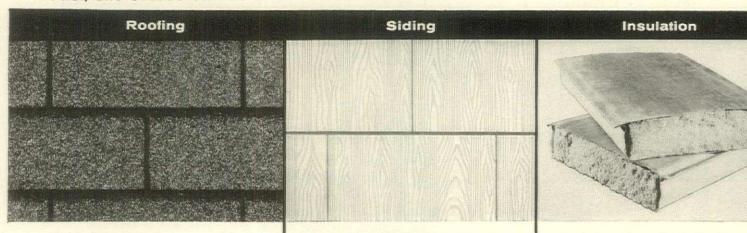
... for top quality building products, nationally advertised to build unqualified acceptance among home buyers!

Among prefabricators using Carey products are..

Fast, one source service on . .

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ALLEGHANY HOMES CORP., Homer, N. Y.
ABC CONSTRUCTION CORP., Indianapolis, Ind.
W. G. BEST HOMES, Effingham, III.
COLPEART HOMES, INC., South Bend, Ind.
CONTINENTAL HOMES, Toledo, Ohio
ENTERPRISES OF MAINE, INC., Rockland, Me.

EX-PAN HOMES, INC., Cleveland, Ohio EXPANDABLE HOMES, INC., Sheboygan Falls, Wisc. FAIRHILL, INC., Memphis, Tenn. FIVE STAR HOMES, INC., Rome, III. IVON R. FORD, INC., McDonough, N. Y. GENERAL INDUSTRIES HOMES, Ft. Wayne, Ind. HODGSON HOUSES, INC., Dover, Mass.



Add new sales appeal to your budget-priced homes with colorful, low-cost Carey Thick-Butt Shingles. Choose from a variety of beautiful Sno-Crest pastel blends in green, blue, buff and gray... harmonize perfectly with the natural surroundings of every home. Low first cost, low maintenance... and Carey Thick-Butts are completely fire-safe, too! Each shingle self-aligning, self-spacing for easy installation.

Also Carey Super Strip Shingles to fit your building needs.

Ceramo Glazed Asbestos Siding. Features glazed ceramic surface that seals out dirt, stains, grime—seals in rich, deep-tone and pastel colors. Finish won't fade, bloom or wear off. 100% washable! Available in these deep-tone and pastel colors: Sherwood Green, Salem Red, Colonial Yellow, Congo Brown, Sage Green, Granite Gray . . and brilliant Ceramo White.

Also new Double-Sealed Careystone Siding in pastel shades of green, brown, coral and gray. Depend on Carey Rock Wool Insulation for a safe, economical insulation job. Tough, permanent . . . will not mat, settle, disintegrate or change form. Completely fire-safe! "Locks" heat inside, cuts fuel waste as much as 40%. There's a type of Carey Rock Wool insulation to suit your exact requirements.

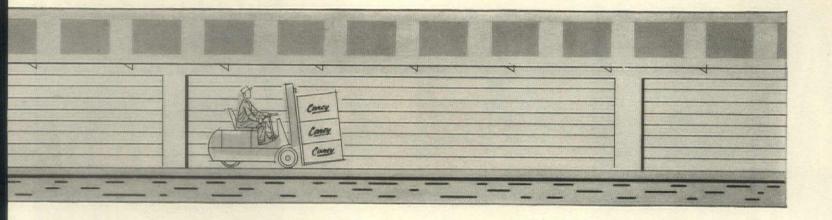
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MIDWEST HOUSES, INC., Mansfield, Ohio
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Ventilating Fans

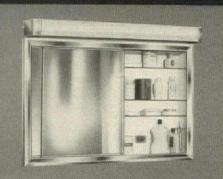


The Complete Miami-Carey line for bathrooms, kitchens, home laundries and utility rooms. Backed by \$27,000,000 warranty that protects you and your builder-customers. Models for every need. Quick and easy to install. Also a complete line of fan accessories to meet all installation requirements.

Compact, new Miami-Carey Electric Bathroom Heater lends added sales appeal to every home.

Mail coupon today!

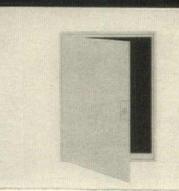
Bathroom Cabinets



Style-setting duette cabinets by MIAMI-CAREY. Ask about the "Princess"—newest in this famous line—with twin sliding mirror doors, big storage compartment. Perfect for your budget-priced homes!

A complete line of beautiful Miami-Carey cabinets, ensembles, mirrors and matching bathroom accessories for every type installation, every budget!

Access Doors



Feature easy access to all service points—plumbing valves, electrical, refrigeration, crawl space to attics. All steel; fit flush with wall surface—easily wallpapered or painted. Shipped ready to install . . . no special framing needed.

The Philip Carey Mfg. Company

Dept. HH-12, Lockland, Cincinnati 15, Ohio

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Roofing Siding Insulation Bathroom Cabinets

Ventilating Fans Access Doors. Other

: Please have your representative call.

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Complete line . . . for wall or ceiling . . . and packed with sales and installation features! 8" and 10" fans, for pull chain or wall switch operation. Baked white enamel or "super-chrome" grille.

NEW ... INSTALLATION FEATURES!

Cut installation time and expense by 50%! "All-size" sleeve fits all walls from 4" to 14". New mounting tabs . . . adjustable mounting straps simplify installation — eliminate carpentry work.

NEW ... OPERATING FEATURES!

Counterbalanced shutter stops back drafts and flutter. One-piece motor support for quiet operation. Ail-weather hood keeps outside walls clean — operates with chain or wall switch.

NEW ... LOW PRICES!

Priced low — within the reach of any project!

Precision built and guaranteed for 5 years.

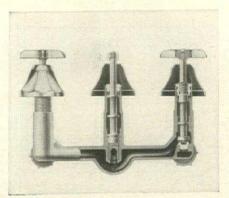


WRITE... for information, or see your nearest Chelsea distributor.

CHELSEA FAN & BLOWER CO., INC.
PLAINFIELD, NEW JERSEY

NEW PRODUCTS

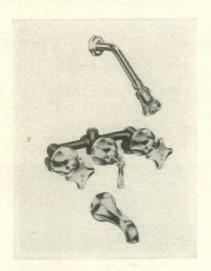
continued from p. 202 for further details check numbered coupon, p. 232



n. SHOWER DIVERTER changes water flow without altering temperature

Full control of shower volume without adjustment of hot and cold faucets is possible with Barnes' 580 Series shower diverter for combination tub-shower installations. A three-valve unit, the diverter permits any shower volume from full on to a bare trickle, with no change in water temperature. The water may even be turned completely off, then turned on again, yet still retain the mixture originally set.

All three stem units are replaceable from outside the wall, and spin-on escutcheons



allow a full 11/8" roughing-in variation. A one-piece bronze body eliminates threaded assemblies and leaky joints.

Price: Diverter, \$12.96, with shower head and cast spout, \$19.56

Manufacturer: Barnes Mfg. Co. Mansfield, Ohio



o. THERMOSTATIC CONTROL assures constant

Burns from too-hot water—or shock from too-cold—are prevented by the Powers Type continued on p. 210

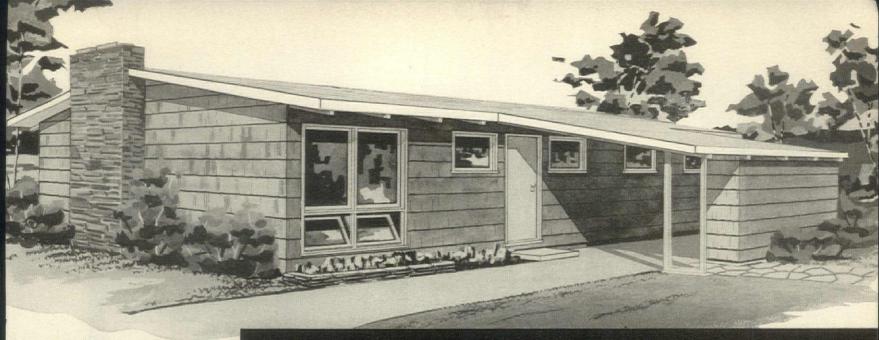


Every home — new or remodelled — needs the added luxury of complete summer comfort and healthful year-round ventilation — with a Chelsea deluxe attic fan. Low cost Chelsea attic fans are easy to install... 26 different models for wall and ceiling installation meet every home ventilating requirement. Plan today to "comfort condition" your homes, cut cooling costs—with Chelsea!

CUT THE HIGH COST OF COMPLETE HOME COOLING!

Reduce complete home air conditioning costs! When hot, stagnant air is flushed from attic spaces, the size of the required air conditionsystem is reduced by up to 40%! It's the economical combination for efficient home air conditioning—use a Chelsea deluxe attic fan. An attic fan will ventilate the entire house too! It draws fresh air into every room . . . expels hot, stale air through attic vents—changes all the air in the house every minute!

