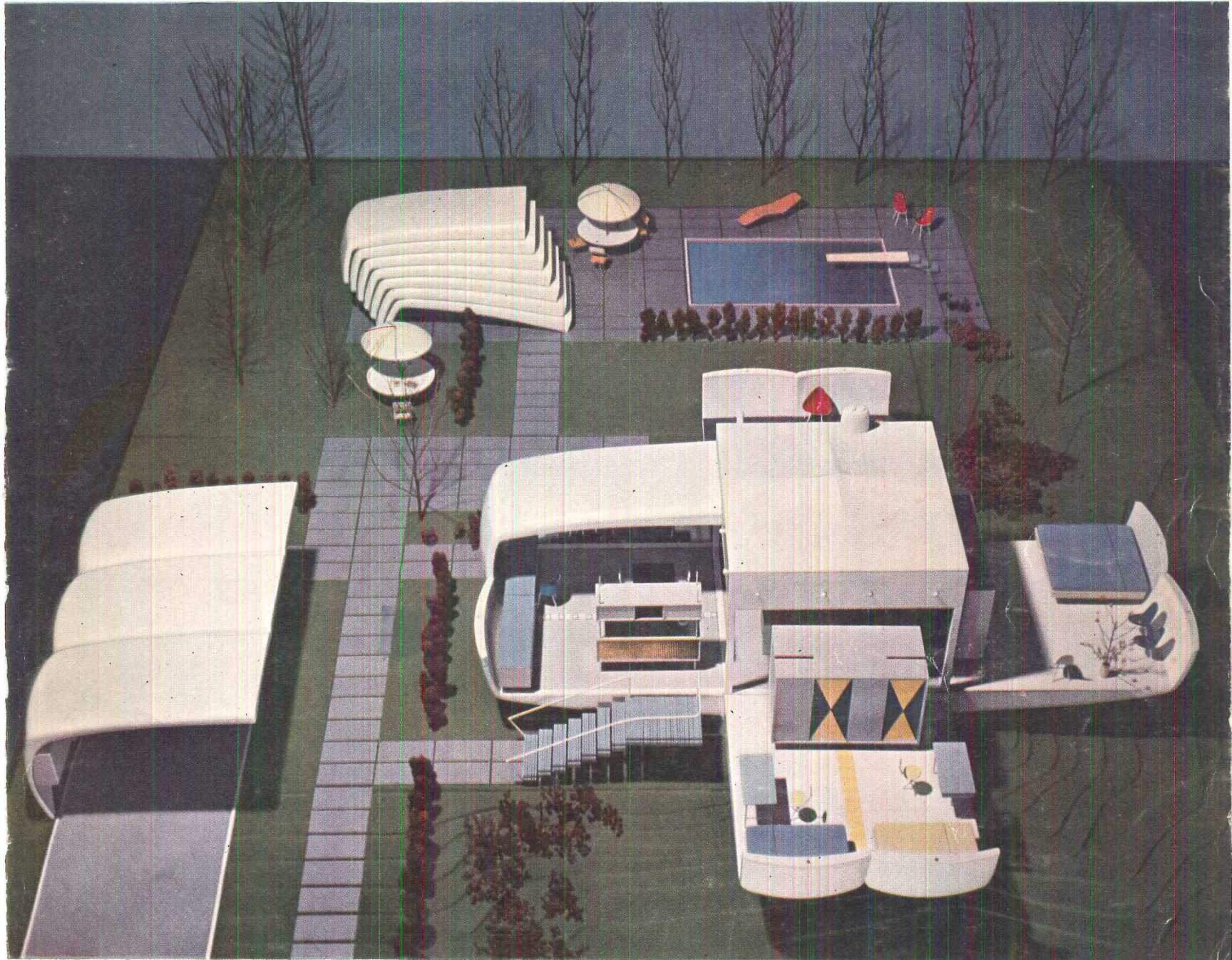


House & Home

SEPTEMBER 1956 SIX DOLLARS A YEAR—ONE DOLLAR A COPY



The plastic house: How soon? How good? How expensive? How different? — page 117

■ What the Package Mortgage can do for everybody's sales — page 159

Round Table: How to wire better for less money — page 150

Frank Lloyd Wright: A case study of 34 basic design ideas — page 136

The 1956 Housing Act: A story the newspapers missed — page 44



These NuTone Features SELL HOMES

Women Will Love these three NuTone IN-BUILTS

YOUR KITCHEN is the "Selling Showcase" for your new homes. Nothing excites any woman's enthusiasm more than a modern attractive kitchen equipped with these NUTONE IN-BUILTS.

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- ① Two-note IN-BUILT Door Chime and Clock all in one. Recessed — no clock outlet needed. \$19.95 list. Also three "In-built" and 16 surface mounted chime models.
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Write for FREE Catalogs MZ-200, FC-210, KP-10
NuTone, Inc. Dept HH-9, Cincinnati 27, Ohio

A Pleasant Chime at the Door Will Help Sell Your Homes !

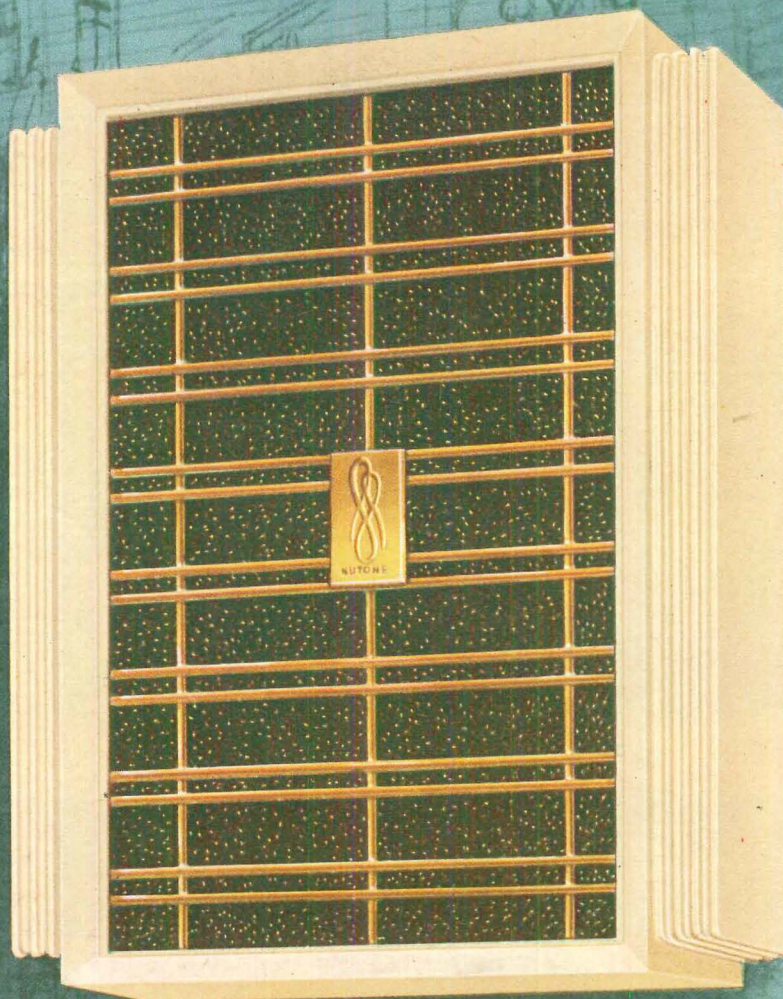
KEEP YOUR SALES AT A HIGH LEVEL by adding the "warm, friendly greeting" of a musical NuTone Door Chime at the doorway. Pleasing to the ears . . . attractive to the eyes . . . and easy on the nerves.

- 4** FIRST NEW CHIME SOUND IN 20 YEARS! Beautiful — Rich — Vibrant CHORD TONES — to make any home more elegant and glamorous. Smart brass grille, desert-sand cover, gold grille cloth, Surface Mounted. (L-30) 2 door model, \$12.95 list. Pat. Pend.
- 5** NO WIRING NEEDED. Non-Electric 2-note Door Chime and Solid Brass Nameplate. Turn handle to sound chime. Fits any door. (MC-302) Oyster white, \$4.95 list.
- 6** EVEN YOUR LOW COST HOMES can afford this beautiful IN-BUILT Door Chime. Ivory and brass. 2 notes for front door, one rear. (K-14) Only \$6.95 list. Cut-out 4 1/2" x 6 1/8"
- 7** HOME BUYERS FALL IN LOVE with this modern IN-BUILT Door Chime! It's in tune with contemporary home design. Ivory and brass. (K-15) \$9.95 list. Cut-out 6 3/4" x 6 3/4"

Write for FREE Catalog L-459,
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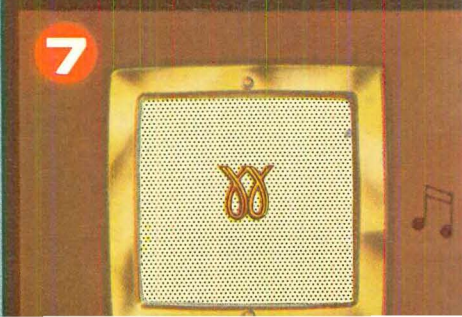
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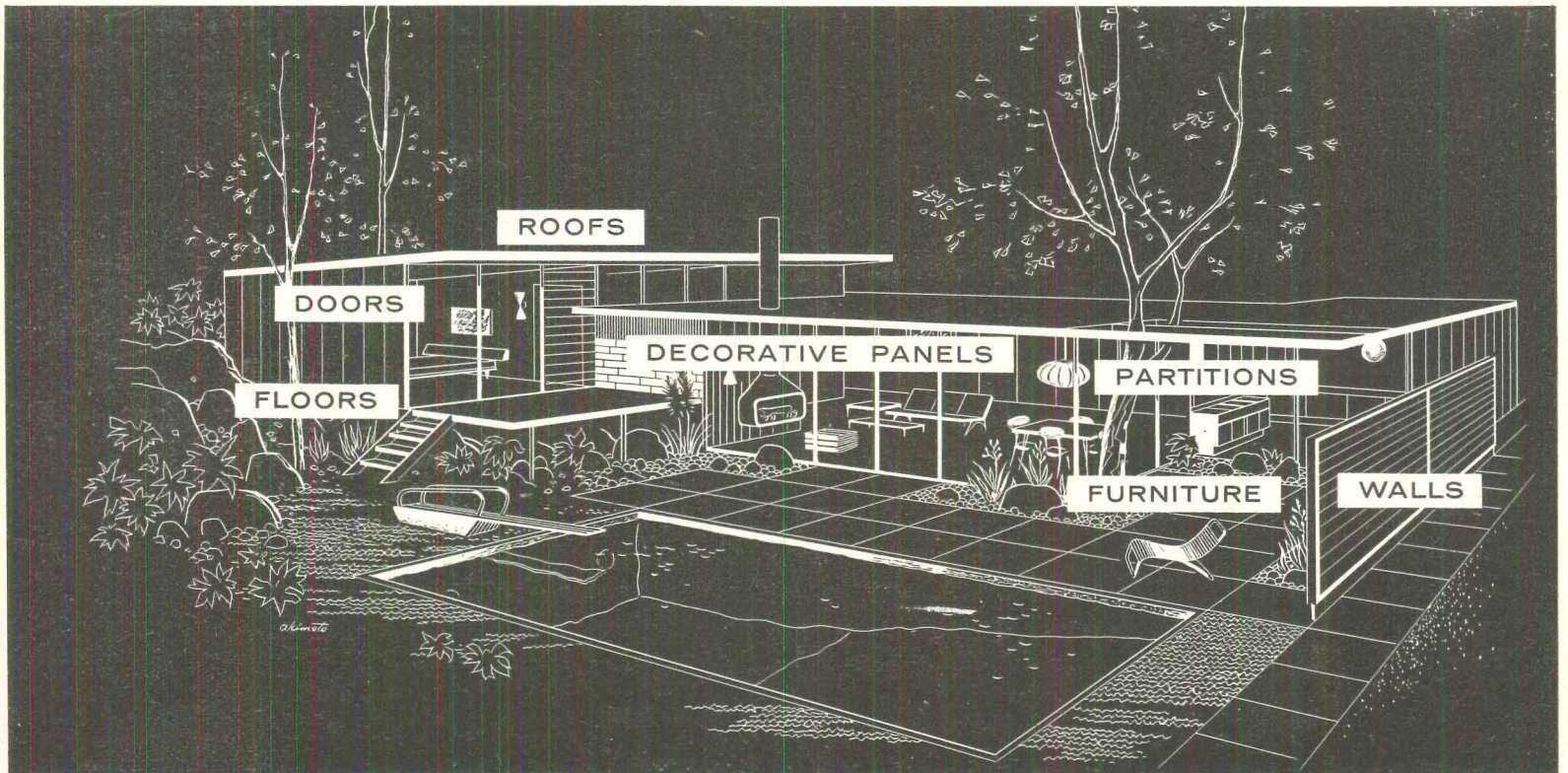
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HOUSE OF TOMORROW

Sandwich panels with Aircomb cores have great promise for both structural and decorative building purposes.

Manufacturers of building materials are showing increasing interest in the possibilities of Aircomb. This resin-impregnated paper honeycomb material exceeds all others in its strength to weight ratio. It also is extremely rigid and has excellent resistant properties to fire, fungus and pest damage. The regularity of its pattern allows it to be faced with transparent or translucent plastic sheeting with extremely pleasing effects. It bonds readily to plastic, any metal, wood and porcelain enamel surfacing.

At present Aircomb is available as raw material to prime building materials manufacturers. Its highly-desirable characteristics will make it figure importantly in building plans during the next decade.



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The Quality Aluminum Sliding Glass Door



ADDITIONAL NUDOR FEATURES

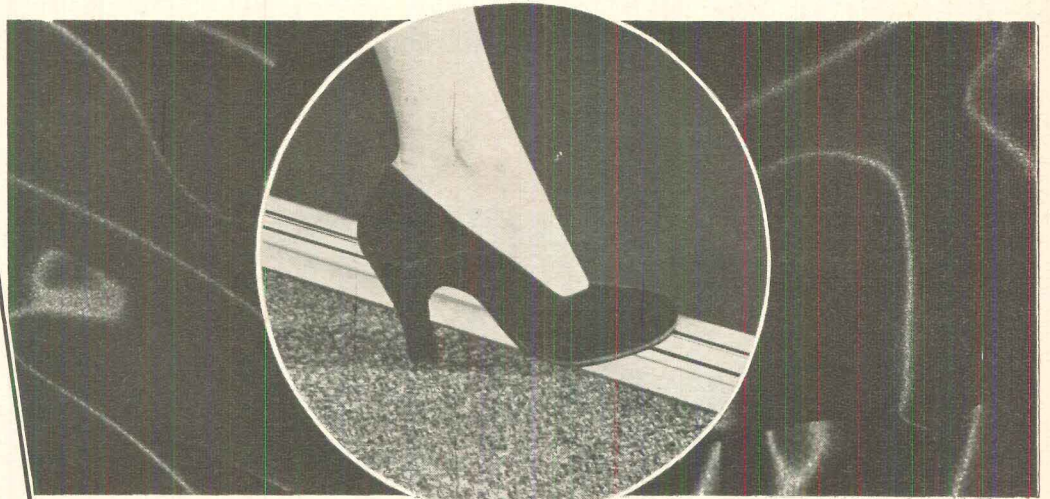
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- Adjustable Glass Stop.
- Adjustable Locking Hardware.

NUDOR'S QUALITY CRAFTSMANSHIP ASSURES
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Complete Your All-Weather Protection. Install
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Nudor Step-Ease Threshold NO TRACK TO TRIP ON



The Step-Ease threshold is an exclusive NUDOR feature. It can be mounted directly on finish floor in minimum time... no special construction or floor recessing for track necessary.

DOOR ROLLS ON FLAT STREAMLINED SILL...NO TRACK TO TRIP ON

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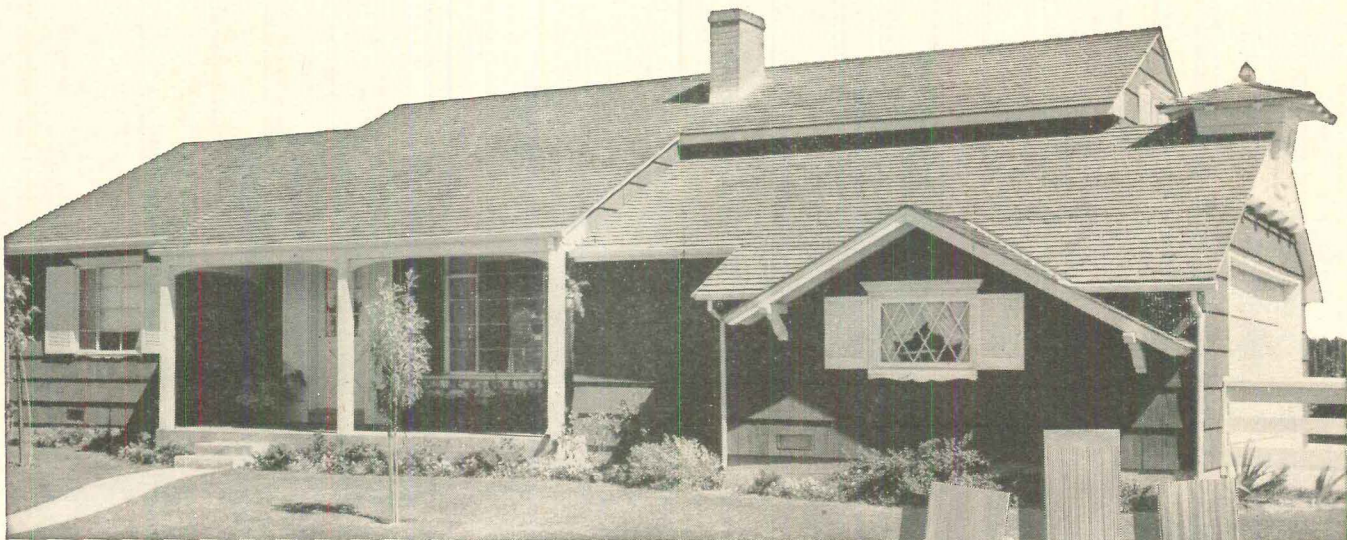
Manufactured by NUDOR MANUFACTURING CORP., 7326 Fulton Ave., No. Hollywood, Calif.

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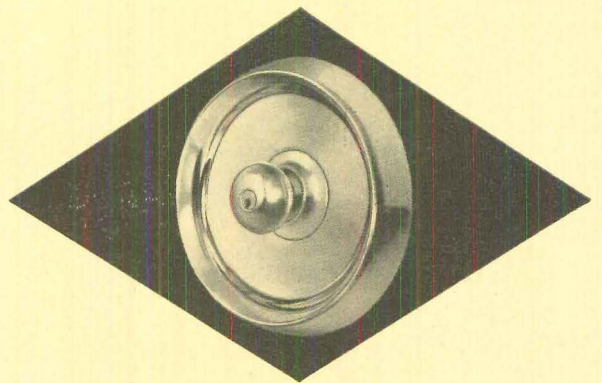


THIS DISCRIMINATING BUILDER

This discriminating builder selects builders' hardware with the same care that marks each personal purchase. When it comes to locksets he looks for quality and buys Kwikset "600" line.

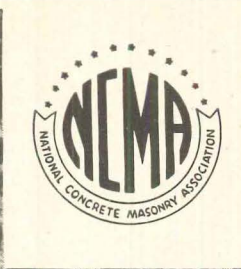
He values their solid steel and brass construction . . . likes their smooth, quiet action. He knows these handsome, durable locksets enhance the beauty and value of his homes.

These features of the Kwikset "600" line add up to outstanding quality — for this discriminating builder . . . and for you.



"A Finer Lock for Finer Homes"





Have you seen what they're doing with Concrete Masonry?

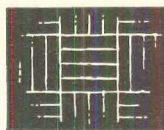
NEW COLORS

Block is now available in many localities in green, ocher, red, ivory, blue, yellow, gray, black and other decorator colors.



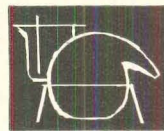
NEW PATTERNS

You can build extra distinction into a wall at little extra cost with any of the new concrete block wall patterns.



NEW RESEARCH

NCMA'S engineering staff has produced technical studies which can help you. Ask your local block plant for a copy of "Sound Reduction Properties of Concrete Masonry Walls."



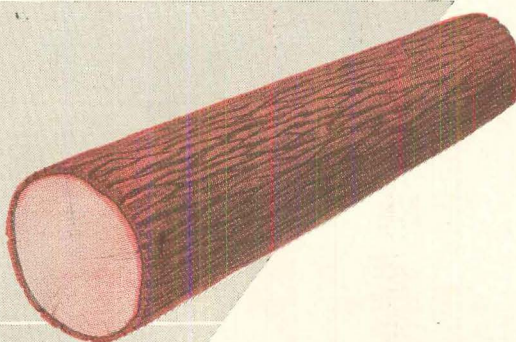
THERE'S always something new about concrete block—the nation's most versatile building material. In fact there are so many new things going on in the industry that it's pretty hard for a very busy man like an architect or an engineer to keep up with the newest improvements.

Here's where your local NCMA member can be a big help to you. Ask him to show you some of the new improvements in block—he's a good man to know.

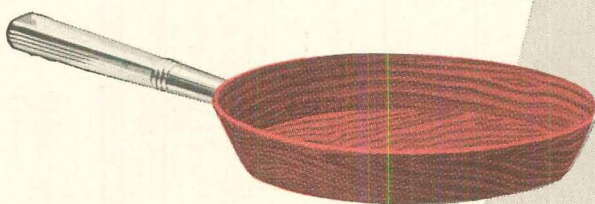
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Our basic material is fine wood. Our basic products are fine, residential windows. We could make metal windows faster and cheaper—but wood looks better, and works better—longer. We'll stay with wood for frames and sash.



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Or, we could have gone into the manufacturing of wooden ice cube trays. But, again, wood resists transferring cold—so, ice cube trays made of wood, would be mighty inefficient.



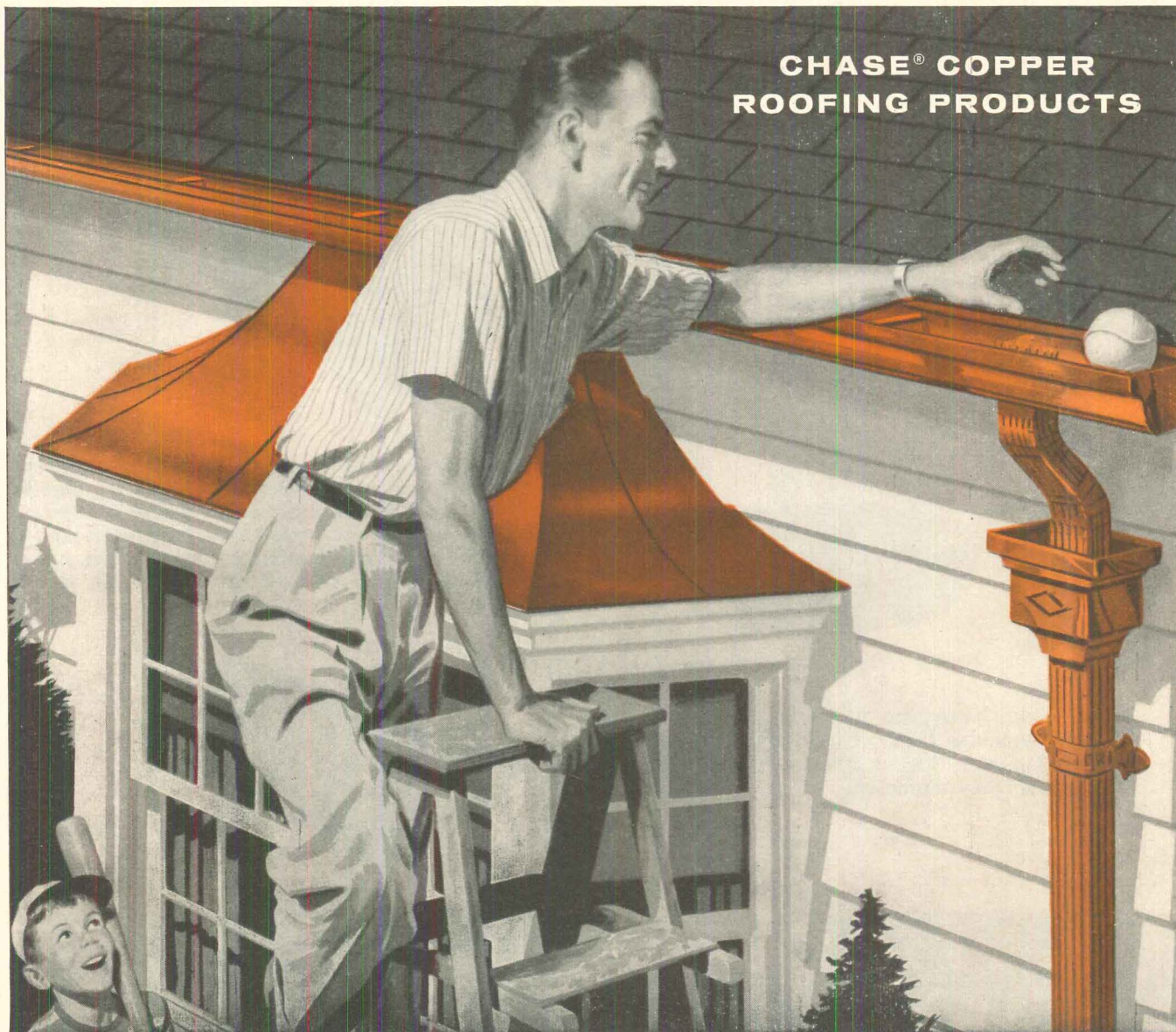
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Chase Copper Roofing Products make a hit with *everybody!* A hit with *homeowners* because Chase copper lasts longer, increases the value of any home. A hit with *you* because Chase products install faster, keep time costs down.

Chase Copper Roofing Products handle with ease. No special installation techniques are needed. Simple soldering makes Chase copper gutters and

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Chase Copper Roofing Products resist corrosion, never rust—add years of trouble-free service to roofs. Chase copper blends harmoniously with both modern and traditional designs, makes any home more attractive.

For the finest quality roofing jobs with *built-in* satisfaction, use copper roofing products by Chase.

Chase

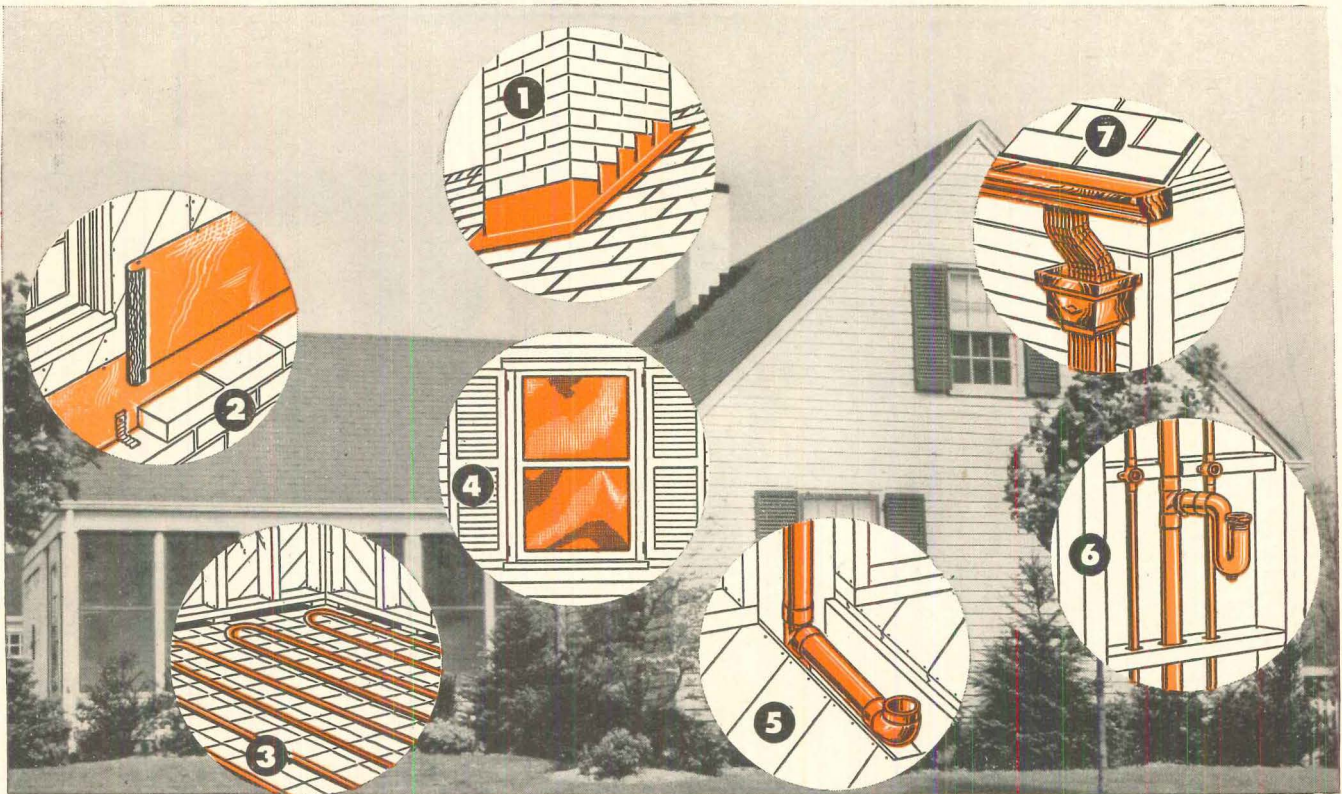
BRASS & COPPER CO.
SUBSIDIARY OF KENECOTT COPPER CORPORATION
WATERBURY 20, CONNECTICUT

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Chase® copper building products mean quality and down-to-earth installation costs!



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2 CHASE COP-O-TOP—Ideal economy material for concealed flashing and dampproofing. Consists of a layer of thin sheet copper bonded to one, two, or three layers of asphalt impregnated building paper. Tough, flexible, remarkably easy to handle.

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4 CHASE METAL INSECT WIRE SCREENING—Double-crimp weaving greatly increases dimensional stability. Can be cut without raveling and lies flatter for simplified fast assembly. Available in bronze, aluminum and stainless steel.

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7 CHASE COPPER GUTTERS, DOWNSPOUTS—Can't be beat for rugged, handsome good looks, as well as the structural strength to withstand weight of snow and ice. Gives better service for decades. Precision made of 16 oz. copper in a variety of styles and shapes.

Get full information on Chase copper building products
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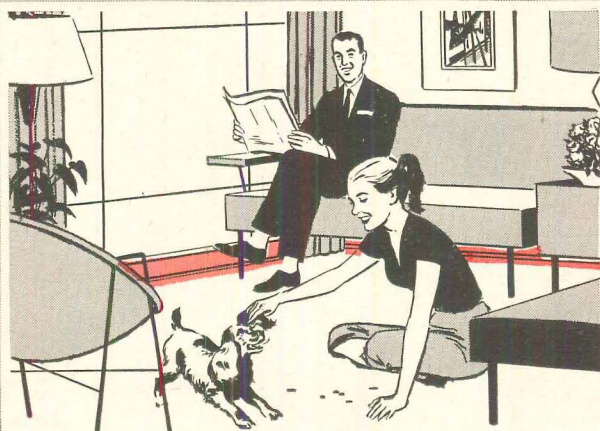
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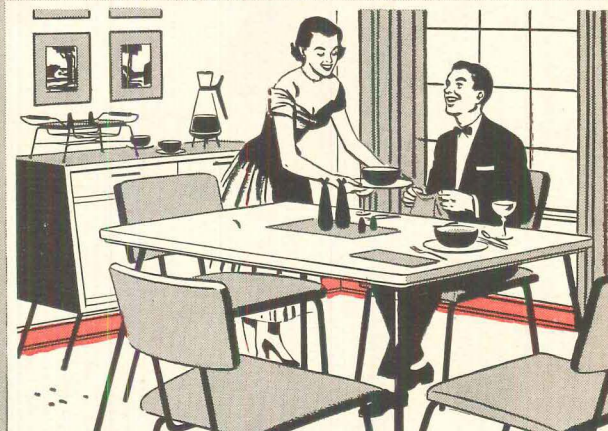
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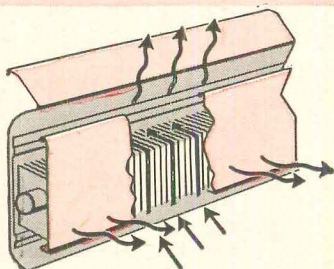
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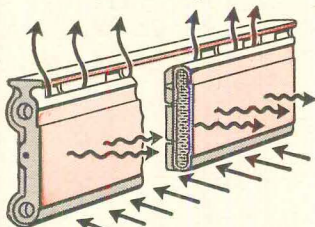
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Comfort is a basic feature of today's modern home. Builders everywhere recognize the sales and profit advantages of comfort features.

And one of the most important comfort features that makes any home more liveable, salable, and profitable is control of the *right* temperature in *every* room—at all times.

National-U.S. Baseboard Heating Systems provide the *right* temperature . . . control of delightful living in each room . . . and they supply it efficiently and economically. Write for complete information today.

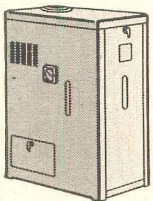
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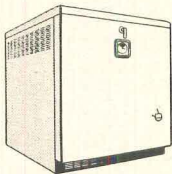
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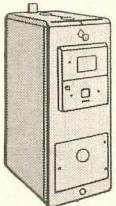
National-U.S. Packet
All-in-one, automatic
Home Heating Unit
For gas or oil firing



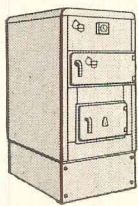
National-U.S. Baseboard Heating Systems work to highest efficiency when they are supplied by National-U.S. Hot Water and Steam Home Heating Boilers. There are styles and sizes for every residential requirement.

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Sizes to meet all needs



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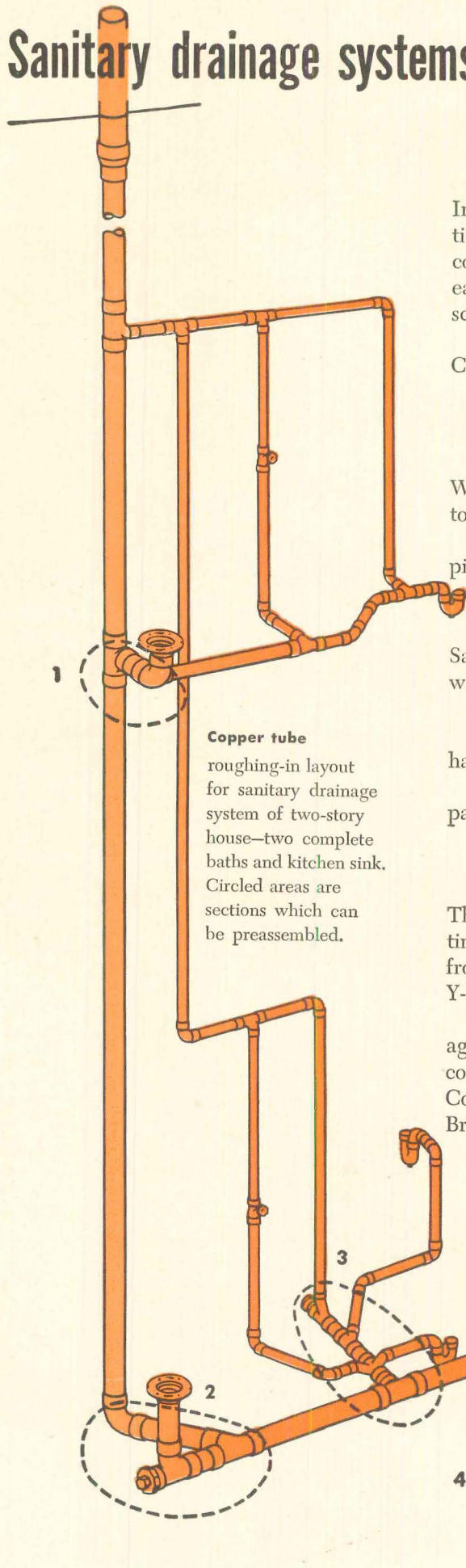
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Circled areas are
sections which can
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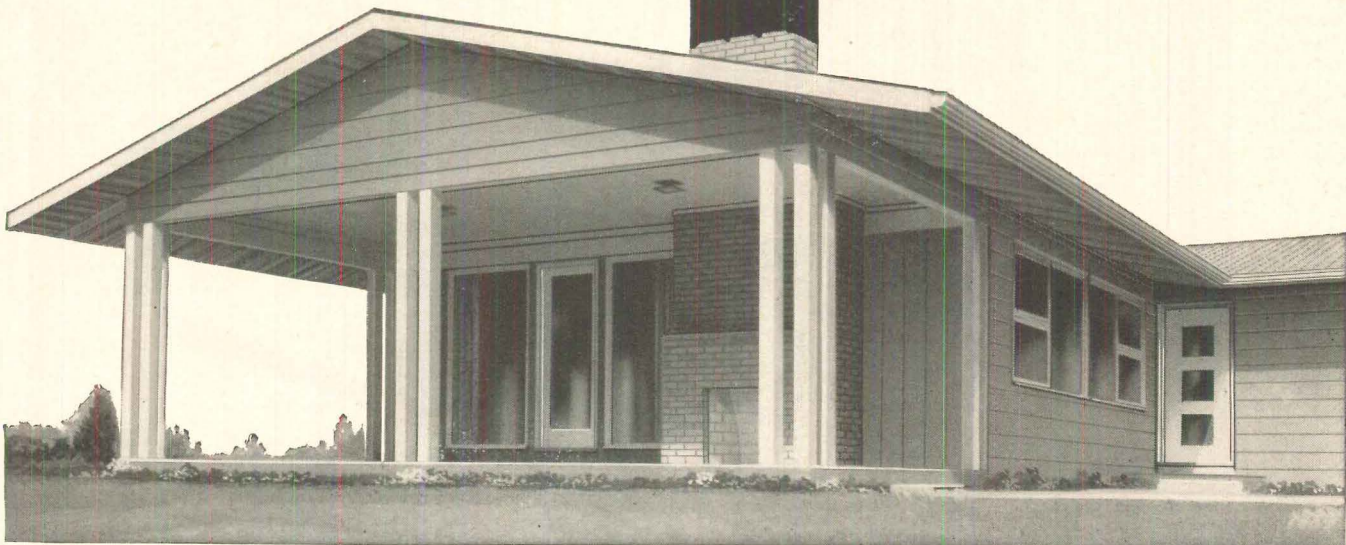
*the builder
who looks ahead
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PEASE HOMES

Monday, a white colonial . . . Tuesday, a redwood ranch . . . who knows what Wednesday's customer will ask for? Be prepared to satisfy . . . build Pease Homes!

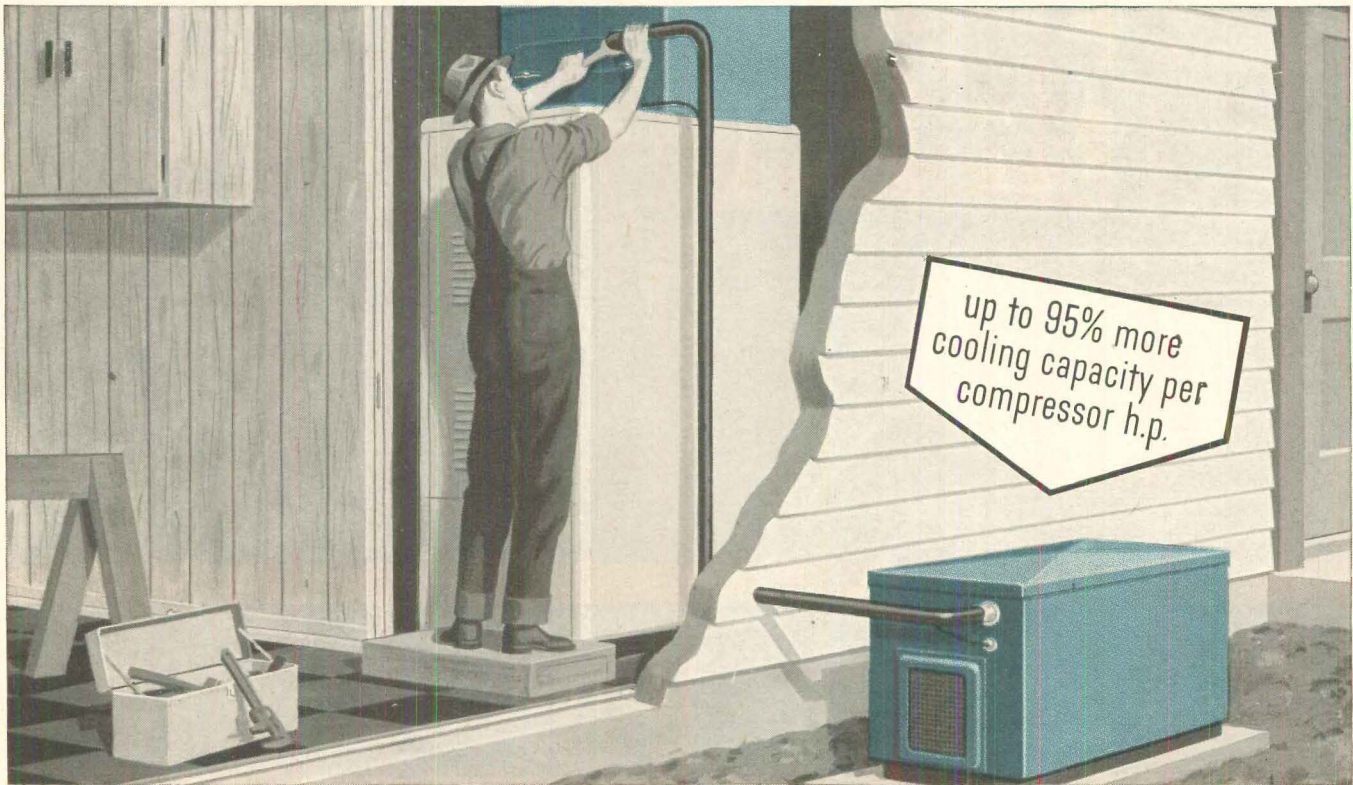
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Whatever you or your customer may choose, it's *available* in Pease Homes, preferred for dependable quality, individuality, immediate sale, prompt financing. Write today for free 72-page full color catalog to Pease Homes, Pease Woodwork Company, 932 Forest Avenue, Hamilton, Ohio.



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...a new kind of home air-conditioning system that cuts operating costs almost in half!



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Rheem did it all with a new Air-Film Condenser that *nearly doubles* compressor capacity, and new pre-charged

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Research House '56 Approves...



Harborite's extra strength, superdurability and easy workability were fully utilized by Daniel L. Dworsky, A.I.A., in the plans he designed for Research House '56, the "field test laboratory" project sponsored by Cron Publications.

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the miracle overlaid fir plywood...super-resistant to wear, weather and water!



...outstanding, multi-use structural panel!

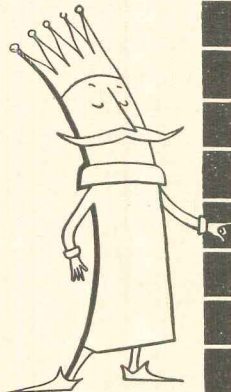
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INDIANAPOLIS • JACKSONVILLE • LOS ANGELES • SAN FRANCISCO • SEATTLE • TAMPA • Other major cities

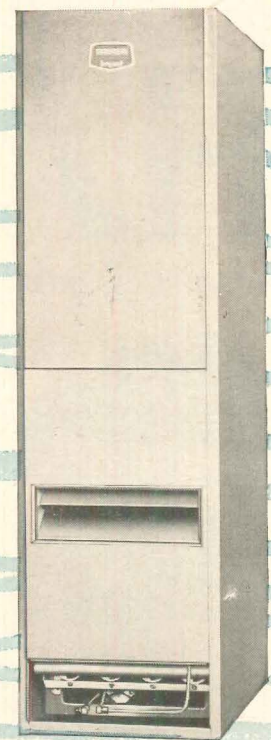
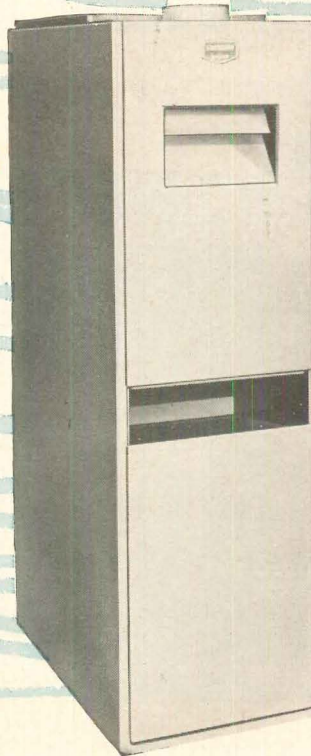
NEW

in design

LOW

in price

bryant



MODEL 385

MODEL 384

Bryant Suburban Downflow Model 384 and Upflow Model 385. Each in three sizes—75,000, 100,000 and 125,000 Btu/hr. Built-in Draft Diverter, Bryant Diaphragm Valve and Pilot, Cast Iron Drilled Port Burners, "Straight-Through" Heat Exchanger, Built-in Side or Bottom Return.