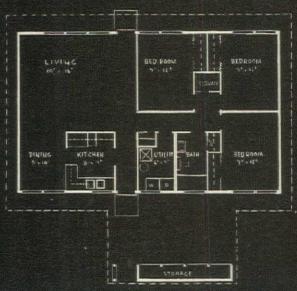




the Fiesta Style-rite

Also available with 1½ baths, basement or garage . . . Or all or any of the three in combination.

build and sell the GREATEST home value in AMERICA today!



HERE'S WHY:





THE FIESTA is America's newest pace-setting contemporary home with a proven record of profits. It's big news with builders and prospective homeowners. Here is a conventionally-built 3 bedroom home . . . value-priced for America's moderate income families.

STYLE-RITE designers have created: a large 44' 8" x 26' floor plan (1162 sq. ft. plus full storage wall carport). Huge, open style living room, step-saver kitchen, sturdy post and beam construction, fully insulated and with advanced awning-type windows.

STYLE-RITE puts profits at the doorstep with the Fiesta . . . certainly one of the easiest homes to build and sell. Profit from Style-rite experience and know-how. Learn the money-making facts about this great home value. Call, write or wire today for full details.

Transportation will be furnished during the NAHB Convention to Style-rite models located in Chicago northside suburbs. Tours start from our Exhibit, No. 335, 3rd. floor Conrad Hilton Hotel.

Style-rite Homes Corp., 659 Marion Rd., Columbus 7, Ohio

Please send me complete information about your pacesetting Fiesta contemporary homes. I plan to build homes in 1956.

Name_

Address_

City___

State

Telephone No.

Style-rite

HOMES CORP.

659 MARION RD. COLUMBUS 7, OHIO

SIX IMPORTANT FACTS

TO KEEP IN MIND ABOUT

Thermopane

(Made in the U. S. solely by LIBBEY • OWENS • FORD)

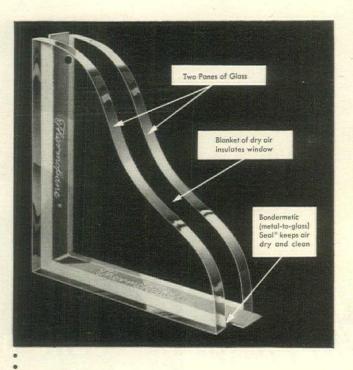
- Thermopane is a registered trade-mark of the Libbey Owens Ford Glass Company.
- Only Libbey Owens Ford makes Thermopane insulating glass.
- 3 Only Libbey Owens Ford can use Thermopane in connection with transparent insulating units.
- Only *Thermopane* has the Bondermetic Seal* which bonds the panes of glass into one unit to prevent dirt and moisture from entering the dry air space.
- The name "Thermopane" can and should be used when referring to the Libbey Owens Ford product only.
- The word "Thermopane" can never legally be used when referring to any other brand of multiple-glazing construction.

We make these statements because the function of a trade-mark is to identify unequivocally the manufacturer of a product . . . to eliminate the possibility of confusion in the mind of the public concerning the producer of a specified product . . . to assure that the customer gets what he orders.

We are sure that architects, contractors and others who are familiar with the superiority and advantages of *Thermopane* will welcome these statements . . . will refrain from using our trade-mark in referring to any construction or product not made by the Libbey Owens Ford Glass Company.

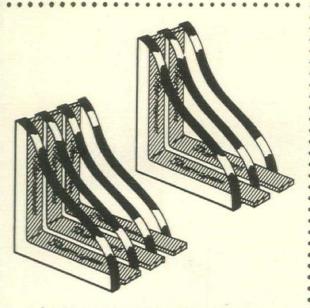
We believe that our readers will understand L·O·F's pride in *Thermopane* and our sincere desire to have *Thermopane* continue to enjoy its individuality. Libbey Owens Ford Glass Company, 608 Madison Avenue, Toledo 3, Ohio.

LIBBEY · OWENS · FORD





IS ALSO AVAILABLE IN 3-PANE AND 4-PANE UNITS



3 and 4-pane units are available for refrigerated cases and for unusually severe conditions requiring low coefficient of heat transfer.

. a Great Name in Glass



BUYERS WILL LIKE THESE PLEXTONE BENEFITS IN YOUR HOMES...



YOU WILL LIKE THESE PLEXTONE FEATURES ...

Color-flecked Plextone is a revolutionary paint consisting of two or three different colors (sprayed at ONE time from ONE gun WITHOUT SPRAY DUST) which form a multicolored, textured pattern of unusual beauty and sales appeal.

Color-flecked Plextone is easy to apply with ordinary spray equipment and spray techniques. But, there is no spray dust as with ordinary paints!

Color-flecked Plextone can be applied before plumbing, heating, and lighting fixtures are installed. Soil marks left by workmen are easily washed off. Minor damage can be covered with a quick touch-up that cannot be detected.

Color-flecked Plextone is the most amazing paint development in 100 years—easy to use, beautiful, durable—and it helps sell houses. Get all the facts. Mail coupon now.

PLEXTONE COLOR-FLECKED TEXTURED ENAMEL

MAAS & WALDSTEIN CO.

2123 McCARTER HIGHWAY NEWARK 4, NEW JERSEY Midwest Division: 1658 Carroll Avenue, Chicago 12, Illinois
Pacific Coast Div.: Smith-Davis Co., 10751 Venice Blvd.
Los Angeles 34, Calif.

	tein Co., Archit Highway, News		
Please send m name of neare		e color chip	ps, application data,
NAME			
TITLE			
TITLE	Z 1 C		

NEW MODULAR PACKAGED HOMES

CONTEMPORARY, RANCH AND SPLIT-LEVEL MODELS

INDEPENDENT LUMBER COMPANY Offers Unique Extra Services for Builder-Dealers

Builders are businessmen at the same time that they are craftsmen. We offer not only a wide range of models with proven builder and home buyer appeal, but also a complete program of financial, sales and promotional assistance.

A thorough study of our unusual product and unique services will convince you that here is a solid business opportunity.

Franchise Inquiries Invited

Right now, within our five-state delivery radius, we are opening newarea franchises. An inquiry, today, on your business letterhead will place you in a preferred category while you investigate.

INDEPENDENT

LUMBER COMPANY

19620 Nottingham Rd., Cleveland 10, Ohio

NEW PRODUCTS

continued from p. 206

for further details check numbered coupon, p. 232

H Hydroguard, a thermostatically operated mixing control that protects against either pressure or temperature variations. Range of the control is 65°-110°, with a concealed adjustment that permits setting the maximum at a higher temperature if desired (factory testing is at 140° and 45 lbs. pressure).

Changes in water temperature are sensed and corrected by the liquid-filled thermostatic motor. In case of failure of either hot or cold water supply, the flow of water is immediately stopped.

Strainers concealed beneath the chromed housing prevent foreign particles from interfering with the *Hydroguard*, and a shut-off permits inspection and cleaning. Used with a shower head with built-in volume control, the thermostatic mixer is regulated with one hand.

Price: \$30-\$60, depending on volume

Manufacturer: The Powers Regulator Co. 3400 Oakton St. Skokie, Ill.

p. TWO OVEN CABINETS accommodate any of 24 different built-in oven sizes

Because built-in ovens are not made in one standard size, American Kitchens has introduced "universal" oven cabinets, intended to house any of the leading units. Two models are made, one for 14 electric ovens, another for ten gas models.

The steel cabinet front panel is cut out on the job to oven specifications as listed by



the individual manufacturers. Originally, it was planned to use templates, but these were dropped because of the possibility of size changes making them obsolete.

Cabinets are 24" wide to fit exactly on base cabinets, and wall cabinets can be stacked above the oven to match the rest of the kitchen at either a 81" or 84" height. Two oven cabinet heights are made, 33 11/32" and 42 19/32".

Prices: Oven cabinets, \$50 and \$53 (gas or electric models); base cabinets, \$44.95 (white) and \$48.95 (coppertone, with birch doors).

Manufacturer: American Kitchens Div.
Avco Mfg. Corp.
Connersville, Ind.

continued on p. 214

Address ...

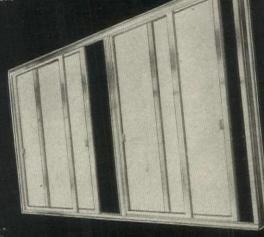


State.

LUDMAN leads in window engineering



LUDMAN AUTO-LOK AWNING WINDOWS For the builder who wants to add proved sales-appeal by providing an awning window with 100% ventilation and an exclusive night vent, the famous AUTO-LOK recognized everywhere as the finest . . . known as the tightest-closing window ever made . . . adds the "Quality-Look" and consumer acceptance. Successful Project Builders from Coast to Coast have learned that AUTO-LOK is worth the difference!