SUBURBAN FURNACES FOR BUILDERS

make your homes easier to sell!

Two brand-new Bryant Gas Furnaces—downflow and upflow, each in three popular sizes—are ready for delivery to homes being built right now. Loaded with Bryant features and carrying the famous Bryant brand name, they are low, low priced to help sell your homes faster . . . with a minimum investment. You'll be delighted at the rock-bottom cost of these handsome, dependable units. Ask your Bryant Distributor right now for a quotation!



JOB-SITE SIGNS



PERSONALIZED BROCHURES



DIRECT MAIL

PROMOTION HELPS TO SELL YOUR HOMES



PUBLICITY PROGRAMS



LOCAL ADS

A wide range of hard-hitting promotion helps are on hand to enable you to give star billing to the Bryant name and the finest in heating and cooling equipment. They talk product advantages while they tell the story of *your* homes. They are tailored exactly to your needs whether for use in a model home or in advertising to draw prospects. Available through your Bryant Distributor who will assist in preparing your complete program, if you so wish.

OTHER BRYANT BUILDER PRODUCTS



GAS FURNACES



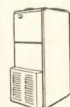
GAS BOILERS



AIR-COOLED & WATER-COOLED AIR CONDITIONERS



OIL FURNACES



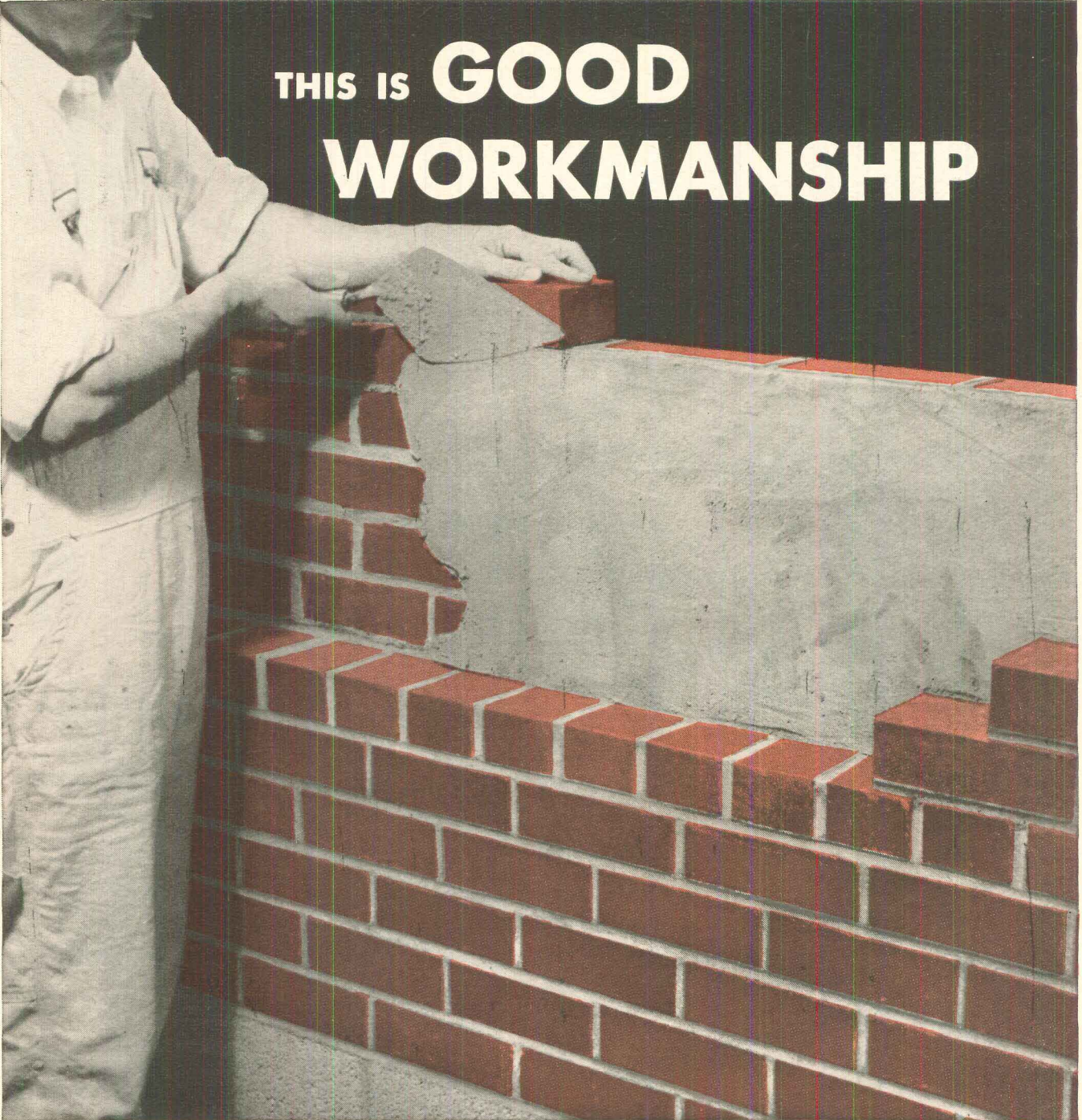
WATER HEATERS

CALL YOUR BRYANT DISTRIBUTOR TODAY

bryant

for complete information or write

48 MONUMENT CIRCLE
Indianapolis 4, Indiana



THIS IS GOOD WORKMANSHIP

GOOD workmanship is one of the most important factors in preventing leaky brick walls.

Good workmanship includes wetting the brick—completely filling the head and bed joints—and back-plastering the face brick before the back-up units are laid.

Expect trouble when the face brick are not parged. Even if the space between the face brick and the back-up units is slushed, it cannot be completely filled with mortar. Voids are left between the mortar and the brick, through which

water may enter, trickle down and leak to the inside of the wall.

Brixment mortar enables the bricklayer to back-plaster quickly and easily. Brixment mortar has great plasticity, high water-retaining capac-

ity and bonding quality, great resistance to freezing and thawing, and freedom from efflorescence. Because of this *combination* of advantages, Brixment is the leading masonry cement on the market.

BRIXMENT

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY

for
eye appeal
 and
utility

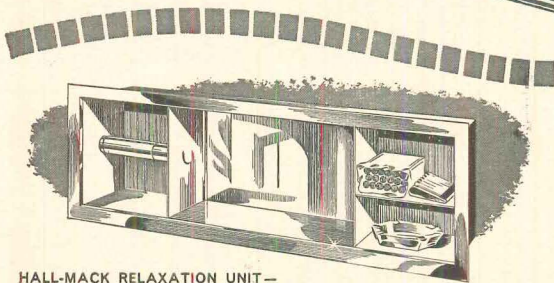


use

HALL-MACK[®]
 bathroom accessories
 in sparkling *chrome!*

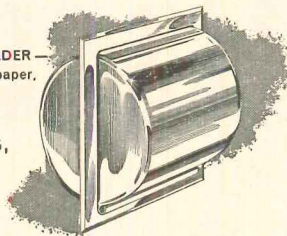


RECESSED TOW'LESCOPE —
 concealed utility bar for drying
 nylons, lingerie—for guest towels.



HALL-MACK RELAXATION UNIT —
 is styled for comfort and convenience.

CONCEALED TOILET PAPER HOLDER —
 revolving hood protects, covers paper.



SOLD AT LEADING PLUMBING,
 TILE AND HARDWARE
 DEALERS EVERYWHERE

Here's a beauty treatment that will make you proud of the bathroom you design and build . . . year after year. Whether you are remodeling a "middle-aged" room — or planning a "new" bath, you'll find a fresh, bold beauty in every brilliantly polished Hall-Mack accessory that adds character and convenience to any bath. Hall-Mack gives you the best known name in bathroom accessories — over 30 years of quality leadership — complete lines to fit every budget — and a wide selection of new and unusual specialties that add "sparkle" to any bath. For quality, convenience and economy — you can always recommend *with confidence* Hall-Mack bathroom accessories.

HH-9

HALL-MACK COMPANY

1380 West Washington Blvd. • Los Angeles 7, California

Please send your FREE color booklet of new bathroom ideas.

name _____

address _____

city _____ zone _____ state _____



**SALES SECRET—
TELL BUYERS IT**

**NEVER
WEARS OUT**

Made of fireproof asbestos-cement... secured against storm damage by copper anchors... American Thatch shingles put lifetime roof protection on any home. Exclusive Duroc[®] finish protects colors from sun, weather, dirt. Handsome "thatch" design — in a range of attractive two-tone colors — gives a dramatic 3-dimensional look.

American Thatch "wear-proof" roofs give quality homes an extra value that will appeal to discriminating buyers.

RUBEROID

American Thatch[®]
(Pat. No. 2,687,701)

ASBESTOS ROOF SHINGLES

ASPHALT AND ASBESTOS BUILDING MATERIALS

For more information, ask for American Thatch folder #1343—Write the RUBEROID CO., 500 Fifth Avenue, New York 36, N. Y.

Don't Gamble

on your home building program



Team up with 21 years of P&H know-how... Build P&H Homes!

Why risk *any* more than necessary in home building? Every month more alert businessman-builders are putting their programs on sounder, more *profitable* footing by building Harnischfeger P&H Homes.

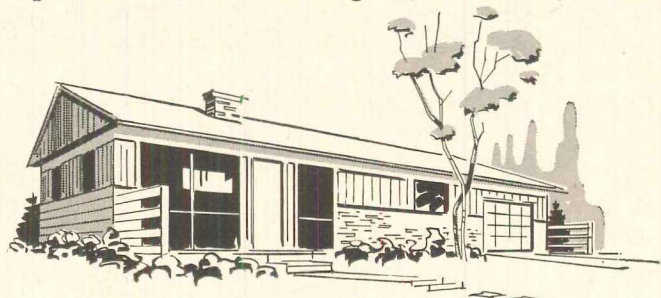
When you build P&H Homes, you *know* your costs from the beginning. You're exposed to risk for *less* time because the homes are sold and completed faster. Your capital turns over faster and builds more homes per year. Harnischfeger shows you how to cut overhead and on-site costs.

You get *personalized* counsel in every phase of your program: in planning, financing, merchandising, construction. And finally, you offer quality, design, materials and craftsmanship that make P&H Homes the *preferred* homes with

builders, lenders and buyers... the best home values in the \$10,000 to \$20,000 class.

Cut your risk, offer a more salable home with faster, greater profits. Join the ever-growing team of P&H Dealer-Builders.

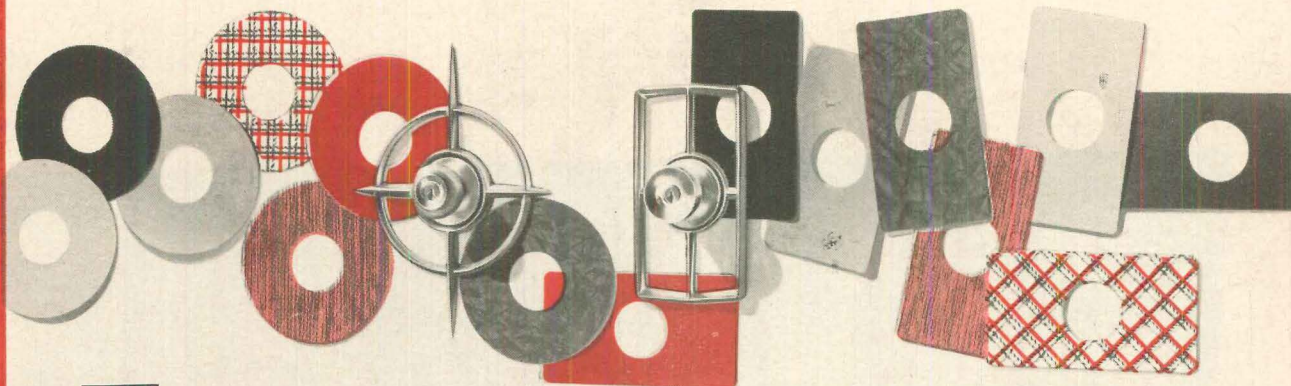
Write, wire or call today: Harnischfeger Homes, Inc., Dept. HH-569, Port Washington, Wisconsin, Phone 611.



HARNISCHFEGGER HOMES, Inc.

For 21 years, better value for the owner, better business for the builder





1

PRE-CUT "Color-Accent" BACKGROUNDS...

... designed to give you an inexpensive, colorful means of gaining full sales appeal from Schlage's recently introduced open-back lock stylings. Made of Con-Tact®, self-adhesive plastic, "Color-Accent" Backgrounds cost only pennies ... can be easily applied in a matter of minutes ... at

the same time Schlage open-back designs are installed on your doors. Available from Schlage dealers in a wide variety of colors and patterns, "Color-Accent" Backgrounds allow you to individualize doorways ... give each home a unique, personalized entranceway.

TWO NEW "EYE-APPEALING" IDEAS FROM SCHLAGE—

To help merchandise your homes!



2

"TOUCH OF QUALITY" PROMOTION PACKAGE...

... your invitation to a *free*, full-scale merchandising program — developed especially for you by Schlage. Here's everything you need to appeal to prospective home-owners with Schlage's "Touch of Quality" story — including an attractive 12-page "Model Home Booklet," a hand-

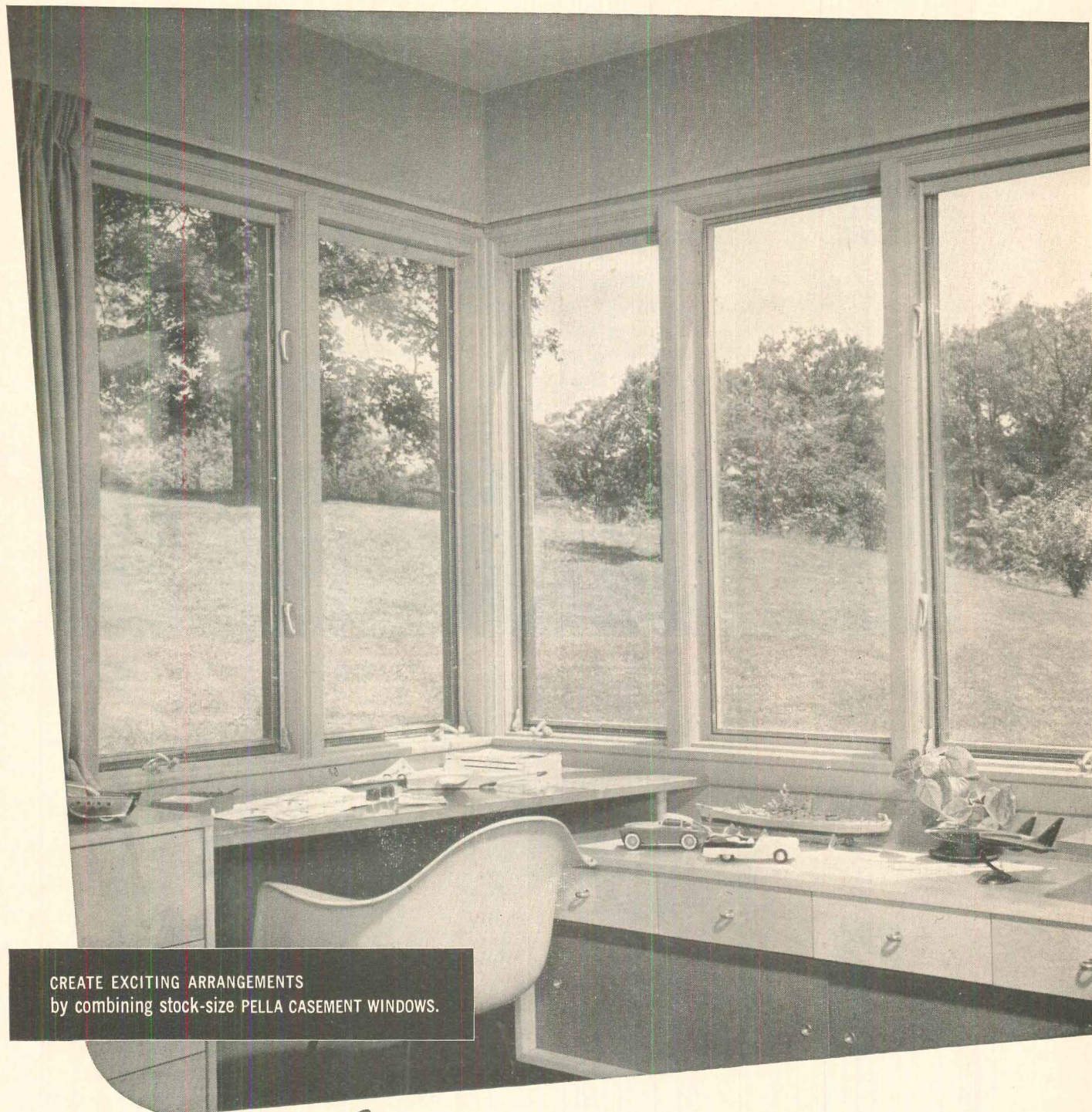
some display easel, colorful lock tags, ad mats and "drop-ins," *plus* a unique key presentation package for the new home-owner. An excellent means for impressing model home visitors that quality guides your choice of materials throughout your homes.

For further information on Schlage's New Merchandising Tools ...

"Color-Accent" Backgrounds and the "Touch of Quality" Promotion Package ... contact your nearest Schlage representative or write to Dept. E-9, Schlage Lock Company.

SCHLAGE SCHLAGE LOCK COMPANY
SAN FRANCISCO • NEW YORK
VANCOUVER, B. C.

Address all correspondence to San Francisco



CREATE EXCITING ARRANGEMENTS
by combining stock-size PELLA CASEMENT WINDOWS.

Pella[®]

WOOD CASEMENT WINDOWS

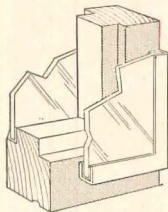
Eliminate these 6 window chores

- 1 PUTTING UP AND TAKING DOWN SCREENS
- 2 PAINTING AND REPAIRING SCREENS
- 3 STORING SCREENS

- 4 PUTTING UP AND TAKING DOWN STORMS
- 5 PAINTING AND REPAIRING STORMS
- 6 STORING STORMS



ROLSCREENS simply roll up and down like window shades...store in neat compartments at window top. The home owner is forever rid of seasonal chores. And, no costly storage space is required.



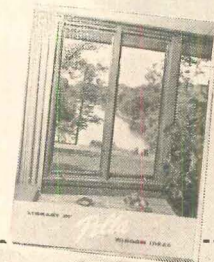
DUAL GLAZING...the self-storing storm window... stays in place the year 'round. It insulates against summer heat as well as winter cold. Reduces street noises, too. A swing-out hinge allows exterior glass to be washed from indoors.

PELLA CASEMENTS are completely factory assembled, reducing installation costs. Wood-lined steel frames combine beauty, strength and insulating qualities.

Ventilating sash glass sizes up to 24" in width and 60" in height. Stainless steel weather-stripping seals out dust and drafts. See our catalog in Sweet's. Distributors in principal cities of United States and Canada.

Pella[®]

WOOD CASEMENT WINDOWS



CLIP AND MAIL TODAY

**ROLSCREEN COMPANY, Dept. H-75
PELLA, IOWA**

Gentlemen: Please send me:
 Free "Library of Window Ideas," a helpful 20-page booklet.

FIRM NAME _____

ADDRESS _____

CITY _____ ZONE STATE _____

ATTENTION MR. _____

Huber Packaged Homes...

**SHOW
BUILDERS
HOW TO
OUTSELL
COMPETITION**

2 to 1

LOOK AT THE RECORD

... Set by Huber in the home territory of three of America's largest pre-fab builders:

Dayton, Ohio 12/31/54-6/1/56	Building Permits	Down Payment
Pre-fab N	1,041	low or no
Pre-fab U	1,003	low or no
Pre-fab I	504	low
Huber	2,152	\$1,295- \$1,900

No matter what your market, you can out-price and out-sell the toughest prefab or conventional competition with Huber Packaged Homes.

Huber's mass purchasing, pre-packaging and new construction techniques put you in a position to build the finest home values in your community.

THE HUBER HEATHER

2 Tile Baths . . . 3 Bedrooms . . . Big 52' Frontage . . . All Brick . . . Aluminum Windows
1,060 sq. ft. living area plus attached garage with 700 cu. ft. of storage or workshop space . . . all-metal kitchen, washable walls, open-plan living-dining area, wall-to-wall carpet, many extras . . . can be sold profitably on average land for \$13,950.
One-Bath, Dundee Model. Price starts at
\$12,950 on average land.

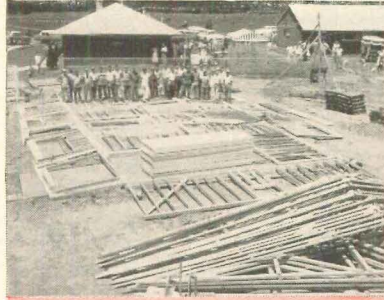
COMPETE AT A PROFIT

Huber offers you a choice of two money-multiplying plans: (1) Huber Packaged Homes delivers any quantity of 3 different models to your site. (2) HUBER ENTERPRISE PLAN includes same packages erected on your improved land, plus merchandising help. For details, write, wire, phone or visit Dept. 9, Huber Homes, 921 E. Stroop Road, Dayton, Ohio. Phone: WALnut 3127. Midwest Inquiries Invited.

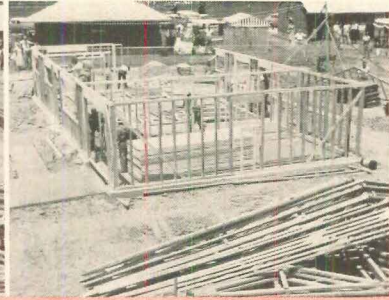
HOME-A-DAY

Building Demonstration

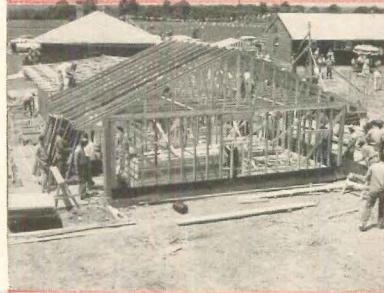
Shows how easily and quickly you can erect conventional appearing Huber Homes. A tremendously successful promotion, it also stimulates interest and publicity, pulls traffic, demonstrates quality construction to your customers.



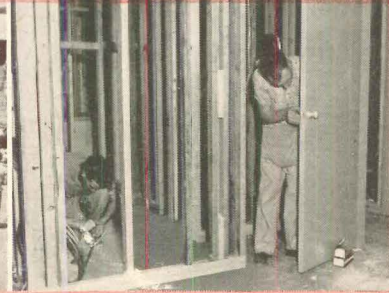
11:25 A.M. Slab plus package plus crack crew



11:40 A.M. Exterior and interior framing goes up



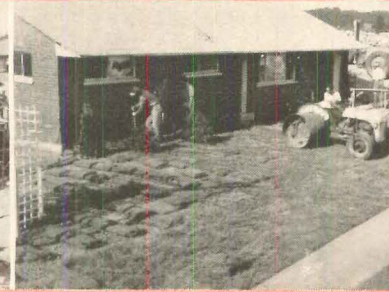
12:15 P.M. Ridgepole goes on, door frames go in



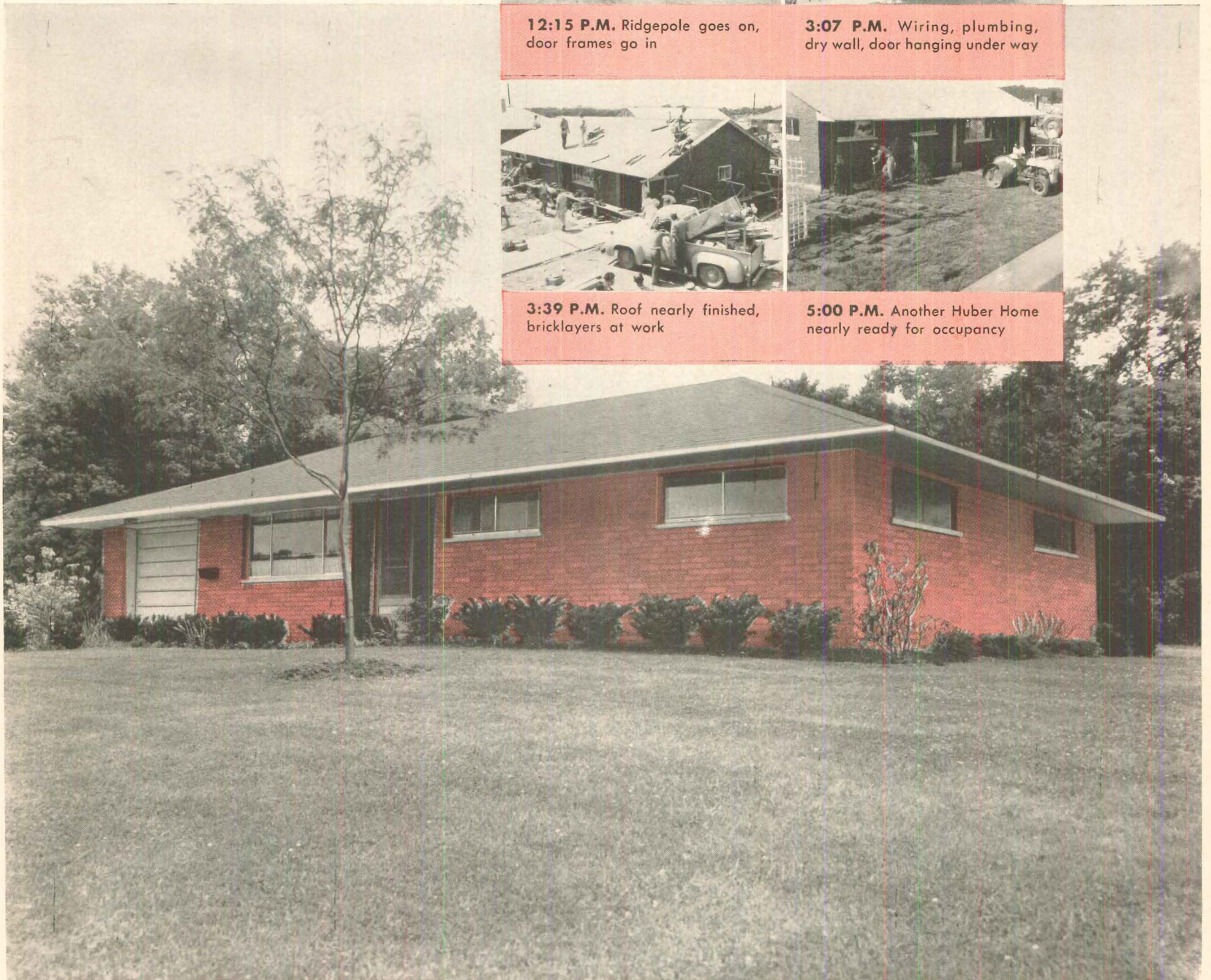
3:07 P.M. Wiring, plumbing, dry wall, door hanging under way



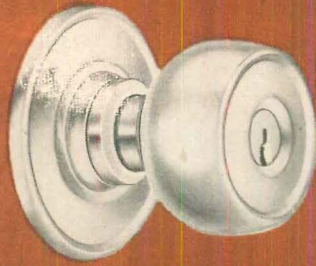
3:39 P.M. Roof nearly finished, bricklayers at work



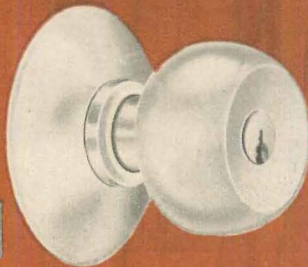
5:00 P.M. Another Huber Home nearly ready for occupancy



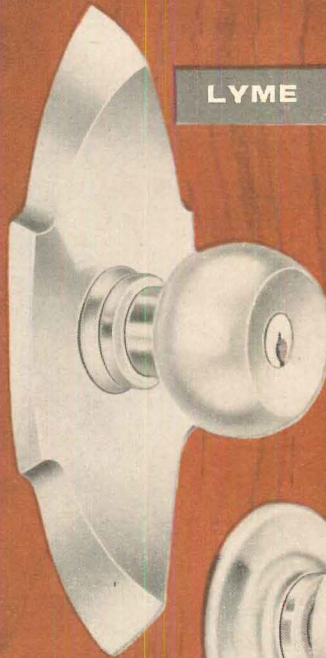
Select from the new
 ... **75** beautiful design



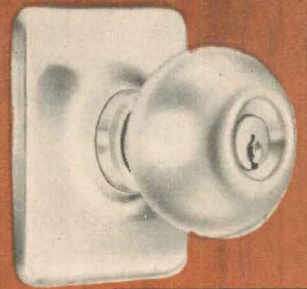
HAMDEN



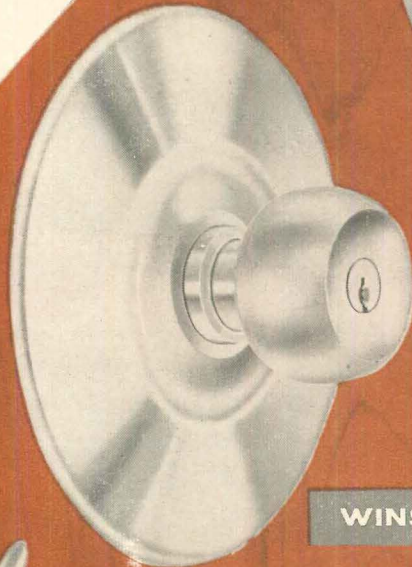
DARIEN



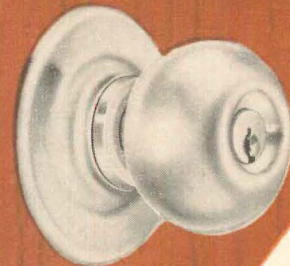
LYME



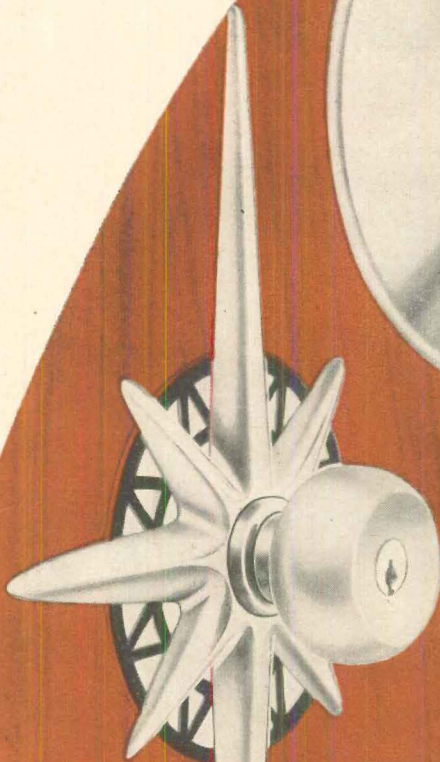
CLINTON



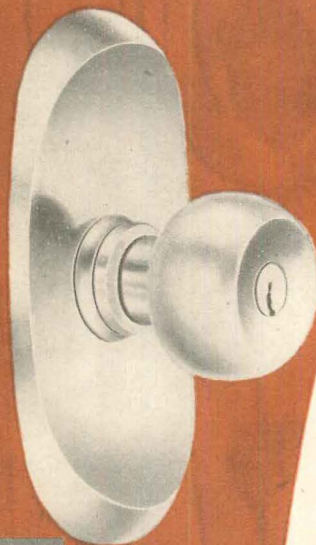
STONINGTON



WINSTED



MYSTIC III



LITCHFIELD

75! The *only* lock that offers you . . . 75!

That's right! You can actually get 75 graceful, eye-filling design possibilities in the new Sargent Sentry line.

The lock for better homes!

75 design combinations . . . available in 19 functions! 5 beautiful finishes!

PLUS money-saving installation . . . because of 7 new simplifying features.

The new Sentries conform to Federal Spec. FFH 106A, Type 160, for bored lock and latch sets.

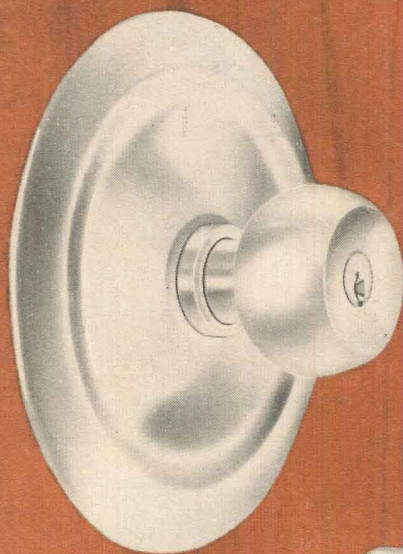
Ask your Sargent Distributor for details. Or write direct to Sargent & Company, New Haven 9, Conn., Dept. 11-J.



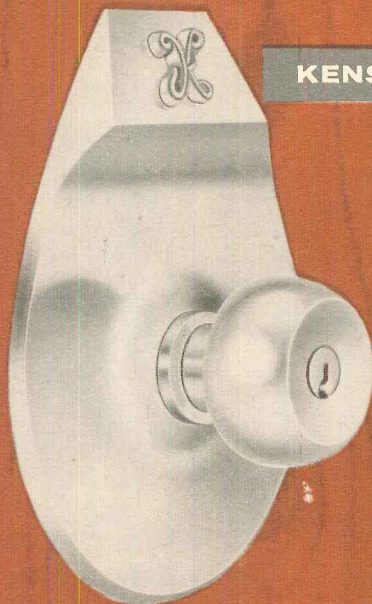
SARGENT LOCKS

Sargent **SENTRYLOCKS**

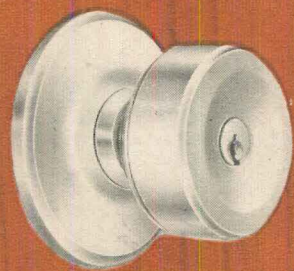
possibilities!



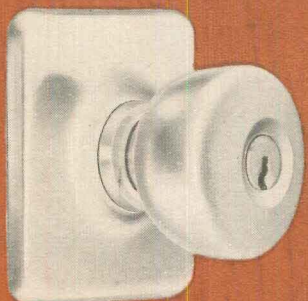
WESTPORT



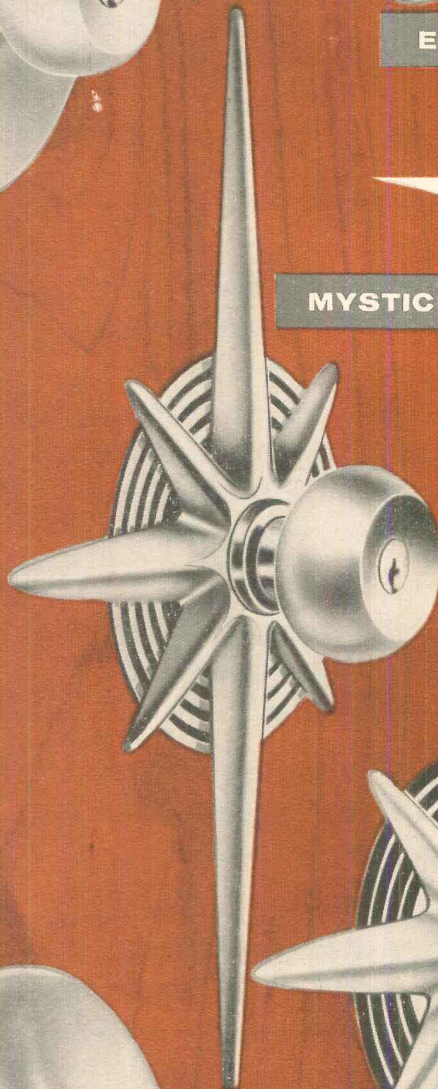
KENSINGTON



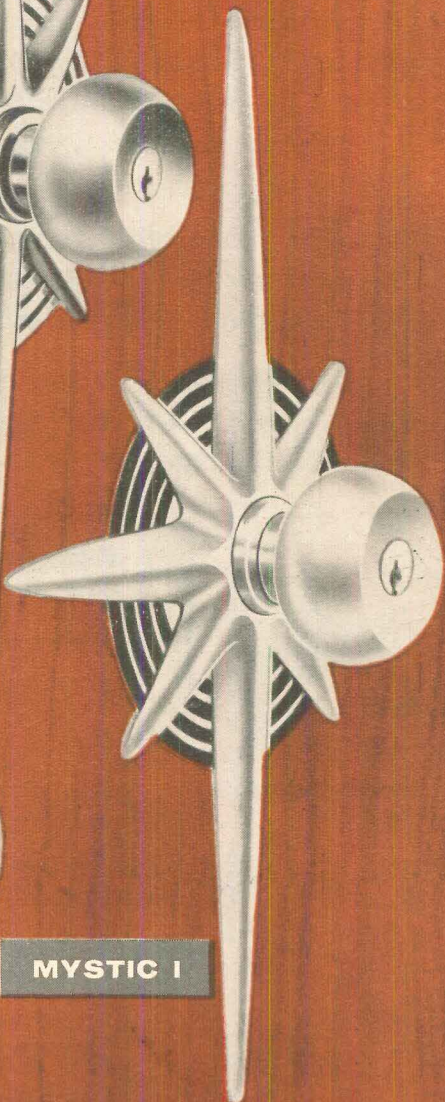
ESSEX



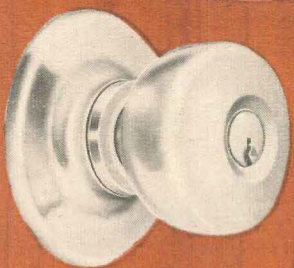
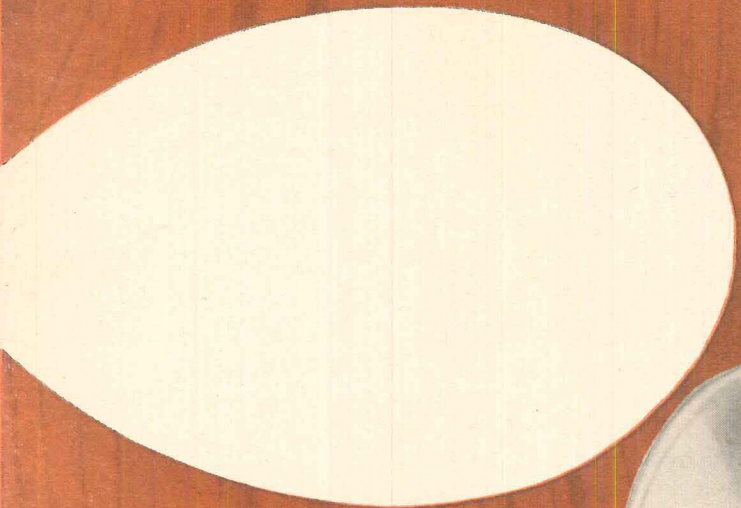
MILFORD



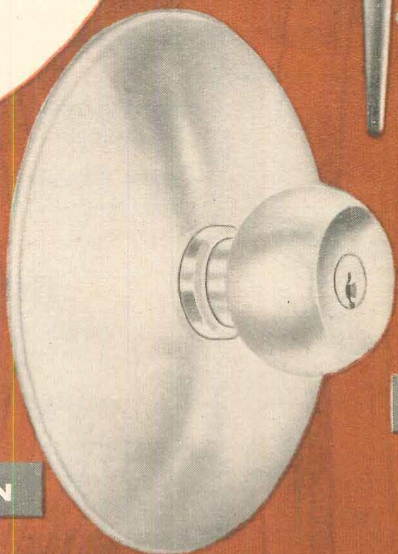
MYSTIC II



MYSTIC I



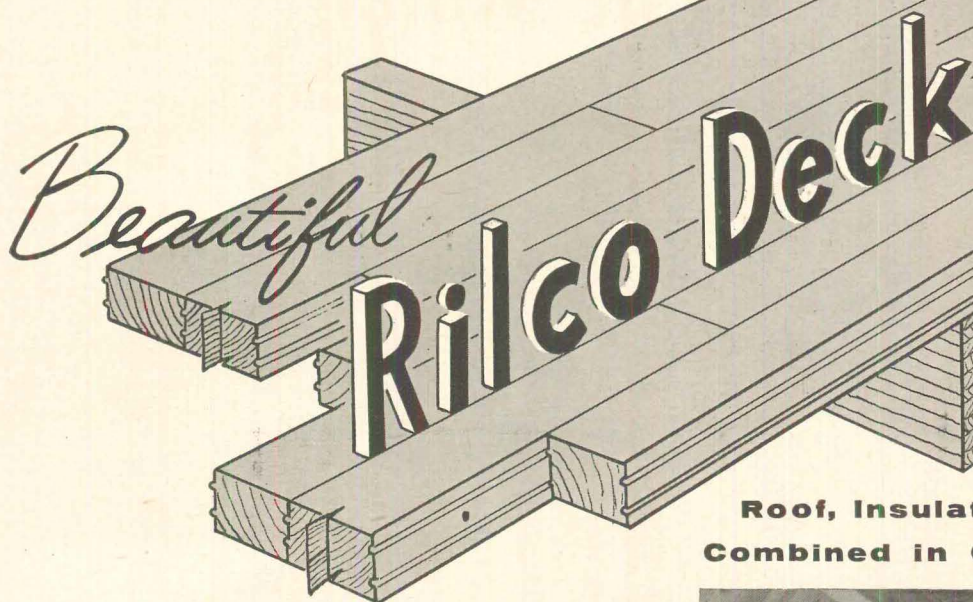
RIVERSIDE



WILTON

...*"Sign of a well built house"*

DO YOU KNOW the real ECONOMY of

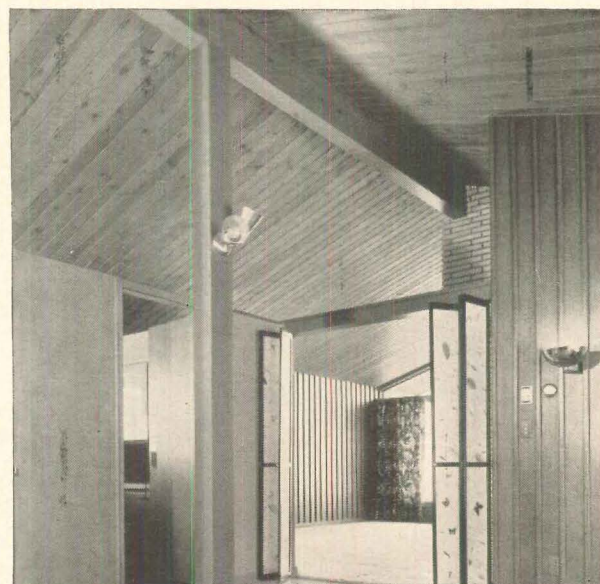


**Roof, Insulation and Ceiling
Combined in One Application**

Rilco Deck eliminates the need for joists, bridging, purlins, lath, plaster and usually insulation. Manufactured of solid timber, a slab is formed by spiking together through predrilled holes the double tongue and grooved pieces. Specially kiln-dried in our own plant to insure dimensional stability, Rilco Deck stays tight, resists twisting. Ends are double trimmed for tight fit. Waste is nil.

Rilco Deck offers rich, colorful warmth which only wood can give to churches, schools, residences, auditoriums, stores and commercial structures.

Plan now to take advantage of the amazing beauty and economy of Rilco Red Cedar Deck. Also available in light color species. Our representative will gladly work with you.



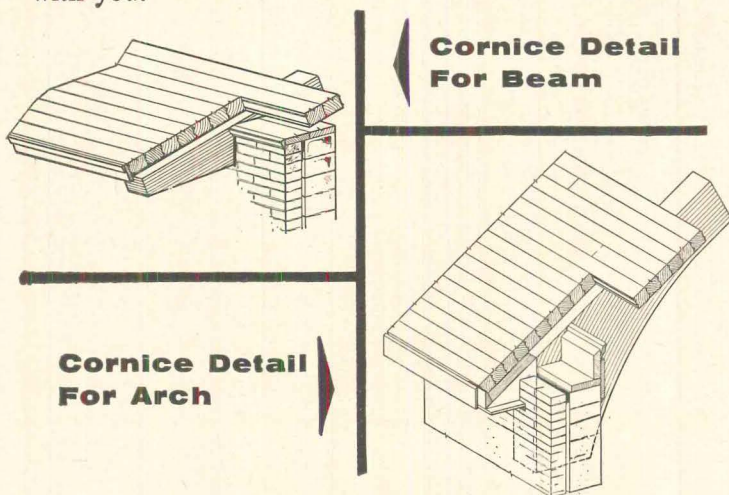
Natural finish of Rilco Deck offers exceptional beauty and economy.