Ludman's

NEW Housing Window With

FULL WEATHERSTRIPPING ROTO-TYPE

OPERATOR SMART, MODERN APPEARANCE

At A Price Within The Reach of EVERY Project Builder

ousing Window

Here's a type of window that's sweeping the country in major building developments. Now, LUDMAN Engineering Research has established new quality standards Completely Vinyl Weatherstripped to make it the tightest-closing Housing Window...with beautiful Under-Screen Roto-Type Operator to make it the easiest to operate . . . with handsome, substantial sections for smart, modern appearance designed to make it easiest to install.

Unlimited combinations are available, with any desired venting arrangement. Although designed for lowest-priced housing, this quality window has features that make it desirable even in the best homes. The coupon will bring you all the facts about this window.

SEND FOR FREE FOLDER TODAY

UDMAN Corporation NORTH MIAMI, FLORIDA

LUDMAN products are carried by leading dealers everywhere

LUDMAN SLIDING GLASS DOORS

Another LUDMAN Contract-Closer the new Aluminum All-Weather Sliding Glass Doors engineered by LUDMAN with the builder in mind. Easiest to install . . . no adjustment required smartest appearance exclusive separate sub-sill prevents damage during construction . . . and many other exclusive features.

Investigate the cost of using LUDMAN'S finest quality Sliding Glass Doors. You'll be amazed at how much sales-appeal you'll add to your house sales-appeal that adds value out of all proportion to the slight extra cost.

5	
	udman Corporation—North Miami, Fla.—Dept. HH12
	at and me toll ill
	Autolok Windows. All-Weather Sliding Glass Doors.
	The new Housing Window.
1	
-	Firm
1	StreetZoneState
1	City



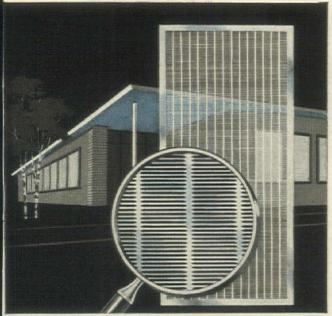
Facades and Marquees made with strong Kaiser Aluminum have an ideal variety of texture finishes... may be painted, anodized, embossed, enameled, lacquered, and porcelainized by standard methods. They weather uniformly, never rust, never stain—require minimum maintenance. Lightness lowers erection costs. Available in flat, corrugated or specially designed panels. Their application provides a distinctive quality to any building . . . and helps assure client satisfaction.

To improve your construction..

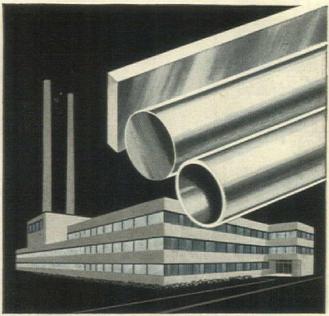
PROFIT FROM ALUMINUM'S "BUILT-IN" VALUES

- · Lightness with strength
- Heat and electrical conductivity
- Beauty

- Economy
- Heat and light reflectivity
- Corrosion resistance
- Workability



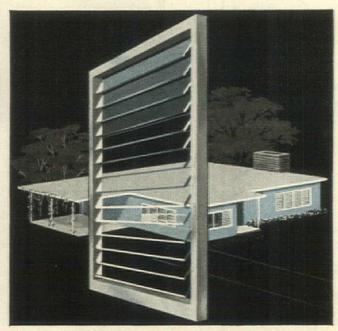
Shade Screening made with Kaiser Aluminum keeps rooms up to 15° cooler. Tiny louvers set at an angle block hot sun rays. Protects furnishings from sun fading. Clean, modern design gives window exteriors new, fresh beauty.



Bus Duct Systems made with high conductivity Kaiser Aluminum cost less than copper. Light weight results in easier, faster installation—another saving. High strength yet workable. Available in rectangular, solid round bar and tubular conductor.



Corrugated Roofing made with Kaiser Aluminum reflects heat . . . helps provide winter warmth, summer coolness. Light reflectivity brightens interiors. Needs no paint—requires minimum maintenance. Ideal for industrial or commercial buildings.



Window Jalousies made with Kaiser Aluminum resist corrosion—defy time and weather. Handsome, natural finish enhances building's appearance, complements any design. Easy to install. Simple to operate.

ink of Kaiser Aluminum

Since World War II, aluminum has been used more extensively in the building industry than in any other civilian application.

This spectacular conversion is the result of aluminum's combination of "built-in" advantages—advantages that make possible new patterns of design, usually with substantial overall savings.

As a basic producer of aluminum our efforts are dedicated to the job of serving manufacturers—helping to

improve their products and to reduce their costs.

Engineering assistance is available from our qualified aluminum engineers. Or for names of building products manufacturers who will be glad to work with you, contact the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc. General Sales Office, Palmolive Bldg., Chicago 11, Illinois; Executive Office, Kaiser Bldg., Oakland 12, California.

Beat the FREEZE

WINTER JOBS GO FASTER
WITH PERLITE
IN THE PLASTER...

DECEMBER

INSIDE DELIVERY

Conveniently bagged perlite aggregate can be delivered inside; stored out of bad weather. Surplus bags of perlite can be

job site.

moved easily to next



JANUARY

NO FROZEN AGGREGATE PILES

Bone-dry perlite can't freeze; ends costly time lost in thawing out old-fashioned aggregate piles.



FEBRUARY

QUICK-DRYING



Perlite plaster dries faster than other lightweight plasters; gets decorators on the job sooner.

YEAR-ROUND VALUE

Perlite plaster gives your homes these plus values for extra sales appeal:

- ✓ PROVEN FIRE SAFETY
- ✓ IMPROVED INSULATION
- **✓** GREATER CRACK RESISTANCE

Winter application of perlite plaster should conform to specifications of the Perlite Institute.

PERLITE INSTITUTE 45 West 45fb Street New York 35 b y



Gentlemen

Please send booklet, "How to Specify and Use Perlite Plaster."

NAME_____

ADDRESS _____

CITY _____ STATE____

NEW PRODUCTS

continued from p. 210

for further details check numbered coupon, p. 232



FUSED PLASTIC SURFACE is smooth, weatherproof finish for plywood siding

Phenolic resins and cellulose fibers are permanently fused into a thin (.014 in.) sheet, then bonded to exterior grade plywood to form panels or siding that resists checking, splintering or splitting.

The Crown Zellerbach overlay is wound into rolls, then shipped to plywood mills

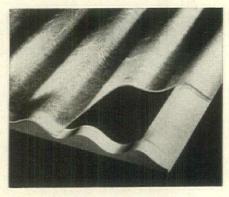


for lamination with the individual wood plies. The resulting surface takes paint better than wood and holds it longer, yet can be worked, glued or fastened like any ordinary plywood. In interior use, the plywood can be used in kitchens, bathrooms or laundries, because the plastic surface cannot be delaminated by moisture or heat.

Because the wood grain cannot raise, only one coat of paint is required over primes. Marketing is by the different plywood makers under their own trade names.

Price: one side 3/8", 30¢-34¢ psf.; two sides 3/4", 53¢-60¢ psf. (US Plywood's Duraply)

Manufacturer: Crown Zellerbach Corp. 343 Sansome St. San Francisco, Calif.



PLASTIC CLOSURES seal ends or sides of corrugated reinforced plastic panels

Use of the wide variety of corrugated reinforced polyester panels as space dividers, walls or roofs brings the problem of sealcontinued on p. 220



NO BATHROOM?



MODEL BI- 2-BU. Capacity

To sell a house—you must please the housewife. She's quick to see the advantage of Incinor. It ends the problem of trash and garbage disposal—gives her undreamed of convenience. Incinor is fully automatic, too—"just set it and forget it."

You can claim this powerful selling advantage by featuring Incinor in the homes you build. It's a must in homes with automatic heat.

Put this low-cost sales tool to work now. Choose from a complete line of dependable, trouble-free Incinor models. Incinor is A.G.A. approved for use with natural, manufactured, mixed or LP gases.



APPROVED BY A.G.A. WRITE TODAY FOR DETAILS

INCINERATION DIVISION

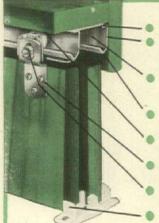
"PIONEERS IN GAS-FIRED INCINERATION"



New Sliding Door Hardware



Stanley Quality at a Competitive Price



HERE'S WHY:

- Low headroom needed only 13/8".
- Jump-proof track doors lift on or off without removing hangers — cannot be derailed in vertical position.
- Steel track press formed for perfect straightness, bonderized and aluminum finished for corrosion resistance.
- V-shape track for smooth operation and dirt clearance.
- Nylon rollers permanently lubricated for silent operation.
- Heavy gauge steel hangers, electro zinc plated.
- 3/8" vertical adjustment * with positive lockin-place feature.
- Adjustable nylon floor guide. Only 3 screws required.

*VERTICAL ADJUSTMENT

Specially designed hangers permit %" vertical adjustment without loosening the three installation screws. Serrations, machine screw and lockwasher insure positive locking and minute adjustment. Unique design permits the use of the SAME hanger for both the 34" and 138" doors by reversing both the bracket and roller on the REAR 3/4" door.



2804 and 2808

2804 for 3/4" Doors 2808 for 13/8" Doors

See these new 2800 Series Sets at your hardware or building supplies dealer. Check the ease of installation . . . low headroom - 13/8" . . . doors lift on - only . doors lift on and off track without removing hangers . . hangers adjust without loosening screws in doors. This is Sliding Door Hardware that's Stanley made to sell, to install and to operate easier.

For complete details write Stanley Hardware, 52D Lake Street, New Britain, Conn. Ask for 2800 Catalog No. G88.

Two More New Sets With **Built-In Header Trim**

Same hangers, same features as 2800 sets, with built-in header trim as integral part of extruded aluminum track. Saves labor and expense of extra trim. Anodized alu-minum finish ready for paint, or suitable as is. Everything in one package . . . for 2 or 3 by-passing doors . . . 4', 5', 6' or 8' openings.

The Stanley Works . New Britain, Conn.

HARDWARE . TOOLS . ELECTRIC TOOLS . STEEL . STEEL STRAPPING

MR. PRE FAB BUILDER!

PLAN WINDOW BEAUTY PLUS YEAR-ROUND COMFORT

WITH ALPRIDE

ARCHITECT-DESIGNED LUXURY QUALITY ALUMINUM WINDOWS .



AT PRE FAB PRICES!

WIZARD MODERN ALPRIDE WEATHER

ALUMINUM HORIZONTAL SLIDING WINDOWS

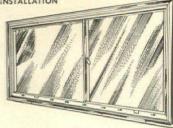
- DESIGNED FOR WOOD BUCK INSTALLATION

· OR WITH INTEGRAL FIN TRIM

Pre Fab Builders, Architects, Contractors, Home Buyers, Interior Decorators Recommend

The many exclusive, practical advantages of WEATHER WIZARD ALPRIDE Aluminum Windows and their

WEATHER
ALPRIDE A
Windows c
interesting
tions and
ments.





easy

Light, easy to remove panels

Easy to clean



Industry's Advance '56 Design Picture Windows

For FREE ALPRIDE brochure and price list, write:



Styled with smart trim lines
Heliarc welded frames for lifetime durability
Built-in-stainless steel weather stripping
provides complete protection
Designed to fit Pre Fab Industry needs
Engineered for quick easy installation
Beveled for drainage
Easy to install storm and screen sash
Horizontal sliders available in 29 popular

sizes Picture windows available in 12 popular sizes
 Priced right for any type construction

WEATHER WIZARD

ALUMINUM MANUFACTURING CORP. 50 Tulip Place Garden City Park, L. I., N. Y.

you build 20 HOUSES or less each year...see DME-WA



HOME-WAY MODEL B511X6

- We furnish complete factory-built home. Meets requirements of modern building codes. You handle erection, utilities.
- Home-Way stays ahead of the field. New low roof line (see illustration) is highly popular. New ranch types; many other standard models. We can meet every family's needs.
- Quality material, carefully processed; rapid delivery.
- Cooperative advertising; personal dealer service.

The Small Builder is our Business

HOME-WAY was featured by Look Magazine as one of America's top 15 in prefabrication.

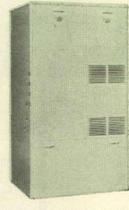
We can help you get much bigger volume and much better profits. WRITE TODAY

GBH-WAY HOMES, Inc.

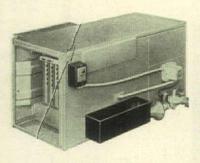
Dept. HHD WALNUT, ILLINOIS



VERTICAL
FORCED AIR
FURNACES



HEATING - COOLING COMBINATIONS



HORIZONTAL FORCED AIR FURNACES

add profits with

WEATHERAMIC



COUNTERFLOW FORCED AIR FURNACES

in bank note green

You naturally expect superior performance of Utility-and the new Weatheramic series lives up to that reputation. But it also offers you the exciting plus of color -Bank Note Green! This handsome, durable finish, with its eye-catching, heart-warming, sales-winning ways, has an appeal you can bank on - with results you can bank! Weatheramic forced air heating and air conditioning units deliver every Utility advantage high efficiency, a trouble-free life that reinforces your good reputation, and engineering that anticipates tomorrow's functional design and solves yesterday's installation problems. Weatheramic by Utility!



FORCED AIR FURNACES/AIR CONDITIONERS



UTILITY APPLIANCE CORPORATION

4851 south alameda street, los angeles 58, california

home buyers are learning . . . turning to ... the advantages of



GRADE MARKED

SOUTHERN



STRONG SOUTHERN PINE

The great natural strength of this seasoned, superior wood assures maximum stability.



ADAPTABLE SOUTHERN PINE

Southern Pine fits so many places in the plans of modern construction.



BEAUTIFUL SOUTHERN PINE

The inherent warmth and beauty of this wood lends itself to an endless range of finishes.



SOUTHERN PINE ASSOCIATION . NEW ORLEANS



The romance of the Early American styles . . the popularity of contemporary design . . . will increase your sales . . . multiply your capital by

Infinite Variety of Designs

The flexibility of our modular system allows you to keep up with modern living and to create new styles . . . almost any plan can be constructed with Virginia Lee units . . . no "This is it" model for 1955.

100% KILN-DRY LUMBER

Virginia Lee Homes solves your procurement problems . . . assures fast erection, predetermined profits. Write today for details and catalogue.

Individual home buyers are urged not to write—show our local builder or realtor this ad.



VIRGINIA LEE HOMES, INC.

615 6th St., Kirkland, Wash. 710 2nd Ave., Seattle 4, Wash.

Scheduled Hauling . . . Direct to Erection Sites



On-Time Delivery-Anywhere in the U.S.A.

For fast, dependable hauling of prefabricated materialsanywhere in the U.S.A.—call on Pre-Fab Transit Company. Manufacturers and erection contractors can count on efficient, economical delivery-scheduled to arrive on time directly at the building site.

We are authorized by I.C.C. to transport prefabricated houses and buildings complete, knocked down, or in sections, in 42 states and the District of Columbia. We also have agreements with other carriers to transport shipments into the other 6 states. For further information, call collect or write this office. We will be glad to have one of our representatives call on you at your convenience.

SPECIALIZED, AUTHORIZED AND INSURED CARRIERS

BOX 218-FARMER CITY, ILLINOIS-PHONE 2141

"WE SOLD 42 HOUSES in One Weekend by featuring the

LEWYT BUILT AIR CONDITIONER"

"By offering built-in air conditioning in the mortgage for just pennies a month extra, we've closed home sales faster! This new sales-feature has been so successful,

we intend using the Lewyt in all future developments!"

... writes Mr. Thomas Romano
Prominent East Coast Builder



YOU TOO, CAN SELL HOMES FASTER WITH THIS TOTALLY NEW IDEA IN BUILT-IN AIR CONDITIONING!

The revolutionary new Lewyt is a complete unit in itself—with individual controls and thermostat built right in! Only 15 inches deep it fits anywhere in any outside wall, with no unsightly "overhang" to mar interior or exterior beauty!

The Lewyt is amazingly flexible—can be installed, permanently, in one or more rooms during construction . . . by your own men!

There are no ducts to install! No window problems! The Lewyt includes, 2-speed motor and choice of cooling capacities . . . filters and dehumidifies, too—plus many other builder-advantages!

Best of all, the Lewyt is sold direct to builders. Mail coupon for details and specifications, today!

F. H. A. MORTGAGES AVAILABLE

Lewyt pictured in the master bedroom of \$15,900 Birchwood City Home—2,000 home project built by Romano and Seley, Washington, D. C.

BUILT-INWALL AIR CONDITIONER

By maker of famous Lewyt Vacuum Cleaner

LEWYT AIR CONDITIONER CORPORATION DEP'T. HH-12

57th St. and 1st Ave., Brooklyn 19, N.Y.

Please send me complete information on your revolutionary new LEWYT BUILT-IN WALL AIR CONDITIONER.

CITY	ZONE STATE
ADDRESS.	
COMPANY	
NAME	
214240	

Created by WARREN

more space at less cost

. for extra elbow-room



Modern homes demand flexibility . . . flexibility gotten in a whisk with Warren Folding Doors. Large living areas become practical wardrobe closets be-come accessible . . . corners become use-

able - with Warren Folding Doors.

Warren Folding Doors add as much as 100 sq. ft. of space without major changes.

Constructed of Basswood Slats - Seine Cord Weave easily attached to overhead glide track. Ten colors plus natural. All sizes.