Deck is nominal 4" x 5" machined to 3 $\frac{5}{8}$ " thick and 4 $\frac{3}{8}$ " wide. Face is graded for appearance with "V" joint, grooved or striated. Also available in nominal 3" thickness Western Red Cedar Species.

Insulation value with built up roof of U .17
with $\frac{1}{2}$ " insulation U .13

Moisture Content — Specially dried in our own kilns to 12 to 15% moisture.

Fire Resistant — Qualifies as mill type construction to earn low insurance rate.



Two of several details shown in our Sweets catalogue, free on request or refer to section 2B/Ri Sweets.

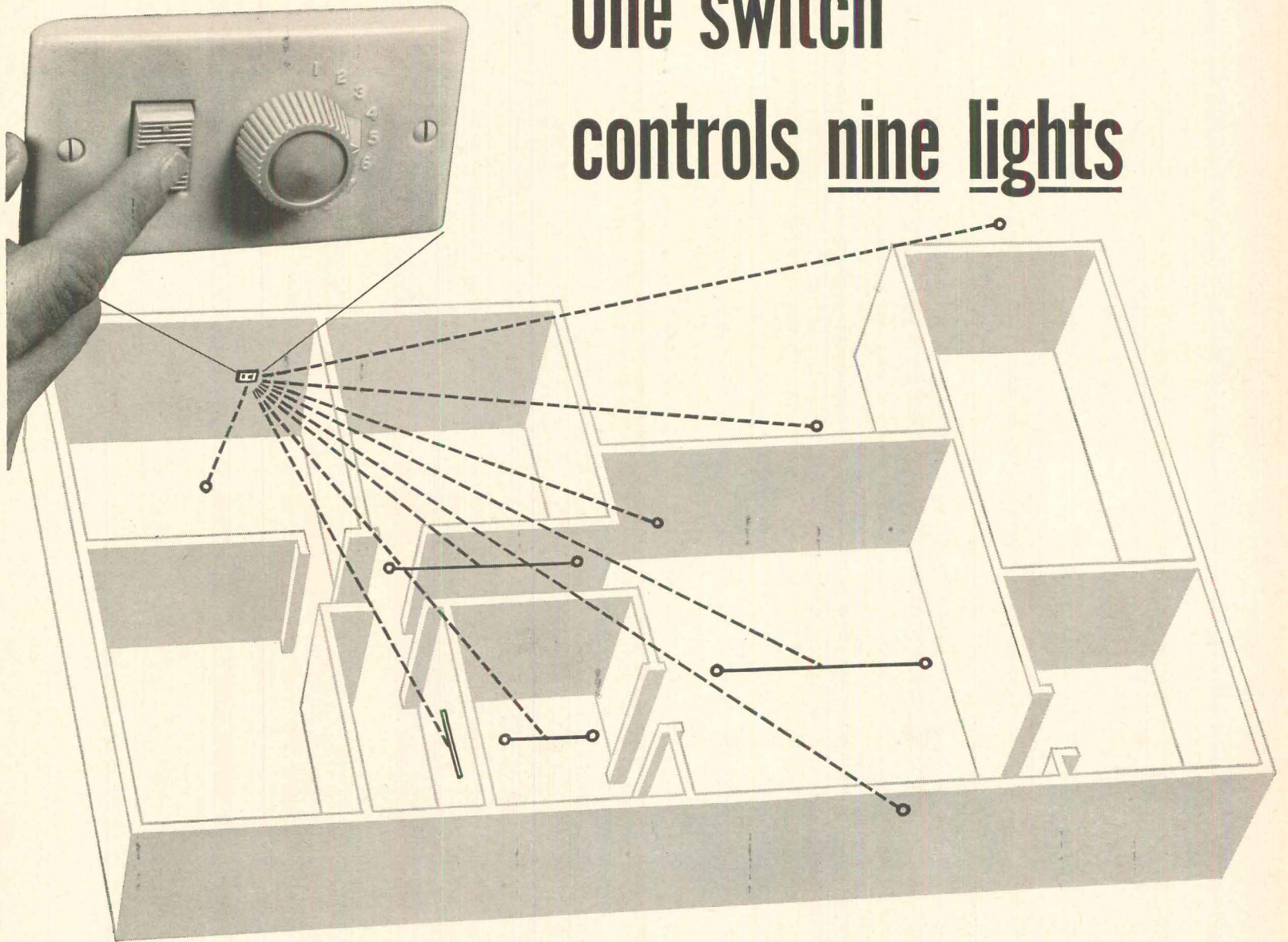
RILCO
works wonders with wood

RILCO LAMINATED PRODUCTS, INC.
2543 FIRST NATIONAL BANK BLDG. • ST. PAUL 1, MINN.
District offices: Wilkes Barre, Pa., Ft. Wayne, Ind., Tacoma, Wash.



Remote-Control Wiring . . .

One switch controls nine lights



Builders are getting this sales-making feature
for as little as \$35 per house

General Electric remote-control wiring is one of the most effective sales features that any new house can have. It offers prospective home owners safety, comfort, and step-saving convenience every hour of every day. What's more, it is a sales feature that can be *demonstrated dramatically . . .*

- by letting the prospects themselves operate the dial of a master selector switch to turn *on* or *off*, from one location, as many as nine lights anywhere in or around the house;
- or by letting them operate from several switching points an individual light or outlet.

With all its advantages, G-E remote-control wiring is economical for houses in any price range. The complete installed cost is surprisingly low — averaging throughout the country only about \$35 to \$70 per house more than conventional wiring. Where else can you find such a sales-building feature at such low installed cost?

For complete information about G-E remote-control wiring, see your General Electric distributor, or write to Wiring Device Department, General Electric Company, Providence 7, R. I.

Progress Is Our Most Important Product

GENERAL  ELECTRIC

America's outstanding homes

The residence of Smith L. Rose, in Houston, Texas. Mr. Rose designed his home around Carrier air conditioning. He has placed picture windows in every room except the baths.



are air conditioned by Carrier

This is a Weathermaker Home—outstanding in design, in appearance and in comfort.

And wherever they're built, from Texas to Maine, these homes have this in common: their architects and builders did not cut corners. They wanted air conditioning that was expertly installed, that would perform unfailingly and would deliver guaranteed comfort year after year. That's why they chose Carrier.

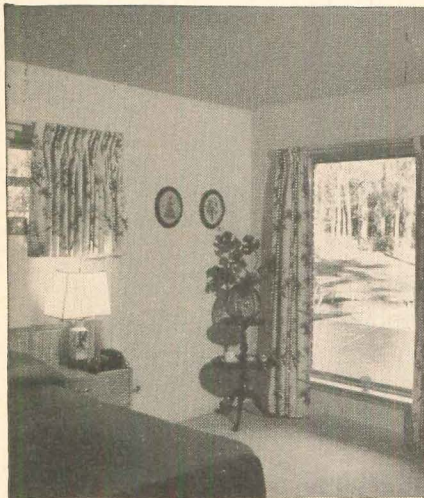
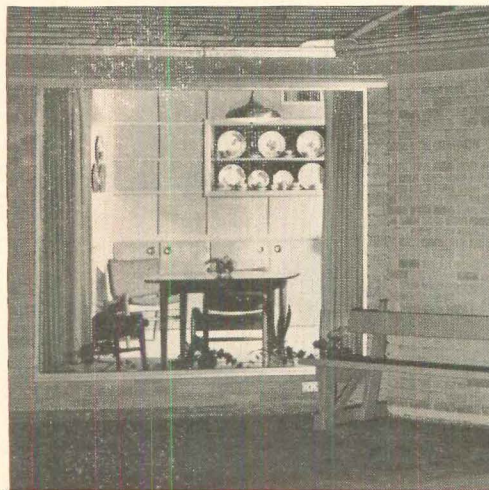
What can Carrier do for you?

The Weathermaker* Home offers prospects a known and trusted name. Carrier performance and Carrier national advertising build this preference for Weathermaker Homes. Buyers get a value they'll recognize, and a home they can buy with confidence. That's good business.

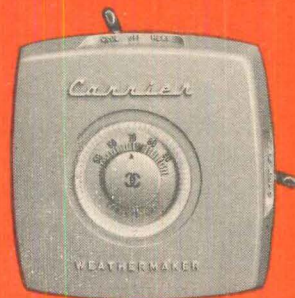
Prosper with Carrier—the first name in air conditioning. Carrier Corporation, Syracuse, New York.

**Reg. U. S. Pat. Off.*

Carrier air conditioning permits the use of floor-to-ceiling fixed sash windows for generous view and also to heighten spaciousness of the interior.



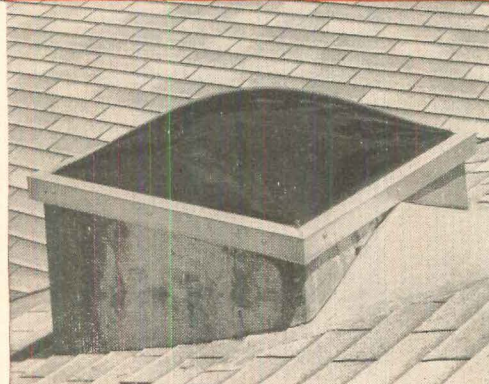
All bedrooms have full-length windows that look out on private backyard patio. A 3-ton Year-round Weathermaker air conditioner is shown on the left.



Weathermaker Control Center regulates both winter heating and summer cooling.



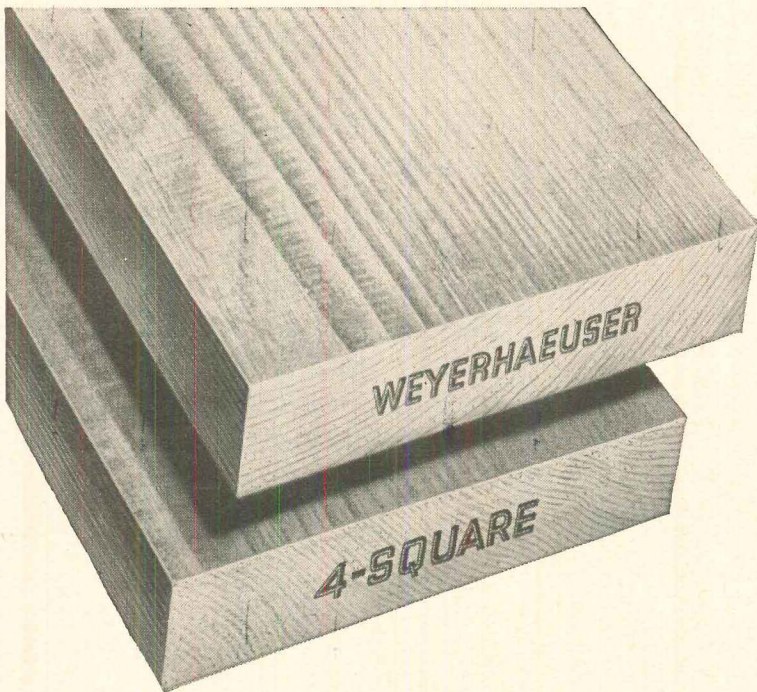
The Rose living room. Entire house is built around this room which opens into every other room and to the patio. Where view is less desirable, and when privacy is wanted, storage walls are used.



Natural light for interior rooms of the Rose home is brought in through "sky domes" in the roof.



MORE HOMES ARE AIR CONDITIONED BY CARRIER WEATHERMAKERS THAN BY ANY OTHER MAKE



This brand name
also means ...

Kiln-dried Lumber

Here are some of the reasons why
it pays to build with seasoned lumber

Dimensional stability—Because it is scientifically seasoned *before* surfacing to size, kiln-dried lumber is pre-conditioned to resist dimensional changes. The name “Weyerhaeuser 4-Square” on lumber is assurance of proper seasoning.

Easier to handle and work—Because kiln-drying removes excess moisture, seasoned lumber is easier to handle and process. The drying also gives the cellular structure of the wood more uniformity, which improves workability.

Strong and durable—Kiln-drying greatly increases the four strength properties of lumber (bending strength, vertical strength, stiffness, and hardness) by the firm “patterning” of the

wood cells and fibers.

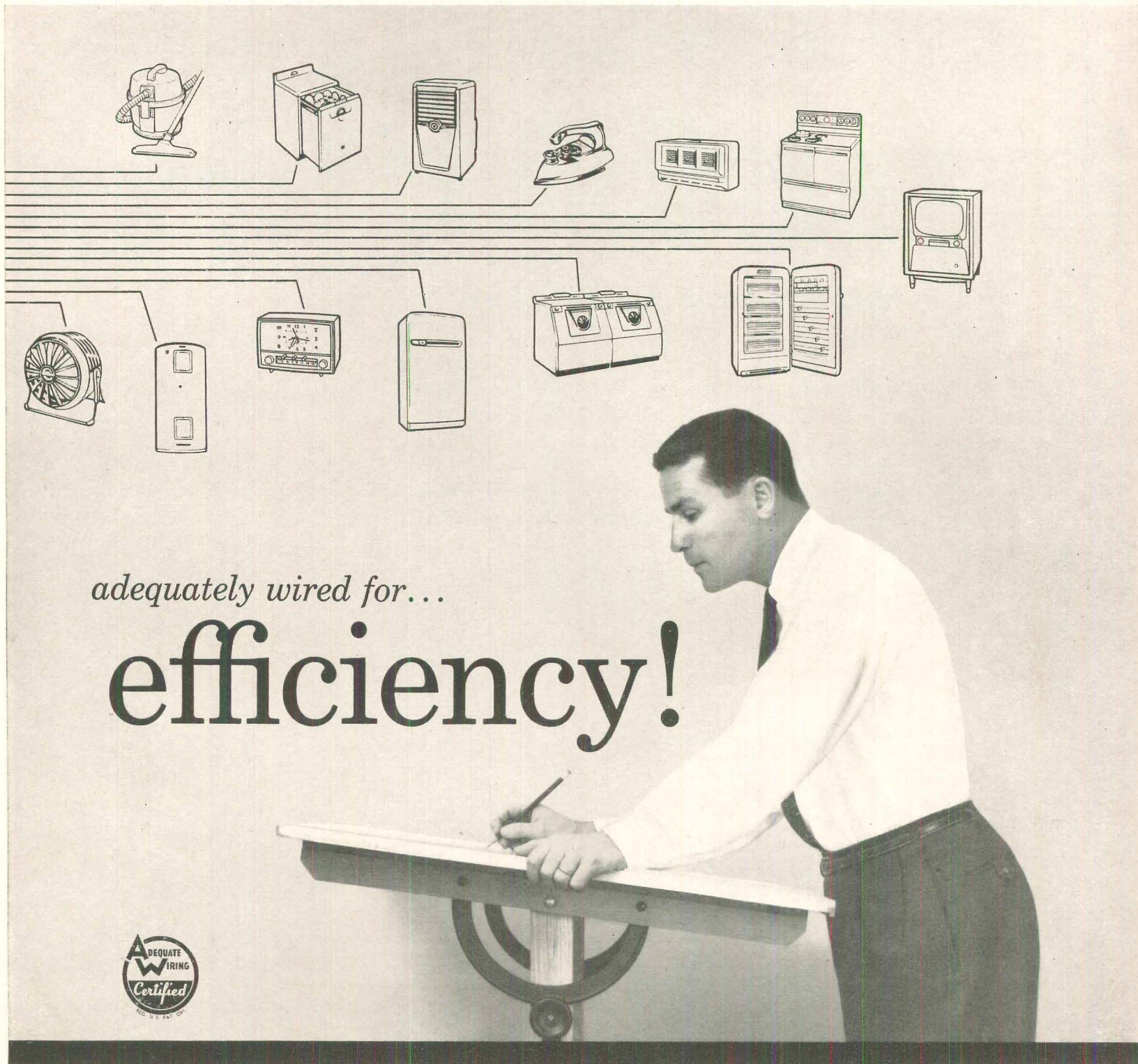
Takes and holds finishes—Seasoned wood holds paint remarkably well—and prolongs the decorative and protective life of the finish.

Important features for builders—With the public becoming more and more interested in quality construction, the use of high quality Weyerhaeuser 4-Square Lumber is increasingly effective in closing home sales. Builders report that it pays to use Weyerhaeuser 4-Square Lumber—and to feature it in selling homes—because it gives them extra competitive advantages. That’s why more and more builders are selecting Weyerhaeuser 4-Square Lumber Dealers as their source of lumber supply.

Weyerhaeuser Sales Company

ST. PAUL 1, MINNESOTA





adequately wired for...

efficiency!



Modern electrical living demands fore-sighted "adequate wiring" plans

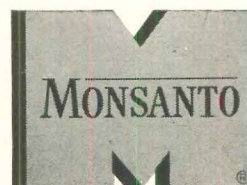
Automatic washing machines and dryers. Freezers and air conditioners. Dishwashers and garbage disposal units. Television, new lighting, power tools. Most of these didn't exist a few years ago. Today they are "necessities" that are fast making even new homes electrically obsolete.

Obsolete because in many homes this growing emphasis on electrical living has made the wiring system a sensitive spot. That's why leading manufacturers have geared to produce more wire and cable with safer, more efficient insulation. Many of them are using Monsanto Opalon vinyl resins and electrical compounds.

Architects and builders, alert to the fact that new inventions will create new electrical needs and will make still greater demands on wiring systems, are giving due consideration to the demands of "adequate wiring."

What constitutes "adequate wiring"—now and for the future? The best answer is found in the booklet "Residential Wiring Handbook." If you would like detailed assistance in your electrical planning, write for a complimentary copy to: National Adequate Wiring Bureau, 155 East 44th Street, New York 17, New York.

A NEW REPORT, "Pipelines to the Future," containing an evaluation of different types of plastic pipe is available at \$1.00 each. This study was compiled by Monsanto's Structural Plastics Engineering Group. You are invited to write them on any question pertaining to the use of plastics in construction. Monsanto Chemical Co. Room 508, Springfield 2, Mass.



Typical of 600 modern "Storybook Homes" in Deerfield and Morton Grove, Illinois. Brammer beauty and efficiency help homes sell . . . and Brammer's builder-styling saves 20% on installation costs.

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Living Kitchen
CABINETS



CONSTRUCTION - WILLIAM F. HARRIS CO.
CABINET SUPPLIER - EDWARD HINES LUMBER CO., CHICAGO

ARCHITECT - M. Z. LEVINE

are built for builders
BUILT TO SELL . . . BUILT TO SAVE

William F. Harris knows that it's often the kitchen that sells the home . . . and Brammer cabinets really sell the kitchen. Mrs. Housewife can't resist the warmth and charm of natural wood . . . and when she sees the deep, rich tone of Natural Fruitwood Finish on delicately grained maple doors . . . ! As if that weren't enough, there are also the exclusive

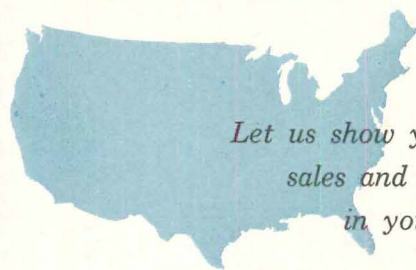
Brammer work-savers like Roto-Shelf, Sliding Pan Rack, Function-All Cart, Continuous Shelving and built-ins galore.

Cut installation costs. Save 20% of present installation time. Brammer cabinets are the most easily installed. Ask for literature and details on Brammer's new Builder's Service.



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COMPANY _____

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The Fox brothers, Robert (left) and Richard (center) talk with Richard A. Welter of the Bell Telephone Company of Pennsylvania, in front of the model home on the tract of Plymouth Meeting Park, their very successful new home project.

“Concealed telephone wiring is essential in livable homes”

—say Robert and Richard Fox of Fox-Bilt Homes, Inc., Plymouth Meeting Park, Pa.

“We build homes designed for maximum livability,” says Robert Fox. “Concealed telephone wiring is a very important feature of that livability. Customers like the convenience of planned outlets in their homes.”

“Also,” adds brother Richard Fox, “concealed telephone wiring keeps the beauty of the rooms intact. Customers like that, too. Concealed wiring, telephone as well as electrical, helps us build homes we’re proud to offer, and that customers are proud to live in and show to their friends.”

Robert and Richard Fox have built many homes in the suburbs of Philadelphia. And their houses

sell rapidly in Philadelphia’s competitive market. They feature proven products that customers can rely on. Among those products is concealed telephone wiring, which the Fox brothers, along with trend-minded builders across the country, consider a necessary sales feature.

Your nearest Bell Telephone business office will help with concealed wiring plans. Just ask for “Architects and Builders Service.” For details on home telephone wiring, see Sweet’s Light Construction File, 8i/Be. For commercial installations, Sweet’s Architectural File, 32a/Be.

BELL TELEPHONE SYSTEM





Natural Finish OAK Laminated Hardwood Block

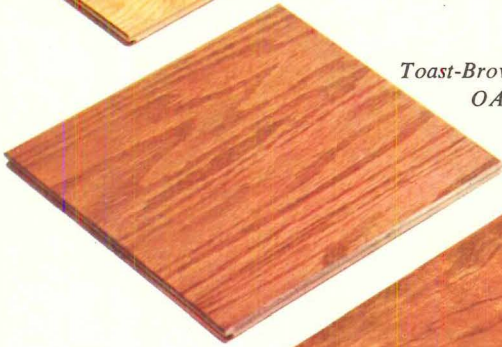
*Natural Finish
WALNUT*



*Natural Finish
BIRCH*



*Toast-Brown Finish
OAK*



*Natural Finish
CHERRY*



The Beauty of this Genuine Hardwood Block Flooring is in the Price, too!

Many fine modern homes are now proudly showing their patterned hardwood floors in all their splendor, with no more covering than occasional throw rugs. It's a new note in luxury, yet these hardwood floors cost less than good carpeting. Rich and warm, smart and decorative, Wood-Mosaic Laminated Block hardwood floors are the most rewarding investment you can make in a home.

These distinguished floors are as economical as they are beautiful . . . shipped to your construction site ready for installation (pre-finished, waxed and polished) . . . a time and money saver on any job. You have four popular woods and nine beautiful finishes to choose from (including five new decorators colors). For complete specifications see Sweets 1956 Catalogue.

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Maker of the World's Finest Hardwood Flooring since 1883

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- Many standard sizes in local stocks **right now!**
- Only **60** days for factory shipment of special sizes!



Production is up—thanks to Libbey-Owens-Ford's tremendously expanded plant facilities. Now you can add the popular appeal of *Thermopane* insulating glass to your houses *without delay*. L·O·F Distributors have many standard sizes on hand for immediate delivery.

Call your L·O·F Glass Distributor or Dealer (listed under "Glass" in phone book yellow pages) for full information on sizes, installation data and types of sash for *Thermopane*. Or write to Libbey-Owens-Ford Glass Co., 608 Madison Avenue, Toledo 3, Ohio.

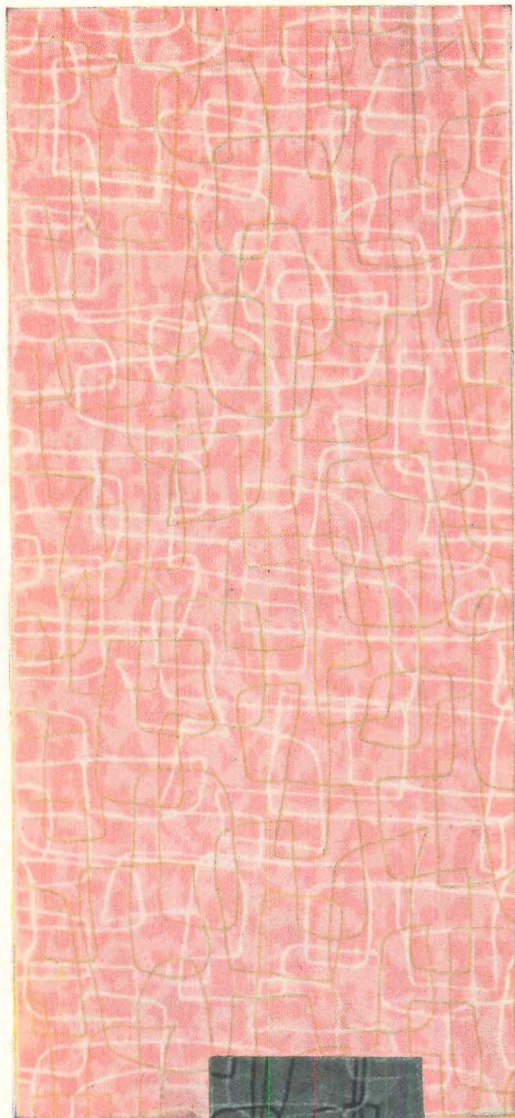


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a Great Name in Glass



new micarta
"fancy-free" pattern
in 7 carefree colors

Striking new Micarta® "Fancy-Free" is the perfect pattern for surfacing vanities or counter tops.

This sparkling new design, with its interesting, attractive pattern, is available in seven colors—carefully chosen to complement any decorative scheme.

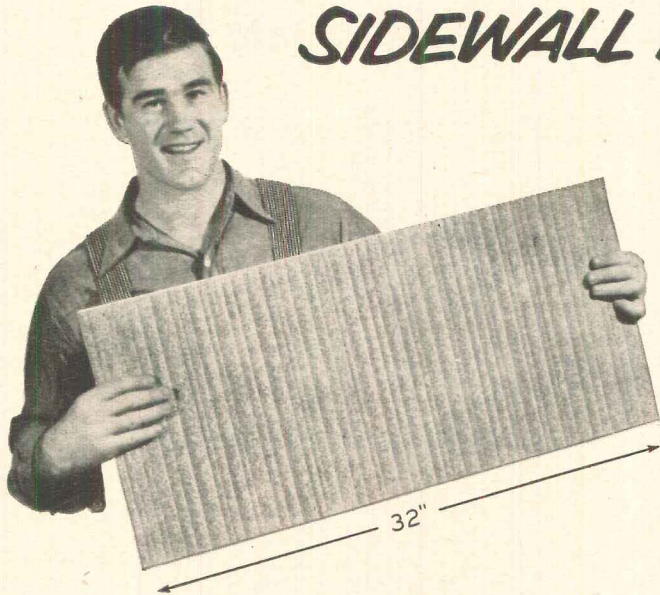
Like all Micarta, consumer-tested "Fancy-Free" remains carefree for a lifetime. It resists scratches, scuffs, stains and burns. Offer modern Micarta "Fancy-Free" to your prospects . . . your nearest United States Plywood Corporation representative has samples. Call him.

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SIDEWALL NEWS...and SALES!

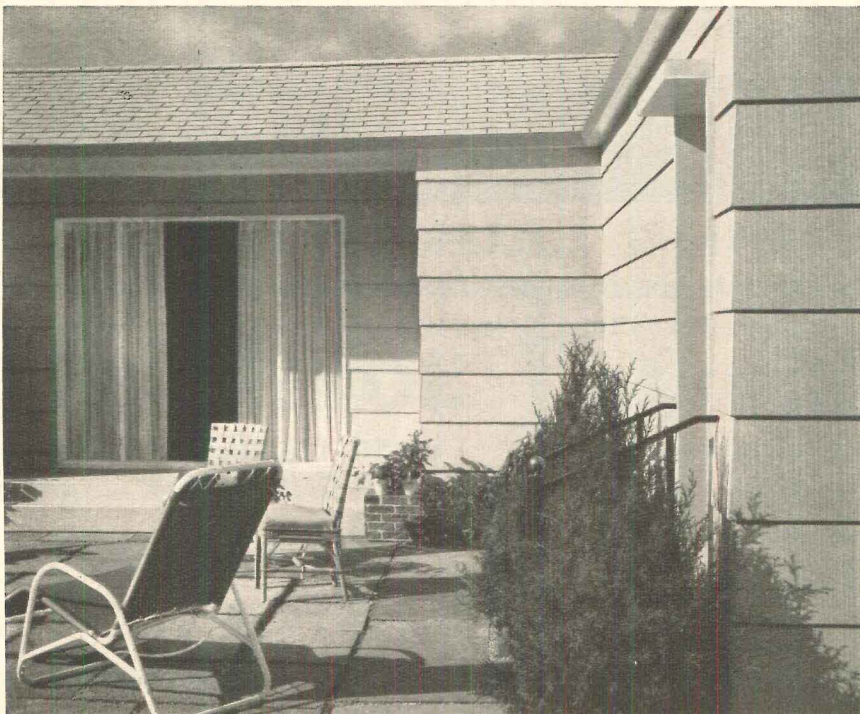
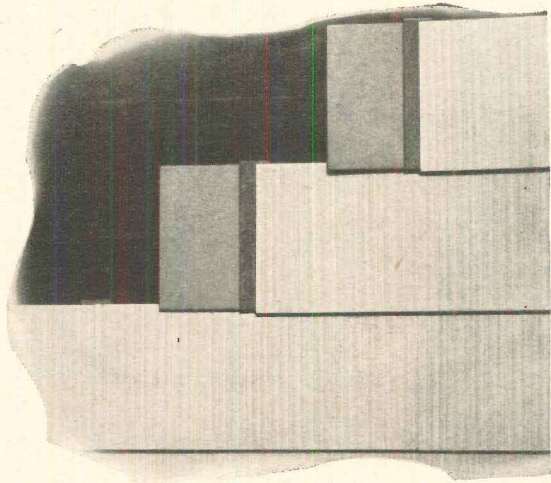


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Johns-Manville
COLORBESTOS SHINGLE

with pleasing color— texture —
modern broad exposure

applied over
Johns-Manville
SHINGLE BACKER

adds deep, rich-looking
horizontal shadows, extra
insulation, greater strength . . .



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EXCITING
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Colorbestos® Shingles are fireproof, rot-proof, permanent as stone . . . never need paint to preserve them. New large size means fewer pieces to handle— saves time and money on the job by making installation easier, faster than ever before.

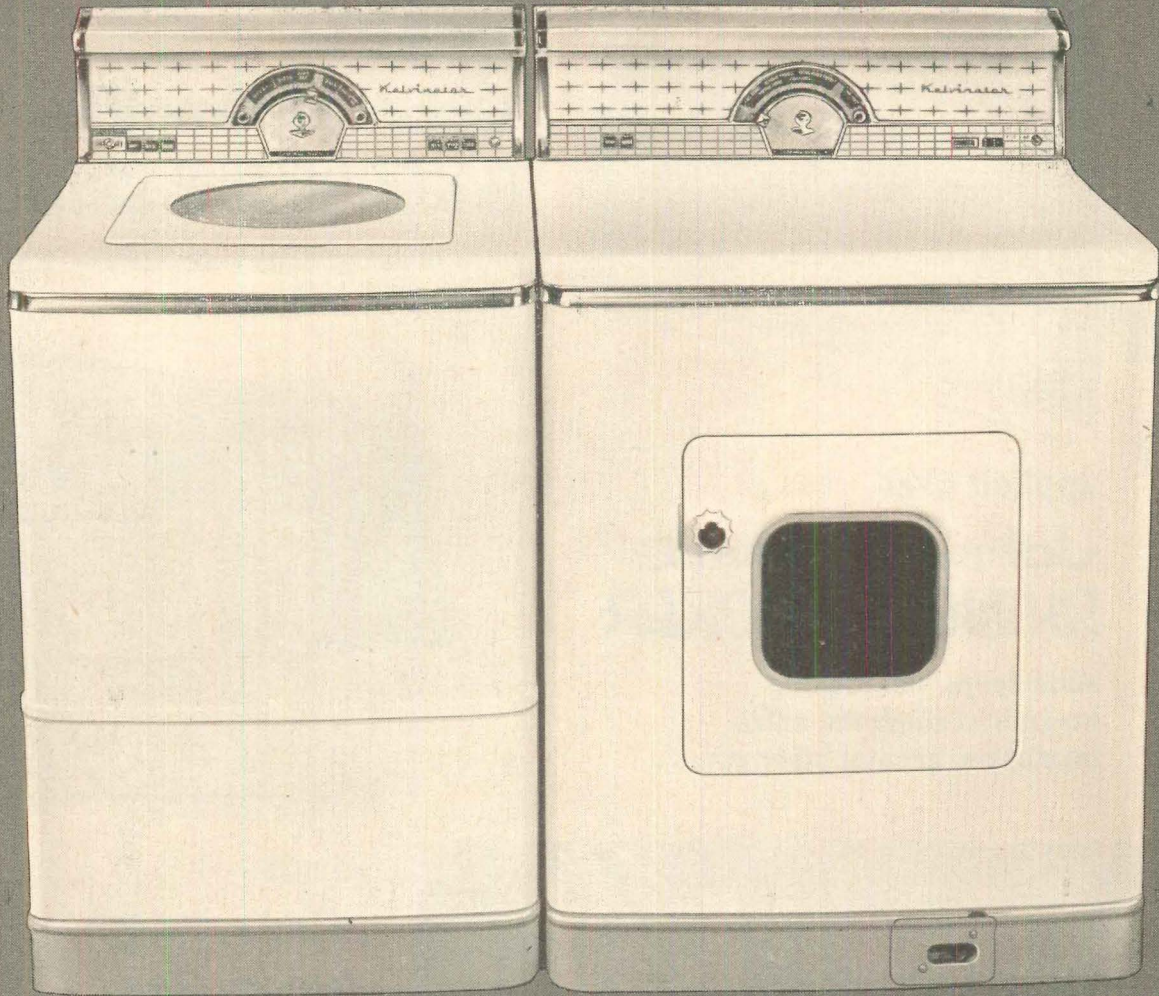
For full information on J-M Colorbestos Shingles and the J-M Shingle Backer write Johns-Manville, Box 111, Department HH, New York, N. Y.



Johns-Manville

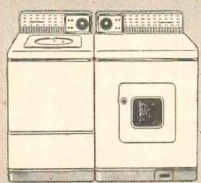
The "Magic Minute" is found in every Kelvinator — impossible in any other washer and you have

DRAMATIC NEW BEAUTY! EXCLUSIVE NEW FEATURES! TO HELP SELL MORE NEW HOMES

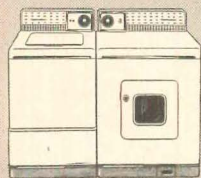


MODEL WAG-9S AND DEG-9 ILLUSTRATED

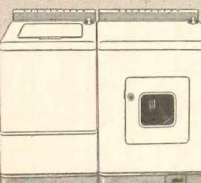
NEW 1957 MATCHING LAUNDRY PAIRS



MODELS WAG-6 & DEG-6



MODELS WAG-5 & DEG-5



MODELS WAG-2 & DEG-2

New 1957 Kelvinator Automatic Washers with the

"Magic Minute"

60 seconds of pre-scrubbing
with double-rich suds cuts grease
better, washes everything cleaner

2 AUTOMATIC CYCLES

PUSH BUTTON WATER
TEMPERATURE SELECTOR

SUDS AND
WATER SAVER

Now for 1957 you can offer to new home buyers, of every price home, the two greatest exclusives in the laundry industry today. Yes, every one of the beautiful new 1957 automatic washers illustrated here has the amazing "Magic Minute" automatic pretreating feature and

New 1957 Kelvinator Automatic Electric Dryers

~~SUPER-FAST~~

DRYS CLOTHES FAST AS
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TRIPLE SAFE

1. Safe Temperature
2. Safe Cylinder
3. Safety Door

each matching dryer is Super-Fast. Two of the matching pairs are available in Buttercup Yellow, Bermuda Pink, and Spring Green.

For complete specifications and prices write Dept. HH-9 Kelvinator Div. 14250 Plymouth Rd., Detroit, Mich.

Kelvinator

American Motors Means



More For Americans

ROUNDUP

FHA, VA say extra 2% down payment to be dropped

Word was leaked to the builders in August that beginning sometime in September FHA and VA would no longer ask the extra 2% cash required as a credit control measure since July, 1955. With housing starts 18% off from 1955, administration housing chiefs have at last convinced the President's inflation-conscious Council of Economic Advisors (but not the Federal Reserve Board) that the housing industry needed help, not curbs.

Women's Congress produces rash of builder promotions

One unexpected result of the recent Women's Congress on Housing has been a nationwide rash of builder promotions featuring "the house the women wanted." Neil Connor, FHA's chief architect, describes most of these attempts as "just plain ludicrous."

But one of these promotions seems likely to hit the mark. The National Retail Lumber Dealers Assn. has retained top architects to design three homes incorporating the various suggestions and alternatives the Women's Congress offered. These houses will be built for exhibition at NRLDA's Chicago convention, Dec. 10-13.

THIS MONTH'S NEWS

(index to top stories)

Washington outlook: Congress passes a good housing bill as Wolcott outsmarts the Senate and public housersp. 44

Mortgage market: FHA may soon allow 0.5% service charge to lendersp. 59

Housing market: cross country check shows higher priced homes selling bestp. 63

Housing studies: Congress OK's 11 studies on housing matters to be made this fall.....p. 49

Air conditioning: FHA agrees to study up on central cooling as builders complainp. 53

Dallas survey shows that one of every three families wants to buy a home in next two years...p. 66

Materials: studies of materials handling problem started by two lumber groupsp. 71

Housing for Aged is being given special consideration by FHA consultantp. 66

People: James W. Follin will quit as urban renewal director with HHFAp. 79

Statistics & indexes:

FHA mortgage prices.....p. 59

Mortgage quotations.....p. 59

Housing startsp. 63

FHA, VA applications.....p. 63

Materials prices.....p. 71

Boeckh housing costs.....p. 71

Everyone gets something in '56 housing act

The 1956 housing act may go down in history as the act that pleased nearly everyone. Administration spokesmen say they got 90% of what they wanted.

NAHB likes the advance commitment plan for Fanny May. NAREB is happy that existing homes can get the same FHA terms as new. Many mortgage bankers like Fanny May's reduced stock purchase requirement. Lumber dealers got a bigger and better Title I improvement program. (see pp. 44-45)

And the public housers figure 35,000 units for two years is better than nothing at all.

S&L conversions may be involved in Hodge scandal

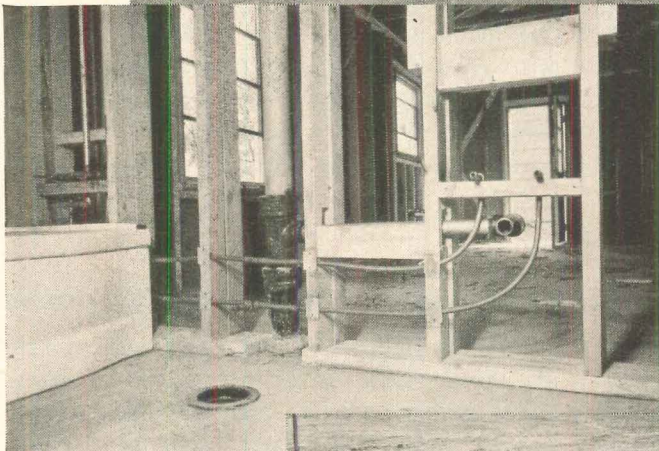
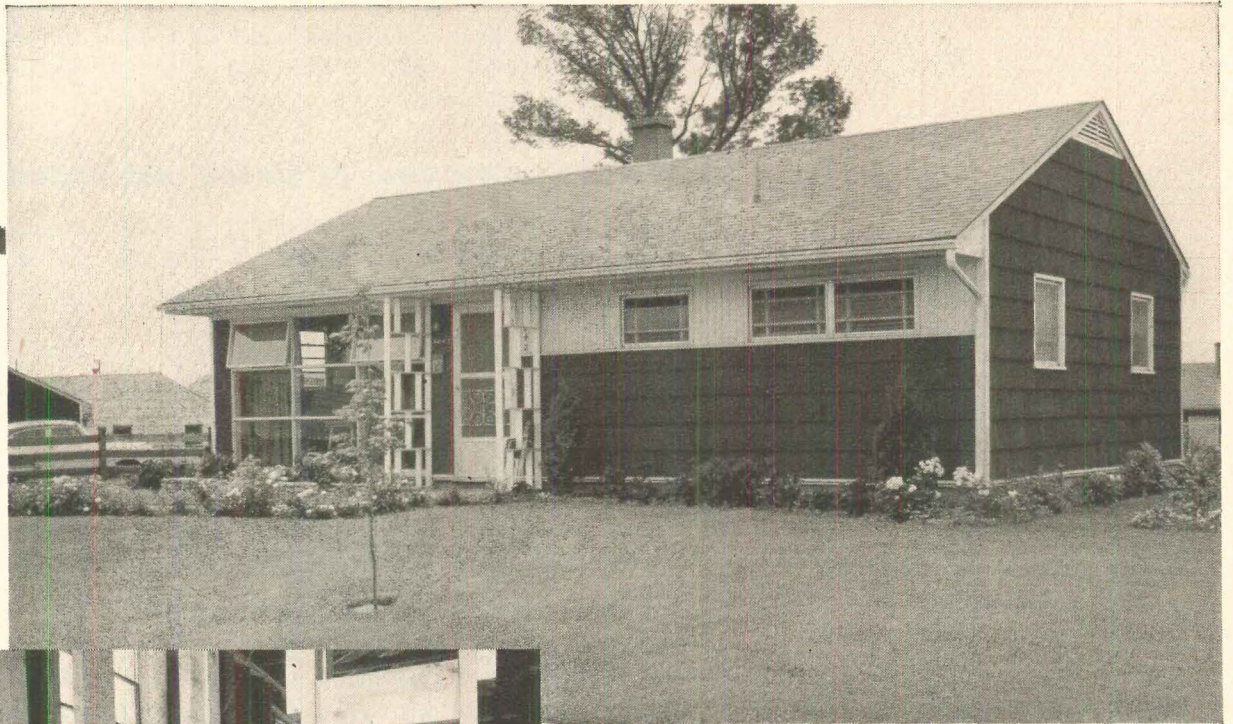
The scandal of Orville Hodge, deposed Illinois auditor, may extend to the S&L industry. Hodge was the driving force behind passage by the Illinois legislature of laws authorizing state stock savings companies and authorizing conversion of mutual savings associations to stock companies. It now seems certain that this phase of Hodge's interest will be included on the agenda of a Senate Banking Subcommittee investigating the financial manipulations which put more than \$1 million of the taxpayers' money in Hodge's pocket.

S&L leaders are watching these developments carefully. If scandal touches the conversion of mutuals to stock companies, it may well prompt the Home Loan Bank Board to crack down drastically on any future conversions. HLBB started to do just that in January, fearing that conversions would result in big capital gains for officers of institutions involved—at the expense of mutual members. Proposed restrictions have been held up as a result of protests from S&L leaders.

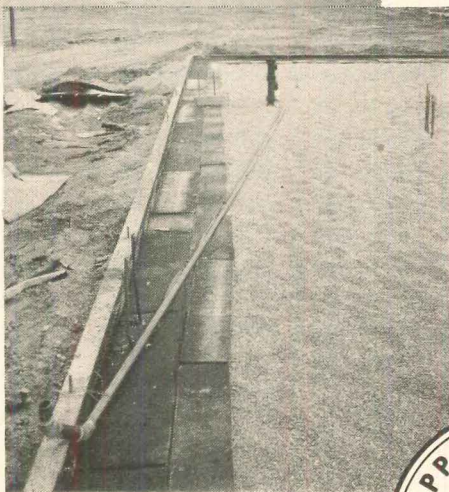
INSIDE-LIGHTS: Top brass in NAHB think the Eisenhower Administration does not realize how important home building is to the economy, so they plan a sales campaign to prove otherwise. A key argument: the current housing slowdown may produce a national housing shortage! . . . FHA may soon agree to include ranges and refrigerators on Title I home improvement loans, but only when they are part of an overall kitchen remodeling . . . As the first study in its new technical testing program FHA may soon commission BRAB to report on sewers and streets . . . Home Loan Bank Board Chairman Walter McAllister may be asked to stay on the job until after election. He resigned as of July 1, but continues in office pending naming of a successor.

NEWS continued on p. 44

"WE SAVED \$50



(Above) Typical bathroom hook-up with Revere Copper Water Tube. Note how the contractor, CLAYPOOL PLUMBING & HEATING COMPANY, used steel plates where tube crosses the two-by-fours. This permits tube to be placed in notched studs with ease and without sacrificing protection of the tube. Also, consider the time and number of joints and fittings saved by bending the soft copper tube in concealed locations like the one shown.



(Above) Here you see a 1 1/2" Revere Copper Water Tube, Type "L" drainage line running from the kitchen sink before concrete slab was poured. Note how builder took advantage of the single, long, light, straight lengths of Revere Copper Water Tube . . . no extra joints, caulking or thread cutting here. In addition the builder had no fear of copper rusting when buried in the concrete slab. Revere Copper Water Tube also was used for service lines and internal water distribution.