. for a second "living area"

... Created by War-ren Porch Shades, outdoor porches be-come a new "extra" room for living. Dining, entertaining and family parties in complete privacy become a new thrilling experience on a



Warren "Weather-controlled" Porch

Oil-stain, weatherproof finish, heavy-duty hardware - four colors.

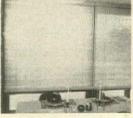
for inside decorating problems



In a corner to create a dressing area . . . be-hind a favorite decorating scheme to highlight . . . in front of embarrassing fixtures, Warren Kurva Screens add attractive flexibility to every room. All sizes - 10 colors plus natural. Basswood Slats -Seine Cord Weave.

... far the "outdoor touch"

Beautifully delicate Mayfair Shades add outdoor naturalness to every room. Forming a flattering backdrop for modern or period decor, War-ren Mayfair Shades smartly emphasize



the beauty of the outdoors. Narrow Basswood Slats - tightly woven Pull-cord and positive stop lock.

Write today for further information.

WARREN SHADE CO., INC.

2905 E. Hennepin - Minneapolis, Minn. 173 Union Street — Worcester, Mass. 917 Bransten Road — San Carlos, Calif.

NEW PRODUCTS

continued from p. 214

for further details check numbered coupon, p. 232

ing sides and ends of the irregular material. A new line of vinyl plastic strips is formed to match the corrugations of the panels, both vertically and horizontally, and sheets can be fastened by nails, bolts or screws,

The strips are made in standard 21/2" x 1/2" corrugations, and are soft enough to form a water- and air-tight seal around both the sheet material and any fasteners used. Horizontal closures are 34%" long, and verticals are 36" long, and both are made in six colors

Prices: horizontal, \$1.10 ea. (40 per package); vertical, \$1.96 ea. (20 per pack-

Manufacturer: Hanszen Plastics Co. 835 S. Good-Latimer Ex-

pressway Dallas, Texas

s. GLASS FIBER REINFORCING adds to strength and longevity of built-up roofs

Eight years of experiments throughout the US preceded the marketing of Owens-Corning's Fiberglas Perma-Ply No. 6, porous sheets of fibrous glass that replace conventional roofing felts. Using the same principle as in reinforced plastics, the fibers are used to bind and strengthen the bitumen roof material.

Used in place of felt, the material permits the bitumen or pitch to flow through



and bond into a solid mass, eliminating one common cause of blistering-felt touching felt. The reinforcing reduces cracking or "alligatoring" of the actual weatherproofing agent, the bitumen. Because the glass fibers are inorganic, they do not rot or deteriorate.

Bonded roofs of 20 years guarantee can be built up with one less layer of bitumen and Fiberglas Perma-Ply No. 6, than is required with organic felts. Rolls are 36" wide. and weigh 30 lbs., cover five squares.

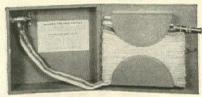
Over approved roof insulation, a 20-year bonded slag surfaced, glass reinforced roof will cost approximately 201/2¢ psf., compared to 20¢ psf. for conventional organic felt.

Manufacturer: Owens-Corning Fiberglas Toledo 1, Ohio

Technical Publications on p. 224

BUILDERS MAKE MONEY WITH SAFETY "EXTRA"

Merchant builders report homes sell better when they feature Fire Hose Station, household form of the fire



hose cabinet used in major struc-"Most sales appeal I can get for \$40," says one.

Private builders and even remodeling contractors find this novel and practical product brings extra profit. "Anyone will pay \$100 for Safety," one states. "Especially in areas where it cuts insurance cost."

Fire Hose Station is a steel cabinet not much bigger than an album of phonograph records. It can be recessed between studs or simply wall-hung. Inside is 25 to 75 feet of fire-type hose on patented quickrelease rack. Adjustable nozzle is locked on; valve at other end con-nects to standard cold water line. Door can match wall. By the leading manufacturer of Interior Fire Protection Equipment since 1887...

W. D. Allen Manufacturing Co., 566 W. Lake St., Chicago 6. Allenco Bldg., Rm. 721

SELL MORE HOMES!

Assure your prospects of adequate storage space. Preision can help your homes move fast for more profits!

America's No. 1 Stairway

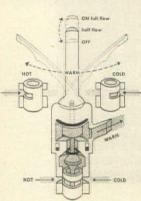
PRECISION FOLDING STAIRWAY

Stocked by 190 leading jobbers in the U. S. A. and

QUALITY PLUS SEVEN EXCLUSIVE FEATURES







-with one piston operation, closing with instead of against the water pressure

FIRST—with water seal of specially designed neoprene "O" ring, double sealed against leak or drip.

FIRST - in sales appeal - the one PLUS feature that women can touch, operate, actually demon-strate to themselves that your homes are planned for the future!

For color brochure write or wire:

MOEN VALVE COMPANY

Division of Rayenna Metal Products Corporation 6518 RAVENNA AVENUE, SEATTLE 15, WASHINGTON



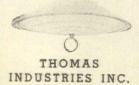


M-1096

\$26.95*

and the lady will be pleased!

Prospects are quick to notice features that show thoughtful home planning. Shown at left is one of the many "extra feature" Inspiration-Lighting fix-tures available to the builder in the famous Moe Light line.



M-1096 is a beautiful 18" reel-type fixture. Adjusts from 21" to 56" overall length. Textured fabric shade molded with fiber glass. On-off switch above shade. Polished brass finish. Write today for Moe Light's new full-color catalog.



*Prices slightly higher Denver and West.

MOE LIGHT DIVISION, Dept. HH-12, 410 S. Third St., Louisville 2, Ky.



Homemakers like the modern luxury look, the satiny feel, the forever lasting beauty of Carlton Stainless Steel Sinks. That's why Carlton Sinks put extra sales appeal into your kitchens . . . People want that permanent sparkle-know that a stainless steel sink is so much easier to keep bright and clean. And their first cost is their final cost-for Carlton Stainless Steel Sinks can never wear out!

miss Booths 379-380 CONRAD HIL-TON HOTEL. When you are in Chicago for the National Home Builders Show. January 22nd to 26th, we'll appreci your stopping the Carlton booths in the Conrad Hilton Hotel.

Don't overlook the special Carlton rubberized undercoating that cuts dishwashing clatter; changes garbage disposal noise from a growl to a purr! See for yourself how stainless steel's extra resilience reduces dish chipping and breakage. Carlton's narrower wall between twin bowls almost eliminates the splash from a swinging faucet, while the deeper (71/4") bowl depth allows up to a full gallon more water capacity.

Special Note to Builders, Wholesalers, Architects:

A Carlton Stainless Steel Double Sink Bowl (32"x21") weighs only 17 pounds, makes installation much easier. Stainless steel, lighter than cast iron or porcelain on steel, saves you money on shipping costs, too. Write for free Catalog 47 illustrating our complete line, and send us the name of your distributor. SINK DIVISION, Carrollton Mfg. Co., Carrollton, Ohio.

The bright spot in your kitchen





VITROLINER Chimneys

offer Complete Flexibility



Vitroliner Flexibility offers 5 DIAMETERS-

- for all types of installations,—from small ranch houses to 2 story homes, commercial and industrial buildings.
- · and for ALL FUELS, oil, gas, coal and wood.

Vitroliner Flexibility offers a selection of DESIGNS for external appearance—

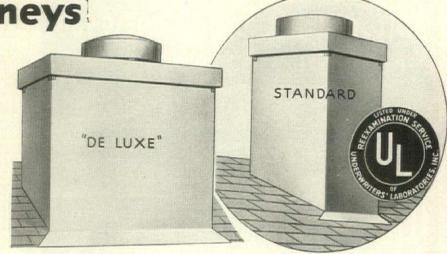
- The STANDARD Top and Housing, for ranch houses, homes and buildings.
- The DELUXE Top and Housing for larger type homes and buildings.

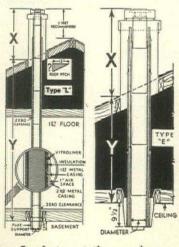
The Standard Housing is available in-

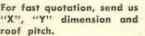
- A Flat Surface Finish,—factory painted a solid neutral grey, or a red or buff "Brick Effect" Finish, that looks like real brick.
- The 'DeLuxe' has he flat grey finish and can be painted to match the roof color, on the job.

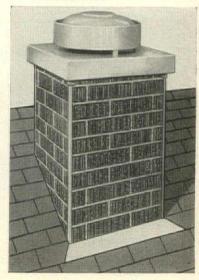
Of course, Vitroliner provides complete chimney functions, venting combustion gases from Heating Plant, Water Heater, Incinerator and Fire Place. Write for literature on this modern quality-built prefab today!