Shown directly above is one of the homes erected by GRANT-HOLLADAY in Newcom Knolls, a suburb of Dayton, Ohio. These homes are prefabs with an option of 4 bedrooms or 3 bedrooms and a dining room. Lots average 60' x 125'. Full price is \$10,750. This house is typical of the more than 1,100 which GRANT-HOLLADAY plans on erecting in Canton, Youngstown and Piqua, Ohio.

When you consider that GRANT-HOLLADAY saves \$50.00 per home by using Revere Copper Water Tube and then multiply this saving by the 1,700 homes they have completed and plan to erect, you have a saving of \$85,000! And that, Mr. Architect, Mr. Builder and Mr. Contractor, "ain't hay!"

If that kind of money can be saved in homes within this price range, think of the savings that can be realized when you get into the higher price brackets. That's why it will pay you to plan on copper in all your future homes . . . for underground service lines, hot and cold water lines, radiant panel heating, air conditioning, drainage, waste and vent lines. See your Revere Distributor. And if there is anything involving the installation of Revere Copper Water Tube that's bothering you, he'll be glad to put you in touch with Revere's Technical Advisory Service.



Revere Copper and Brass Incorporated
 Founded by Paul Revere in 1801
 230 Park Avenue, New York 17, N. Y.

Mills: Baltimore, Md.; Brooklyn, N. Y.; Chicago, Clinton and Joliet, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Newport, Ark.; Rome, N. Y.

Sales Offices in Principal Cities, Distributors Everywhere.

PER HOUSE by using REVERE COPPER WATER TUBE in our plumbing and drainage lines"

"To enable us to construct these houses in Newcom North and Newcom Park and sell them at the low sale price of \$10,750 and still make a profit, it has been necessary to incorporate any and all time-saving devices available. With this pre-cut and pre-assembled type of construction, the use of copper with its ease and speed of installation was dictated. It soon became apparent that the \$50.00 saving per house effected through the use of Revere Copper Water Tube, coupled with the added sales appeal, made copper the logical choice."

Says, Wallace F. Holladay, President
GRANT-HOLLADAY CORPORATION
Dayton, Ohio



"This business of contractors saying that copper is expensive to install is being disproved every day. Our experience has proved just the opposite. Copper water tube not only does *not* cost more to install than rustable materials, it actually costs less . . . in the case of these homes that GRANT-HOLLADAY built it was \$50.00 less, *per home!* The reasons are obvious: solder fittings, fewer fittings, long lengths, ease of handling and bending, and the prefabrication of certain assemblies in the shop."

Says, Charles Claypool, President
CLAYPOOL PLUMBING & HEATING COMPANY
Kettering, Ohio

"We have furnished CLAYPOOL PLUMBING & HEATING COMPANY with approximately 160,000 pounds of Revere Copper Water Tube for the 1,700 homes that GRANT-HOLLADAY is building. Handling Revere Copper Water Tube is good for us, not only from a prestige standpoint, as contractors and builders know it is of the highest quality, but I've found that when Revere says they'll deliver on a certain date, they deliver . . . and that's mighty important to a distributor."

Says, R. J. Makarius, President
ACME PLUMBING SUPPLY COMPANY
Dayton, Ohio



The '56 Housing Act—it has something for nearly everyone in housing industry

While newspapers were preoccupied with public housing more important things were being done for private housing

Most important provisions of the 1956 housing act got hardly a mention in the newspapers. Their editors were so busy watching the side show over public housing (3% of the market) that they missed what was being done for the other 97%.

Here are the important new provisions:

Easy terms for old houses

From now on year old houses can get the same FHA mortgage terms as new. That means at least four old houses out of five (i.e., all old houses valued at \$9,000 or less) can be sold FHA for only 5% cash (plus the temporary 2% extra).

Purpose of this change is to loosen up the house market and make it easy for home owners to sell their old homes to buy better ones. Chief promoter of the change is NAREB. The Home Builders are not too happy to see old houses selling better than new this year, and they are not yet convinced that the best market for new houses is the second-time buyer, who must sell his old home before he can buy a new one.

Before the housing act of 1954, FHA required twice as much cash (\$800) to buy a used house for \$4,000 as to buy a new house for \$8,000 (\$400). The 1954 law requires the same cash

for a used house at \$4,000 as for a new one at \$8,000. The 1956 law finally puts both on the same terms.

Now the big question is whether FHA appraisers will figure existing house appraisals high enough to make the program work. If they do, most old houses could be 85% as good as cash in the bank to owners who want to trade up for a better place to live. Incidentally, the easier terms for old houses automatically cut 18% off the cash a builder or realtor needs to finance a low priced trade-in through FHA. (He can borrow 85% of 95% instead of 85% of 90%.)

Research program authorized

At last the home building industry will get a few more of the market statistics it needs. HHFA is authorized to spend \$500,000 this fiscal year and \$1,000,000 in each of the next two years to get better facts on the housing inventory, the housing requirements for low and middle income families, the functioning of the mortgage market, and almost anything else it deems necessary.

Heretofore Washington has spent less money to get market facts for America's biggest industry than it spends for the peanut industry. (For this, NAHB is as much to blame as anyone. It fought HHFA's old research program, helped get it killed in 1954. Reason: it didn't want

HHFA investigating its markets.)

The research authorization carries no appropriation, but HHFA has gone to work planning how to use the money. Most of it will be farmed out to the Census Bureau, BLS, the Bureau of Standards, and college research groups.

90% mortgages for rental housing

To spur private construction of apartments—lagging since Sec. 608 lapsed in 1950—the new law lifts the FHA mortgage ceiling on Sec. 207 rental housing to 90%—the same as in Sec. 608—but these safeguards are written in to make “windfall profits” impossible:

1. Mortgages will be based on FHA valuation instead of on FHA estimates of what it would cost an average builder to replace the project, as they were under Sec. 608. Remembering the 608 uproar, FHA appraisers are hardly likely

to be overgenerous now in their valuations.

2. Builders must certify their costs in detail; if they are less than the valuation, the mortgage must be reduced in proportion. (Costs include construction fees and construction profit.)

Public housing tied to workable program

The prerequisite of a workable program for prevention of slums was restored to the public housing program as Congress authorized 35,000 units a year for two years, just what the administration asked.

Congress also allows PHA to carry over any of the 45,000 units authorized for fiscal 1956 but not under contract by the July 31 deadline. (Only 578 units.)

PHA officials believe the workable program requirement will most affect small communities—particularly in the South—which have never both-

ered with workable programs and probably won't.

A clause in the old housing act limiting the number of units put under construction in one year to 35,000 is eliminated. Although PHA has not come close to this limit in the past, it currently has 100,000 units from past programs under contract, but not yet built.

Here's how the housing act got through Congress

This year, House conservatives—master-minded by old Fox Jesse Wolcott—finally outsmarted the public housers and the Senate.

Result: the Housing Act of 1956, which could have been one of the worst ever, may well be one of the best. Good points in the several bills considered in Congress were saved. But schemes to dig the government deeper into housing were kicked out.

This year the public housers were over the barrel. Unless Congress passed a housing act before adjourning, public housing would run out July 31.

In other years it was just the other way around: the public housers had the home building industry over the barrel. In other years, without a new housing act, FHA would have run out of its authorization.

But this year, with housing starts down and the big shift to conventional financing, FHA still had \$2 billion, enough to keep on insuring loans until next spring.

Wolcott saw his chance

So no one in the industry cared too much whether a housing act passed or not (except lumber dealers, who were hot for Title I extension). Almost everyone in the industry thought no bill would be better than the one the Senate had passed or one bill the House banking committee had approved.

In mid June it looked as if there might be no housing act at all. The House wouldn't even consider the Senate bill, loaded with handout housing; and the Rains bill, backed by the House banking committee, was bottled up in the rules committee by an anti-public housing majority.

As adjournment loomed nearer and nearer public housers were wild, and Jesse Wolcott saw his chance. Two days before adjournment he sold housing leaders from both parties a plan which would not only break the deadlock but produce a much better law. Here is how it worked:

With Wolcott calling the play, the House rules committee agreed to vote out the Rains bill under a gag rule allowing but one amendment from the floor—an amendment offering a complete substitute prepared under Wolcott's direction.

The House promptly passed the substitute by a voice vote and sent it to the Senate with an ultimatum—this bill or nothing. Wolcott and other House leaders were determined there would be no conference at which senators could put back thousands of units of public housing as they had in other years.

Public housing settled

That made it the Senate's turn to try to be smart. With many members angrily protesting they would not take such dictation, the Senate swallowed the House public housing section, but sent the bill back to the House with all the rest of the original Senate section intact.

That settled the public housing issue, for once this section had been passed in identical form by both houses it could not be changed in conference.

But Jesse Wolcott refused to take the bait,



H&H staff

OLD FOX JESSE WOLCOTT

stood firm for the bill the House had passed, and refused to let the bill go to formal conference.

Not until the very last day was the deadlock broken, when "the men who would have been conferees" got together and worked out a compromise which followed the Wolcott pattern except for these 2 points:

1. The Senate did not like the House clause making it mandatory for the Defense Dept. to buy all old Wherry military housing (272 projects costing \$690,945,270 when new). The House formula for purchase (estimated replacement cost adjusted to current cost level minus depreciation) was a sure-fire formula to guarantee windfall profits, Sen. John Sparkman (D, Ala.) protested. (The Senate later won its point. See housing bill story.)

2. The Senate objected to a raise in salary for HHFA Counsel General A. Oakley Hunter. The House bill would have upped his pay to \$20,000 annually, the same raise given to heads of all HHFA constituent agencies in another bill. Senators noted that Hunter had helped write the House bill. (The Senate won this point, too.)

30 minutes to spare

When Wolcott approved the compromise, a formal conference was authorized; the conferees ratified their previous agreement and both houses passed the bill 30 minutes before adjournment.

The bill was Congressman Wolcott's last big contribution to housing progress. Retiring after 26 years' service, this was his final hour in Congress.

These parts of the original Senate and Rains bills died along the way:

▶ The Senate public housing program of 135,000 units a year until the balance of 810,000 authorized in 1949 are built, plus 15,000 units for the aged.

▶ The Rains public housing program of 50,000 units a year for three years plus 10,000 units for the aged. (The compromise is 35,000 a year for two years.)

▶ The Senate's proposed Sec. 229 to let FHA sell low-cost housing to elderly persons on 100% 40-year mortgages.

▶ The House proposal to earmark \$500 million in National Service Life Insurance to buy VA mortgages at par in high discount areas.

Housing act liberalizes Fanny May; extends Title I and military housing

1. If worst comes to worst builders can now get advance commitments from Fanny May at 92.

2. The stock purchase penalty for selling to Fanny May is cut from 3% to 2%.

3. Fanny May must pay 99 instead of 98 to support the market for "special assistance mortgages" (co-ops, military housing, housing for disaster areas, Guam and Hawaii).

The FNMA advance commitment a) is good for one year, b) requires a nonrefundable cash payment of 1% (i.e., builders must pay \$100 for each \$10,000 stand-by), c) must be pegged at a low price to make sure builders won't use it unless they have to. FNMA is starting the peg at 92.

FNMA expects its advance commitments will be used mostly by builders who need it to get construction financing.

The new law continues the FNMA nine months repurchase privilege (i.e., sellers to FNMA have nine months to buy their mortgages back at the same price if the market goes up).

The stiff 3% stock purchase price was written into the 1954 housing act to force approved lenders to buy FNMA off the government's hands as fast as possible. FNMA expects the 33% cut in its stock purchase penalty will increase its sales in fiscal 1957 from \$450 million to \$550 million.

Congress also modified the wording which controls Fannie May's mortgage purchase prices. They must now be "within range of market prices," instead of "at the market price." (Actually FNMA has been staying in range rather than at market for some time. If it hadn't, it would have had to drop its prices long ago.)

Title I broadened and extended

FHA's Title I home improvement program is extended for three years. Maximum loan limit is increased from \$2,500 to \$3,500 and repayment period extended from three to five years.

On multifamily structures the old \$10,000 loan limit is raised to \$15,000, provided the average loan per unit does not exceed \$2,500.

The discount rate on loans is fixed at 5% for any amount up to \$2,500. It is fixed at 4% for all over \$2,500.

50,000 more military housing units authorized

Capehart housing is continued to June 30, 1958. Enough new insurance authority is provided to finance 50,000 more units. (Only a few of the 100,000 authorized last year are actually under construction.) The Defense Dept. is ordered to buy any old Wherry housing before it builds any Capehart housing in the same place.

Unit cost on Capehart housing is increased from \$13,500 to \$16,500 with the price to include range, refrigerator, shades, screen and fixtures. All units must be modular, to give prefabbers a chance to bid the projects.

If FHA disagrees with the Defense Dept. on the need for Capehart units in any location, a report on the project must be made to the Senate and House Banking committees. (The military public works bill gives Congress even more review authority. The Defense Dept. must give the Senate and House Armed Services

committees six months notice of any new Capehart projects it is planning.)

Right of local communities to tax Wherry housing is confirmed. (June News.) Where localities do tax, however, they must make reductions for payments made in lieu of taxes and for cost of streets, utilities and services provided by the military. Capehart projects are expressly exempted from local taxation, however.

Wherry housing purchased will be paid for on the basis of replacement cost less improvements made by the military and less depreciation.

Public housing for aged rejected

Congress turned thumbs down on any special public housing for the aged like the 15,000 extra units asked by the Senate. Instead it voted them a dubious priority on existing public housing units and special help through two new FHA programs.

Persons 60 or over can now buy under Sec. 203 with another party making the down payment. (Others can also co-sign the mortgage.)

The Sec. 207 program is liberalized insofar as elderly persons are concerned by allowing a

90% mortgage based on estimated replacement cost of a 207 multifamily rental housing project. All other 207 mortgages are based on value, which invariably results in lower appraisals.

Expenses of slum DP's to be paid

The federal government will pay "reasonable and necessary" expenses of families and businesses forced to move from a Title I slum area—not to exceed \$100 a family or \$2,000 for a business.

Funds available to any one state for slum clearance work can be increased to \$100 million. The old limit: \$70 million. Urban renewal

assistance can be given to any community in a major disaster area without regard to usual requirements.

You can please every buyer with FULL LINE OF GAS, ELECTRIC

... all designed to fit
standard cabinets
and cut your costs!

You couldn't ask for better traffic-builders and greater sales appeal than you get with Tappan. The leader in quality range-making for 75 years, Tappan triumphs again with the revolutionary new electronic range, the latest in a long list of "firsts." Add this to a tremendous variety of Tappan gas and electric built-in ovens and surface units for use in all kinds of flexible combinations—and you can please every customer with units for every kitchen plan and price.

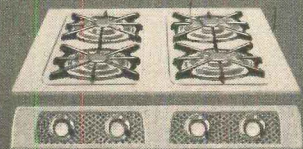
Show them Tappan's new ideas, new features, new styling—all in the world's only complete choice of gas, electric and electronic built-in ranges!



*Show 'em the Miracle Range
they're raving about everywhere—*
THE AMAZING TAPPAN ELECTRONIC!

They've read about it, talked about it—now women everywhere want to use this sensational Tappan cold-oven range that cuts cooking time up to 90%! You can cash in on its unbelievable speed, new coolness for kitchens, remarkable new cleanliness. It's automatic, safe, economical . . . uses conventional wiring . . . operates on 220-volt current, three-wire circuit.

Fit every buyer's building
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choice of 3 gas and
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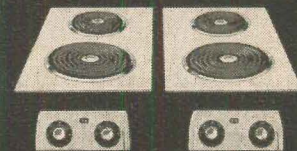
24-inch gas drop-in



36-inch gas drop-in



42-inch gas drop-in



24-inch electric drop-in

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TAPPAN'S OR ELECTRONIC BUILT-INS



Still more sales excitement with TAPPAN GAS and ELECTRIC BUILT-INS...

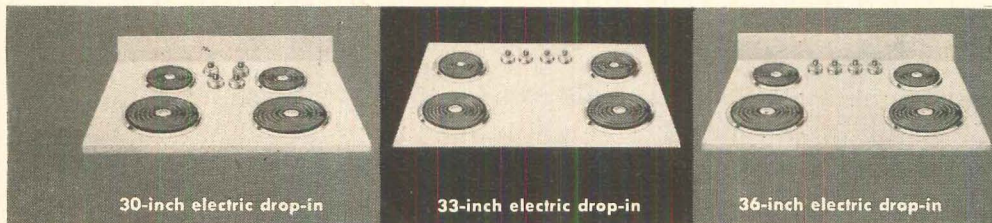
Whatever they want—give it to 'em with Tappan! Incredibly fast electronic ovens team with a wide variety of gas or electric surface units. Gas or electric built-in ovens combine perfectly with Tappan surface units. All fit standard cabinets, all serviceable without removal from cabinet or wall. Installation's easy and inexpensive with *every* Tappan Built-In. And they're available with Visualite window or solid doors, chrome or porcelain oven linings. Choice of gleaming Lusterloy stainless or Copperloy finish. Both gas and electric ovens with separate, roll-out broilers.

All fit standard 24-inch cabinets!

Best looking, best cooking features make
TAPPAN BUILT-IN RANGES SELL ON SIGHT!

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- Convenient Visualite oven window
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- Eye-level automatic controls
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- Set 'n Forget thermostatically-controlled burner
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- Ample top work space

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33-inch electric drop-in

36-inch electric drop-in

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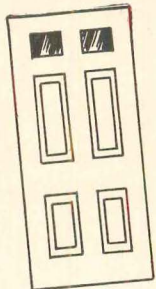
City _____ Zone _____ State _____

I build homes I remodel kitchens

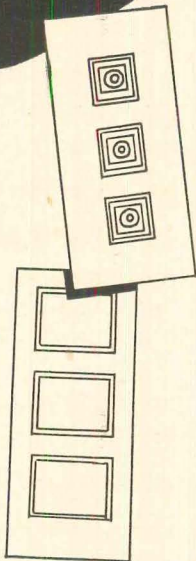
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Congress approves 11 fall studies on housing matters

Congress wants a lot more information on problems affecting housing. Before adjourning it called for 11 fact-gathering studies this fall.

The Senate Banking committee told its staff to look into the relationship between income and housing. Is there a need for the federally supported middle income housing program urged by Senator Lehman? This same committee also told FHA to review the package mortgage setup (see pp. 159-165).

The Senate Banking committee named a special subcommittee to review the nation's whole banking and credit structure. The role of the Home Loan Bank Board is on the agenda, though S&L leaders wish it weren't, fearing the Federal Reserve may want to slow down S&L growth.

The Housing subcommittee wants to know more about FHA's management and sale of foreclosed property. More important, it wants to know more about the high cost of land for urban renewal and what, if anything, can be done about it.

The Senate Housing subcommittee wants to know how the new Federal road building program can be correlated with urban renewal, and how displaced families will be housed. The Senate and House Armed Services committee and the Senate Housing committee were told to keep a close eye on the military housing program—particularly any purchases of Wherry housing.

The House Veterans' Affairs committee is checking up on complaints that VA inspection is lax, that many VA homes fall in.

HHFA's new Elderly Persons Housing Advisory Committee was told to report on how much and what kind of housing is needed for the aged.

The Housing subcommittee is planning a Round Table discussion on how to get more pension and retirement funds into the mortgage market.

Both the Senate and House Banking committees have told their staffs to take another look at the proposed separation of the Federal Savings & Loan Insurance Corp. and the Home Loan Bank Board.

LEGISLATIVE BRIEFS

HHFA brass get salary hike

All top brass in HHFA got a pay boost from Congress.

The administrative pay raise bill raised Administrator Cole's annual salary from \$17,500 to \$21,000. His deputy, Frank J. Meistrell, will now draw \$20,500. His old salary: \$15,000.

Salaries of heads of the constituent agencies—FHA, PHA, Fanny May and the Urban Renewal and Community Facilities Administrations—were increased from \$15,000 to \$20,000. HHFA Counsel Oakley Hunter got no raise. (See p. 45)

Realty trust tax bill vetoed

The President vetoed a bill to give real estate trusts the same tax treatment as security investment trusts (i.e., tax the beneficiaries but not both the trust and its beneficiaries).

His reason: security investment trusts get most of their income from corporations already taxed 52% of their profits. But no such income taxes have previously been paid on the earnings of real estate trusts.

GI housing program extended

World War 2 veterans have another 23 months to use their GI housing entitlement.

In its closing hours Congress extended the VA housing program from July 25, 1957, to July 25, 1958. Deals under contract by the deadline will have another year for closing.

More provisions of the '56 housing act: Sec. 220 sweetened; co-op rules eased

continued from p. 45

Congress has put a thick sugar coating on the Sec. 220 program (multi family housing in urban renewal areas) in an effort to get more builders participation. Builders are allowed now to include a 10% profit in cost certification.

With a 90% loan to replacement cost ratio for his mortgage, the builder of a 220 project will actually put none of his own money into it. His only equity in the buildings will be his profit.

The 220 program, started in 1954, has never quite gotten off the ground—mainly because FHA

limited profits to 7% or less. The FHA director can still certify a profit of less than 10% if it appears 10% would be unreasonably large.

The new provision also allows property owners with no lien against their buildings to get a 100% loan based on the cost of remodeling and improving their property.

Terms liberalized for replacement housing

Most liberal part of the housing act is aimed at stimulating more builders into the Sec. 221 program to provide low-cost housing for families displaced by urban renewal programs. A 100% 40-year mortgage plan is set up.

All that the home buyer must put down on a 221 home is \$200 to cover closing costs. Under the old law a 5% down payment was required on a 30-year mortgage.

Maximum mortgage amount is increased from

\$7,600 to \$9,000 and from \$8,600 to \$10,000 in high cost areas.

FHA has already instructed its regional directors to encourage and promote 221.

85% commitments for co-operative housing

Belated recognition is given the builders' long-time complaint that the building stage of a co-operative must precede rather than follow the actual forming of the co-operative. A builder-sponsor can now get a commitment on an 85% mortgage on a replacement cost basis.

The sponsor is required to certify his intent to sell the building as a co-operative. When sale is completed the mortgage can be adjusted to the 90% loan-to-value basis allowed by law. If the percentage of veterans in the project is 50% or more a 95% mortgage can be arranged. (The

old law required 65% veteran buyers for the 95% mortgage.)

To prevent abuse of the advance commitment feature, a sponsor would lose the right to get another such commitment if he does not sell the building as a co-operative.

Miscellaneous parts of the act

The administration move to get an increase in the interest rate on loans in the college dormitory program failed. The limit of the program was increased from \$500 million to \$750 million but the interest rate remained at 2 $\frac{7}{8}$ %. The administration had asked for a new formula and 3.25%. Other provisions of the law:

▶ Cost certification provision on rental housing is eased so that once the FHA commissioner has approved a builder's showing, the certification is final and cannot be questioned again by FHA except for fraud.

▶ Forty-three defense housing projects are transferred from PHA to the Defense Dept.

▶ VA direct loan program is extended to July

25, 1958 to match the extension of the VA program for World War II veterans.

▶ FHA's insuring authority is increased by \$3 billion, enough to carry it to the fall of 1957.

▶ Farm housing act amended to allow \$450 million for farm housing loans, \$10 million for contributions and \$50 million for grants during next five fiscal years.

Congress approves flood insurance bill; HHFA setting up agency to handle plan

Flood insurance finally got through Congress.

HHFA was ordered to set up a new agency to handle it. Still to be worked out: who will sell the insurance for HHFA on the local level? Still to be figured out: what it will cost the taxpayers?

Property owners buying policies will pay 60% of the premium, the government 40%. After 1959—long enough to give all states a chance to pass enabling legislation—states will be expected to pay half the 40%. If any state refuses to participate, its residents will not be able to buy the insurance.

Total liability limit on the program was set at \$5 billion, with a \$250,000 limit on any one

business property and \$10,000 on any one residence. A government housing witness told Congress rates on a \$10,000 house would range from \$69 to \$372.

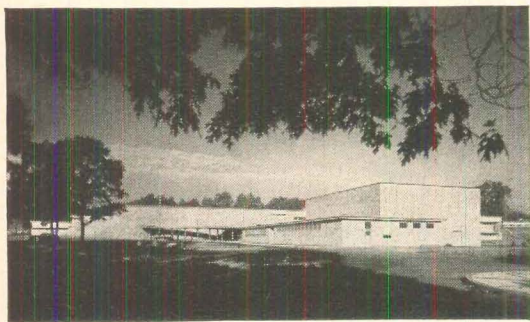
Congress also approved a \$2.5 billion loan program for flood victims.

Although Congress hoped private insurance companies would participate in the program—with the US reinsuring—there is no sign they are any more interested now than they were before. They contend flood risk is uninsurable, because almost no one will buy it unless his property is located in an area subject to occasional flooding.

NEWS continued on p. 53



Thomas Jefferson School, Fairlawn, New Jersey, is further proof that schools get better lighting with latex paints.



For better distribution of light— **LATEX PAINTS**

In schools, as in homes, latex paints reduce eyestrain, improve appearance

There's a wide range of latex paint colors. But no matter which color you select, you are sure of this: The uniform, velvety surface of latex painted walls and ceilings helps you attain even distribution of light. That's why easier reading and less eyestrain are among the many benefits of latex paints.

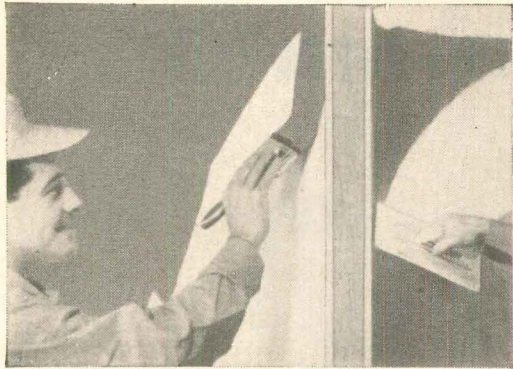
Schools find latex paints save time

These modern paints are easily applied—minimum crews do maximum painting. Latex paints dry to the touch in twenty minutes—rooms can be given two coats the same day. And they provide significant economies sought after in school-building programs.

Latex paints cut maintenance costs

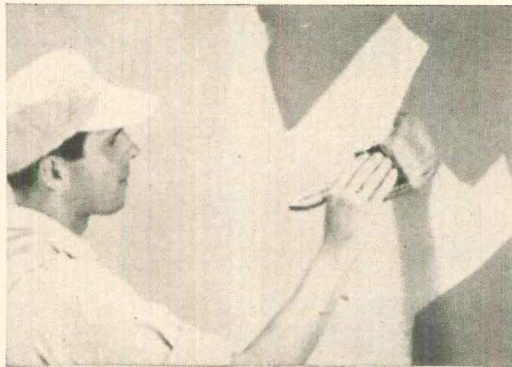
You'll like the protection that provides tough, continuous binding with color pigments gripped in velvety finish. Most stains are removed with a wet sponge. But latex paints can take the hardest scrubbing—the color pigments are imbedded in film. Surfaces are sealed to wear longer, more beautifully, more economically.

8 ways you can use LATEX PAINTS



1 PLASTER

Alkali-resistant latex paints can be safely applied over freshly dried plaster. If over-gauging occurs in the plaster, they still dry with a uniformity of appearance everyone admires.



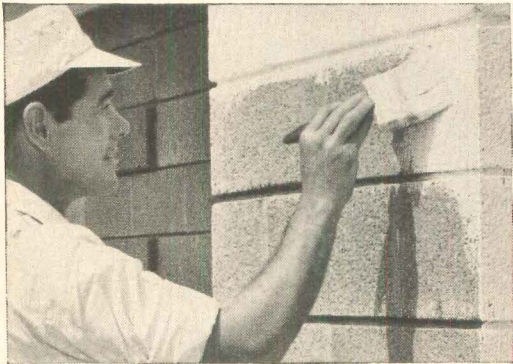
2 DRY WALL CONSTRUCTION

Latex paints give excellent results. On new construction, two coats of a latex paint are usually required. As on any surface, latex paints leave a handsome durable, washable surface.



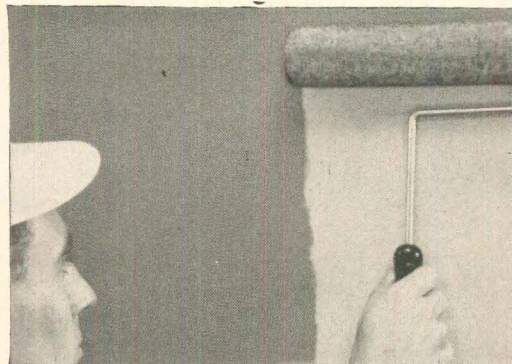
3 INTERIOR BLOCK

Latex paints have excellent sealing properties over cinder block, concrete block and other porous surfaces. Usually two coats give the attractive covering for which these paints are famous.



4 EXTERIOR MASONRY

Latex paints offer maximum durability . . . resist sun, fog, mildew . . . seal out dirt, moisture. Alkali resistant. Two coats are usually required.



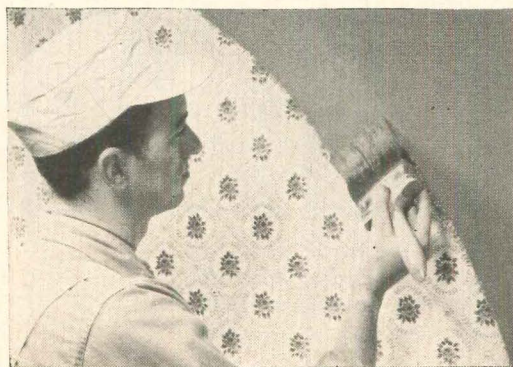
5 FIBRE BOARD

Latex paints provide an effective seal coat over wallboard. Several coats of a latex paint are sometimes used to establish a moisture-vapor barrier.



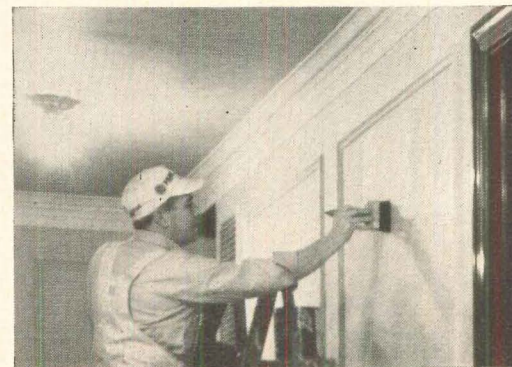
6 GYPSUM BOARD

Latex paints are particularly good for this application. They do not strike in and photograph through the plaster patching over nail holes and seams.



7 WALLPAPER

Latex paints cover wallpaper with a heavy film. Seal the porous paper surface. Hold out dirt, stains and moisture. Assure smooth, uniform finish.



8 PRIMED WOOD TRIM and PRIMED METAL

Because latex paints contain water, use an oil primer to prevent contact with the bare wood or metal.

For additional information, see your paint supplier. Dow does not make a latex paint, but is a leading supplier of latex to progressive paint manufacturers. For a list of leading latex paint manufacturers, write: THE DOW CHEMICAL COMPANY, Midland, Michigan—Plastics Sales Dept. PL 584B.

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Selected by NBC-TV for the "House that **HOME** Built"...

the national promotion to provide the "HOME" show audience with homes that are the last word in popular appeal, with every convenience that American men and women want. Three "houses that HOME built" are actually complete on Long Island and many more are being readied for construction and sale throughout the nation . . . and, of course, every "house that HOME built" features Caloric Built-In Gas Ranges . . . the tops in selling homes.



Caloric and HUGH DOWNS on the "HOME" SHOW

Super-salesman Hugh Downs pre-sells for you Caloric Gas Ranges with THERMO-SET on the NBC-TV "HOME" show . . . the favorite nation-wide television show that goes right to the heart of home-buying America and sells millions of homemakers . . . your customers.

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Topton, Pennsylvania

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Caloric Built-In Gas Ranges with THERMO-SET give your homes consumer appeal that makes buyers out of shoppers. Nationally advertised on the famous "HOME" show, featured in the NBC-TV "house that HOME built" promotion, and having all the wanted features modern home buyers demand, Caloric makes your kitchens into sales-rooms.

And Caloric has THERMO-SET, the thermostatically controlled top-burner that makes every utensil "automatic" . . . just a turn of the THERMO-SET dial and the exact food temperature desired is maintained.

Yes, Caloric Built-In Gas Ranges lead the way in selling features:

8 BEAUTIFUL COLORS . . . black, white, coppertone, pink, and pastel shades of yellow, blue and green. Satin finish also.

SMOKELESS BROILING . . . that only gas can give.

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AUTOMATIC OVENS . . . automatic clock control, oven timer, oven heat control. AND CALORIC Built-In Gas Ranges can be installed at any height, in any material to give you design flexibility that meets the modern trend.

Write today for full information on Caloric Built-In Gas Ranges with THERMO-SET.

New York suburb rations building permits for homes

A new scheme to keep out builders comes from suburban New Castle, N. Y.

A jam-packed town meeting forced the town board to vote a zoning amendment to ration building permits "wherever schools are crowded" and allow no increase over the 1951-55 average. Every civic organization backed the restriction. The popular demand was overwhelming.

As a result, only 100 permits a year will be issued in a fast-growing area of 23 sq. mi. right in the path of New York's northward growth 20 miles from the city line. First priority on the limited permits will go to lot owners building for themselves. Last priority will go to merchant builders, who already have plot plans filed for 280 houses, for many of which they have installed roads and sewers.

The meeting voted down an amendment which would allow a merchant builder facing bankruptcy as a result of the restriction to appeal for a special dispensation to let him stay in business.

Westchester County home builders and land owners promptly subscribed \$21,000 to fight the New Castle restrictions in court.

Explains builders' lawyer Albert E. Marten: "The crowding of schools in New Castle is no different from that in other parts of the country. The patient can't be cured by cutting off his left leg, as New Castle is trying to do. What the town should do is lure some big office building developments and supermarkets to town as other places have done to get additional tax revenue."

Alexander Feinberg, attorney who represented New Jersey builders in an excessive building permit fee case (June, NEWS), told HOUSE & HOME he thinks the New Castle ordinance is illegal. "It's a restraint in the use of an individual's and a corporation's property. There is nothing in the law to support such an ordinance," said Feinberg.

How many potential home buyers live in public units?

Are there many prospective home buyers in public housing projects? Public housing advocates have used the argument that it helps prepare families for home ownership. The Portland (Ore.) Housing Authority questioned 473 families moving out of public housing units in the past year in an effort to find an answer. Results:

Only 61 families (13%) definitely planned to buy homes—all in Portland area. Of all others who planned to remain in the area 239 (50%) were going to rent. None of the 173 families (36%) leaving the area said they would buy homes; 100 (21%) said they would rent wherever they went. And 73 families (16%) were undecided about their future housing.

Apathetic El Paso voters turn down public housing

Public apathy about public housing was again demonstrated—this time in El Paso, Tex.

Voters there were asked to decide whether the city should contract with the Public Housing Authority for 300 new low-rent units. NAREB and NAHB leaders opposed the program; so did El Paso's two daily papers. Most of the El Paso clergy, the mayor and city council supported it.

Despite the well publicized debate only 14,698 of the city's 42,000 voters bothered to vote. The results: 7,769 against and 6,929 for.

Key point in the opposition argument was the city's vacancy rate—very high and still going up after years of high rents and a low vacancy rate.

AIR CONDITIONING:

Mason admits to builders that FHA lacks facts about central home cooling

FHA does not know enough about air conditioning.

So stated Commissioner Norman P. Mason, himself, July 31 at an all-day seminar in the Housing Center. But added Mason: "Somebody isn't giving us the facts. I just don't think the air conditioning industry has done a good job of educating us on air conditioning."

Mason had been put on the spot by both builders and air conditioning manufacturers, both of whom blame FHA for keeping central cooling out of many thousands of new homes.

The attack was led by former NAHB President Dick Hughes, No. 1 evangelist of central cooling and vice chairman of the Housing Center.

He had queried 130 builders and found that of 56 who were putting air conditioning in their homes a year ago, only two are doing so now. Theoretically the seminar was held to find out why these 54 builders (plus many more) had given up. But in fact everyone thought he already knew why. The reasons:

1. FHA allows inadequate credit in its appraisal. As a result much of the cost of air conditioning must be added to the down payment.

2. FHA sets excessive minimum income requirements for families buying air conditioned homes. (Hughes complained that buyers who want air conditioning must have monthly incomes of \$75 to \$200 a month more than buyers of the same home without central cooling, though the best estimate of the average operating cost is \$100 a year.)

3. FHA has blocked changes in house design intended to cut the operation cost. (One Texas builder tried to reduce window sizes in a \$19,500 fully cooled home, only to have the local FHA director write: "Our regulations do not permit us to substitute mechanically propelled air-conditioning ventilation for natural ventilation.")

Mason listened to the builders and manufacturers complain and then agreed that perhaps changes are in order.

He further agreed to give official advisory group status to a committee of builders and manufacturers named to help and counsel FHA's technical staff

One question remained unanswered, as the seminar ended: Why did FHA ignore stacks of published research on air conditioning costs until prodded into action by the Hughes seminar?

FHA's income requirements for buyer of air cooled home

How much does FHA require a man to earn in order to buy an air conditioned home with an FHA mortgage?

Too much, says NAHB.

FHA figures a person buying a lower priced home must have a net effective income of four times housing expense. For a higher priced home income must be five times housing expense.

In a non-air conditioned home housing expense is figured at \$10 per \$1,000 of the loan. In an air conditioned home it is figured at \$12.50 per \$1,000.

So a person buying a non-air conditioned home with a \$12,000 mortgage must have a net effective income of \$480 a month. For a person buying the same home air conditioned net effective income must be \$612 per month

50% increase seen in sale of central cooling units

Sales of central air conditioning units appear headed for a 50% gain over 1955.

A HOUSE & HOME survey of ten top manufacturers showed that sales uniformly are up by half. All predicted a total industry sales record for the year of at least 185,000 central units compared to last year's 125,000 units.

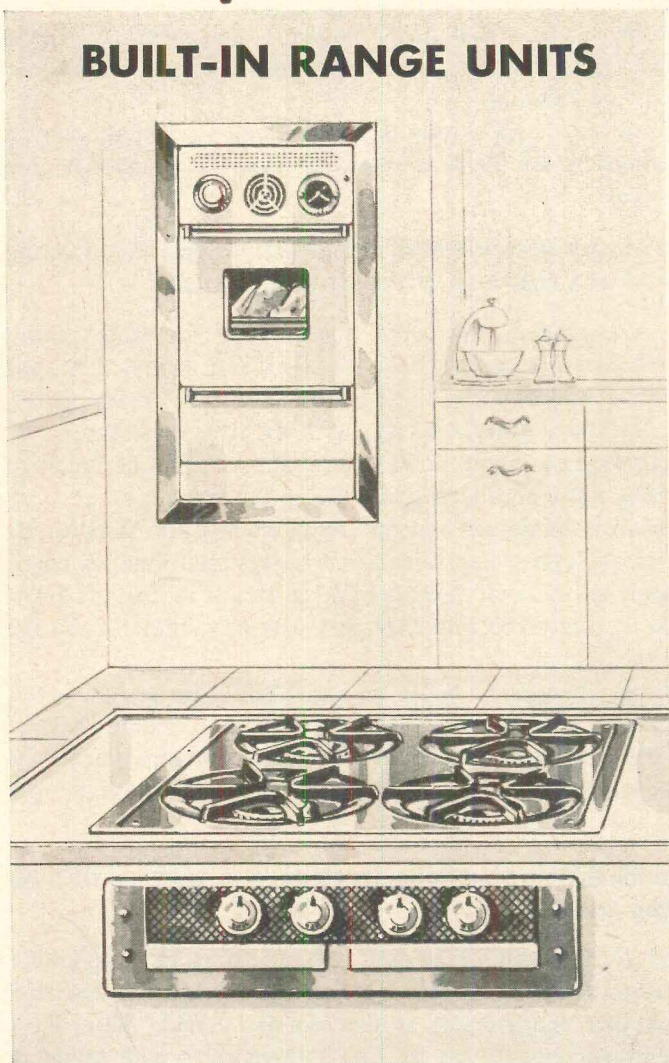
The survey also brought out that some manufacturers are obviously concentrating on tie-ups with builders for new home installations while others are selling through dealers, primarily for existing homes.

Chrysler's Airtemp, Typhoon and Westinghouse, for example, estimated that about 70% of their production of central units goes into new homes. Frigidaire, Vanado and Worthington, however, reported that most of their installations are in existing homes. Coleman and Lennox reported sales split evenly between new and existing homes. Other manufacturers declined to give breakdowns.

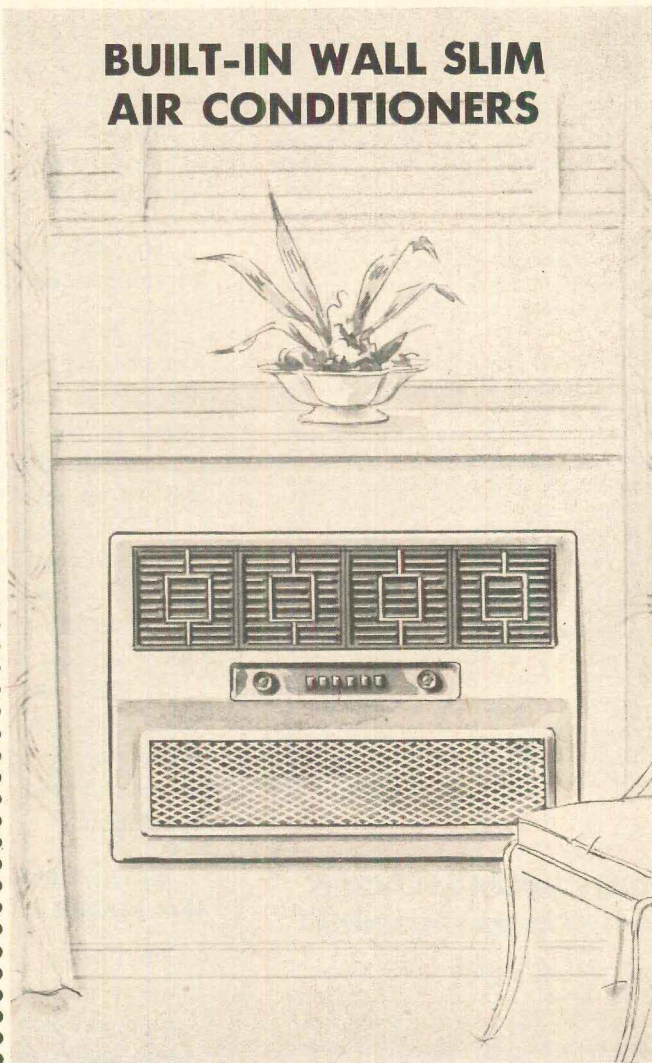
Most manufacturers agreed that their industry needs more and better promotion.

Welbilt-In

BUILT-IN RANGE UNITS



BUILT-IN WALL SLIM AIR CONDITIONERS



MORE

FOR THE BUILDER'S DOLLAR...

Glamor Styling for Custom Kitchens • quick installation
• lowest cost • gas or electric with identical dimensions
• Satin Chrome or Coppertone Porcelain Enamel

OVEN BROILER Automatic ovens, Electric clock, 4 hour timer, Klear-Vue oven windows

COUNTER UNITS 2 burner and 4 burner units, 4 burner drop-in section with flush rim

Room cooling *built-in* where you need it — in one or more rooms.

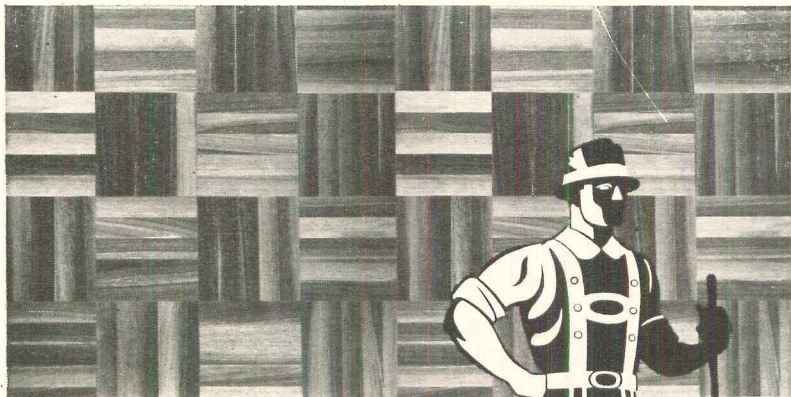
Lowest cost air conditioning. Requires no duct work or extra space. Complete unit installs directly in wall. Only 16" deep.

Flush to wall inside and outside • Cools, filters, dehumidifies, ventilates, exhausts and heats

Available To Assist You — A NATIONWIDE SERVICE ORGANIZATION OF TRAINED SPECIALISTS
Contact Bilt-In Division, Welbilt Corporation, Maspeth 78, N. Y.