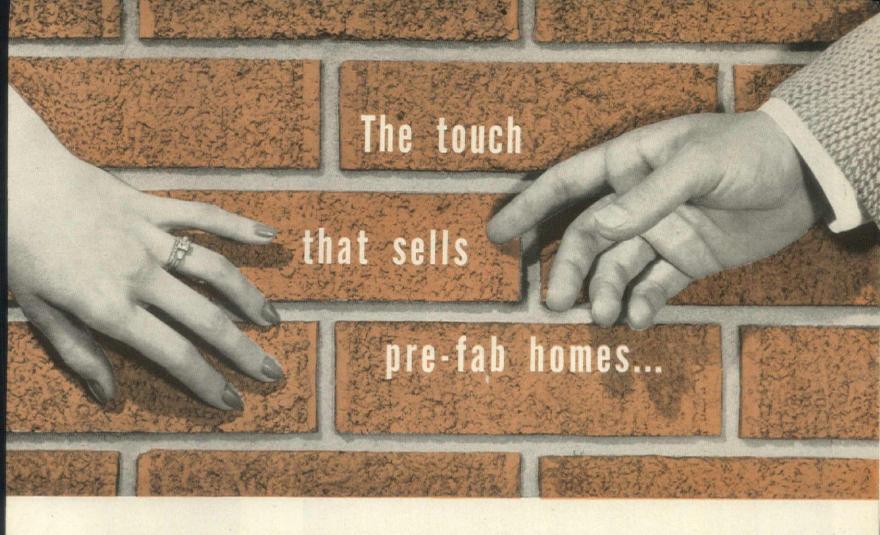
CONDENSATION ENGINEERING CORPORATION
3511 W. POTOMAC AVE., CHICAGO 51, ILL.











on-site brick veneer



FREE TECHNICAL DATA

Details of recommended brick veneer construction are available free if you write Dept. HH-12.

This one-brick-thick finish gives prefabricated homes a big-extra in sales appeal—at little extra cost.

No structural changes in framing are needed for on-site application of brick veneer—just make footings wide enough to carry the single exterior wythe of brick.

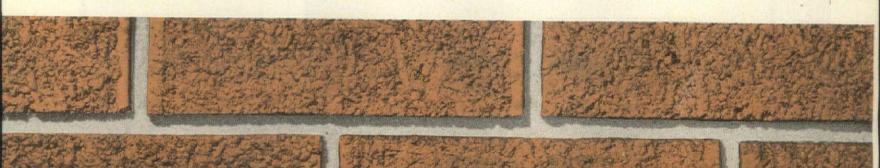
And there's no need for guesswork about the selling power of a brick exteriorconsumer surveys* prove that it's the home buyers' favorite-2 to 1 over the second most popular material.

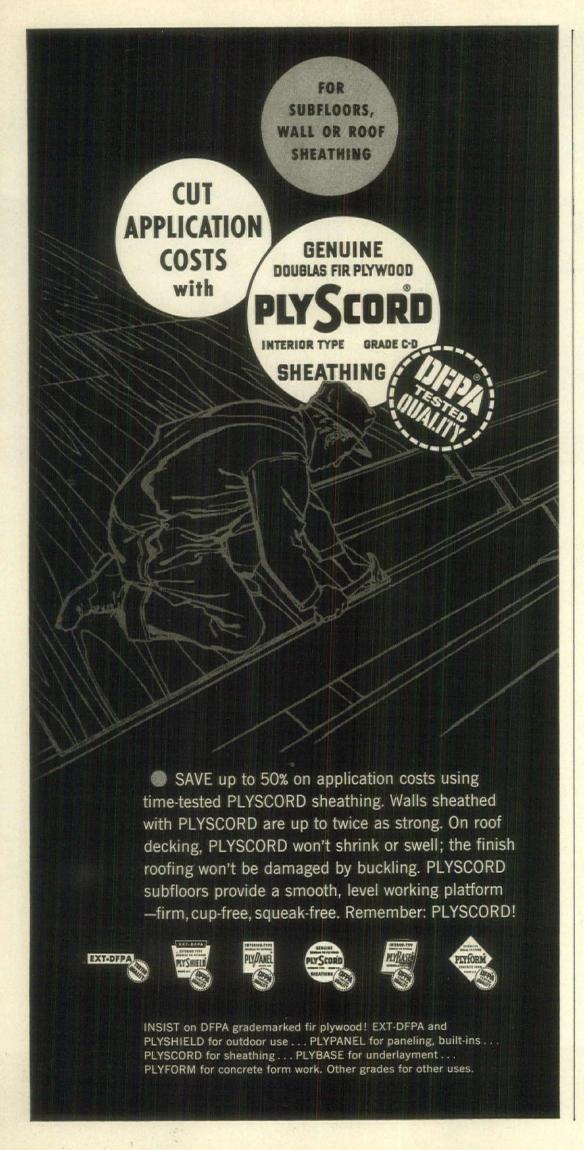
Make it brick veneer—the finishing touch of quality and permanence that sells prefabricated homes.

*Details available on request.

Structural Clay Products Institute STRUCTURAL CLAY PRO 1520 18th Street, N. W., Washington 6, D. C.







TECHNICAL PUBLICATIONS

343. KITCHENS. Youngstown Kitchens in Go-Together Colors. Muljims Mfg. Corp., Dept. HH, Warren, Ohio. 24 pp. 81/2" x 11"

A consolidation of the Youngstown specification sheets, architectural guide and consumer catalogue, so professionals can make quick and easy reference to any appliance or cabinet. Some full color photography.

344. PLUMBING FIXTURES. Richmond Plumbing Fixtures. Richmond Radiator Co., Dept. HH, 16 Pearl St., Metuchen, N.J. 32 pp. 8/2" x 11"

> Vitreous china and enameled cast-iron fixtures. Illustrations, descriptions and complete rough-in recommendations.

345. HEATING. The Norman Sketchbook. Norman Products Co. Dept. HH, 1150 Chesapeake Ave. Columbus 12, Ohio. 32 pp. 9" x 12"

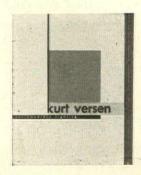


Heating installations, in pencil-sketches, grouped according to the location of the furnace in the house. Drawings show how the company's Southerner horizontal furnace can be adapted to many designs.

346. PREFABRICATION. Huber Homes. Huber Construction Co., Inc., Dept. HH, 631 E. Stroop Rd., Dayton 9, Ohio. 6 pp. 81/2" x 11"

Packaged homes for the builder interested in becoming a prefab erector. Basic construction stages are illustrated by 11 photographs of typical development progress. The Huber line features brick-veneer houses.

347. LIGHTING. Contemporary Lighting Catalogue. Kurt Versen Co., Dept. HH, Englewood, N.J. 56 pp. 81/2" x 11"



Lighting fixtures, both recessed and hanging, for the modern house. Installation details and coverage charts for individual fixtures. 348. WIRING. Continental Circuitrol. Continental Electric Equipment Co., Dept. HH,
Box 1055, Cincinnati 1, Ohio. 4 pp. 81/2" x
11"

Circuit breakers for the adequately wired house. Models and technical data.

349. VENTILATION. Miami-Carey Ventilating Fans. Miami Cabinet Div., The Philip Carey Mfg. Co., Dept. HH, Middletown, Ohio. 8 pp. 8½" x 11"

The full line of Miami-Carey fans and accessories. Installation details and specifications,

350. PLUMBING. Delta Faucets. Delta Detroit Corp., Dept. HH, 1791 Bellevue Ave., Detroit 7, Mich. 4 pp. 81/2" x 11"

Wall models of the Delta one-hand mixing faucet, as well as their deck models. Photos,

351. WATER SYSTEMS. Burks Pumps. Decatur Pump Co., Dept. HH, Decatur, III. 6 pp. 81/2" x 11"

Centrifugal pumps for the individual water system. Technical data and price list.