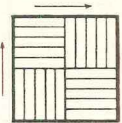
Welbilt AMERICA'S LEADING BUILDER SUPPLIER

Manufacturers of Welbilt Gas and Electric Ranges and Air Conditioners, Detroit Jewel Ranges, AB Aristocrat Ranges and Garland Cooking Equipment • Executive Offices and Eastern Mfg. Div., Maspeth, L. I., N. Y. • Midwest Mfg. Div., Detroit, Michigan



BW

Harris BondWood Flooring



Unexcelled Stability! Unique construction makes for tighter fit, because of patented design and assembly.

25/32" tongue and groove BondWood



Deep, Deep Beauty! Sawn for durability. Square edged slats, unbeveled. A full 5/16" of gleaming beauty—can be refinished countless times.



Easily Installed! Paperfaced 19" x 19" units of sixteen 4-3/4" squares. Laid in Mastic over concrete or wood subfloor.

Precision Swiss process sets pattern for home sales

Here's the flooring that can help you sell homes faster. Harris brings you Old World elegance, styled for today's modern living... a new method of lending a custom appearance to any home.

Prospects get excited over BondWood's patterned beauty... love its eye catching design... feel its warmth and richness.

BondWood truly sets the pattern for home sales. Why not profit from this sales-making flooring? Write today for color folder and name of nearest distributor.

BondWood is exclusively manufactured and distributed in the U.S. and possessions by...

MANUFACTURING CO., 802 E. WALNUT ST., JOHNSON CITY, TENN.
THE FINEST IN FLOORING SINCE 1898

Harris

Strip



Colonial Plank



OUR PRODUCTS ARE EXHIBITED IN THE NATIONAL HOUSING CENTER, WASHINGTON, D. C.



For love at first sight

In kitchens, high-style natural wood is the thing to capture the hearts of your feminine prospects. And, among natural woods, *birch* seems to glow with a special "come-hither" warmth—as in this kitchen with its completely modern Curtis natural birch cabinets. On the practical side, simple, uncluttered cabinet surfaces like these are easy to keep looking their best...require the minimum of care...withstand the hard knocks of constant use! And Curtis wood cabinets may be decorated as desired by the owner—and changed at will.

Curtis natural birch kitchens have good looks in full measure—and for maximum convenience they are "woman-designed."

CURTIS

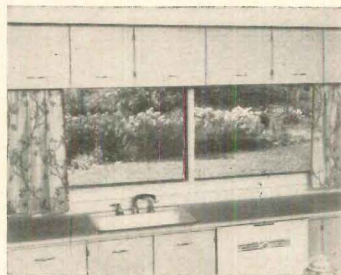
W O O D W O R K

Some sales-making features of Curtis kitchens



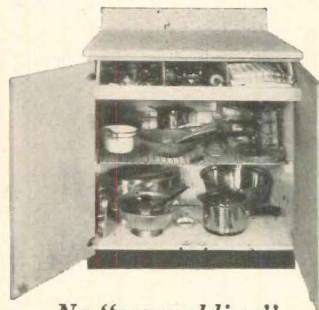
Pull-out trays

These convenient trays are made in 7 widths ranging from 15" to 36". All trays are made with depths of 4 1/4".



Over-window cabinets

Small cabinets over the windows provide extra storage space for seldom-used articles that every home has.



No "scrambling"

This Curtis pan unit with tray at top and sliding wire shelf is made in 9 widths... 12" to 36". Real flexibility!



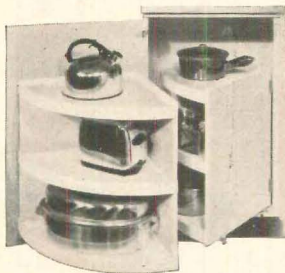
Swing shelves

For use in a square corner, these swing shelves utilize the entire storage area. The inside shelves are fixed.



Opens on both sides

Two trays and sliding table are accessible from both sides in this unit—an attractive, modern convenience.



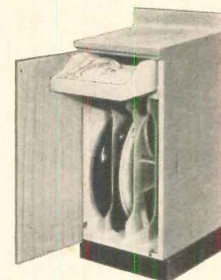
Women love this unit

Swing shelves installed in base square corner unit—a dramatic, eye-catching feature that multiplies space.



For fruit and vegetables

These sliding bins may also be used for pan or other storage. Extremely handy—provide quick accessibility.



Tray storage

Always useful...a unit with sliding tray and removable dividers. Made in 12" and 15" widths for your choice.

show her a CURTIS kitchen

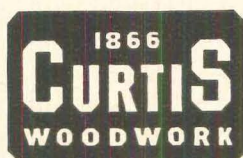
Made like fine furniture, these sturdy wall and floor cabinets embody the work-saving features women say they want *most*. That means such modern features as revolving shelves, swing shelves, pass-through shelves, slide-out bins, special units for pans and cutlery—and a host of others.

And for *you*, Curtis cabinets have a special kind of convenience. They are made in sizes to fit every shape of kitchen, large or small. They come as

cartoned units, ready to join together in almost any arrangement. Installation time is kept to the minimum—a big help in reducing costs.

Curtis kitchen cabinet units are sold by leading lumber and building material dealers in most parts of the country. Complete information, literature and specifications on Curtis kitchens are yours for the asking. Mail the coupon—or get in touch with your Curtis Woodwork dealer soon.

Heart of the Home



Curtis Companies Service Bureau
200 Curtis Building
Clinton, Iowa

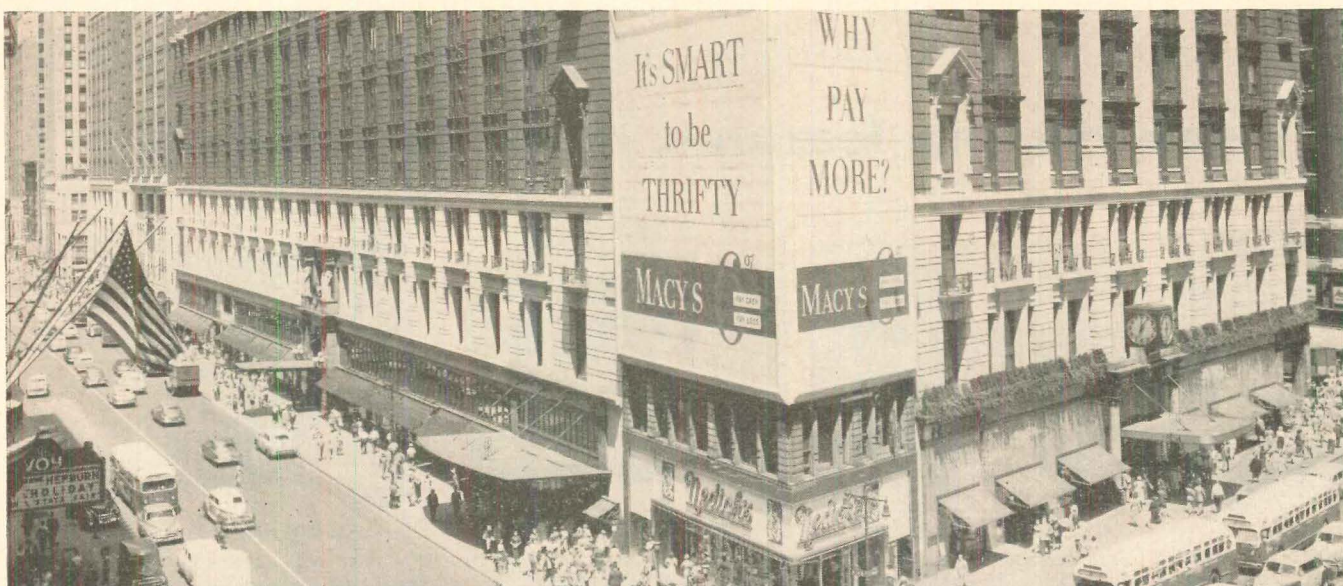
III-9-56

Please send booklet on Curtis kitchens and tell me where I can buy them.

Name.....

Address.....

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



Macy's tells everybody: IT'S SMART TO HAVE

Macy's doesn't mince words. Or buy without investigating. Before deciding on Koroseal for seven floors of "the world's largest store," it put down various types of flooring where 15,000 people could tramp over them daily.

Koroseal proved itself to be a real champion. By actual test, it needed less care, fewer people to "keep it up." *In fact, says Macy's, the more it was walked on, the better it looked.*

Macy's has found its floor, and is recommending Koroseal to every branch and affiliate store. Macy's doesn't even care if a few outsiders (like you) get in on Koroseal. Says Macy's: "It's a great all-purpose tile!"

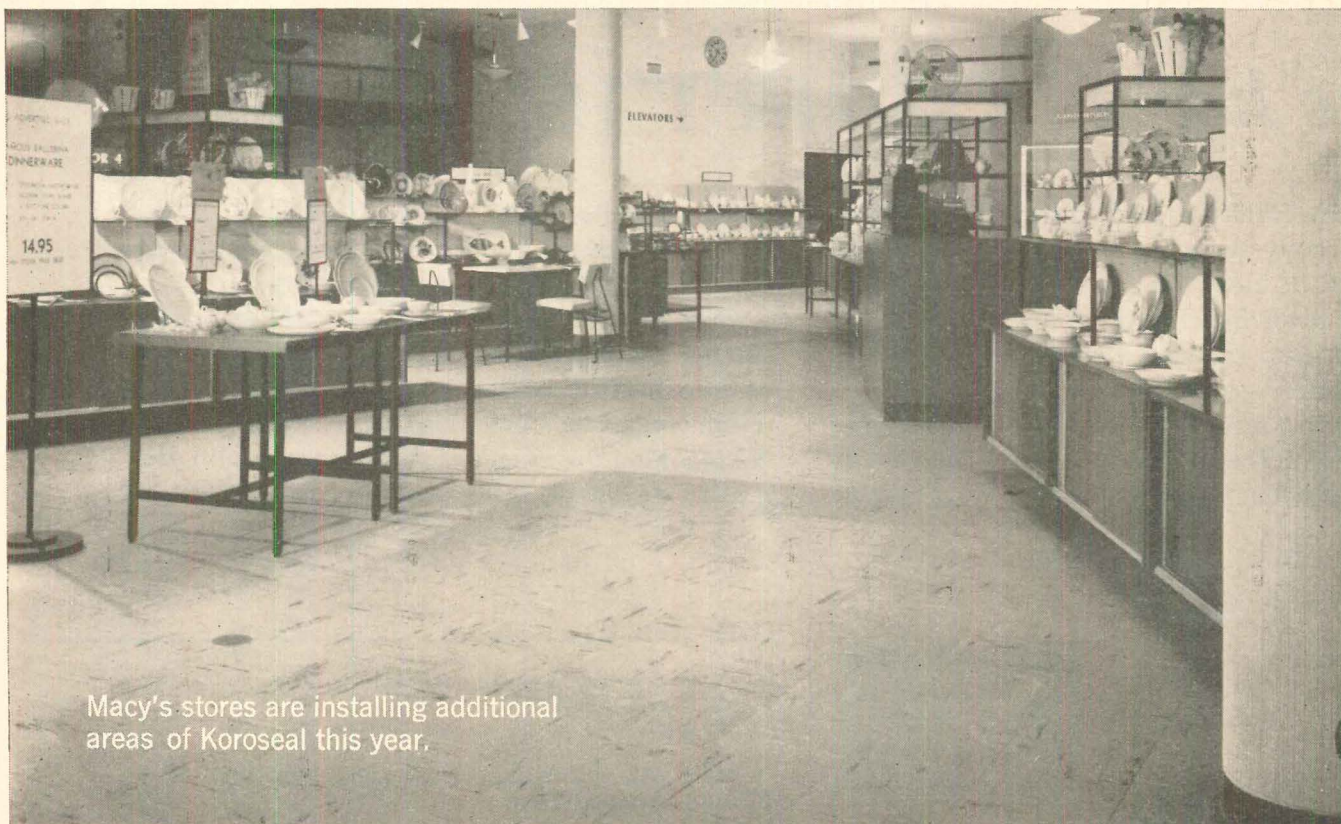
B.F. Goodrich

Koroseal®

Floor Tile



For complete information
— See Sweet's or write: B. F. Goodrich Co., Flooring Division, Dept. 72, Mass. Watertown



Macy's stores are installing additional areas of Koroseal this year.

New "Agatine" Tile • Koroseal Tile • Asphalt Tile • Rubber Cove Base • Stair Treads • Accessories

Large increase in savings reported in first half of '56

Savings are piling up faster. Soon they may make borrowing easier.

Second quarter savings hit a \$20.5 billion annual rate, says the Commerce Dept.—up from \$16.5 billion for 1955. First quarter savings, says SEC, hit \$5 billion—biggest quarterly total since mid-1952—up 50% over the preceding quarter, up 200% over the winter before.

Liquid savings rose \$4.5 billion net, including \$3.8 billion invested in securities—\$800 million in corporates, \$600 million in tax exempts, \$2.4 billion in Treasuries (most since early 1947). S & L savings increased \$1.1 billion; bank, time and savings deposits rose \$1.3 billion. These liquid savings increases totaling \$6.2 billion were offset by a drop of \$900 million in demand deposits and \$800 million in currency holdings.

Nonliquid savings showed a net rise of \$500 million.

MORTGAGE BRIEFS

FHA discounts level off

Prices of FHA Sec. 203 mortgages for immediate delivery on the secondary market leveled off in July.

Average price Aug. 1 was 97.6, same as on July 1. The price had dropped in the two preceding months. The figure represents an average of reports from FHA's 71 insuring offices; and not actual sales.

OFFERING PRICES, FHA 203s

ZONE	Aug. 1, 1956		July 1	June 1
	AVERAGE	RANGE		
Northeast	99.5	98-par	99.7	99.7
Middle Atlantic	98.3	96.5-par	98.3	98.5
Southeast	97.1	96-98	87.1	97.6
North Central	97.2	96.5-par	97.3	97.1
Southwest	97.3	96.5-98	97.4	97.6
West	97.8	94-99	97.7	98
US AVERAGE	97.6	94-par	97.6	97.8

Delinquency ratios reported

FHA loan 30-day delinquencies showed a low 1.65% rate, while GI loan one month delinquency ratios were 1.91% in second quarter 1956, according to a Mortgage Bankers Assn. survey. Conventional delinquency ratio was 1.17%.

MORTGAGE MARKET:

FHA may allow lenders 1/2% service charge to increase mortgage yield

FHA may soon take a backdoor approach to a higher interest rate.

The device: allow lenders a 0.5% service charge on FHA mortgages. Thus the interest would remain pegged at 4.5% along with that of VA but the yield to the lender would go up to 5%. (Cost to the borrower, of course, would be 5.5% with FHA's 0.5% insurance fee.)

FHA reportedly believes this 5% yield will stimulate new interest in FHA paper and reduce—or even eliminate—discounts which currently range from one to three points.

The plan is not new. FHA currently offers an 0.5% service charge to lenders under Sec. 203 (I), the minimum house program. (Maximum mortgage: \$6,650.) It was started in an effort to get more lenders interested in this program of peanut mortgages.

If FHA decides to allow the service charge on all mortgages, insiders believe it may make the announcement at the same time it lifts the 2% extra down payment requirement—to mute the effect among critical Democratic Congressmen.

While FHA mulled this step VA mortgages, selling at discounts of as high as 8 points, continued to be dumped on FNMA's secondary market. Fanny May reported \$34 million in purchases in July, four-fifths of it VA paper.

Mortgage bankers queried in HOUSE & HOME's monthly mortgage survey reported the market tight—or tighter—than it was in July. Most of them are talking now in terms of semi-permanent tightness which may well extend through next year.

While builders welcome the changes in Fanny May made in the 1956 housing act, mortgage bankers were sharply divided.

Among those who dislike the changes was Robert M. Morgan, president of the Boston Five Cent Savings Bank. "These changes (standby commitment and reduced stock purchase requirement) will tend to make Fanny May a primary instead of a secondary market. It will become nothing but a dumping ground."

But said George W. De Franceaux, president of Frederick W. Berens Inc. of Washington: "Changes should have a beneficial effect. It will mean less money sunk in stock, more money active elsewhere in the market."

NEWS continued on p. 63

MORTGAGE MARKET QUOTATIONS

(Sale by originating mortgagee, who retains servicing.)
As reported to HOUSE & HOME the week ending Aug. 11.

FHA 4 1/2s (Sec. 203) (b)

VA 4 1/2s

City	Minimum down* - 30 year		Minimum down* - 25 year		25 year, 10% down		30 year, no to 2% down		25 year, 2% down		5% down or more	
	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future
Boston local	par-101	par-101	par-101	par-101	par-101	par-101	par-101	par-101	par-101	par-101	par-101	par-101
Out-of-state	96-97	96-97	96 1/2-97	96 1/2-97	97	97	94-96	94-96	95-96	95-96	96	96
Chicago	96 1/2-97 1/2	96-97	97-98	97-98	97 1/2-98	97 1/2-98	96-97 1/2	96-97	97-98	97-98	97 1/2-98	97 1/2-98
Cleveland	96-96 1/2	95-95 1/2	95-95 1/2	94-94 1/2	95-95 1/2	94-94 1/2	93	92	93	92	95-96	94-95
Denver	98-98 1/2	97 1/2-98	98-98 1/2	97 1/2-98	97 1/2-99	97 1/2-99	96 1/2-98	96-97 1/2	96 1/2-98	96-97 1/2	97-99	97-99
Detroit	97-97 1/2	96 1/2-97	97 1/2-98	97-97 1/2	98 1/2-99	98-98 1/2	95-95 1/2	94 1/2-95	96-96 1/2	95 1/2-96	97 1/2-98	97-97 1/2
Houston	97	97	97-98	97-98	97 1/2-98	97 1/2-98	95	95	95-95 1/2	95-95 1/2	96-97	96-97
Jacksonville	97-97 1/2	97-97 1/2	97-97 1/2	97-97 1/2	98	97 1/2	95 1/2-96 1/2	95 1/2-96 1/2	96-96 1/2	96-96 1/2	96 1/2-97	96 1/2-97
New York	99-par	99-par	99-par	99-par	99-par	99-par	99-par	99-par	99-par	99-par	99-par	99-par
Philadelphia	99-par	99-par	99-par	99-par	99-par	99-par	97	97	97 1/2	97 1/2	98	98
San Francisco	a	a	a	a	a	a	94-95	94	94 1/2-95	a	a*	a
Wash., D. C.	98 1/2-99	98	99	98 1/2	99	98 1/2	97	96 1/2-97	97 1/2	97	97 1/2-98	97 1/2

* 7% down on first \$9,000

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cent Savings Bank; Chicago, Maurice A. Pollak, exec. vice pres., Draper & Kramer, Inc.; Cleveland, David O'Neill, vice pres., Jay F. Zook, Inc.; Denver, C. A. Bacon, vice pres., Mortgage Investment Co.; Detroit, Harold Finney, exec. vice pres., Citizens Mortgage Corp.; Houston, Lewis Lewellen, vice pres., T. J. Bettes Co.; Jacksonville, George Dickerson, Stockton, Whatley, Davin & Co.; New York, John Halperin, pres., J. Halperin & Co.; Philadelphia, Laurence J. Stabler, vice pres., W. A. Clarke Mortgage Co.; San Francisco, Raymond H. Lapin, pres., Bankers Mortgage Co. of America

► Immediate covers loans for delivery up to 3 months; future covers loans for delivery in 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.

NOTES: a—no activity. * 20-year term, 97-98.

THE
QUALITY
HEATING

CR



**How
sales**
with Crane's

Crane Sunnyday 15. Newest, most efficient residential boiler made. Saves up to 15% on fuel bills. Easy to install. Available factory assembled and prewired. Gas or oil fired. Flush or extended jacket. Appliance White front and modern styling make it handsome addition to utility room.



ANNE

to make peace of mind a feature of your homes...

Sunnyday—the first and only boiler guaranteed 20 years

How do you convince a home buyer that he'll be happy with your house 5, 10 or even 20 years from now? One of the best ways is to point out the Crane Sunnyday Boiler—and *explain* that it's guaranteed 20 years.

The ironclad guarantee that covers boiler sections against failure for 20 years gives you a convincing sales point.

You can now offer this amazing assurance of lasting satisfaction in your houses at no extra cost to you. What's more, a guaranteed Sunnyday

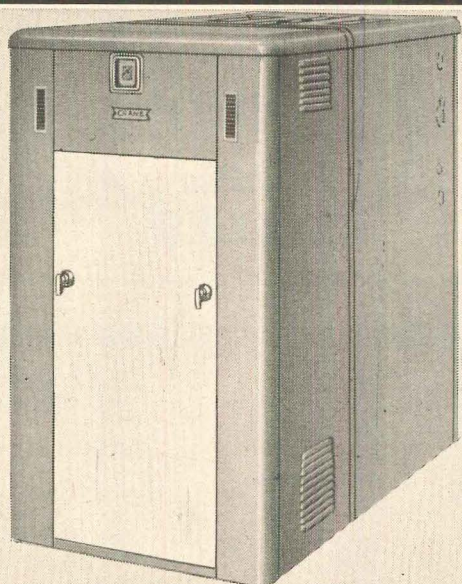
indicates that your whole house is quality built *throughout*.

Think of what the guarantee means to a prospective home owner—one of the most vital pieces of equipment in the home guaranteed 20 years, backed by Crane, the name with 100 years of quality reputation.

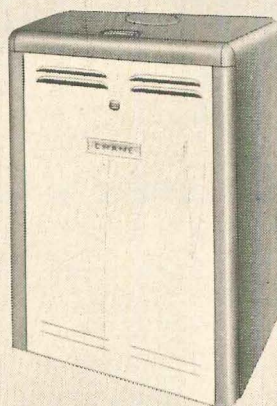
So why not use this powerful sales point? Ask your heating contractor to start figuring on a Crane Sunnyday Heating System—with Crane Radiant Baseboard today.

CRANE CO. General Offices, 836 South Michigan Avenue, Chicago 5, Illinois
VALVES • FITTINGS • PIPE • KITCHENS • PLUMBING • HEATING

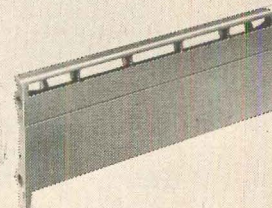
There's a Sunnyday Heating System for every home



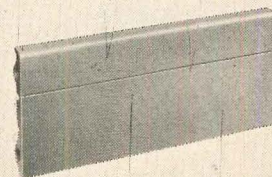
Sunnyday Senior 16. Famous downdraft design gives the greatest output of heat. Big fuel savings. Outperforms any boiler in its class.



Sunnyday 2 WG gasfired boiler. Completely automatic. Efficient and quiet. Factory assembled, prewired. Handsome insulated jacket. 42,000 net Btu to 126,000 net Btu.



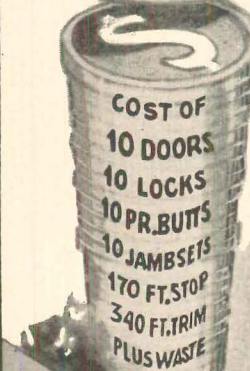
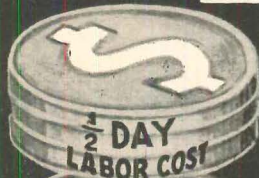
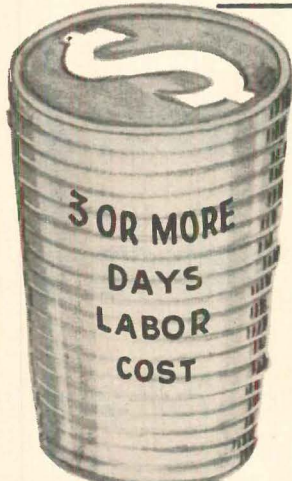
Type RC Baseboard for most installations. Combines radiant with convection heating.



Type R Baseboard. Radiant heating for kitchens along the soffit, or special installations.

Installed Cost of 10

CONVENTIONAL DOORS | READY HUNG DOORS



**SAVE
TIME
LABOR
MONEY
WASTE
WORRY
SKILL
DO A BETTER
JOB**

COMPARE COSTS

on a house having
Ten Doors

WITH **Ready Hung DOORS** *The Saving*

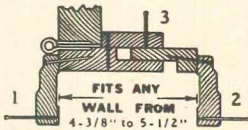
IS IN THE COST OF
INSTALLATION

**IT TAKES ONLY 20 MINUTES TO
INSTALL A READY HUNG DOOR!**

Yes, you can install 10 Ready Hung Doors in 1/2 a day, with nearly an hour to spare.

You save a lot of money when you do 25 to 40 hours work in less than 4 hours. In addition to direct labor cost savings, reduced man hours mean reduced supervision cost, insurance cost, social security cost and accounting cost — because the job is finished as much as a week earlier, you save interest expense and close the sale sooner.

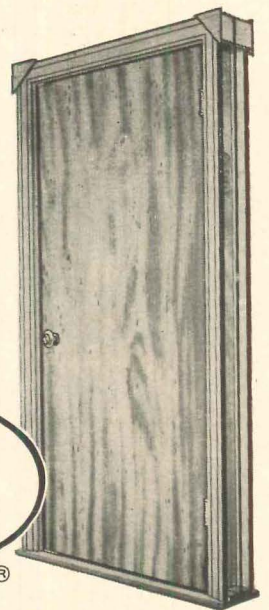
All these savings are yours because Ready Hung Doors are delivered to you with all the tedious work done — as it should be — on precision machinery and jig assembled on a high production assembly line. All you do is separate the halves of the two piece jamb, slip them back together in the opening and nail it to the wall. With nothing to saw, fit, chisel or plane you can't miss!



Simply slip the halves together in the opening and drive nails at 1, 2 and 3! There is nothing to saw, plane, bore or mortise!



PAT. NO. 2489029



CALL YOUR LUMBER DEALER • READY HUNG DOORS MADE BY THESE LEADING WHOLESALERS

ALBANY, N. Y.
Iroquois Millwork Corp.

BALTIMORE, MD.
Central Building Supply, Inc.

BIRMINGHAM, ALA.
National Woodworks, Inc.

BOSTON, MASS.
A. W. Hastings & Co., Inc.
Somerville 44, Mass.

BUFFALO, N. Y.
Iroquois Door Co.

The Whitmer-Jackson Co., Inc.

CINCINNATI, OHIO
Acme Sash & Door Co.
CLEVELAND, OHIO
The Whitmer-Jackson Co.
Massillon, Ohio

DAYTON, OHIO
Dayton Sash & Door Co.

DENVER, COLO.
Lumber Dealers, Inc.

GRAND RAPIDS, MICH.
Porter-Hadley Company

HUNTINGTON, WEST VA.
Iron City Sash & Door Co.

HOUSTON, TEXAS
Southwest Sash & Door Co.

INDIANAPOLIS, IND.
Midland Building Industries, Inc.

LOS ANGELES, CALIF.
Ready Hung Door Mfg. Co.
Burbank

MARION, IND.
General Millwork Corp.

NEW YORK, N. Y.
Bailey-Whalen Co.
West Orange, N. J.

OAKLAND, CALIF.
Ready Hung Door Mfg. Co.

PITTSBURGH, PENN.
Iron City Sash & Door Co.

ROCHESTER, N. Y.
The Whitmer-Jackson Co., Inc.

SAN ANTONIO, TEXAS
Ready Hung Door Mfg. Co.

SEATTLE, WASH.
Acme Millwork, Inc.
Kirkland, Wash.

SIoux FALLS, S. DAK.
Jordan Millwork Co.

ST. LOUIS, MISSOURI
Imse-Schilling Sash & Door Co.

Ready Hung Door Corp., Fort Worth 2, Texas

ST. PAUL, MINNESOTA
Minnesota Wood Specialties, Inc.

St. Paul Park, Minnesota

SYRACUSE, N. Y.
Iroquois Door Co.

TOLEDO, OHIO
Allen A. Smith Co.

TORONTO, CANADA
C. Lloyd & Son Limited

WACO, TEXAS
Frank Stevens Sash & Door Co.

HOUSING MARKET:

Higher priced home is best seller on today's market

Higher priced homes are pacing the nation's housing market.

This is one of the significant factors in a cross country check made in mid-August by HOUSE & HOME.

The survey also showed that the present market is an extremely spotty one—ranging from extremely poor in one place to very good in another location just 50 miles away. The complete report:

Baltimore: Sales picked up in mid-summer, notably in higher price range. Mortgage money no problem.

St. Petersburg: Buoyed by incoming industry and retirees, sales are even better than in '55. \$8,000 to \$15,000 small homes top sellers.

Oakland, Calif.: sales picked up in \$12,000 to \$18,000 range.

Montgomery, Ala.: starts off but houses bigger.

Richmond, Va.: sales off but not alarmingly.

Oklahoma City: starts for '56 expected to be off 25% from '55. Best sellers now: \$15,000 to \$20,000 range. Under \$10,000 market is off.

Indianapolis: sales plunged after good spring. Mortgage market very tight.

Detroit: builders in \$20,000 and over bracket report good sales. Market otherwise spotty.

Wichita: 1956 starts off at least 50%. Prices on custom homes up from \$15,000 to \$18,000.

Boston: starts this summer off 35%. Lack of buyers, not tight money, is blamed.

Suffolk County, N.Y.: sales of low cost housing in far Long Island area off drastically.

Nassau County, N.Y.: sales slow in \$18,000 range but better in \$20,000 to \$50,000 range in close-in Long Island area.

Springfield, Mass.: custom builders doing very well. Project home sales off 50% this year.

Louisville: sales picked up in mid-summer in \$15,000 to \$20,000 bracket. Starts for year expected to drop 5 to 10%.

Sioux City, Ia.: starts off 20%. Average home priced at \$14,000 to \$14,500.

Baton Rouge: new industry is helping '56 sales. Best price bracket: \$12,000 to \$18,000.

Des Moines: market steady. Best seller: a 3 bedroom, 1½ bath for \$16,000.

Battle Creek, Mich.: sales very slow. Most homes now built on contract only.

Fort Dodge, Ia.: sales off 60%, mostly because of lack of mortgage money.

Dayton, O.: market way off this year but some big projects already planned for '57.

Lincoln, Neb.: though starts are off 50% from '55, sales in the \$18,000 to \$20,000 bracket are very good. Custom builders have been unaffected by the slow down.

New Jersey: expensive homes selling well in northeast. Market slow and starts off 26% in the coastal area.

Omaha: sales are off 28% but builders expect a pickup this fall. Best selling homes are priced around \$15,000.

Atlanta: summer sales good.

Miami: sales 10% off. No market under \$10,000. Best price bracket: \$15,000 to \$17,000.

Jacksonville: sales off 50%. Buyers so loaded with short term credit, qualifying difficult.

Phoenix: big builder sales off 60%. Tight money market blamed.

Milwaukee: brightest spot in the nation with starts up 13.8% from '55.

Tulsa, Okla.: starts down 30% because of difficulty in getting construction money.

San Diego: market strong. Starts equal to '55.

Wilmington, Del.: GI starts way off. Best price bracket \$25,000 to \$27,000.

New Orleans: market good. Best sales bracket: \$22,000 to \$25,000.

Salt Lake City: market good, after slow spring. Starts up 7%, prices up 3% from '55.

Fort Wayne, Ind.: sales fair. Mortgage money in very short supply.

Bridgeport, Conn.: market very good. One builder sold 35 houses in one week from a model.

Pittsburgh: sales good. Most activity in \$16,000 to \$20,000 bracket.

Rhode Island: off from last year but still fair. Main casualties: one-house-a-year carpenters.

Memphis: starts down 25% from '55.

Houston: sales slow. Most popular seller: 3 bedroom, 1½ bath, priced \$13,000 to \$15,500.

Los Angeles: still lousy.

MARKET BRIEFS

Used homes selling best

An 11-city survey by the Wall Street Journal confirms what builders and realtors already know—the used home market is better than the new home market today.

Brokers, builders and FHA men questioned by the Journal gave these reasons for the changing market: prices on used homes are lower, they are closer to shopping and schools in established neighborhoods, living areas are roomier, landscaping and community facilities are already in place.

LA boom costs farm title

Los Angeles postwar home building boom has cost the county another distinction.

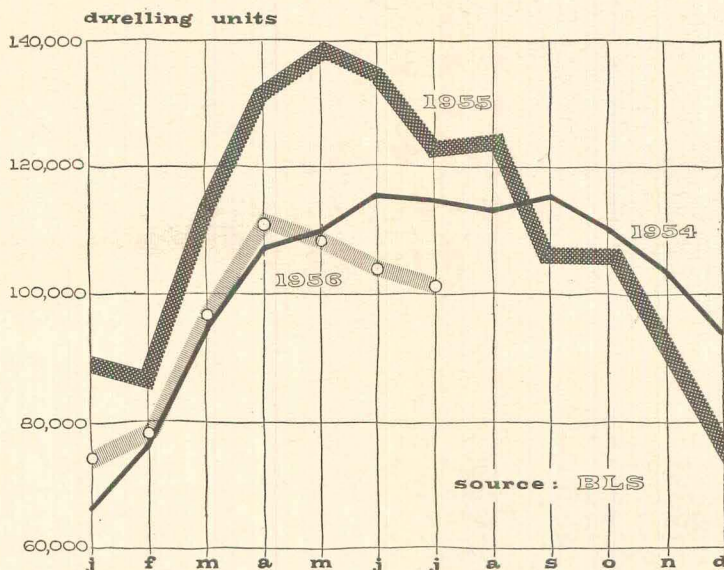
So much farmland has been subdivided for building that the county has just dropped from its perch as top U. S. farm county. (The new leader: Fresno County, Calif.)

'56 construction tops '55

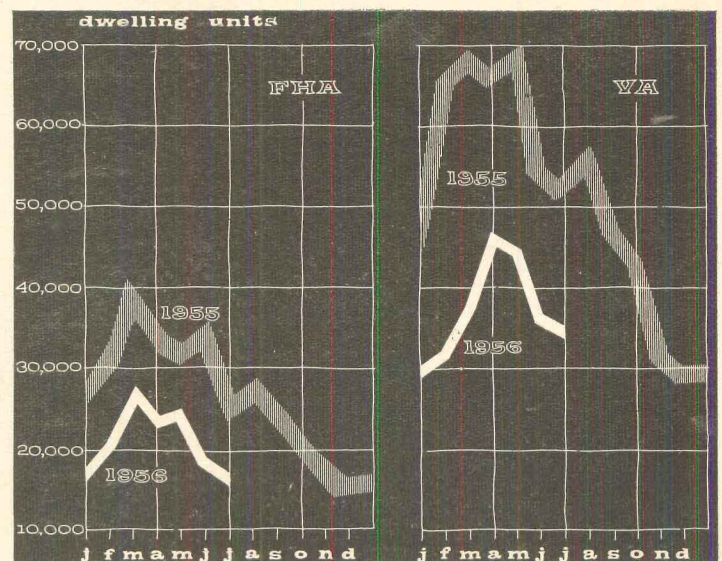
Total construction activity continues high despite a 9% drop in home building.

Estimated spending for the first seven months of 1956 was up 2% over 1955. Eliminating home building from the picture, all other construction was up 9%, with private industrial building up 29%; commercial building up 18% and highway construction up 16%.

NEWS continued on p. 66



Housing starts are 17.3% below last year's level. Starts for the first seven months of '56 total 676,200 (662,900 private and 13,300 public) compared to 818,100 for '55. July starts totaled 101,000 (99,100 private and 1,900 public) falling off from June's 104,000. Seasonally adjusted annual rate remained at 1,070,000, same as June, and lowest of the year.



FHA and VA applications leveled off somewhat in July after a June nosedive. FHA applications actually increased 6% (from 18,331 in June to 19,484, still 22% below the 25,197 of July, 1955). FHA termed the increase an erratic contraseasonal trend. VA appraisal requests dropped 2% (from 35,620 in June to 34,634 and off 32% from the 51,412 of July, 1955).



What's a "Swing"

Got to do with Insulation?



Here's a lively demonstration that drives home the *ruggedness* of Balsam-Wool insulation. Build a simple frame of 2" x 4" lumber; suspend a short length of 16" Standard Balsam-Wool from the top as shown. Add a "swing"...and you're ready to demonstrate just how tough Balsam-Wool is!

What does this swing test prove? Simply this: Balsam-Wool is built to withstand *tough* handling on the job... yet it's so *gentle and clean* to use. This rugged insulating blanket is designed for site application or prefabrication operations.

An insulation has to be good to stand up under this demonstration. Insulation that doesn't tear easily, pull apart or settle on the job...fully measures up to good application standards.

There's nothing flimsy about Balsam-Wool Sealed Insulation. It's built *rugged* for good application results that mean maximum efficiency on the job.

Chances are you may not build such a "swing"...but you can demonstrate Balsam-Wool's *ruggedness* with a simple product sample which shows:

1. Tough cold and warm side liners (*effective barriers against wind and moisture passage*).
2. Bonding of insulating mat to liners (*insulation stays put for a "house-time"*).
3. Rugged spacer flanges (*a reinforced flange for application to framing, providing important air spaces*).
4. Low thermal conductivity (*soft, non-irritating wood fibers effectively stop heat and cold*).

Balsam-Wool sealed insulation is sold by lumber dealers. You'll like the way it *handles on the job!* Wood Conversion Company, Dept. 236-96, First National Bank Building, St. Paul 1, Minnesota.



BALSAM-WOOL®

Blanket Insulation

RUGGED AND PROTECTED



Second-time buyers are big market in Dallas area, housing study shows

Who says the Dallas market is oversold!

One-third of the 280,000 families in Dallas County say they want to buy a new house in the county within the next two years.

Main reason given: to get more space, more storage, more garage. A whopping 53.1% said they would buy sooner if they could get trade-ins.

These are some of the findings in a housing survey conducted by Dr. Jerry E. Drake, head of SMU's School of Marketing. He interviewed 405 families scientifically selected to give a good sample.

The survey satisfied Drake that more Dallas builders should aim at the second-time buyer market, though of course he does not take too seriously the idea that 90,000 Dallas families will buy a new home there (last year's total new house sales—almost 15,000).

Architectural preferences of interviewees (based on pictures of various styles shown them) set the following pattern: ranch, 36%; modern, 31%; early American, 10%; contemporary, 8%; conventional, 6%; French provincial, 2%. An overwhelming 82% wanted masonry.

Dr. Drake found that the multiple bath has practically become "standard." 43% indicated a preference for two baths, compared to only 25% for 1½ baths, and 22% for one.

There was an almost even division of about 17% in the first five price ranges (under \$7,500, \$7,501-\$10,000, \$10,001-\$12,500, \$12,501-\$15,000, \$15,001-\$20,000) tailing off to 10% in the over \$20,000 bracket. 43% wanted to make a down payment of under \$1,000, 26% from \$2,000 to \$4,000, while only 0.7% wanted to make no down payment. A surprising 6.7% said they were ready to pay all cash. Drake said the comparatively large down payment reflects a desire for low monthly payments (26.9% wanted monthly payments of \$61-\$75, 15% wanted \$51-\$60, 12% wanted \$50 and under.)

Asked if they wanted their house insulated, 358 or 88.4% said "yes." Also many buyers wanted built-in appliances. 48% wanted both a built-in stove and a garbage disposal, 42% wanted a clothes washer. (Of 26 new features that interviewees said should be added to the

home, 24 had already been made available by one or more builders, Drake noted.)

Although Drake's study was worked out in detail before HOUSE & HOME's January Dallas story was written, he said that he had studied it extensively, found it "a very thorough thing and referred to it often."

HOUSE & HOME's story showed that when buyers had a choice, they strongly preferred houses with built-in appliances, insulation, good storage, open planning, trade-ins, indoor-outdoor living, less housework, color, air-conditioning and more house-for-the-money.

Said Harold F. Smith, president of Dallas' Home Builders Assn. of Drake's poll: "The survey is as thorough and as factual as man can attempt in his effort to look into the future. It contains many facts and ideas that members of our industry will do well to study in planning work of the next few years."

Chicago flops in effort to build sale housing

Chicago's flyer in middle income housing for sale is costing the taxpayers a whopping \$400,000 for just 52 units. This is nearly \$8,000 each.

The 52-unit, 3.6 acre project, developed by the Chicago Dwellings Assn. as an experiment, cost some \$1,055,000 to complete. Now the city is trying to sell it off for about \$612,000, according to William B. Kean, CDA executive director.

Even at this markdown there is no rush to buy. Only about half of the 52 units on sale since Jan. 1 have been sold so far. Current terms call for a 10% down payment and monthly payments of about \$70.32. Two bedroom units are priced around \$11,100; three bedroom homes up to \$13,300. All but six are FHA financed.

John R. Downes, executive vice president of the Chicago Metropolitan Home Builders, was not surprised at the dismal results.

Said Downes: "Private industry could do the job faster and more efficiently."

FHA and VA in Tennessee resolve MPR differences

FHA and VA in Tennessee have agreed to end 137 differences between their requirements.

In theory FHA and VA use the same MPR. In practice there are always differences due to varying interpretations and VA's refusal to accept FHA modifications. As a result builders are plagued with two sets of standards for any house that may be sold either FHA or VA.

The Tennessee agreement is the first reached on a statewide level. It came after lengthy talks between G. R. Norfleet, VA loan guaranty officer, Fred Stair, East Tennessee FHA director, and James E. Kerwin, West Tennessee FHA director.

Until VA in Washington approves the agreement details will not be revealed. Among the points covered are soil tests for footings, nailing methods, interior bathroom ventilation, and cold air ducts for heaters.

Loyalty oath requirement dropped in public housing

Persons renting public housing need no longer sign loyalty oaths.

The Justice Dept. has notified PHA that authority to require it expired along with the 1954 appropriations act—to which it was tagged.

In its three years only one man was evicted for not signing. He moved out without appealing.

FHA gets proposal for aged housing standards

Should a home for elderly persons differ from any average US home? Should it have special facilities and design features?

FHA's top men admit they don't have the answers, so they have launched a study to get them. Said FHA Chief Architect Neil Connor: "We already have projects in here we don't know what to do about."

Chief advisor to FHA on its study is Prof. Walter K. Vivrett, architectural design instructor at the University of Minnesota. He worked with

Reni



VIVRETT

FHA's architectural staff for a month this summer to formulate construction standards for housing aged persons. Here are the new FHA requirements recommended in his preliminary report:

He advocated larger bathroom doors wide enough for people on crutches or in wheelchairs, stronger towel racks that will not pull loose if they are grabbed for support, handrails by

all steps, ramps instead of short stairs, easier-to-turn lever-type door handles instead of door knobs. One-story houses are best and they should be near public transportation and recreational facilities.

Vivrett suggested that FHA require some of these design changes in all homes. Said he: "A few of these commonsense steps would make any house more desirable for people young or old."

This same suggestion is also made by architects in St. Petersburg, in the heart of Florida's retirement belt. Mass-interviewed by Associate Editor Douglas Doubleday of the St. Petersburg Times (and HOUSE & HOME's correspondent there), they also agreed that:

Elderly men and women should not and generally do not want to colonize in segregated retirement communities. "They should live where they can see baby carriages as well as hearses," said Architect Howard F. Allender.

Summed up Architect William B. Harvard: "Design standards should be the same in anything built. What we need is not more specialized design but an upgrading of all design."

Price, not tight money, slows Long Island sales

Why are housing sales off even where money is still easy?

Here is the answer offered by a Long Island mortgage banker, Lomas Realty Securities Corp. who predicts the decline in starts on Long Island will be greater than the national decline despite a plentiful supply of mortgage money:

"New York builders can get all the money they want at par, so they must look elsewhere for the diagnosis of their sick industry. We suggest as causes: (1) much housing on Long Island has priced itself out of the market; (2) the transportation problem.

"A nationwide survey discloses the median house price rose from \$13,050 to \$14,500, due to increased land and material costs. These figures hold good—and then some—for Long Island. To this \$1500 jump add a \$15 monthly hike in school taxes and you automatically eliminate many would-be buyers because their credit can't qualify. Moreover, many people who could qualify won't swallow the increases even though they want housing. These are the increases that have paralyzed the industry."

NEWS continued on p. 71

Housing securities starts regional market forecast

National housing start forecasts—valuable though they are—do conceal a lot of criss-crossing local trends.

While starts may be dropping overall, they may drop more in Los Angeles than in Miami and they may actually go up in Milwaukee (as they have).

Housing Securities Inc., investment firm headed by former NAHB President Tom Coogan, has issued the first of a monthly series of forecasts aimed to break the national outlook down to local levels.

Main use for the forecasts: Coogan feels it will be a reliable indicator to materials suppliers and mortgage men where housing activity will be greatest so they can adjust their operations accordingly.

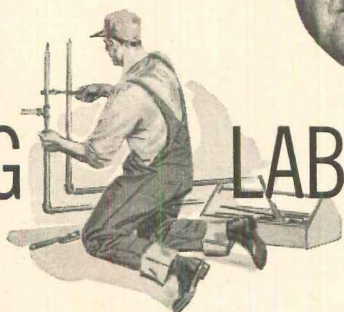
The first forecast has some surprising predictions: starts in Kentucky will be off 23.8% in the next six months while those in Florida will rise 4% compared to the same six months of 1955-56.

Here is the state by state outlook in the south-east for the next six months: Alabama, —5%; Arkansas, —4.4%; Georgia, —5.3%; Louisiana, —0.8%; Mississippi, +3.3%; North Carolina, —4.8%; South Carolina, —7.9% and Tennessee, —10%.

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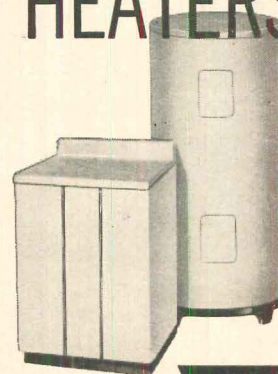
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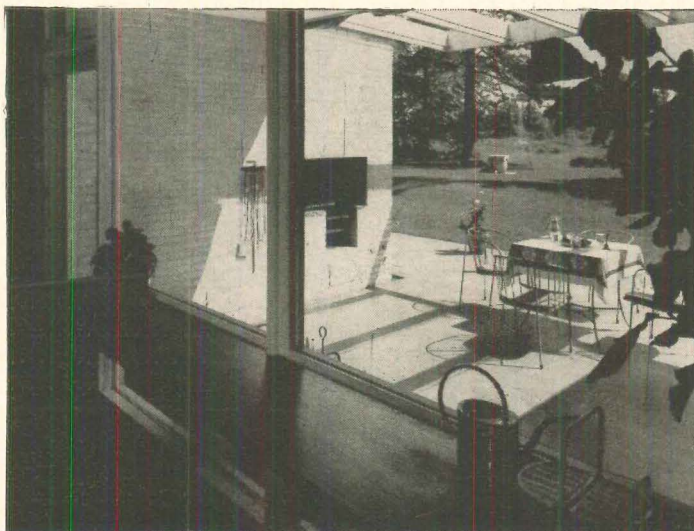
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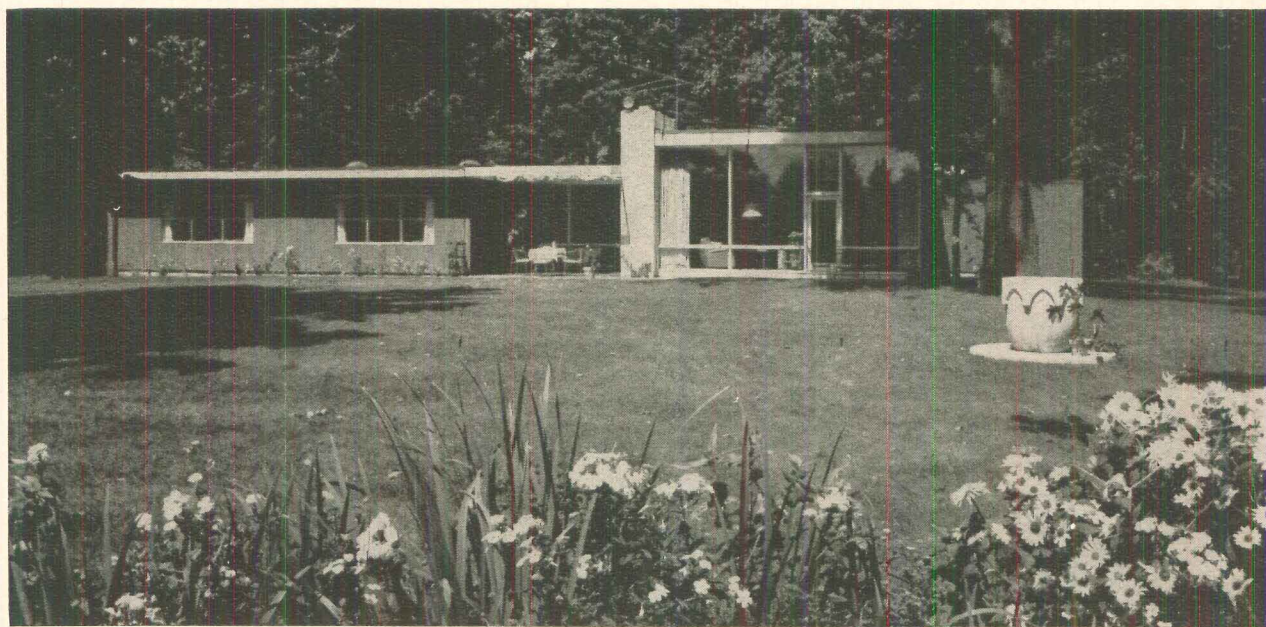
"TWINDOW"...the world's brings many



EVEN IN LARGE AREAS, the amazing insulating properties of Twindow—Pittsburgh's windowpane with insulation built in—keep a room like this one more comfortable winter and summer. Twindow reduces window fogging and icing. It cuts heating and air-conditioning costs. And it provides the most convenient form of storm window insulation. Prospective home buyers and people interested in remodeling know that they are saved the labor of putting up storm windows in the fall and taking them down in the spring. Architect: Giorgio Cavaglieri, New York City.

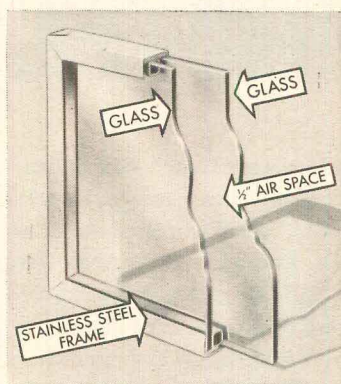
THIS PATIO VIEW shows the clear vision possible with "the world's finest insulating glass"—Twindow. More and more people are demanding the advantages possible with Twindow. And they are impressed with the fact that Twindow costs no more than single-pane windows plus storm sash.

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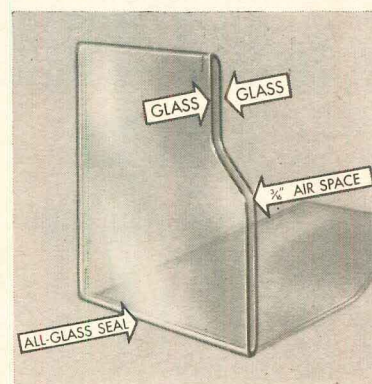
TWINDOW, as demonstrated here, adds to the beauty of the home's design. It opens the rooms to the fullest enjoyment of the outside view—whether it's an exceptionally delightful one, as here, or a modest garden scene. Moreover, Twindow minimizes cold air downdrafts. It muffles outside noises.

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METAL EDGE. Ideal for large windows and where maximum insulation is needed most. Constructed of two panes of $\frac{1}{4}$ " clear-vision Plate Glass, with a $\frac{1}{2}$ " sealed air-space between. Exclusive stainless steel frame means no bare edges to chip or mar. It means easier, quicker, and safer handling for the builder, too.

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See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass products.

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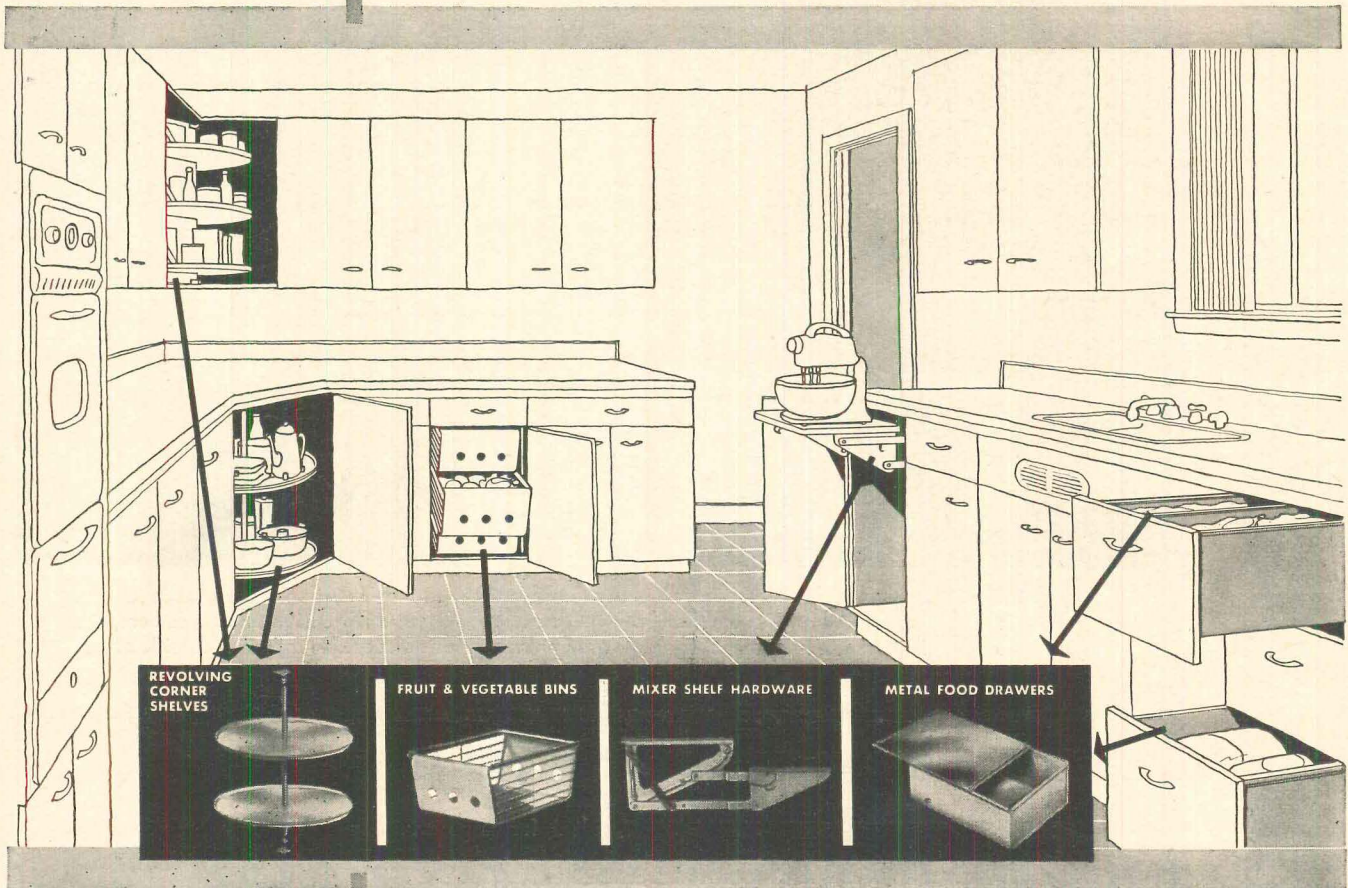
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MATERIALS BRIEFS

Plywood distributors push sales

You can see evidence of stepped-up sales efforts everywhere. Natl. Plywood Distributors Assn., for example, has just decided to use its "promotional fund" for local advertising, coupled with more cooperation with the Douglas Fir Plywood Assn. on sales training. Motivation, experts figure, is the unseasonal and drastic slump in plywood sales.

Lumber firm sees 10% sales rise

E. L. Bruce Co. of Nashville, Tenn. expects sales to rise 10% this year above 1955 levels, despite dropping housing starts.

President E. L. Bruce Jr. thinks starts, now down 18% from a year ago, will bounce back to 10% below 1955 (which would be slightly under 1.2 million). But he expects "increased production and increased sales of our other products to boost Bruce's dollar volume," anyway.

APPLIANCE BRIEFS

Heating systems to be certified

A plan to "certify" heating and air-conditioning units and duct systems is announced by the Cuyahoga County Sheet Metal Contractors Assn., Cleveland.

Certification guarantees heating of all living areas of the house at 75 degrees or above when outside weather is five degrees below zero. Certified installations will be backed by a bond for a year's guarantee.

Inside openers required

President Eisenhower signed into law a bill requiring refrigerator manufacturers to equip doors with safety devices, so they can be opened from the inside.

The legislation is designed to eliminate the possibility of children being trapped in discarded refrigerators.

MATERIALS:

Lumber industry starts two new studies of materials handling problem

An action program, aimed at promoting more unit packaging and shipment of lumber and lumber products, has been mobilized by the lumber industry.

Keying its plans to the recommendations of HOUSE AND HOME's materials handling Round Tables in February and April, a two-pronged research program has been undertaken:

1. The Natl. Retail Lumber Dealers Assn. has appointed a materials handling committee and named a research director to study, recommend and promote ways of extending unit packing and shipping.

2. The Natl. Lumber Manufacturers Assn. has announced a two-year plan for research in materials handling. Timber Engineering Co. of Washington, D.C. will direct it.

NRLDA's committee has outlined a five point program including conferences with railroads on unit sizes, methods of loading and the problem of proper rolling stock to handle unit loads.

NRLDA wants more bulkhead flatcars and more wide-door (15') boxcars. Railroads have balked at buying more bulkheaded flatcars (only 5,000 are in service) contending that a bulkheaded car has no other use and consequently must be deadheaded long distances after unloading.

In view of this argument, lumbermen have taken special note of a portable bulkhead devised by the Hallgate Corp. of Des Moines, Ia. It can be put on the car and taken off by two men—thus the car is easily converted to a standard flatcar. The portable bulkheads have the added advantage of mobility. They can be placed at any location on the car deck, facilitating loads of any length. Trial runs have been made from the Northwest to Midwest on the portable-bulkheaded flat cars. Loads have arrived in perfect shape.

The Hallgate bulkheaded car and other new ideas in materials handling will be demonstrated Dec. 10 to 13 at the NRLDA convention.

Building trades wages up 7¢ an hour in 2nd quarter

Three of every five workers in seven building trades got higher pay this spring.

Wages climbed 2.4%, about 7¢ an hour, to a \$3.03-an-hour average in the Bureau of Labor Statistics quarterly survey. Compared with a year before, scales of the various trades were up 11 to 16¢ for an average rise of 4.4%.

	AVERAGE CHANGE		RATE LEVELS	
	July '55-July '56	July 2, 1956	July 2, 1956	Range
Bricklayers	4.6	15.9	\$3.63	\$2.50-4.05
Carpenters	4.2	12.4	\$3.13	\$1.88-3.65
Electricians	5.1	16.3	\$3.33	\$2.38-4.00
Painters	4.0	11.3	\$3.02	\$1.75-3.35
Plasterers	3.2	10.7	\$3.47	\$2.25-4.00
Plumbers	4.0	12.7	\$3.34	\$2.40-3.75
Laborers	5.3	11.0	\$2.18	\$1.00-3.00

Plywood hits postwar low as market continues soft

Lumber and plywood prices continue soft. Plywood failed to hold the rise from \$76 to \$80 pegged early in July. Even at \$76 it developed a weak undertone for ¼" AD index grade. Increased discounts tended to pull the price down to \$72, a postwar low. Plywood production clicked along at 87.7% capacity, still far ahead of orders. Some producers planned cutbacks to a four day week.

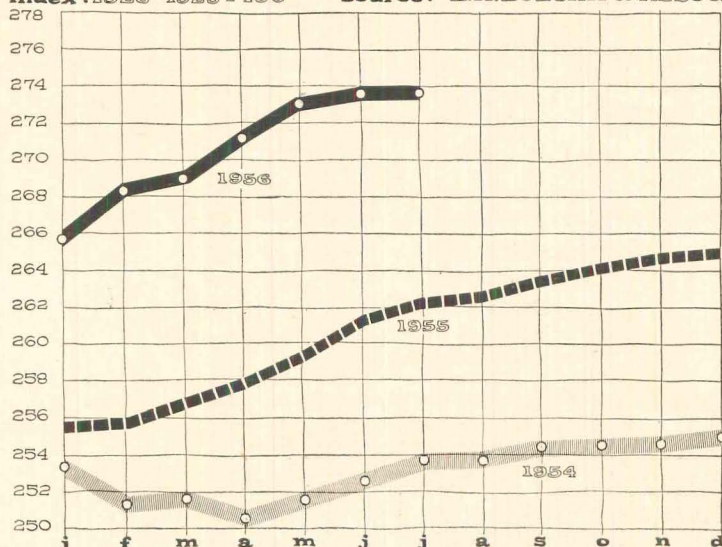
Fir lumber orders climbed about 4% over production at larger mills where prices are firmer than at small green mills.

Fir studs, which bellweather the construction lumber market, were being offered by mills at \$60-\$61, but a few sales were reported at \$58-\$59, and in some cases considerably lower.

Western pine sales continued to trail production while southern pine sales rose slightly.

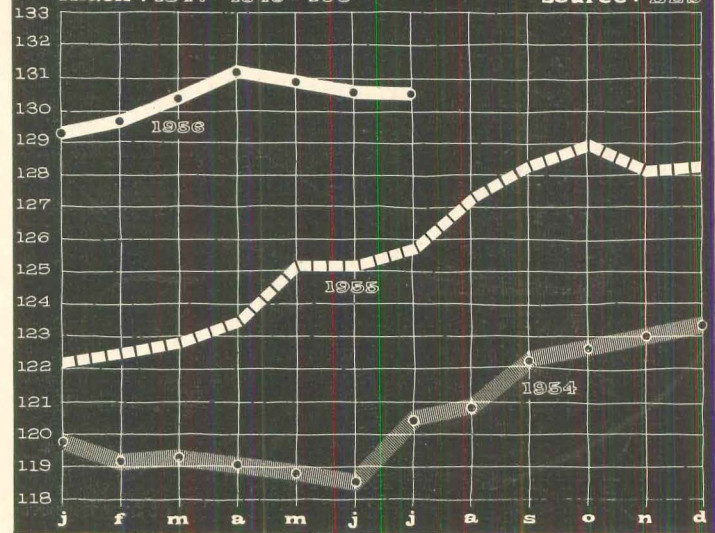
NEWS continued on p. 75

index: 1926-1929 = 100 source: E.H. BOECKH & ASSOC.

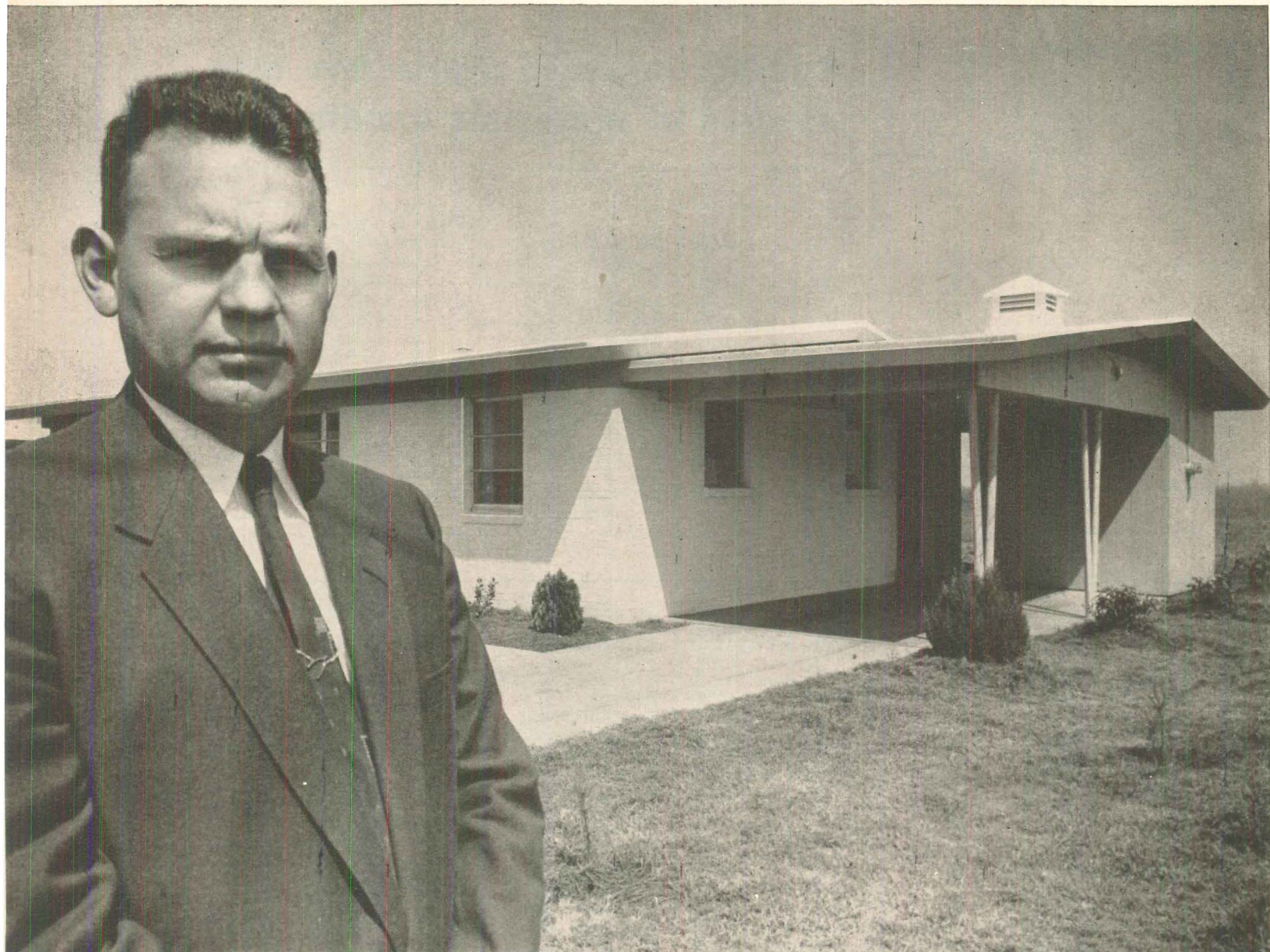


Boeckh's building cost index—for residential structures—went up 0.3 of a point to 273.9 in July. Col. E. H. Boeckh attributes the increase to higher labor costs. Atlanta, Dallas and New Orleans had the biggest wage boosts. Col. Boeckh predicts materials costs will also climb in coming months due to higher steel prices. Lumber costs continued to ease in July, due mostly to slackening home starts.

index: 1947-1949 = 100 source: BLS



Building materials prices remained at 130.6 in July as they were in June. While most prices remained steady there were significant increases in prices of plate glass (4.2%), prepared asphalt roofing (6.4%) and structural clay products (2.7%). BLS reports increased wage costs contributed to price boosts for glass and clay products. Inventory changes produced the price rise for asphalt roofing.



Worthington year-round air conditioning sells houses before they're completed



Builder Tom Moody of Alabama actually saw it happen!

"We don't have a single unsold air-conditioned home today," says Mr. Moody. "The truth is, they sell before we even get them up for formal sale, while non-air-conditioned ones might sit on the lots for weeks before a buyer is found."

Profit-conscious builders today are wide awake to the fact that air-conditioning comes high on the list of every new home buyer. And, like Tom Moody, smart builders know that Worthington is the only unit that offers so many outstanding air conditioning advantages—

- Heating and cooling system comes in one compact plant—requires only 12 square feet of space.
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Take a tip from Tom Moody and *profit* by his experience. Call the Worthington dealer nearest you today for complete in-

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Even your linens can be right at hand in this special storage unit. Nine shallow sliding trays, ample and wide, minimize folding of linens; keep them crisp, wrinkle-free, easy to remove.



This St. Charles Kitchen is in Autumn Gold. The extra sit-down sink simplifies preparation of vegetables and similar sit-down tasks.

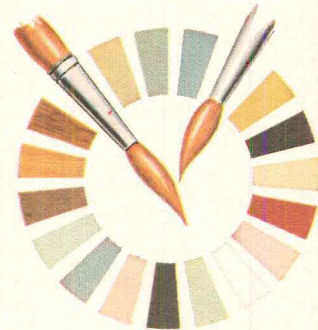
Distinctive design features by ST. CHARLES such as the A-Slant Sink in the ST. CHARLES KITCHEN pictured here add freshly unique, original beauty in every home you design.

Custom-built versatility that expresses any floor plan beautifully, usefully regardless of dimensional or storage requirements.

Because every ST. CHARLES KITCHEN is custom built to the individual job specification. You can accessorize to any degree of convenience or cost. You can have all steel, color styled in any of 15 current decorator colors. Or, choose steel construction with solid wood fronts in a choice of two finishes.



Custom built flexibility lets you have every convenience you want in your St. Charles Kitchen. This bottle storage unit is just one of the many special purpose units that make your St. Charles Kitchen the ultimate in convenience. Other special purpose units offered include vegetable storage bins, electric mixer storage and towel dryers. Virtually every advantage you can imagine is yours for the asking with St. Charles.



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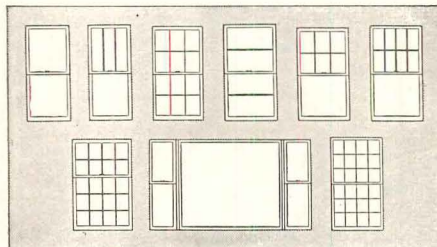


Abraham Lincoln's home in Springfield, Illinois is the shrine most intimately associated with his life in Springfield. This is the original structure, still standing on the same location as when Lincoln lived in it.

Abraham Lincoln Enjoyed the Comfort and Beauty of Double Hung Wood Windows



Relative inexpensiveness permits generous use of double hung wood windows with metal weatherstripping.



An endless variety of design can be achieved with double hung wood windows. They are easily shaped and their surface receives and holds any type of finish.

From May, 1844, to February, 1861, the Lincolns lived in this Springfield home. In its north parlor on May 19, 1860, Lincoln received the committee that notified him formally of his nomination for the presidency. After that ceremony, the committee members were conducted to the sitting room and were introduced to Mrs. Lincoln.

An outstanding feature of Lincoln's home is its double-hung wood windows, friendly servants of year-round comfort and livability. Year after year, these double hung wood windows, because of their natural insulative quality, assured dependable winter protection and better living.

Long service life, low maintenance cost, and efficiency present an enviable record for double hung wood windows. Also, they lend themselves so readily to the added protection that modern metal weatherstripping can provide.

For maximum efficiency of double hung wood windows, the installation of spring sash balance and metal weatherstripping is recommended. Metal weatherstripping is added assurance of worthwhile fuel savings by helping keep interiors draft-free and protected against excessive air infiltration.

WEATHERSTRIP *Research* INSTITUTE

OFFICE OF THE SECRETARY, BOX 128—RIVERSIDE, ILLINOIS

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Photo by Hedrich-Blessing. Furniture by M. Singer & Sons.

Floor with a modern flair



Modern planning opens new vistas of decoration in today's homes. Prospective buyers, alive with clever furnishing ideas, seek harmonizing architectural features. A Bruce Block Floor, with its modern geometric pattern in oak, complements the most up-to-date interior. Blocks may be blind-nailed to

wood subfloors or laid in mastic on concrete. The famous Bruce factory-finish, baked in the wood for beauty and long life, saves time and money on every house. Bruce Blocks are also available for on-the-job finishing. Write for color booklet. See our catalog in Sweet's.

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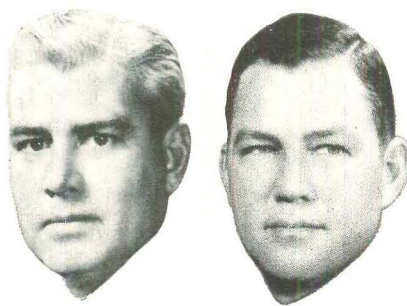
Bruce Block Hardwood Floors

Naturally Beautiful



"These 300 homes cost thousands of dollars less than we expected"

say WILSON H. and J.D. BROWN of the Brown Organization, Dallas, Texas, building company that has completed over 2000 homes in the Dallas-Fort Worth area. Both men are outstanding in property development, building associations and community affairs.



"**Gold Bond TWINSULATION was the answer** in the 300 homes we've built in Fort Worth," say Wilson and J.D. Brown. "This was a money-saving move on our part. The high insulation values in TWINSULATION made it possible for us to lower the heating unit capacity by 20,000 B.T.U.'s at a saving of \$25 per house. Instead of requiring 3-ton cooling units, we only needed 2-ton units. We saved \$200 *per home* here! TWINSULATION is certainly going to be a big saving factor in our future home building plans.

"...and home sales proved prospects like TWINSULATION **too!** It is our belief that TWINSULATION is one of the greatest sales features in our homes. The fact that it lowers heat bills for our home buyers and has the famous Gold Bond quality behind it has undoubtedly created many sales for us. It adds to the value of the entire house. Needless to say, we're sold on TWINSULATION!"

Gold Bond TWINSULATION® is rock wool plus reflective aluminum . . . an unbeatable insulation product that can help you achieve a similar success story. Call your Gold Bond salesman or write direct to Dept. HH-96, National Gypsum Company, Buffalo 2, New York.

NATIONAL GYPSUM COMPANY

Gold Bond®
BUILDING PRODUCTS

continued from p. 71

NEMA studies standards for dimensional kitchen

Here is more action slowly evolving out of the NAHB-ASA-HOUSE & HOME Round Tables on dimensional standardization.

The Natl. Electrical Manufacturers Assn. has named a four-man committee in its major appliance division to study how to coordinate the sizes of kitchen appliances and kitchen equipment. Chairman is Harold Hulett of GE. Members are: William Kline Jr. of Westinghouse, John C. Martin of Frigidaire and E. P. Van Sciver of Philco.

As the first step Chairman Hulett has tentatively suggested that home builders should standardize on a 1' module for the kitchen wall. This raises the old chicken-and-the-egg question of whether builders should put their kitchens on the 1' module before the appliance makers agree to fit that module, or vice versa. But it also shows the appliance makers realize the even foot module recommended by the NAHB-ASA-H&H round table offers the only basis for reconciling the 3" module of kitchen cabinets with the 4" module of everything else in the house.

The NEMA Committee plans to ask the Wood and Steel Kitchen Cabinet Manufacturers Assns. and the Home Laundry Manufacturers Assn. to work with them on the dimensional coordination program.

Adequate Wiring Bureau gives Housepower formula

At last home buyers can know what appliances their home is wired to handle and what added wiring costs they may face to use the equipment they want.

To this end the National Adequate Wiring Bureau has worked out HOUSEPOWER Rating Forms, one for new houses, the other for re-wired homes. The electrical contractor certifies to the homeowner just what his electrical wiring does or does not provide for.

Big advantage of HOUSEPOWER is its list of electrical items which eliminates need for technical terms, makes common ground for understanding between homemaker and electrical contractor.

Cement shortages noted as makers up capacity

Cement makers are adding 47 million barrels to their capacity this year. But this apparently is not enough to keep abreast of demand.

Critical shortages of cement have been reported this summer by builders in Minneapolis and Milwaukee. Serious shortages exist in Baltimore, Birmingham, Boston, Cincinnati, Cleveland, Denver, Kansas City, Los Angeles and New York.

Three firms have raised prices 5 to 10¢ a bbl., reflecting wage increases granted this year. Other firms are holding the price line, largely because they just hiked prices last winter.

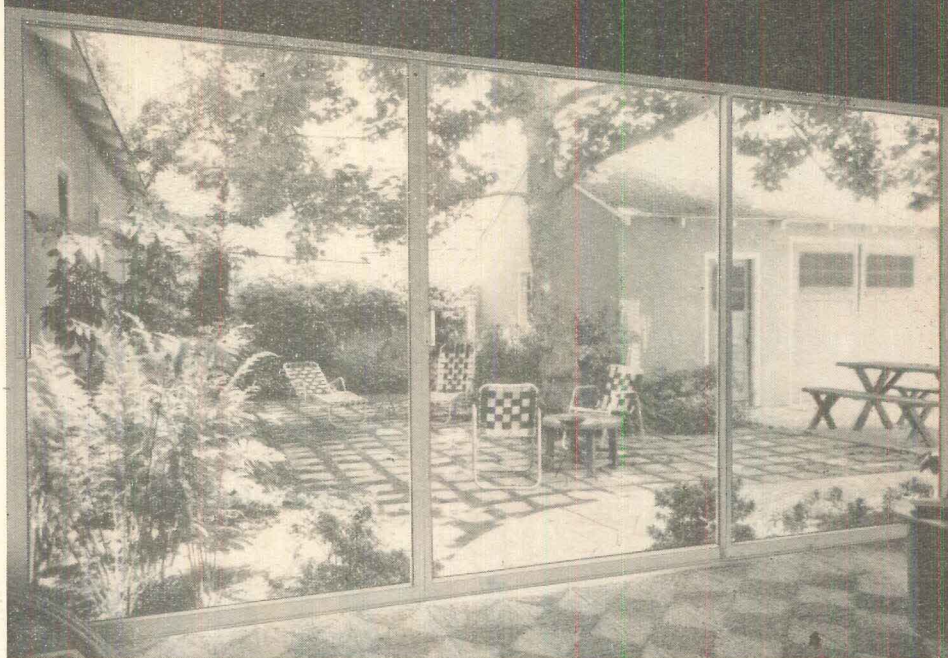
As the new federal road building program gets moving later in the year, the cement shortage may be more severe. (An estimated 16.6 million barrels of cement will be required for each \$1 billion of concrete roads in the \$33 billion program.)

Cement shipments this year are expected to hit 338 million bbls. The industry's capacity will probably reach 392 million bbls. per year by 1959.

And on the horizon—the threat of foreign competitors. Largest single shipment of foreign cement ever to arrive in Milwaukee—8,800 barrels—came in by boat from West Germany late in May.

NEWS continued on p. 79

OUT-PERFORMS ANY DOOR IN ITS PRICE RANGE!



New TRIMVIEW Aluminum Sliding Glass Doors

- are designed to help you sell your homes
- have more features with "sales appeal" than any other competitively-priced door on the market.

Here are just a few of them:

- All panels slide
- sloped sill with large drainage slots assures fast runoff
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- satin-like alodized finish for high corrosion resistance
- a positive-locking jamb latch
- Optional Extras: nail-on trimfin for dry wall or stucco; interior snap-on sill extensions; exterior sill flashing

Take Advantage of Trimview's Package Plan:

More than a dozen fine matching metal building products are available under Trimview's Package Plan:

- you deal with one company
- one order fills your requirements
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the
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that makes**

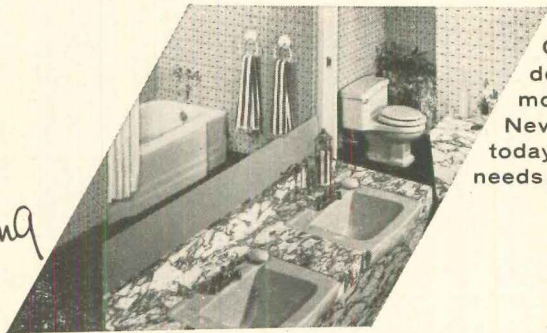
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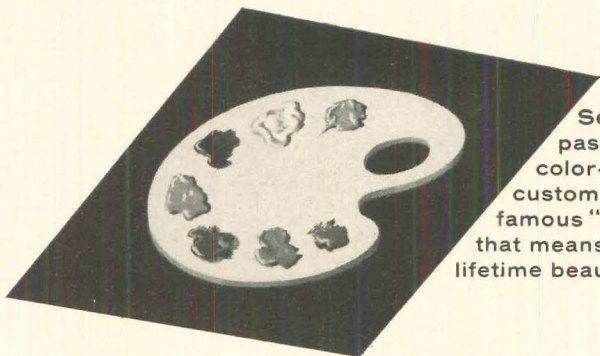
RICHMOND CREATES THE FINEST BATHROOM AND KITCHEN PLUMBING FIXTURES, HEATING • COOLING EQUIPMENT

Sales-maker styling



Clean-lined designs in the modern manner. New designs to meet today's bathroom needs...and tomorrow's.

Complete color range



Seven sparkling pastels for your color-conscious customers. The famous "Whiter-White" that means gleaming lifetime beauty.

Engineered quality



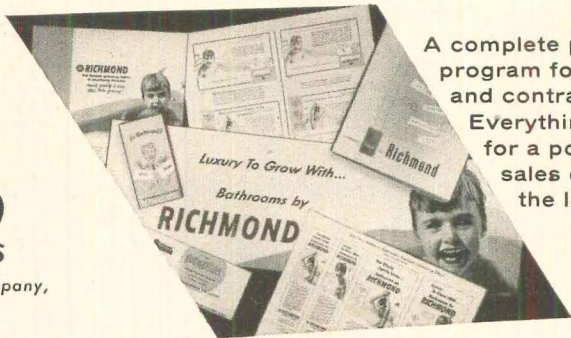
Glass-hard surfaces that withstand a generation of use. Rigid quality control that assures lasting consumer satisfaction.

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Full-color advertising in the leading home magazines. A different, name-building, acceptance-building approach.

Potent sales help



A complete promotional program for wholesalers and contractors. Everything needed for a powerful sales drive on the local level.



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"A wise investment". That's what the management of 20th Century Woodcrest Homes at Haddonfield, N. J. calls Flintkote roofing and siding. Shown above are some of the homes in the first section of this handsome development featuring Flintkote Materials . . .

20th Century Woodcrest Homes again chooses **Flintkote Roofing and Siding** for 360 more new homes!

Builders continue to find Flintkote roofing and siding a wise investment.

Wise . . . because these materials help dress up a home. Help to sell it—help to keep it sold.

Wise . . . because Flintkote roofing and siding add beauty, color, comfort, economy. Give long-lasting all-weather protection. Resistance to fire . . . moisture.

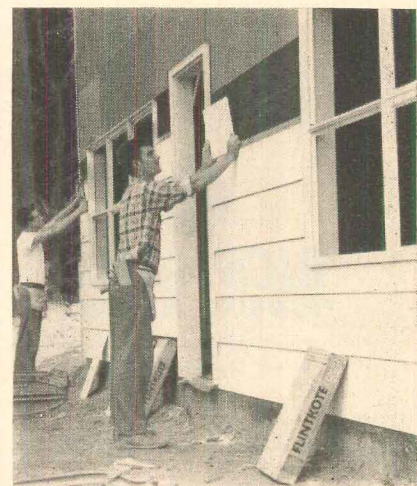
Wise . . . because they increase present and future values of a single home or an entire community.

You'll find just what you are looking for in the famous Flintkote line of colorful shingles and sidings. See your Flintkote supplier today.

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So well are Flintkote roofing and siding proving themselves on the first houses . . . 20th Century Woodcrest Homes has specified Flintkote materials again . . . for 360 new ultra-modern homes. Here . . . going up.



FLINTKOTE
Originator of the Asphalt Strip Shingle



PEOPLE: Follin to resign as HHFA urban renewal director; FHA Deputy Sigety reported in line for job

James W. Follin, 64, HHFA's urban renewal director since June, 1953, will resign this fall.

He has already told HHFA Administrator **Albert M. Cole** that he will quit as soon as he returns from a trip to Bangkok. (Where he attended a UNESCO meeting as Cole's representative.) Friends say Follin will probably go into business when he returns—presumably as a consultant on renewal problems.



FOLLIN

Richard L. Steiner, Follin's deputy will be acting commissioner until a successor is appointed. The man most mentioned for the job: **Charles E. Sigety**, deputy to FHA Commissioner Norman Mason.

A promotion and a resignation were also announced in the ranks of HHFA and FHA.

H. Kingston Fleming, 55, FHA's director of public relations, has been promoted to assistant HHFA administrator in charge of congressional liaison and public affairs. A former newspaperman (The Baltimore Sun) Fleming will now direct all of HHFA's press relations work.

He succeeds **William A. Ulman** who resigned several months ago.

W. Herbert Welch, 40, assistant to FHA Commissioner Mason, has resigned to return to his home in Buckhannon, W. Va. and take charge of a semiweekly newspaper of which he is co-owner. No replacement has been named. Welch came to Washington in 1953 as staff director of the President's Advisory Committee on Housing. Later he was FHA's director of public information.



FLEMING

Neil Connor, FHA chief architect, is spending six weeks in Europe to see housing in France, Germany and Italy.

Russians finally complete deal for purchase of California home

Russian housing bosses will finally get their little home from the West.

Apparently prodded by publicity which strongly inferred he was a welcher, Soviet builder **I. K. Kozuilia** finally sent word to San Francisco builder **Andy Oddstad** to crate the house and send it to Russia. Kozuilia had ordered it during the Russian housing experts' US tour last October.

Oddstad won't make much—if any—money off the deal. (Price minus lot, \$8,000.) The house isn't a prefab. He has to build it first, then dismantle it in sections for crating and

shipping. Included in the deal is \$4,000 worth of furnishings and some house warming presents thrown in by residents of Oddstad's development.

Oddstad still isn't sure what the Russians want with the house. He thinks perhaps they expect to find the secret of how to build a good inexpensive home. If so, they're doomed to disappointment. Said Oddstad: "The secret is not in the house itself. They can knock it down and take it apart but the secret isn't there. The secret (as any US builder can testify) is in production planning."

Bill Hanna leaves Cleveland assn. to become home builder himself

William (Bill) Hanna, executive vice president of the **Cleveland Home Builders Assn.** since 1954 has resigned to become a builder himself.

Hanna, who was president of the NAHB Executive Secretaries in 1954, is forming a partnership with builder **J. W. Friday** in Pittsburgh. They will build contemporary houses in the \$25,000 price range and hope to develop an important trade-in house operation.

Mel Freeland, president of the Cleveland Builders Assn., has named **Jim Leibrock** executive director to take over from Hanna. He has been Hanna's assistant in charge of labor relations.

Ex-government housing official named Housing Center manager

NAHB has an important addition to its top brass.

Bernard E. Loshbough, 51, onetime government housing official, will be general manager of the National Housing Center. His task will be to bring together segments of the building industry in technical roundtables and to arrange special demonstrations and short courses dealing with industry problems. His appointment was made by Director Neal Hardy.

Loshbough left a job as deputy representative for the Ford Foundation in India to join the Center. He formerly served as assistant director (1948-49) and then director (1951-52) of the Division of Housing and Community Facilities, National Security Resources Board. He was also Administrator of the Connecticut State Housing Authority (1949-51) and president of the Middle Atlantic Council, National Association of Housing Officials (1947-48).

A graduate in architecture from Notre Dame (Class of '29), Loshbough specialized in the design of low cost, low rent housing. His first government job was as an architect with the National Capital Housing Authority.

Chase Ltd.



LOSHBOUGH

Soft spoken Loshbough has won a reputation in his various jobs as a man who knows housing and—probably more important in his new job—knows how to put across any program he undertakes.

ACTION adds information, program directors to staff

A program director and a public information director have joined the staff of ACTION.

Leo Molinaro, new program director, is former associate dean of Adult Education at the University of Akron. He was also a member of the Akron Planning Commission and a board member of the Ohio Planning Conference.

Allen Wagner, information director, is a former Minneapolis newspaperman. He was public information director for the American Transit Association before joining ACTION.

Ed Gavin dies of heart attack; Was Editor of American Builder

Edward G. Gavin, 58 editor of *American Builder* and one of the best loved men in home building, died of a heart attack July 28 in his Chicago home.

The fatal seizure came just minutes after he had laid down to rest after a day of working in his yard. He had had only one previous attack—a mild one on a trip to Mexico ten years ago.

Gavin, with his thatch of white hair and his rapid-fire talk, had for many years been a familiar figure wherever builders or lumber dealers met. He was much in demand as a speaker and traveled thousands of miles a year to address local building groups.

He would often recall to friends that when he first became field editor for a building magazine in 1928, he loaded his family and luggage into a two-door Buick and roughed it on the open road.

Gavin was born in Chicago and was a graduate of the Purdue University school of engineering. Before joining *American Builder* in 1945 he was editor of *American Lumberman* and of *Construction News*. He served in the Air Corps in World War I.

In addition to his post as editor of *American Builder*, he was also a vice president and director of the Simmons-Boardman Publishing Corp. He is survived by his wife, Elizabeth.

S&L man Bodfish urges changes in US overseas housing aid

At least half of all US housing aid funds sent overseas should be used to help foreign families buy their own homes.

So says **Morton Bodfish**, chairman and president of the **First Federal Savings & Loan Assn.** of Chicago and former executive vice president of the **US Savings & Loan League**.



GAVIN

Here's window beauty
to complement fine paneling



Andersen Windowalls

TRADEMARK OF ANDERSEN CORPORATION



Andersen Casement Windows in a Michigan residence; Paul Moffett, A.I.A., is the architect.

The natural wood window beauty of Andersen WINDOWALLS blends harmoniously with fine wood paneling like this . . . helps the designer create a room of distinction. And these attractive, convenient Andersen Casement Windows are easy to open, easy to close, because they are manufactured with extra care by the skilled window craftsmen of Andersen. Made of selected, toxic-treated wood, they give you *natural* beauty . . . *natural* insulation against both heat and cold.