352. CONCRETE FORMS. Richmond Snap-Ty Form Book. Richmond Screw Anchor Co., Inc. Dept. HH, 816 Liberty Ave. Brooklyn 8, N.Y. 18 pp. 81/2" x 11"



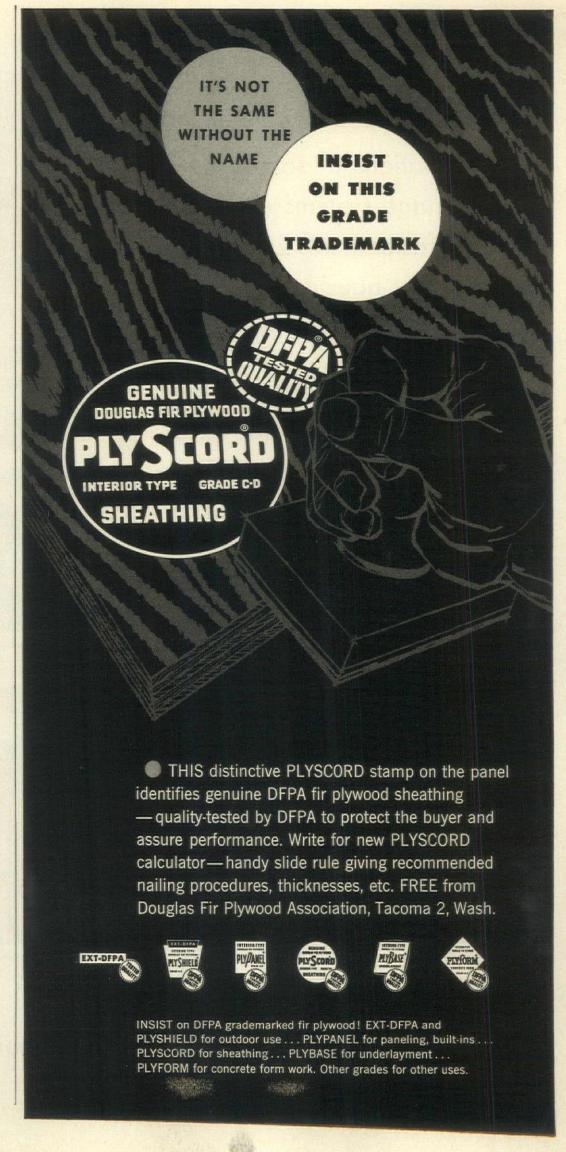
A handbook of panel designs for builders using poured concrete foundations or walls. Methods shown are those judged best and most economical by the Richmond company, from among the methods used by contractors using Richmond hardware and accessories.

- 353. PLUMBING. Milvaco Bronze Valves. Catalogue No. B255. Milwaukee Valve Co., Dept. HH, 2375 S. Burrell St., Milwaukee, Wis. 8 pp. 81/2" x 11"
- 354. WOODWORK. Wood Finishing. Minwax Co., Inc., Dept. HH, 11 W. 42nd St., New York 36, N.Y. 12 pp. 31/2" x 8"

Directions for using the Minwax products on furniture, paneling and floors.

355. TILE. Counter Tops of Ceramic Tile. Mosaic Tile Co., Dept. HH, Zanesville, Ohio. 2-pp. 8½" x 11"

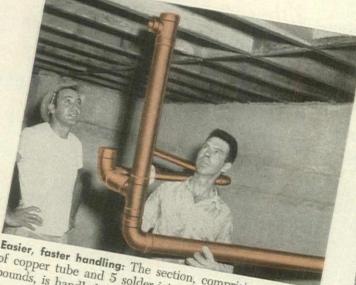
Typical counter top sections, showing installation details of ceramic tile used on kitchen and bathroom counters,



How copper tubes make installations of sanitary drainage systems easier and faster in this 200-home low-cost housing development.



Pre-assembly saves time, cuts cost: The basement lines are assembled and soldered ready for installation as soon as first floor partition studding is completed.



Easier, faster handling: The section, comprising about 13' of copper tube and 5 solder-joint fittings, weighs only 35 pounds, is handled by one man.



Fast, dependable connections: Solder joints are easy to make and they stay tight. The circular torch shown is a big time saver on a large job like this. (Water lines are also copper.)



Fewer joints and fittings: Copper tube comes in standard 20' lengths. A 20' length of 3" Type M weighs only 53 pounds. Easy to cut, too.



Write for booklet, "Copper Tubes for Sanitary Drainage Systems." The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Limited, New Toronto, Ont. No costly, space-consuming plumbing walls: A 3" copper tube stack with fittings can be installed within a standard

COPPER TUBES

Available through plumbing wholesalers



cuts clay tile installation costs up to 20%...or more!

CTA 11



The new 3M Clay Tile Adhesive makes installation so much faster and easier—even modest budgets can afford clay tile now!

3M Clay Tile Adhesive dramatically cuts installation time and installed costs of beautiful clay tile.

CTA 11 is so fast, so clean, so easy to use that installation costs have been lowered by 20% or more. Schools, stores, factories, homes, new construction and remodeling—all can now enjoy clay tile luxury even on limited budgets.

Dry wall, plaster, concrete block, plywood, metal or virtually any plumb, solid wall surface is suitable for installation of clay tile with CTA 11. No premixing. It spreads like butter right from the can. Only a trowel is needed. And CTA 11 will hold a ton per tile, with a resilient, enduring bond that resists water and settling cracks.

Gain similar advantages by setting ceramic floor tile with CTA 12. Get full facts on CTA 11 and CTA 12 fast. Write today to 3M, Department 1210, 417 Piquette Avenue, Detroit 2, Michigan.

Tilemen themselves report:

- CTA 11 allows tile contractors to handle more jobs per month, with greater profit opportunities.
- (2) CTA 11 avoids the extra labor, time and clean-up cost usually encountered.
- (3) CTA 11 allows tile installation and grouting on the same day.
- (4) CTA 11 avoids costly repainting and allows the tile installation to be made before or after the finished carpentry.
- (5) CTA 11 allows tile setters to work right through the



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REFLECTIVE SHEETINGS * "3M" ABRASIVE PAPER AND CLOTH * "3M" ADHESIVES AND COATINGS * "3M" ROOFING GRANULES * "3M" CHEMICALS

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America's No. 1 built-in selling feature . . . Fabrow new modular design! Fabrow "flexible fenestration" achieves exciting architectural effects . . . sales winning, custom-distinction AT PRE-FAB COSTS.

Designed for standard size, insulating glass the

fabulous new fabrow

window styles combine for unlimited modular combinations. Build for distinction . . . Sell your homes f-a-s-t-e-r with Fabrow fashion windows, the modular window-wall frame in beautiful natural wood!

955 House & Garden—House of Ideas designed by Richard B. Pollman. Architects: Palmquist & Wright.

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WRITE, WIRE, OR PHONE FOR IDEA BROCHURE . . . 48 WAYS TO TURN DAYLIGHT INTO





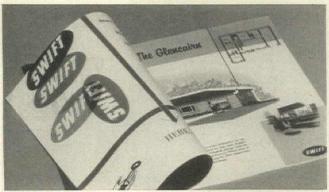
TRUCK TO COMPLETION \$697

This unbelievable figure covers every conceivable type of work including plumbing, carpentry, painting, sheet metal, furnace installation and clean-up. Actually, it pays for everything above the foundation.

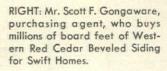
When building HBC homes 95% of the usual risk is eliminated because of such complete prefabrication. Very little job site finishing remains since HBC homes are 90% prefabricated.

We'll gladly send details if you are within our shipping radius.

HOME BUILDING CORPORATION
Sedalia, Missouri



ABOVE: Colorful catalog issued by Swift Homes, Inc., Elizabeth, Pa., one of the nation's leading pre-cut home manufacturers.





Famous Swift Homes Feature WESTERN RED CEDAR SIDING

 Mr. Gongaware says this about Western Red Cedar Siding:

> "There is very little expansion and contraction regardless of weather conditions; it is an excellent weatherproof lumber even without a finish; it is adaptable for all stains, and takes paint well, it is light for shipping and we also find it an excellent weather-proofing for our homes."

Ask your lumber dealer for genuine Western Red Cedar Siding. It's full of good grown-in qualities—works easily, holds its shape, resists splitting, is light, but strong, and high in insulation value. *Plus* an inherent resistance to termites and rot. And it's pitch-free for better paint retention. *Write us for technical and other information*.

YOU'RE INVITED—Visit our exhibit. NAHB Show, Chicago. Wood Products Group, Sherman Hotel, Booth No. 546, January 22 through 26, 1956.





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only window today that's designed and engineered with such features as these for tomorrow's modern living-

- New V-shape twin interlock for perfect weather seal
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GLIDEMASTER DIVISION Send BROCHURE on GLIDEMASTER Windows.

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TECHNICAL PUBLICATIONS

356. WINDOWS. Winco Windows. Winco Ventilator Co., Dept. HH, 533 Bittner St., St. Louis 15, Mo. 16 pp. 81/2" x 11"

Aluminum custom projected windows for general construction. Sections and installation details, photographs and specifications.

357. GARAGE DOORS. Wagner Garage Doors. Wagner Mfg. Co., Dept. HH, Cedar Falls, lowa, 4 pp. 81/2" x 11"

The glideover line of overhead doors, some of natural redwood, with color renderings of custom applied designs available.

358. HEATING. Justrite Catalogue No. 114. Corbman Bros., Inc., Dept. HH, 25th and York Sts., Philadelphia 32, Pa. 26 pp. 81/2" x 11" Furnace pipe and fittings, including prefabricated ducts and fittings. Sizing charts for all popular heating and cooling systems.

359. AIR CONDITIONING. Airline Heating and Air Conditioning. Ingersoll Conditioned Air Div., Borg-Warner Corp., Dept. HH, 760 E. Vine St., Kalamazoo, Mich. 20 pp. 81/2" x 11"

> The entire line of B-W heating and air-conditioning plants, as well as conversion burners, water heaters, and home incinerators.