See your lumber and millwork dealer or Sweet's Files for more data on Andersen WINDOWALLS, or write Andersen. WINDOWALLS are sold throughout the country, including the Pacific Coast.

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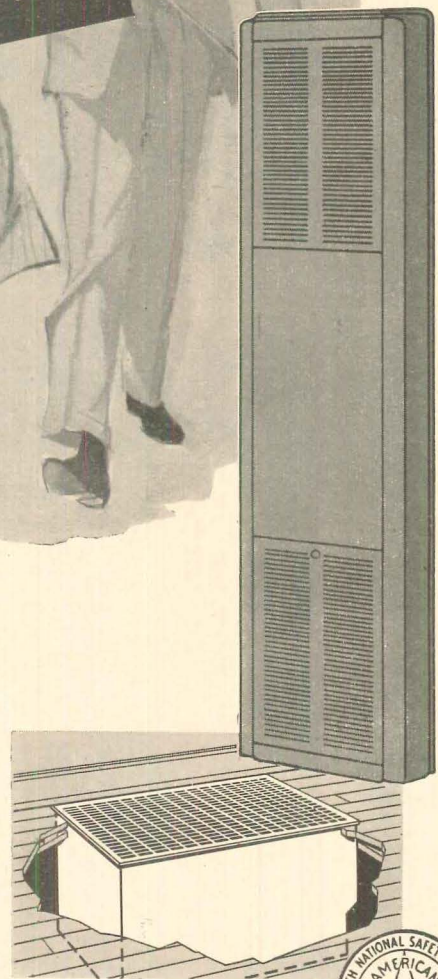
In the national march to more modern homes, you as a builder are right in step with your customers. You have to be.

Similarly, Temco is in step with you and with them—offering the finest automatic gas heating units available—units that fit perfectly the latest architectural trends.

These two are special favorites of many builders:
Temco's Automatic Gas Wall Heater!
Temco's Automatic Gas Floor Furnace!

- Easily, inexpensively installed.
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- Operate with equal efficiency on natural, manufactured, or L. P. gas.
- Carry written warranties on Temco's *Ceravite-Clear*® heat exchangers.
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continued from p. 79

Bodfish gave his advice to the **Economic Cooperation Administration** after a three-week European trip. ECA wanted an expert opinion on how housing aid is being spent. Most of it is going into rental apartments and government-owned public housing.

Bodfish urged that all American housing aid be routed through private lenders abroad. He advocated it be earmarked for loans "on a long-term, amortized basis arrangement that is economical to the borrower."

In addition to government aid, Bodfish said an effort should be made to get private funds into the European home mortgage market. "This could then become a continuing opportunity for investing our savings abroad in housing just as we now try to encourage industrial investments," he said.

St. Louis Builders Assn. names R. J. DeSutter executive director

St. Louis home builders split the duties of executive officer into two parts. The new executive director is **Robert J. DeSutter**. He succeeds **Milford T. Schick** who recently resigned.

Half of Schick's former duties have been assigned to **Mel Dorehoefer**, 27, who becomes home show director and director of National Home Week in the St. Louis area.

DeSutter has been chief accountant for the Ramsey Corp. of St. Louis.

DIED: Nat N. Wolfsohn, 53, millionaire president of Philadelphia's **Eastern Mortgage Service Co.**, was found July 4th washed up on a mud flat of the Schuylkill River. Death was apparently a suicide.

Wolfsohn had been under a doctor's care for diabetes for about 15 years. Police said he had been mentally depressed.

Wolfsohn entered the mortgage business in the Twenties, founded Eastern Mortgage in 1938, made it one of the largest (\$200 million in outstanding loans) in the country. Wolfsohn was also a past president of the Philadelphia Mortgage Bankers Assn.

David Solms, new Eastern Mortgage president, reveals that Wolfsohn's unprobated will creates a trust empowering the trustees to continue the business "for a long period of years." Wolfsohn's widow, from whom he was separated last spring, will probably get half his estate. His brother **Philip** is still active in the firm as vice president and secretary.

OTHER DEATHS: Walter M. Hebb, 51, developer and president of Tyler & Rutherford, Inc., Washington, D. C. real estate company, July 4 in Washington, D. C.; **Ernest J. Russell**, 86, former AIA president, July 11 in St. Louis; **W. W. Woodbridge**, 72, former secretary-manager of the Red Cedar Shingle Bureau, July 18 in Seattle; **Edward J. Pender**, 35, advertising manager of United States Steel Homes Inc., July 19 in Louisville, Ky.; **Hugo P. Albrecht**, 62, real estate broker and former St. Louis FHA director, July 20 in St. Louis; **Alex Kessler**, 60, house and apartment builder, July 31, Jamaica, N.Y.; **Elton Leroy Usilton**, 63, retired Arlington, Va. builder, Aug. 7, Bethesda, Md.

NEWS continued on p. 90

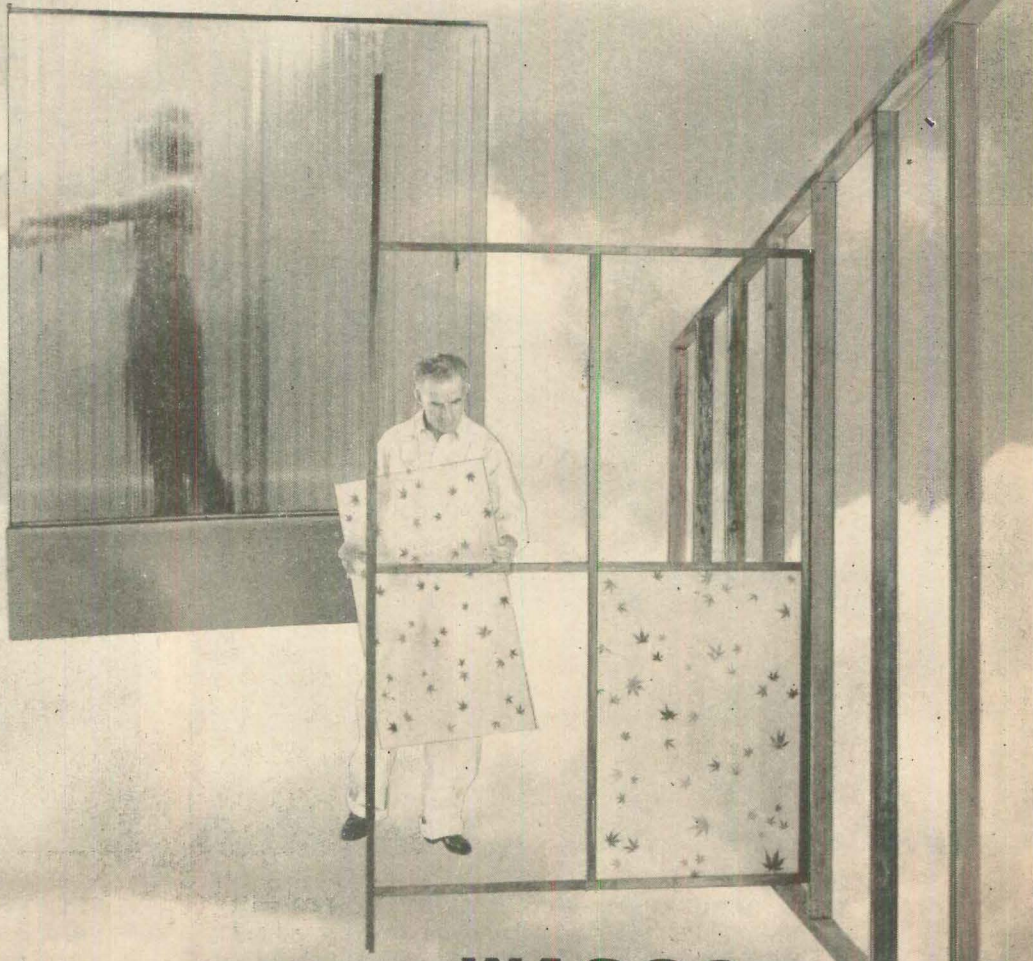
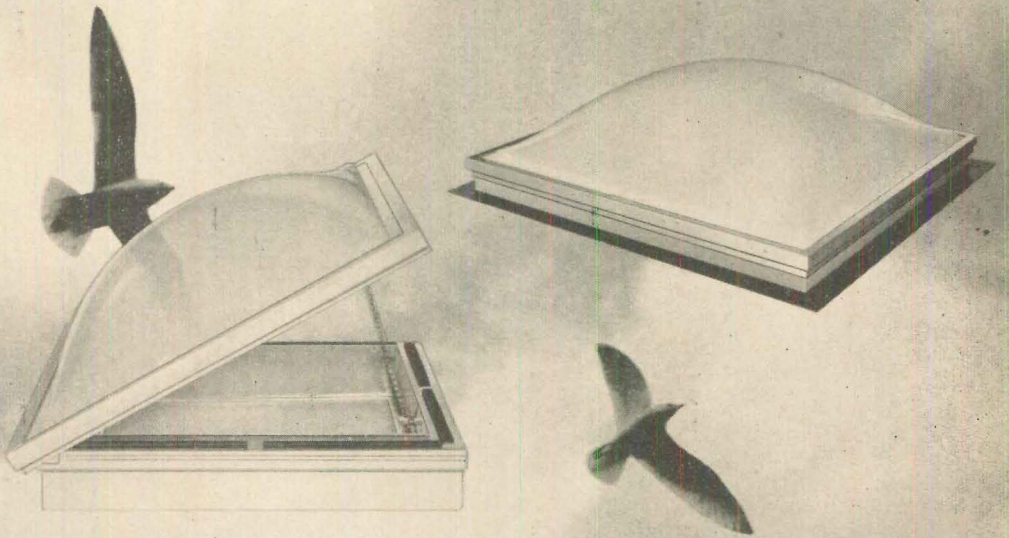
For better living...

Here are just four of our products, made of famous Wascolite Acrylic.

All of them are designed to give you greater freedom of design . . .

and to give your clients the most beautiful homes under the sun.

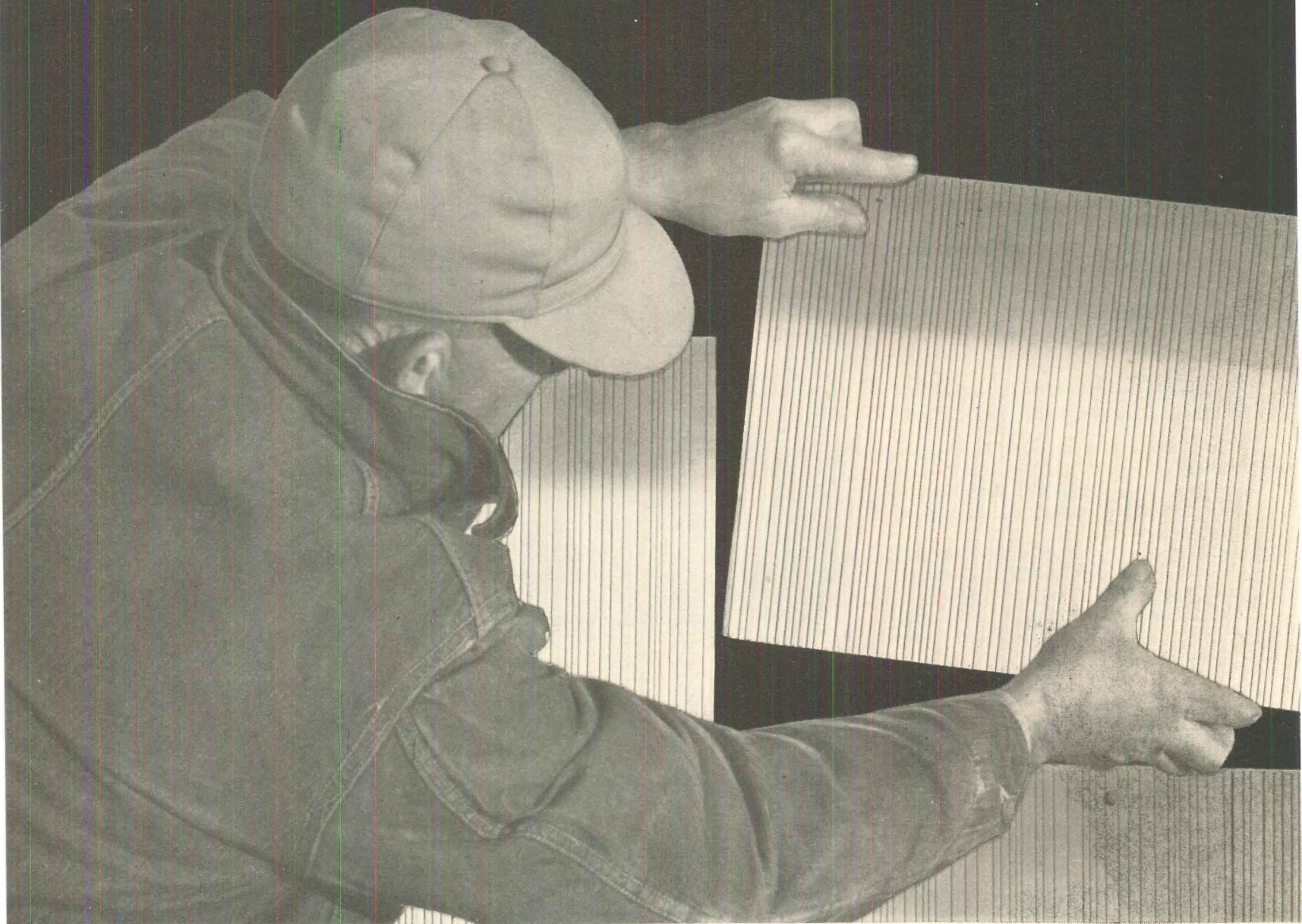
The **Wascolite Skydome** — famous prefabricated plastic unit for overhead daylighting. The **Wascolite Airdome** — overhead daylighting plus natural ventilation. The **Wascolite Showerwall** — safe, glamorous, inexpensive, tub enclosure of shatter-resistant acrylic. **Wasco Acrylite** — exciting embedments captured forever in shatter-resistant acrylic plastic. A new structural material for space dividers, screens, panels, sliding doors. Write for literature.



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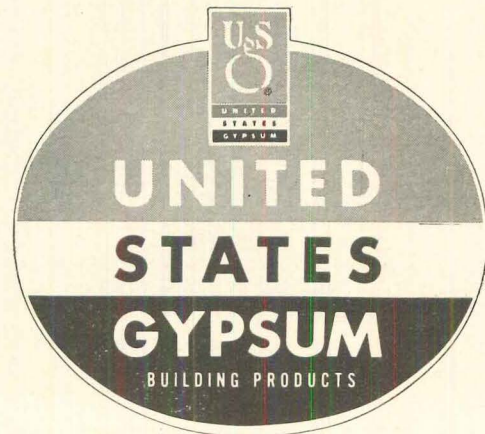
CUT COST OF AIR CONDITIONING—your biggest sale feature—by insulating your home with RED TOP* Wool with the "Silver Shield". Reflective aluminum cover bounces back up to 95% of sun-generated heat rays, when blankets are properly installed between attic roof rafters or floor joists. Hundreds of dollars can be saved on original central air conditioning equipment; operating costs are sharply reduced.

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Use the materials shown on these pages, and you're actually building into your homes the advantages people are looking for these days—more beauty, more comfort, more *livability*. And these materials for exterior construction are only a few examples of all the modern materials your U.S.G. dealer has on hand to help you build homes for less—less time, less expense—and to sell them for the *more profit* that comes with faster turnover.



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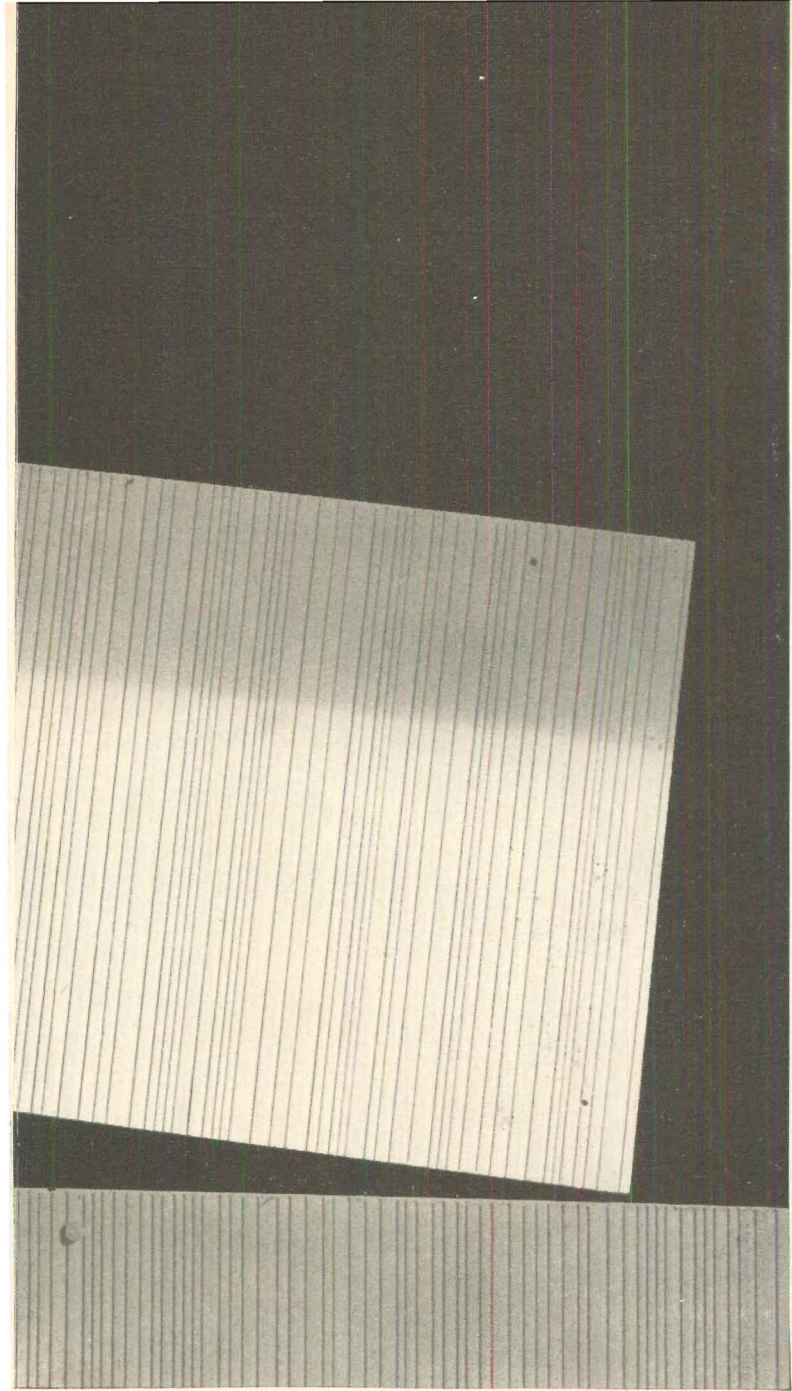
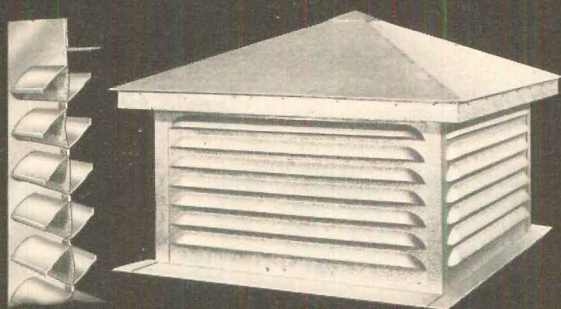
- Shadow-Accent GLATEX Siding USG Insulating Sheathing
 RED TOP Insulating Wool USG Aluminum Louvers

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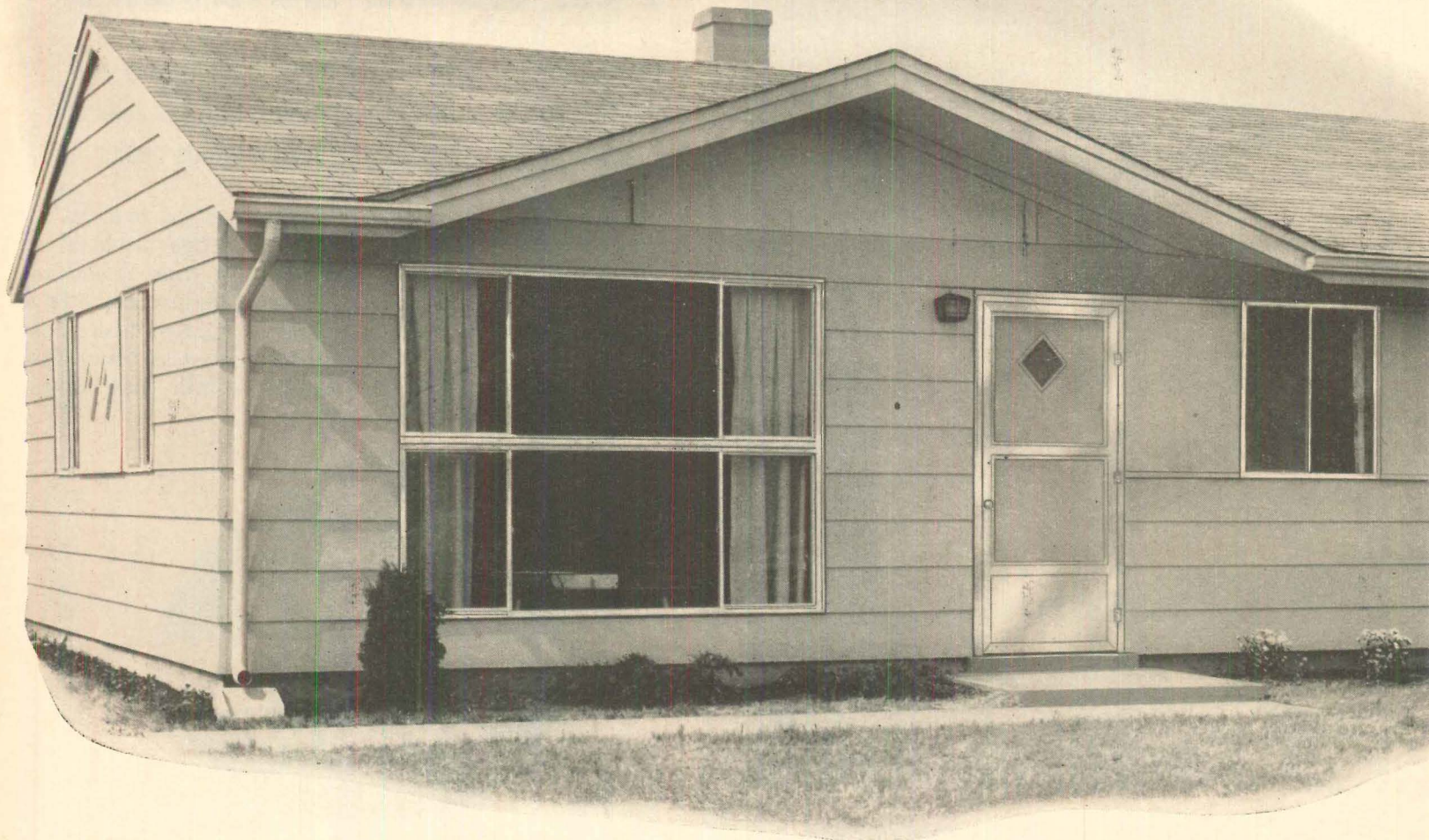
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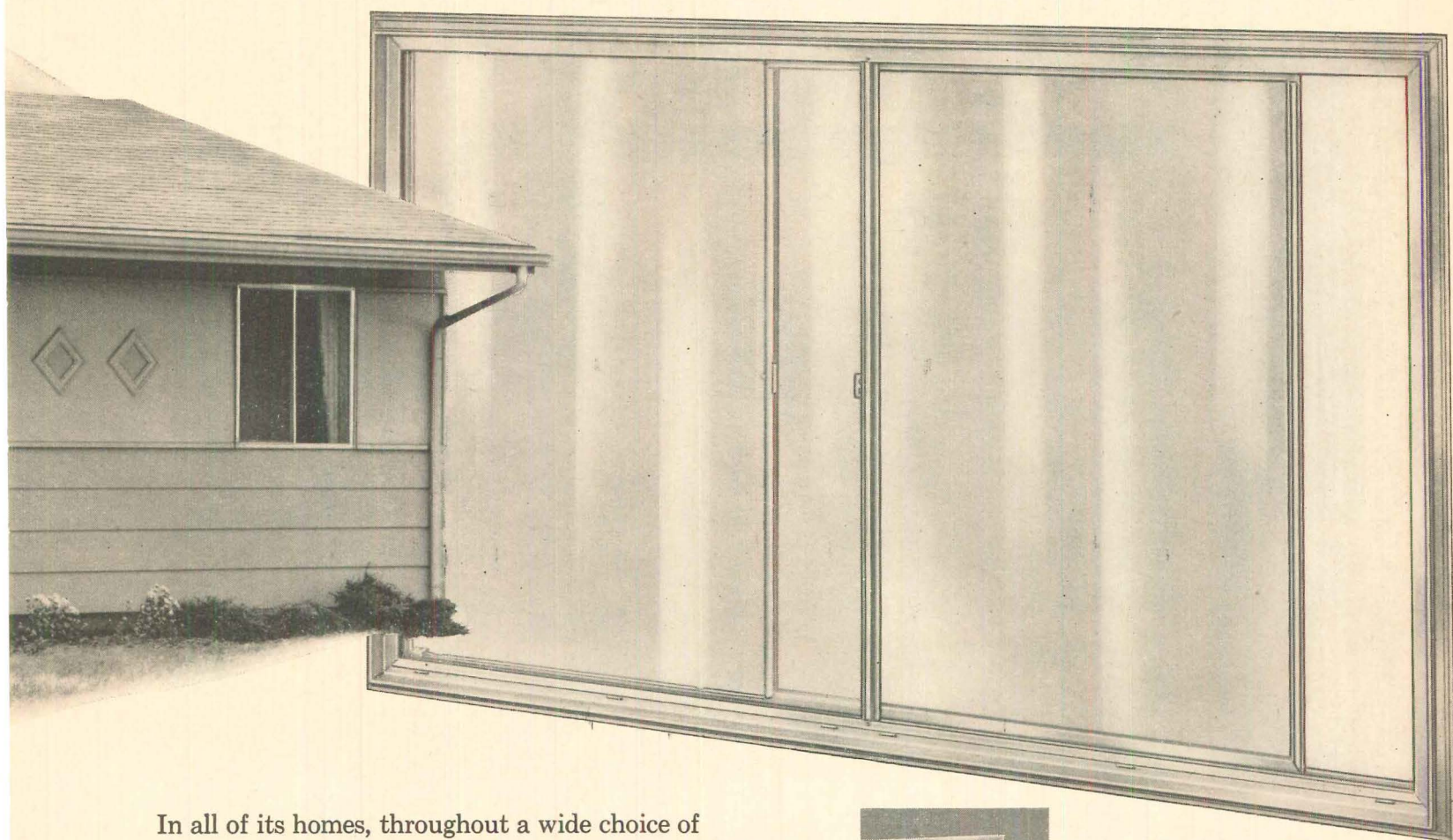
Developed especially for professional use...foil bonded to 40 lb. kraft paper. Foil on one side and two sides, in rolls of 250 and 500 square feet, 25" and 36" widths.

See "FRONTIER", Sundays, NBC-TV Network. Starting Sunday, Sept. 23, see Reynolds great new series "CIRCUS BOY"—same time and station.



REYNOLDS

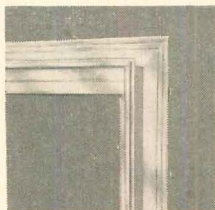
REYNOLDS ALUMINUM TRAVERSE (SINGLE SLIDING VENT) WINDOWS WITH INTEGRAL FIN TRIM.



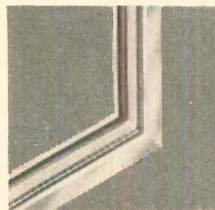
In all of its homes, throughout a wide choice of designs, the Douglas Homes Company of Springfield, Ill., features Reynolds Aluminum Traverse Windows...with lift-out vents that clean easily and screens that may be installed and locked from the inside.

This is the 5200 Series, with integral fin trim. Its amazingly simple installation, combined with low basic price, cuts the builder's cost. Yet it stands out as an extra-value feature for the homeowner. It carries to a new height the inherent superiorities of aluminum windows: lasting beauty without painting, freedom from rust, rot and warp.

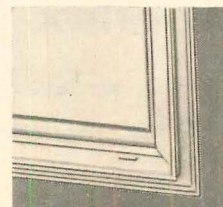
Look at the details of this window...precision-engineered by Reynolds, with quality controlled from bauxite ore to "satinized" finish. For literature write to **Reynolds Metals Company**, Window Division, 2019 S. Ninth St., Louisville 1, Kentucky.



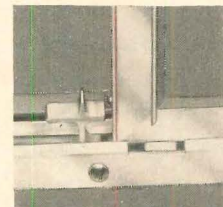
STRONG CORNERS. Dressed welded corners are smooth and strong, assure a rigid frame.



COMPLETELY WEATHERSTRIPPED. Vinyl weatherstripping makes 100% contact around entire perimeter. Maximum weather-tightness.



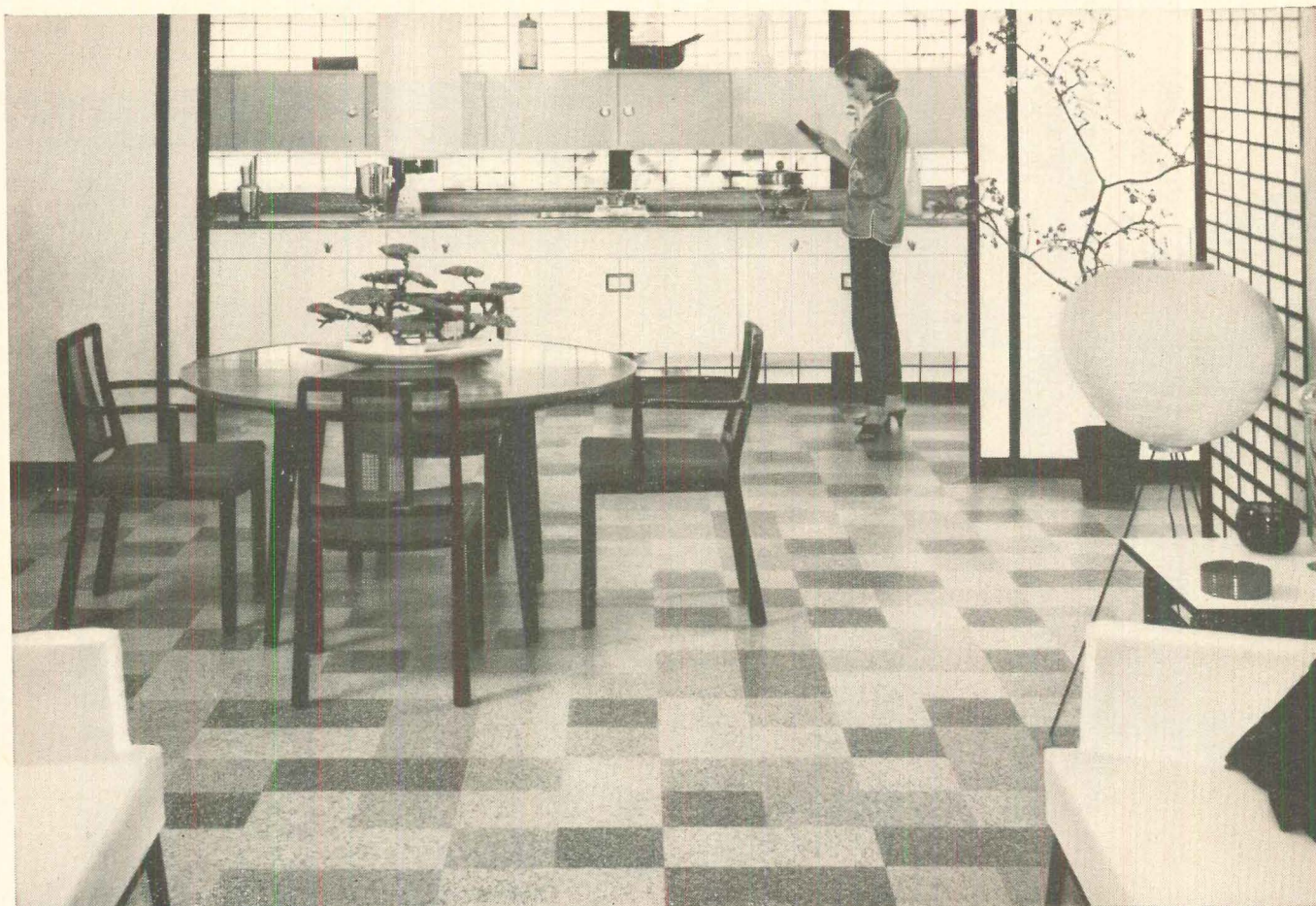
SELF-DRAINING LOUVERED WEEP HOLES keep out wind-driven rain, drain off any interior condensation.



NYLON SHOES PREVENT TIPPING. Vents ride on anti-friction shoes at bottom and top.

ALUMINUM BUILDING PRODUCTS

Kenflex vinyl asbestos tile floors help **clinch home sales!**



Kenflex vinyl costs only **\$4.80** more per room!

Yes, an average 8'x10' kitchen in KenFlex Standard Gauge (1/16") costs about \$4.80 more than Asphalt Tile (Group C Color)...yet it helps you sell homes faster!

BECAUSE IT'S VINYL, it's moistureproof, grease-proof, easier to clean, long wearing. Colors are clearer, brighter. KenFlex added value helps convince homebuyers and sales are easier to close.

BECAUSE IT'S NATIONALLY ADVERTISED, KenFlex is pre-sold for you! Millions know KenFlex floors from the dramatic full color, full page ads appearing continuously in America's best read magazines.

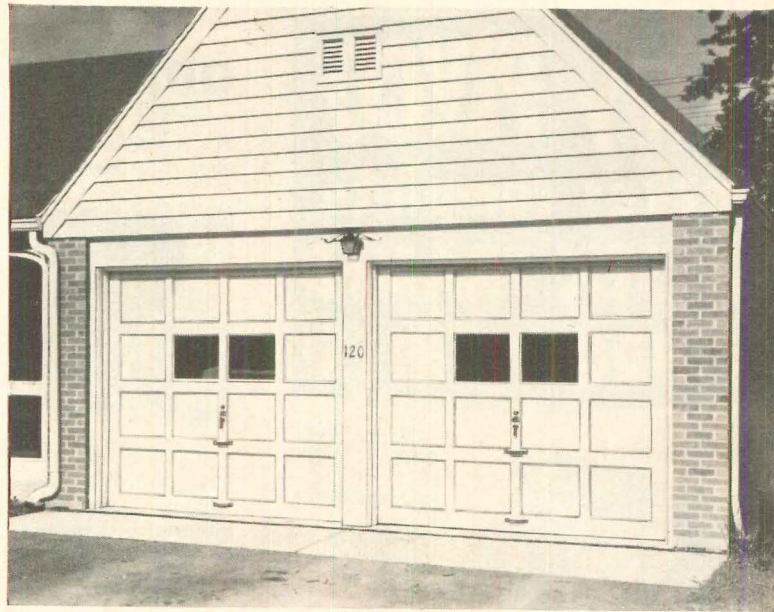
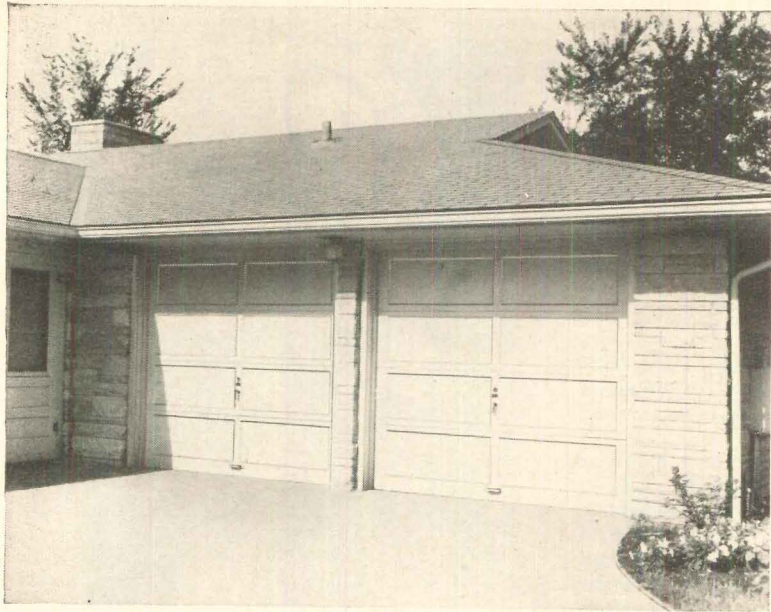
BECAUSE IT COMES IN 3 WANTED STYLES... Corktone KenFlex, Carnival KenFlex, Marbleized KenFlex...you can feature KenFlex in every type of home, in every room. Ideal for slab-construction developments, perfect for kitchens, playrooms in your finest custom-builts, KenFlex Vinyl Asbestos Tile Floors give you new selling advantages that really pay dividends. Call your Kentile, Inc., Flooring Contractor and learn all the facts about KenFlex NOW!

KENFLEX® ... by the makers of **KENTILE FLOORS**

VINYL ASBESTOS TILE
Kentile, Inc., 58 2nd Ave., Brooklyn 15, N. Y.

*Reg. U.S. Pat. Off.

KENTILE * KENCORK * KENRUBBER * KENFLEX * KENFLOR * KENROYAL



Now! McKee Overdoors with panels of "lifetime guaranteed" Masonite Dorlux

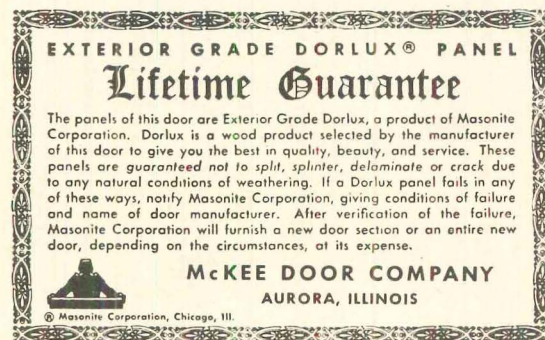
There's an extra reason today for installing a McKee Overdoor in your next residential or industrial garage.

These nationally distributed doors are now offered with panels of famous Masonite exterior grade Dorlux®—the staunch, smooth hardboard that's guaranteed never to split, splinter, delaminate or crack from natural causes.

Better weather protection...all year around, in any climate. Exceptional resistance to bumps and scrapes.

Beauty that lasts! Masonite Dorlux presents an excellent base for paint. And the paint keeps looking bright longer. When the time does come, it's easier to repaint these knotless, grainless panels.

McKee is one of many major manufacturers offering you the extra sales potential of door panels with a lifetime guarantee. For more information, write Masonite® Corporation, Dept. HH-9, Box 777, Chicago 90, Illinois.

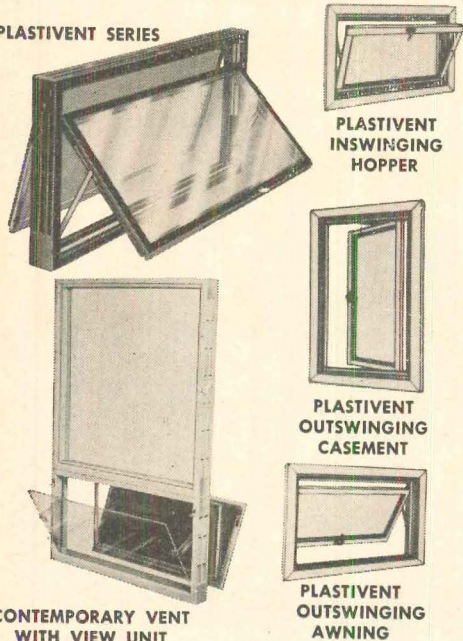


Look for this guarantee label
on the doors you buy!
IT'LL HELP YOU SELL!



Only PLYCO makes complete PLASTIC FRAMED WINDOW UNITS!

PLASTIVENT SERIES



PLASTIVENT
INSWINGING
HOPPER

PLASTIVENT
OUTSWINGING
CASEMENT

PLASTIVENT
OUTSWINGING
AWNING

CONTEMPORARY VENT
WITH VIEW UNIT

*especially developed plastic reinforced
with asbestos fibers.

You CUT COSTS— SAVE TIME

and furnish windows that are:

- FIRE RESISTANT
- LIFETIME GUARANTEED
- LEAKPROOF
- ROT PROOF
- RUST PROOF
- TERMITE PROOF

With these PLYCO plus features:

- Withstand mild acids, alkalis and salt air
- Never a condensation problem
- Require no painting
- No shrinkage or "out-of-plumb" problems
- Complete with combination storm and aluminum screen

45 MODULAR SIZES

WRITE FOR DETAILS

The **PLYCO** Corporation
Elkhart Lake, Wisconsin

Gentlemen:
I am interested in how to cut costs and improve the beauty of my homes. Send complete information and prices for your PLYCO Plastic Window frames.

Name _____

Company _____

Address _____

City _____ Zone _____ State _____

OPINIONS:

These intellects shed the following light on matters of moment to housing:



Erich Hartmann

Editor - in - chief **John Fischer**, in *Harper's Magazine*:

"Chances are that in your own town, at this very hour, somebody is getting ready to bulldoze away one of the few remaining meadows or patches of woods. They will do it in the name of Progress—a convenient word to cover the prefabricated slums-of-tomorrow, the asphalt parking lots, the endless concrete scabs of the new highways. They can nearly always prove—to the satisfaction of the city council, dominated as it usually is by real-estate men—that we can't afford to leave a little open space here and there. . . .

"The end result of this variety of Progress is the Bronx. It is nearly all of eastern New Jersey. It is the West Side of Chicago. . . . Give us a few more decades, and most of the US accessible by auto quite possibly will look the same way—and by that time the ruination of a once-splendid continent will have gone so far that no remedy is possible. . . ."



Walter Daran

Charles Abrams, chairman, NY State commission against discrimination:

"In two trips around the world, I have found that the more developed a country is, the worse its housing problem; the more primitive, the less its housing problem. In the bush areas of the Gold Coast [of Africa], I saw reasonably well planned villages, with as little coverage of the land as the women had on their bodies. They lived in one-story buildings; the roofs were hard and flat, forming a street leading directly from the road; there was ample yard space and cool shelter.

"The tribal system was nearer to a co-operative than any in America. Land was free and building materials were nearby. A house built by our Neolithic ancestors after they had discovered the flint ax, with its pitched roof and fireplace, on 900 sq. ft. of land, would bring \$1,500 a season today in Miami."



Walter Daran

William Scheick, executive director, Building Research Advisory Board in talk to American Institute of Timber Construction:

"I feel certain that the trend in building technology is more and more toward pre-fabrication of large building components, and that these of necessity are also combinations of various materials. . . .

"Looking to the future in building science, I am sure that the most interesting developments are still in the making. . . . The three types of buildings receiving the greatest attention in research will be houses, hospitals and schools."

for LEADERS ARE DOING, see p. 182



*A unique new
bath enclosure*



unique new beauty . . .

unsurpassed for

safety . . . easy cleaning

Here's a bath enclosure that ends danger of shattered glass. Gives maximum sealed-in protection, with a swirling thread design in fiberglas that will add beauty to any decor.

- Reinforced fiberglas panels are sturdy and eliminate breakage.
- The extended aluminum frame gives strength for roughest treatment.
- New finger width bottom rail makes for easiest cleaning possible.
- Polished aluminum parts, and exclusive modern design fiberglas laminate give smart new beauty everyone will like.
- Nylon roller and guides end noisy movement and expensive maintenance.

For Details of Distributors and available Distributorships write

VENTAIRE CO.
P. O. Box 5098 • Tulsa, Oklahoma

hot water
protects
your most precious
possessions...



...buy the one water heater that has earned your

CONFIDENCE

Permaglas®

THE GLASS-LINED WATER HEATER
PROVED BY
OVER 3,000,000 FAMILIES

Hot water has to be *clean!* Be sure your hot water will *always* be clean... now, and for years to come... buy the *one* glass-lined water heater that has earned your CONFIDENCE.

Permaglas is the only glass-lined water heater with 17 years of experience in glass-coated steel behind it.

Only *Permaglas* gives you easy-to-use EYE-HI temperature control, patented fuel-saving HEETWALL construction, and stunning aqua-and-copper styling.