360. REMODELING. How To Build A Basement Room. Johns-Manville Corp., Dept. HH, 22 E. 40th St., New York 16, N.Y. 24 pp. 81/2" x 11"

> For layman or professional, this book takes up planning, selection and installation of material, includes hints on painting, carpentry, trim and built-ins. Of especial interest to remodelers, for the basement represents the most obvious area for expansion of the exist-

PRODUCTS AND PUBLICATIONS COUPON

For more information on new products and publications in this December issue

check key numbers below and mail to: house & home

9 Rockefeller Plaza, New York 20, N.Y.

NEW **PRODUCTS**

TECHNICAL PUBLICATIONS

σ.	Doweloc laminated flooring
b.	Steeleraft and United Steel Fabricators doors
c.	Snap-on trim
d.	Fiberglas heat ducts
e.	Wire mold electrical outlets
f.	Webcore steel framing
g.	Steel-X bridging
h.	Multi-Control wiring system
i.	Vikon tile
i-	ForestFold doors
k.	Du-Wal water softener
1.	Culligan water softener
m.	Sub-Zero refrigerators
n.	Barnes shower diverter
	Powers thermostatic regulator
p.	American Kitchens oven cabinet
q.	Crezon plywood overlay[
r.	Hanszen plastic closures
S.	Fiberglas Perma-Ply No. 6

343.	Youngstown kitchens
344.	Richmond plumbing fixtures
345.	Norman heating sketchbook
346.	Huber prefabricated homes
347.	Kurt Versen lighting
348.	Continental circuit breakers
349.	Miami-Carey fans
350.	Delta faucets
351.	Burks pumps
352.	Richmond concrete forms
353.	Milvaco valves
354.	Minwax wood finishing
355.	Mosaic tile counter tops
356.	Winco windows
357.	Wagner garage doors
358.	Justrite heating catalogue
359.	Airline air conditioning
360.	Airline air conditioning

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Any inquiries with money or check enclosures must be addressed directly to the manufacturer. In addressing direct inquiries, please mention

house & home and the issue in which you saw the product or publication.

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When properly kiln dried, redwood has the lowest swelling and shrinkage of commercial woods. But air drying alone cannot be depended upon to reduce moisture content to that "point of no return" which assures permanent dimensional stability. That's why Palco* Architectural Quality Redwood always carries the Certified Dry label, your only assurance of controlled seasoning procedure and moisture content. Pacific's kiln capacity is ample to cure accurately and completely all that part of production which merits the name Palco*

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When you specify Palco* Architectural Quality Redwood for exterior or interior design . . . you can be sure that it is

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Certified Dry Palco* Architectural Quality Redwood offers permanent assurance of minimum swelling, shrinkage or other distortion,

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- Where flat grain is specified, pattern is always cut from the bark side

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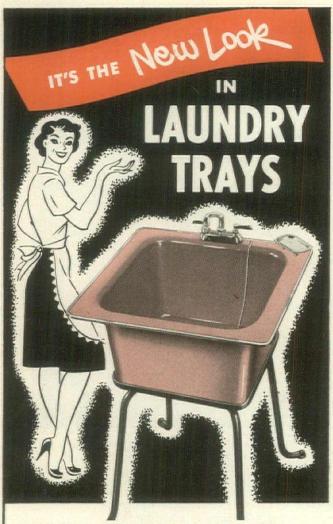
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Please send me, without obligation, the new bulletin outlining basic redwood specification data, with charts showing standard Palco* redwood patterns, sizes, grades and grains.

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Company_____Address_____

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As bright as a rainbow and modern as tomorrow...

Selfridge fiber glass laundry trays add a new note of color and styling to any work area. Available in four decorator shades . . . mint, canary, coral and dawn . . . and in single, double and triple unit combinations . . . they meet every home requirement for both beauty and utility. Built to last a lifetime, yet attractively designed for maximum appeal, Selfridge trays install easy, sell fast. Details upon request.

NON-POROUS ... EASY TO CLEAN

Impervious to soaps and detergents, the rounded-corner design presents an unbroken, smooth surface that stays bright and clean.

ONE-MAN INSTALLATION

The double unit model weighs only 47 lbs. including stand, is shipped partially assembled, can be readied for connection in a few minutes.

LIFETIME CONSTRUCTION

Supported by a metal base to insure ample structural strength, the fiber-glass-reinforced Selfridge tray can't chip or craze. Adjustable legs.



SOLD THROUGH PLUMBING SUPPLY WHOLESALERS ONLY



Ozone Park housing project near New Britain, Conn.

Set of Symons Forms Used 700 Times

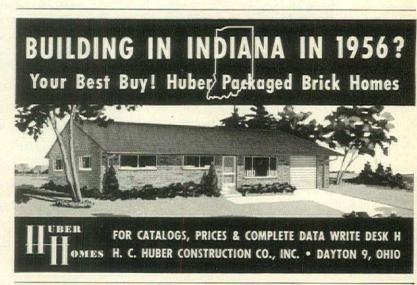
Kozikowski Bros. Builders, New Britain, Conn., used this set of Symons Forms every day and the plywood did not have to be reversed. They were used on one housing project . . . there was no trucking—only hand moving . . . they were used by the same crew, and one of the Kozikowski brothers was job superintendent. No one used a wrecking bar for stripping. Every day usage avoided drying out and the use of Ready-Mix Concrete saved wear and tear.

Symons Forms are available on a 60-day Rental-Purchase plan.

WANT MORE FACTS ON SYMONS FORMS?

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We have a house to put in order...

WE HAVE A HOUSE to put in order . . . and it's the house where America lives.

Think over those figures above. Of our 45,000,000 non-farm homes, better than 10% - 5,000,000 are out-and-out slums. And another 20,000,000 are in poor to fair condition.

Something *must* be done—both to correct the slums of today and *prevent* the slums of tomorrow.

How do slums start? Usually just one house starts to slide downhill and soon a whole block changes. Pride is lost. Other houses are neglected, decay spreads.

So the 20 million homes in need of basic repair and improvements deserve equal attention. The time to stop the spreading blight of slums is *before it starts*.

What's your stake in stopping slums?

If you think your town is different, just look around you . . . If you think slums only affect persons who live in them, think again.

Slums raise taxes and lower property values of the whole town. They raise rates of crime, delinquency and disease. *Everyone* has a real stake in stopping slums. And *that includes you as a businessman*.

Your firm is certainly dependent on the welfare of the community where you do business. But it's more than good business—it's good citizenship to take part in efforts aimed at civic improvements. It's the *responsibility* of every business.

What can your firm do? The answer to America's housing problems starts with individuals. But to roll back slums is such a big job it's going to take more than individual effort. It will need the cooperation of your business and many others.

Some slums should be torn down and a fresh start made. Others can be remodeled and made to conform to better living standards. So it is up to you to support every sound program which seeks adequate housing for all our people.

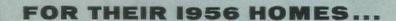
New help is now available

There is a new national, non-profit organization called A.C.T.I.O.N.—The American Council To Improve Our Neighborhoods—which is designed to help all individuals or groups interested in putting America's house in order.

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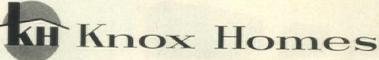
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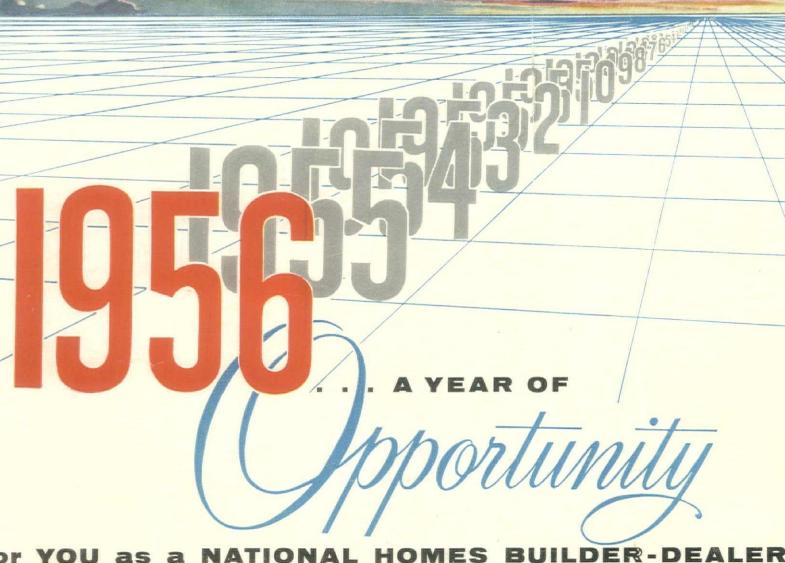




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