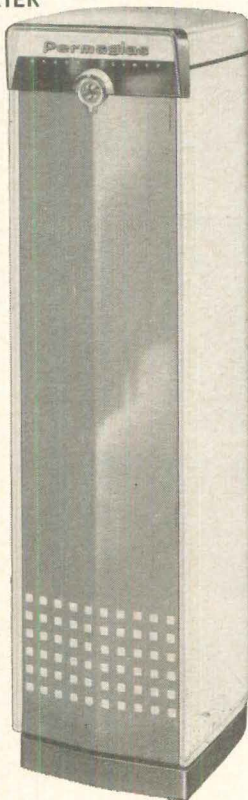
Permaglas®

Through research  ... a better way

A.O. Smith

CORPORATION

Permaglas Div., Kankakee, Ill.
International Div., Milwaukee, Wis.
In Canada: John Inglis Co., Ltd., Toronto



BETTER
GLASS—
LONGER
LIFE

if you're
building homes—
HOT WATER CAN
PROTECT YOU,
TOO!

An inadequate, faulty, or rusty hot water supply is a constant, annoying reminder to buyers of your homes that *you fell down* on a mighty important point.

Save the cost of building a utility closet... a stunning *Permaglas* water heater is complementary to other appliances.

Let this advertising help you sell homes. Install *Permaglas* water heaters, and *let your prospects know it*. You'll be surprised how much influence it will have.

REMEMBER THESE CHECK POINTS

(Home buyers are sure to)

- 1 Specify a glass-lined water heater, because glass can't rust.
- 2 Insist on a *proved* glass-lined water heater. (*Permaglas* has the only glass-lined tank proved by over 3,000,000 families.)
- 3 Select a large enough size. There's a *Permaglas* model and size for every hot water requirement.

Permaglas®

Heating and Cooling
can help you, too!

Insulite Sheathing cuts

*Saves \$85 per M, too,
New Orleans builder
Frank R. Gatti discovers*

Frank R. Gatti, Jr. (right), owner of Gatti Construction Co. in New Orleans, discusses new home with Andre Theriot of Martin Lumber Co., Insulite dealer. Gatti builds eight to ten homes a year, priced from \$38,000 to \$49,000.



INSULITE, Made of hardy Northern wood

Insulite Division of Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota



INSULITE AND BILDRITE ARE REGISTERED T. M.'S U. S. PAT. OFF.



air-conditioning costs

In hot, humid New Orleans, where every home he builds is air conditioned, Frank R. Gatti, Jr. knows that each dollar per month saved in cooling costs is mighty important to the owner.

"We use Insulite Sheathing exclusively," he says. "Insulite adds extra insulation so buyers of Gatti homes enjoy cool comfort at less expense. And we insulate each home with Insulite Insulating Wool, for extra protection from the heat. Because there's no waste with Insulite Sheathing, we're able to save \$85 per thousand square feet compared to wood."

Gatti, a member of the Home Builders of New Orleans, finds Insulite Sheathing is easy to cut, prevents "gumming" of saws and blade damage. It stores well on the job in any weather. And because Insulite Sheathing has pre-marked nail spacing, he never has to stand over the job.

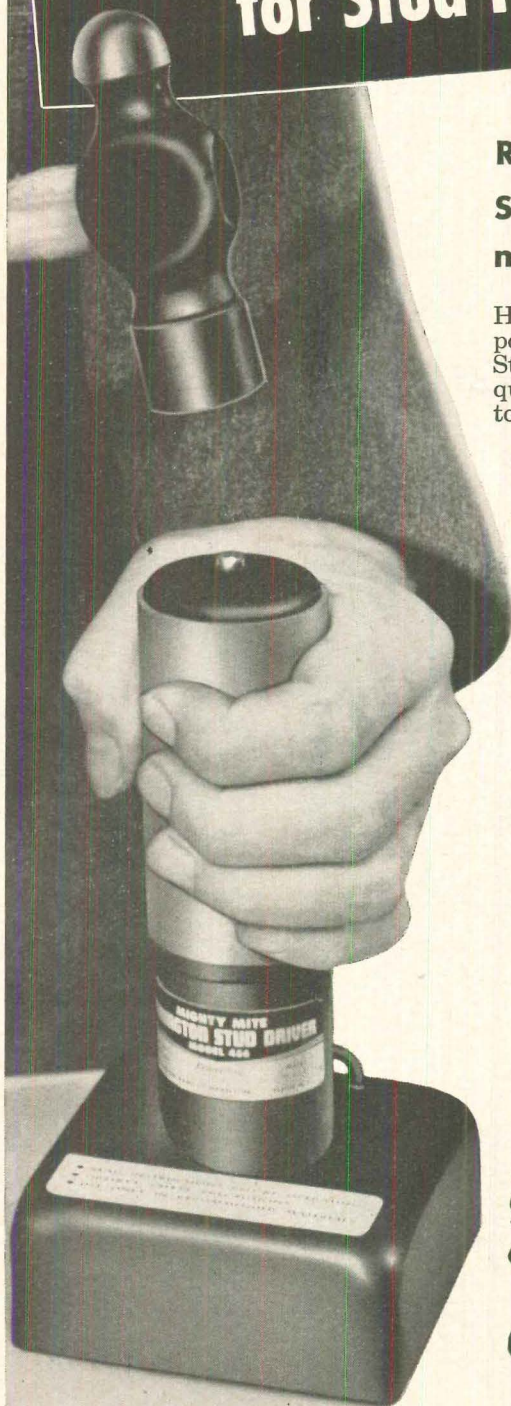
Whether you build \$10,000 or \$100,000 homes, you can build better and save with Insulite. For detailed data on Insulite Sheathing, Insulating Wool and other money-saving products, write Insulite, Minneapolis 2, Minn.

build better and save with

INSULITE



ANNOUNCING... New Remington Cartridge-Powered Tool for Stud Fastenings



REMINGTON "MIGHTY MITE" STUD DRIVER sets a stud a minute in steel or concrete!

Here's the "MIGHTY MITE"—small but powerful partner of the full-size Remington Stud Driver—the answer to any job requiring a 1/4" diameter stud. It's the perfect tool for builders, light contractors and the "do-it-yourself" market . . . can be rented or purchased. You can buy it for only \$34.75!

The "MIGHTY MITE" has only three parts to handle . . . easy to load and operate. The upper assembly is unscrewed, the 22 caliber cartridge with the desired 1/4" stud is inserted, and it's ready to go. One rap of the hammer on the firing pin, and "MIGHTY MITE" rigidly anchors wood sections or steel fixtures to concrete or steel! No pre-drilling required.

Safe, too. It's non-tilt—cannot be fired at an angle; cocks only when held in the proper firing position; must be pushed firmly in position to expose the firing pin. A four-inch-square guard provides full protection to the operator.

Send for the facts about the REMINGTON "MIGHTY MITE"—small, powerful and ideal for your construction job—at the lowest possible price—

ONLY
\$ 34⁷⁵—



Another great **NEW** cartridge-powered industrial tool by

Remington



Industrial Sales Division, Dept. HH-9
Remington Arms Company, Inc.
Bridgeport 2, Conn.

Please send me your free booklet which shows how I can speed the job and save with the new Remington "Mighty Mite" Stud Driver.

Name _____ Position _____
Firm _____
Address _____
City _____ State _____

THE KEY TO THE MARKET

Sirs:

We have seen a great many changes in our business over the past 30 years. Sometimes we have realized these changes too late. This time we hope we can be foresighted enough to adjust ourselves and our way of doing business to what is ahead.

"People no longer build houses; they buy them." This, I believe is the key to the marketing problem before the building materials merchant today. We have found that in the cities more than 80% of the houses are now built for sale. Only in the smaller communities are more houses built by the owners for their own use.

The home building industry today is a very fluid industry compared to the somewhat static industry of several years ago. Through credit, the entire concept of home ownership has changed. My generation was taught that some day, with success and savings, we might be able to buy a home, and that was the place to live for the rest of our lives. That is certainly an outdated idea now. Today we are finding that the smart builder is creating a desire for new homes, much like the automobile manufacturers. We think that this is just the beginning of their new basic concept of home ownership.

GANAHL WALKER JR., *president*
Builders Supply Co.
San Antonio

MATERIALS HANDLING

Sirs:

Thanks for the wonderful presentation of the Round Table regarding Materials Handling on a mechanized basis (June issue).

Every retailer who wants to improve his handling methods and so cut his costs will appreciate your efforts to focus opinion on this important issue and get the railroads and sawmills to cooperate fully with their distributors.

We solicit your continued interest in this project and feel confident that the next two years will bring good results even beyond our present dreams.

V. JOS. WARDEIN
Gintner-Wardein Co.
Alton, Ill.

Sirs:

. . . A very commendable job . . . a real help to building and maintaining interest in mechanized handling.

ARTHUR LAHEY, *manager product lines*
Weyerhaeuser Sales Co.
St. Paul

THE BUYERS' MARKET

Sirs:

The July editorial was a honey!
NORMAN STRUNK, *executive vice president*
US Savings & Loan League
Chicago

Sirs:

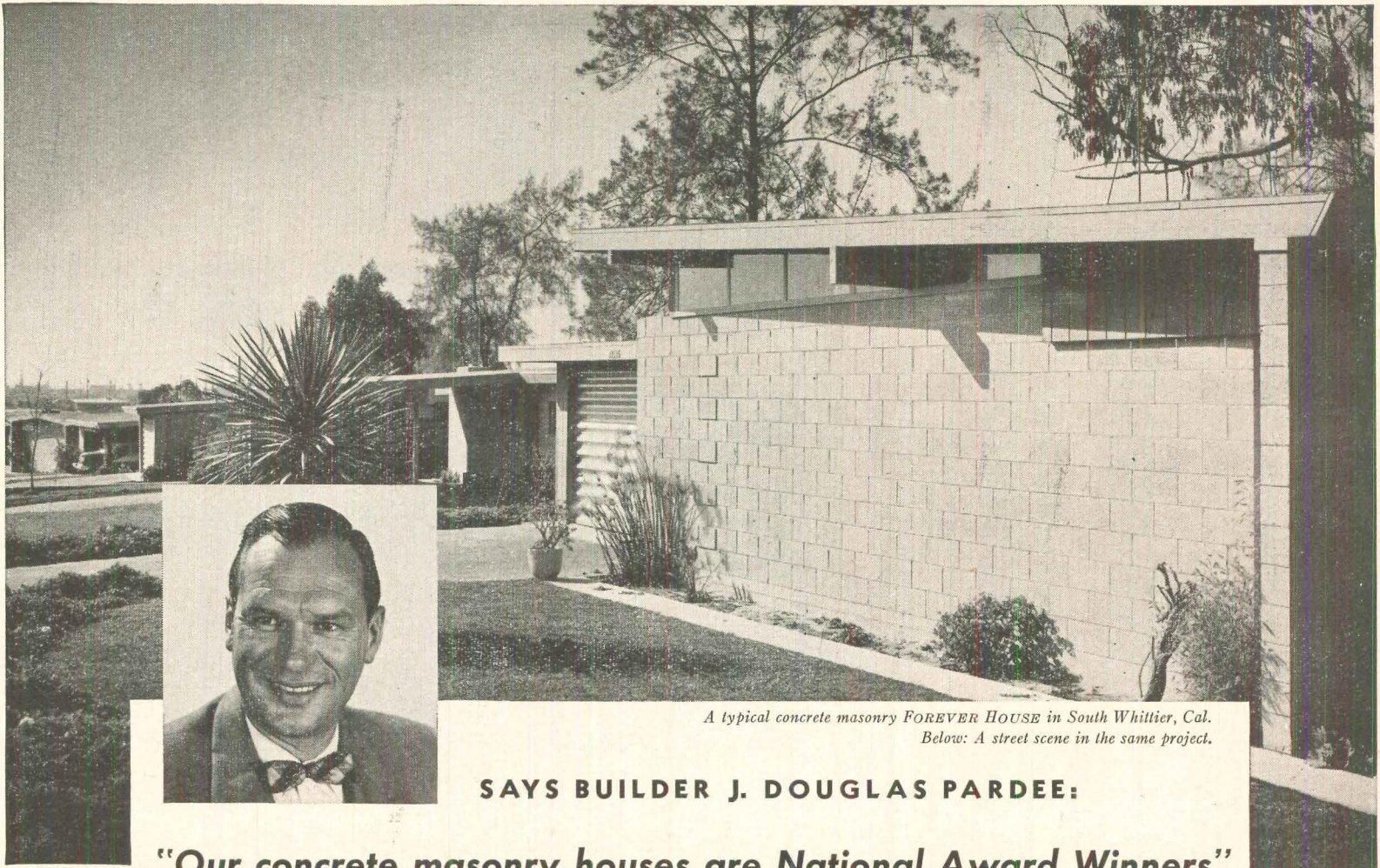
. . . A fine July editorial.
ROBERT CLANCY, *director*
Henry George School of Social Science
New York City

MIX-UP IN LOUISIANA

Sirs:

Your July story on the Leaders says our houses are built in Baton Rouge. Should have said Shreveport.

FRANK ZUZAK
Shreveport
continued on p. 98



*A typical concrete masonry FOREVER HOUSE in South Whittier, Cal.
Below: A street scene in the same project.*

SAYS BUILDER J. DOUGLAS PARDEE:

"Our concrete masonry houses are National Award Winners"

The FOREVER HOUSE, designed and constructed by Pardee-Phillips Construction Co. of Los Angeles, Calif., and Las Vegas, Nev., has been a National Award Winner for the past three years. These houses were so named because of their wide reputation for sturdy, durable concrete masonry construction. To quote builder Pardee:

"We built over 1500 3- and 4-bedroom, 2-bath FOREVER HOUSES. Each house featured concrete block walls and concrete driveways and terraces.

"Concrete block walls provide for permanency. They do not deteriorate like other less durable materials. An occasional paint job makes any concrete masonry house look like new in a hurry.

"Because of the high satisfaction and fine reception by the families now enjoying the beauty, safety, economy and insulation qualities of their

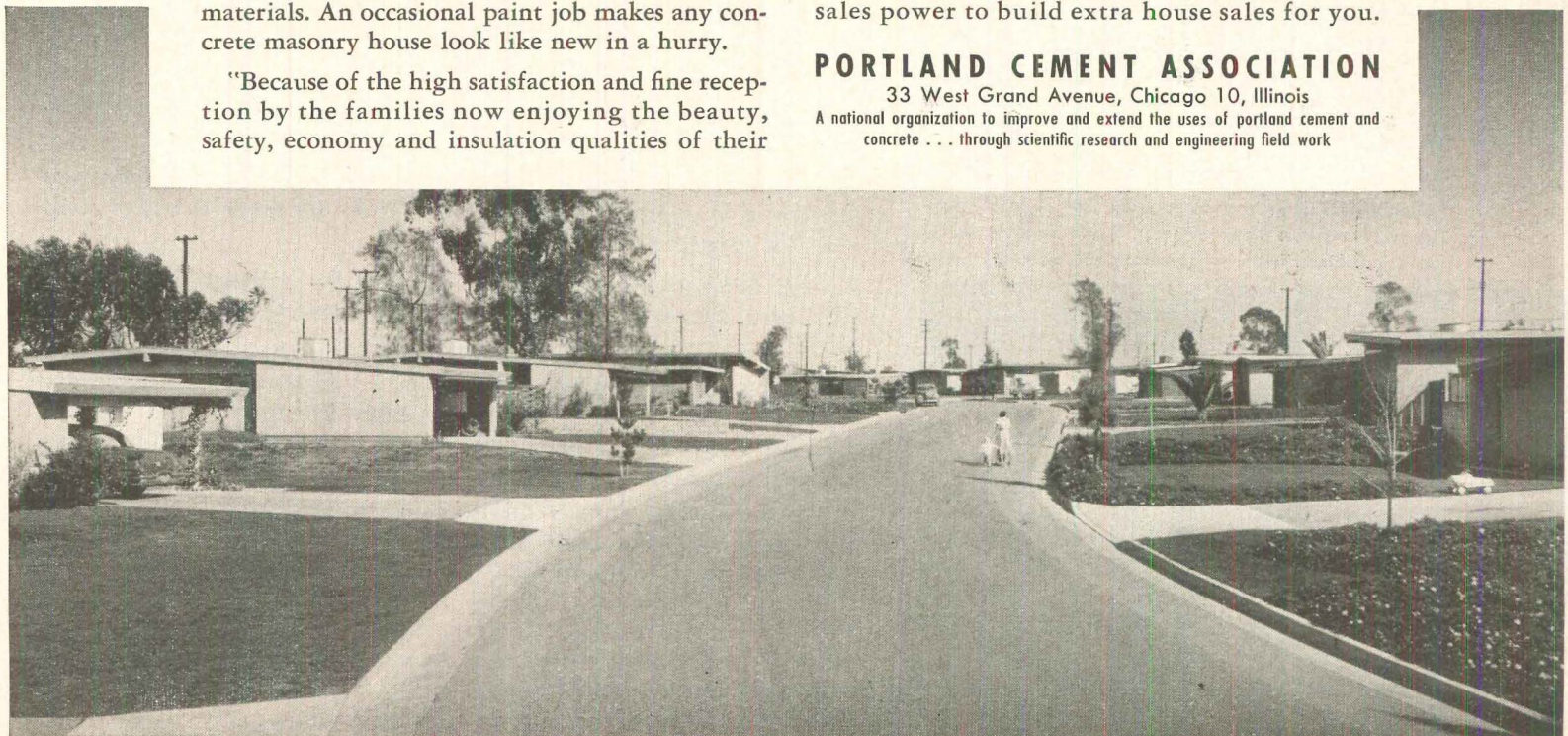
FOREVER HOUSES, we are planning to build 1,000 more of these budget-priced houses. Concrete masonry walls will be the top feature."

Like Mr. Pardee, builders throughout the country know that concrete masonry construction offers many advantages. They know that concrete masonry houses are economical to build and own. And they know that home buyers like the extra bonus features that come with concrete—unequaled resistance to storms, decay, termites and fire. *Concrete can't burn!*

Take advantage of concrete masonry's added sales power to build extra house sales for you.

PORTLAND CEMENT ASSOCIATION

33 West Grand Avenue, Chicago 10, Illinois
A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work



invite public entry. Use of sliding glass units makes it possible to open the entire front of the car agency for a wide, unobstructed entry.



SLIDING GLASS WALLS OPEN

Startling new uses for sliding glass doors are currently seen in auto showrooms. Where large areas of fixed store front glass with conventional swinging doors have long been used for car showrooms, today's trend is to greater use of aluminum sliding glass doors.

Ador sliding glass doors have found wide application in this field. Agency owners report Ador doors offer the following advantages:

1. Invite public entry. *The entire wall opens to the public in widths of 24' or more to give better car display and encourage floor traffic into the showroom.*

2. Provide easy movement of cars. *Automobiles can be moved in and out of display areas quickly.*


3. Give fingertip operating ease. *Ador sliding glass doors are easy to operate—require only a light pressure to move even the largest sliding vents.*

4. Offer savings of 40% or more. *Ador sliding glass doors actually cost less than conventional swinging units.*

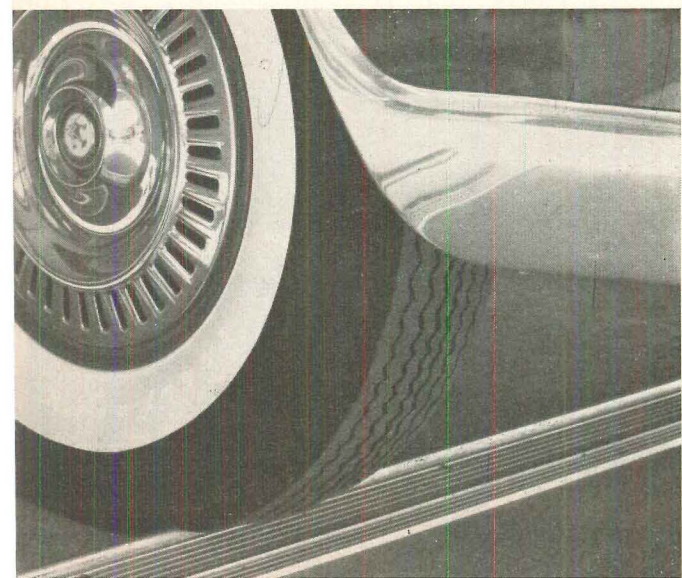
The use of Ador sliding glass units in the automotive field is one of many new applications. Positive weatherstripping; beautiful, corrosion-resistant Alumilite finish; and custom hardware are additional reasons for the widespread application of Ador sliding glass doors.

Ador invites your inquiries concerning your special requirements. For complete information write to: Ador Sales, Inc., 2345 W. Commonwealth Ave., Fullerton, California.

Stainless steel track on Ador threshold remains undamaged as wheels of heavy car pass smoothly over the track.



Sliding glass doors provide for easy and rapid exit and entry of cars from showroom floor. Shown here is a sliding unit combined with a conventional swinging unit.





AUTO SHOWROOMS

Easy entry to showroom floor is assured by these Ador sliding glass doors. Note how the use of wide glass areas assures superior visibility and better display.



Transoms extend glass area.
For heights above the standard 6' 10" and 8' 0" doors, Ador has designed transoms to extend glass areas up to 12' in height.



Ador America's Foremost

All-Aluminum Sliding Glass Door

with Arco Shadow Texture
checking doesn't bother

General Homes... FORT WAYNE, IND.



ANY BUILDER CAN
TAKE ADVANTAGE OF
PRACTICAL PLYWOOD
INTERIOR CONSTRUCTION

Take a tip from a well-known pre-fabricated homes manufacturer...General Homes. Use plypanel, grade A-D, for interior walls or built-ins, and spray-applying Arco Shadow Texture Wall Finish.

As a finish coat, or base for flecking, this heavy-bodied paint bridges and conceals knots, boat patches, grain irregularities and checking...dries to a uniform flat sheen and color. One coat satisfies F. H. A. requirements.

Try plypanel—with Arco Shadow Texture Finish. Or for gypsum board...roller, brush or spray applied...specify Arco Ripple Texture Wall Finish.



THE ARCO COMPANY

7301 Bessemer Avenue • Cleveland 27, Ohio

Gentlemen:

Please send information on:

- Shadow Texture Finish Ripple Texture Finish
 Color Styling Kit

NAME _____
COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

FREE

SLIGHT TO THE SITE?

Sirs:

Something is missing from your presentation on "What the Leaders are Doing" (July issue). It is a fine article as far as it goes, but it slights the importance of site planning.

To make a point, I will make this exaggeration: I would rather have mediocre home design on a top-notch site plan than superior home design on a mediocre site plan. I would think at least some of the "leaders" must be doing a better job of site planning than the too prevalent grid-street and narrow-lot site "planning" done by many builders who now complain about slow sales.

If you have heard what prospective buyers and lenders say as they look at the houses on grid streets in many areas, you will know what I mean.

JAMES S. WATTENMAKER
Cleveland

ACHIEVEMENT

Sirs:

"What Leaders are Doing" is one more of the outstanding articles which so consistently appear in HOUSE & HOME and which have made it one of the nation's top ranking publications.

We can think of no finer achievement than to attain in the home building industry the position that your magazine enjoys in its field.

ANDRES F. ODDSTAD, *president*
Oddstad Homes
Redwood City, Calif.

STRAITS OF THE BUILDING BOOM

Sirs:

Your May story about soaring land prices in the Garden Grove sector of Orange County, Calif., tells why thousands of houses are going begging. The California daily press is strangely silent, showing a tragic reluctance to tell its readers the facts of life concerning the dire straits of the building boom in many suburbs.

Has H&H gone into the excessive and abusive discounts on speculative short term construction loans—usually six months in California? The offenders are not the banks, but "finance corporations" and even building and loan associations, which in many states are supposed to be supervised like banks.

In northern California, hundreds of such loans have had to be renewed because of excessive winter rains, plus the worst spring market for homes in a decade. The cost of such renewals is running in some cases ten points, plus of course 6% interest plus title charges, lien bond, etc. One Title Co. executive told me of a speculative builder who needed \$200,000 and was asked \$100,000 bonus. He found cheaper money—\$40,000 bonus.

Will the home building industry eliminate such abuses or wait for action from a Congressional committee?

PAUL BRINDEL
Novato, Calif.

NEED IN OMAHA

Sirs:

The City of Omaha is in great need of rehabilitation and redevelopment (July NEWS), but any moves in that direction were hamstrung by a vote-conscious city council and a neighborhood conservation board whose five members included two

continued on p. 106

The woman
you want
to sell
is already sold
on this
monogram



dream big with **the big plus** that only G-E home heating and cooling gives you

And add to this Big Plus such exclusive features as the General Electric Air-Wall* System and you have a sales package that can put wings on your sales program. Yes, the builder who installs General Electric Home Heating and Cooling can dream big—and sell big! He has installed the best! And the world-famous G-E monogram flashes “quality” to every prospect that reads his ads and enters his houses.

You’ll be offering more for the money—space-

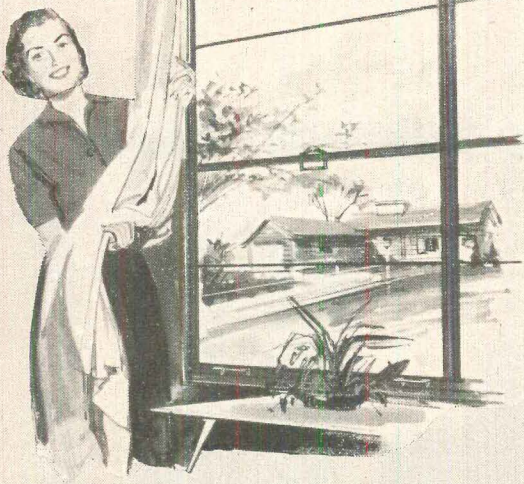
saving advantages, complete design freedom and a convincing warranty. *And your prospect will know it!* So call in your G-E Dealer. He’s listed in the yellow pages of the phone book and he’s geared to talk “builder language” in products, costs, savings and profits.

HOME HEATING & COOLING DEPT., BLOOMFIELD, N. J.

Progress Is Our Most Important Product

GENERAL  ELECTRIC

*REG. TRADEMARK OF GENERAL ELECTRIC CO.



No decorating troubles

A 138-equipped house is a house with a built-in sale. Women prospects have decorating ideas in mind the minute they enter your room. Truscon Double-Hung Steel Windows have a light gray prime coat that's ideal as a base for painting to match room decorations or drapes. No shiny clash or glare. This window can match the home, indoors and out.



No operating troubles

All-steel construction means no warp, no swell, no shrink. Finger-tip operation. No sticking, no rattling. Stainless steel weather stripping and motor-type spring balances with stainless steel tapes are built-in. Hardware is factory-attached. Nothing to go wrong. Given normal maintenance, this window will last for the life of the house.

TRUSCON "138"

is the trouble-free window

Freedom from installation, operating and maintenance troubles has made Truscon's Series 138 the largest selling steel double-hung window on the market.

From every angle, this window is trouble-free!

You get it completely assembled as one unit. Simple anchors for any type of wall construction allow easy erection. All bronze hardware is attached at the factory. Your only field work is glazing and decorating to match your own color styling.

Being steel, the 138 can't possibly warp, swell or shrink. Finger-tip operation stays that way. No call-backs. No adjustments.

It's a weathertight window. Stainless steel weather stripping is built-in. It is ideal for use in air-conditioned homes, or with room air conditioners. It is prepared at the factory to receive standard Truscon full or half screens, storm sash or Koolshade® Screens.

A wide range of types and sizes is quickly available through Truscon dealers backed by all the facilities of Truscon's nation-wide warehouse service.

For low first cost, low maintenance cost, weather-tightness and simplicity of operation, standardize on Truscon® Series 138 Double-Hung Steel Window—the trouble-free window. Send coupon for complete catalog.

REPUBLIC



World's Widest Range of Standard Steels



Truscon Steel Doors are trouble-free, too

You can buy Truscon Interior Steel Doors—Swing or Slide types—complete with frames and all hardware. Easy to install! Simply assemble the knocked-down frame, nail to studs, hang the door. No cutting, fitting, planing, sanding needed. You save time and dollars. Truscon Steel Swing Doors are sound-deadened. Sliding Closet Doors glide silently on nylon rollers. Both are prepared for finish painting to match room interiors. NEWS! In lots of 200 or more, Truscon Interior Steel Doors are available finish-painted in your choice of any of 26 colors. Send coupon today.



STEEL

and Steel Products

REPUBLIC STEEL CORPORATION, Department C-1519
3122 East 45th Street, Cleveland 27, Ohio

Please send me more facts and specifications on:

Truscon Series 138 Windows Truscon Interior Steel Doors

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____



Prospects become buyers when you feature modern American-Standard hot water heat with space-saving baseboard panels.

These extras by **AMERICAN-Standard** produce extra sales . . .

The most powerful *extras* you can install in your homes today are American-Standard products. Simply because to millions of prospective home buyers, houses proudly displaying the "Mark of Merit" stand for . . .

- extra quality
- extra styling
- extra comfort

Strong promotional support! American-Standard dependability, minimum maintenance and long years of service are constantly being brought home to the buying public through—

effective full-page advertisements in The Saturday Evening Post, The American Home, Better Homes and Gardens—with a circulation of more than 11 million. network television—Dave Garroway and Arlene Francis sell American-Standard to millions of network viewers on NBC-TV.

plus numerous sales and merchandising aids, which help you sell your homes easier, faster.

Ask your local American-Standard representative how you can add these sales-clinching *extras* to your homes economically—or write: AMERICAN-STANDARD, PLUMBING & HEATING DIVISION, 39 W. 39th St., N.Y. 18, N.Y.



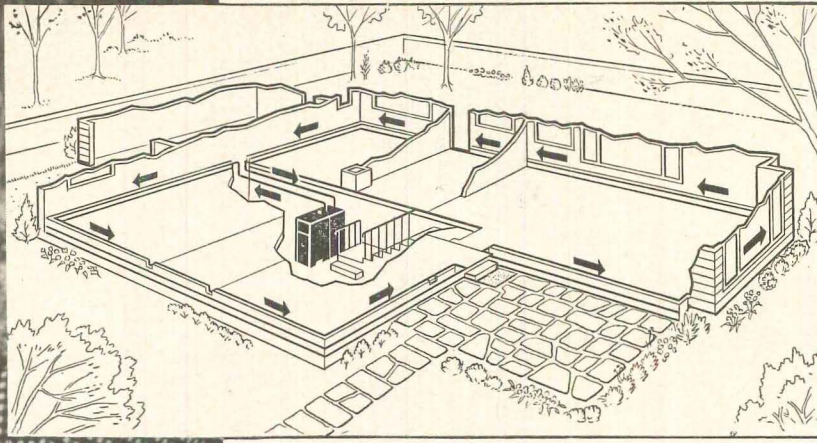
Blueprint for Sales . . . The best friend a builder ever had! This kit shows you how to put extra sell into your home sales campaigns with—

- Press Kit
- Display Material
- Advertising Guide
- Planning Package

Ask your local American-Standard representative for your copy.

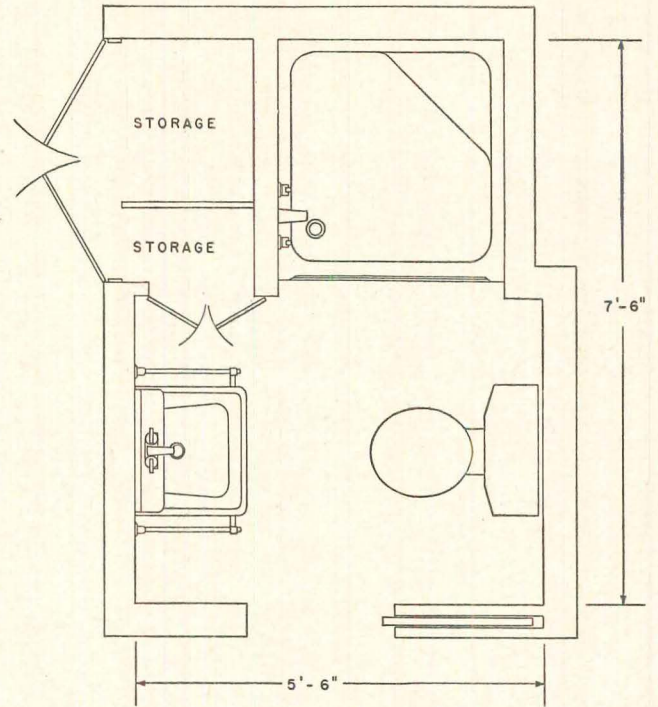
AMERICAN-Standard





◀ A sales-building extra—
Baseboard heating panels

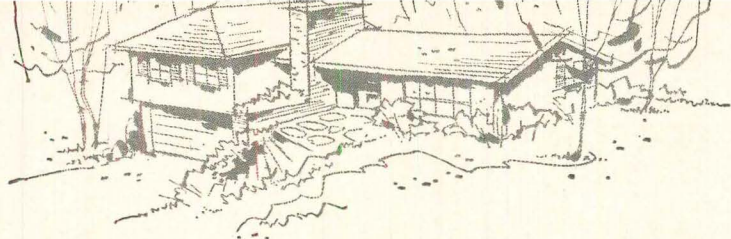
Give your prospects the latest in modern heating comfort—American-Standard baseboard panels with hot water heat—and increase your sales of homes. These modern, trim heating panels distribute clean, even, completely draftless hot water heating comfort from floor to ceiling around the cold outside walls of your homes. Eliminate chilly spots and cold floors while giving a new-found cleanliness and economy. Allow large glass areas without discomfort . . . offer unlimited possibilities for furniture arrangement and interior decoration.



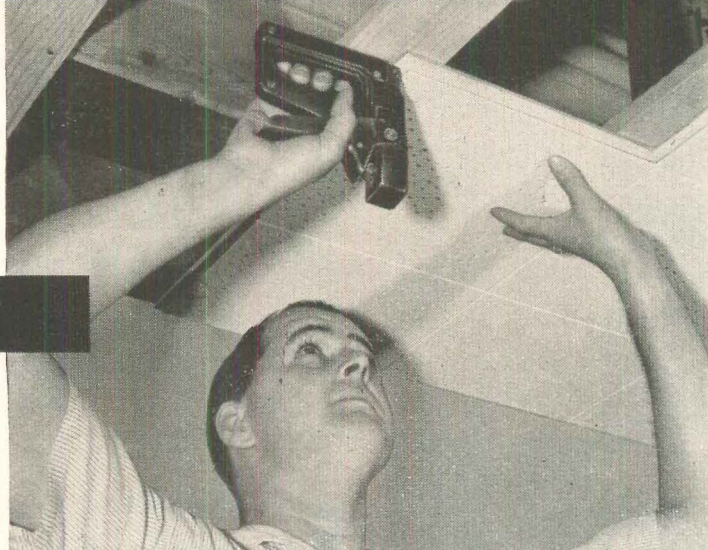
Extra bathroom fits
into 5½ x 7½-foot space
—sells homes faster ▶

Why settle for a 1½ bathroom house when you can offer home buyers 2 complete bathrooms in the same space? The answer lies in the trim American-Standard Restal bath. Measuring only 38" x 39", it fits into shower stall space, yet offers the advantage of both shower and tub bathing. 12" sides make it ideal for children and it has a handy corner seat and shelf. The new Comrade lavatory and Cadet toilet complete this smart space-saving bathroom.





CUSHIONTONE CEILINGS



NEW KINDS OF CEILINGS ADD "SELL" TO HOMES

1. Sound conditioning and attractive ceiling in one material

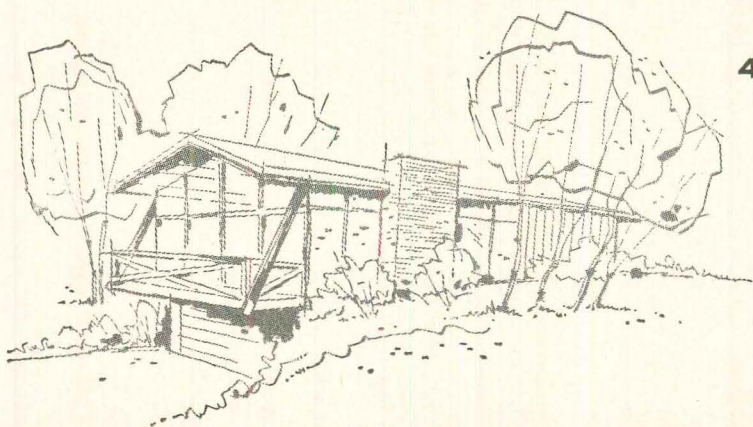
You can build the new comfort of quiet into your homes by installing Armstrong Cushiontone ceilings. At the same time, Full Random* Cushiontone's smart design adds a new kind of beauty that ceilings have never had before. Any carpenter can quickly put up Cushiontone without special tools or training. Simply nail or staple Cushiontone to furring applied to joists.

*TRADE-MARK

Now smart builders can turn ceilings into a valuable sales feature, instead of just a big, blank area that tops off a room. Two new products made by Armstrong have helped develop this idea. One is Cushiontone, the smart-looking sound-conditioning material that replaces plaster, dry wall, or other conventional ceiling finish. The other is Temlok Roof Deck, the new 4-in-1 material that makes open-beam ceilings practical for popular-priced homes.



TEMLOK ROOF DECK



4. Open beam ceiling—and complete roof deck—in one material

If you're building flat or low pitched roofs on exposed beams, you can cut costs up to \$250 per house by using Temlok Roof Deck. At the same time, you add considerable beauty, comfort, and value to your homes. Temlok provides a strong deck, complete roof insulation, vapor barrier, and finished ceiling in one material . . . in one installation. Eliminates several old-style materials, cuts labor time 50%.



2. Now advertised in LIFE

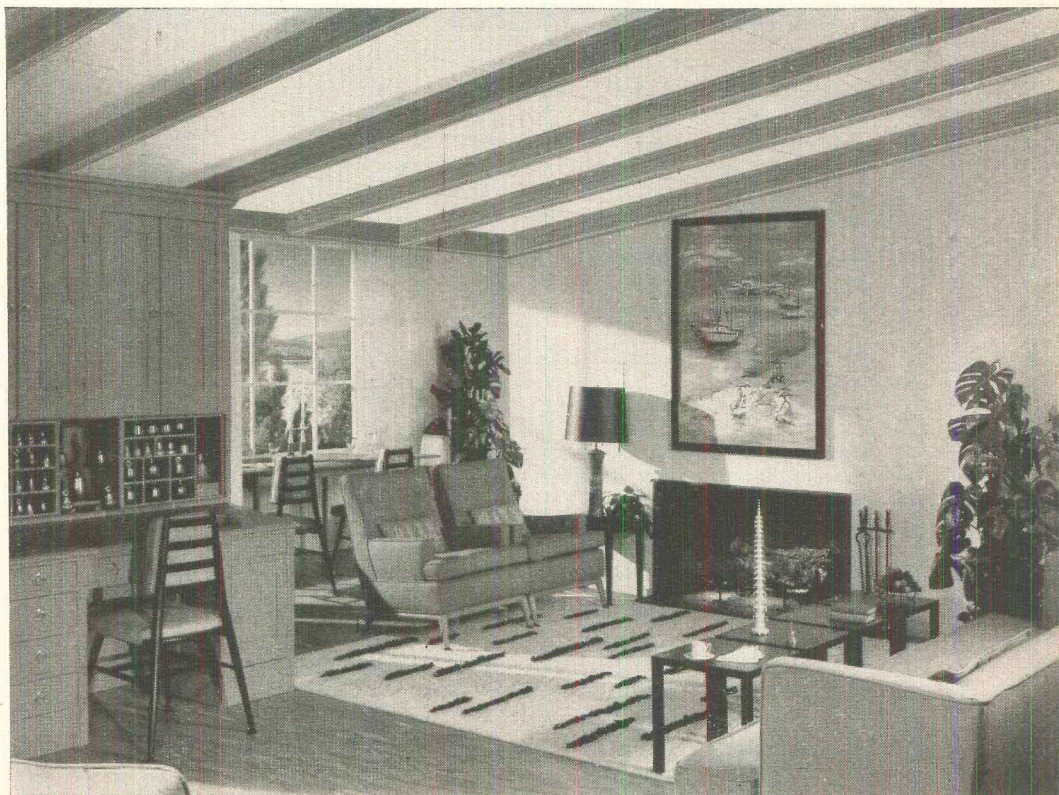
With Cushiontone in your homes, you can feature the new noise-quieting ceiling that people in your town are seeing every month in Life. When they see Life-advertised Cushiontone in your homes, they'll be convinced that you're offering them a new extra in home comfort. Cushiontone is also advertised in American Home, Better Homes & Gardens, and Sunset magazine.

3. Helps put prospects in a buying mood

Whether you sound condition one room or several with Cushiontone, prospects will be impressed by the hushed atmosphere in your homes. A family room, with Cushiontone to muffle the racket of children and TV, appeals strongly to men. And women, who like a kitchen filled with appliances, like it even better when appliance noises are quieted by Cushiontone. For Cushiontone signs that tie in with the Life campaign, see your Armstrong dealer.

5. The smart look for your new homes

The moment Temlok Roof Deck is installed, an open beam ceiling is automatically created for the rooms below. This much-admired type of ceiling, usually associated only with high-priced homes, gives any home a feeling of greater spaciousness . . . a touch of luxurious warmth. And Temlok's smooth finish blends with both modern and traditional interiors. Its painted underside needs no further treatment and will never crack or warp.



For a free promotional kit on Temlok Roof Deck—and for your free Cushiontone signs and posters—see your Armstrong dealer or write Armstrong, 3509 Sixth Street, Lancaster, Pennsylvania.

Build your new homes with

Armstrong BUILDING MATERIALS

Temlok® Roof Deck • Temlok Sheathing • Temlok Tile • Cushiontone® Ceilings



Van-Packer Chimney blends with all homes. Note how the housing harmonizes with brick trim of home above.

Only Van-Packer Chimneys give permanence of masonry plus economy of pre-engineering

You can be sure of chimney safety and permanence—and enjoy the savings of a pre-built product—when you specify the Van-Packer Packaged Masonry Chimney for the homes you build. Van-Packer flue sections have $\frac{5}{8}$ " fire clay tile liner, 3" vermiculite concrete insulating wall, cement-asbestos jacket.

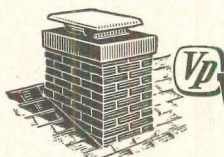
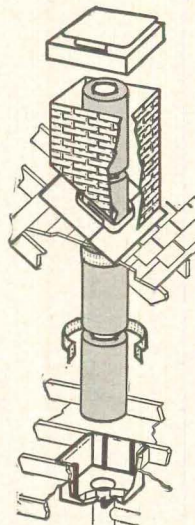
Completely packaged including flashing, the Van-Packer Chimney goes up in 3 hours or less and saves you 20-40% over brick.

Brick-panel housing adds beauty to all homes, assures buyer acceptance. Housing is now available in a choice of colors—red, buff or white—at no extra cost.

Ceiling or floor suspended Van-Packer saves space, lets you locate furnace anywhere. Van-Packer Chimney gives greatest draft for best furnace operation.

UL listed for all fuels, for all home heating plants and incinerators; approved by major building codes.

Immediate delivery to job from your local heating jobber or building material jobber. See "Chimneys—Prefabricated" in yellow pages of classified phone book, or write Van-Packer Corp. for Bulletin RS-1-19.



Van-Packer PACKAGED MASONRY Chimney

Van-Packer Corporation • Bettendorf, Iowa • Phone: Davenport 5-2621

officials of income property owners organizations and a city employee who was afraid to vote for fear he would jeopardize his job!

I was the first director of neighborhood conservation in Omaha and I resigned after eight months, disgusted with the situation and lack of cooperation. During that time the board couldn't even agree among themselves to hire an office girl to type my correspondence!

JERRY SAVIN
Harman Realty Co.
Omaha

SCRABBLE

Sirs:

Thank you for helping inflict my license plate game on the nation (June NEWS).

This madness, I'm sure, will swell the vacation casualty list no end and delight body and fender shops from the Florida Keys to the Columbia River.

However, I am compelled to point out that I am not sales manager for Oddstad Homes, but advertising and public relations manager. The sales manager is the very capable Ray Hammett.

D. L. STOFLE
Redwood City, Calif.

PERTINENCE

Sirs:

The article on coordinated components (June issue) shows a wealth of background and study. These standards will be helpful throughout the industry.

The ratio of six "yes" answers to one "no" answer to the question: "Are coordinated components the on-site builder's answer to prefabrication?" was quite encouraging.

However, as our organization is one of those most vitally affected by the answers, may I point out that the one "no" answer by prefabricator George Price makes some pertinent points. The Lumber Dealers Research Council in its Lu-Re-Co activity is well aware of them. We are directing our efforts to cover them in our Lu-Re-Co component approach.

It is my own opinion that neither coordinated components nor prefabrication will be the one and only answer in the home building field. I might almost add "heaven forbid." Both these approaches will develop worthwhile answers. As both develop, competition will get keener and more pointed.

In the final analysis, all this should mean a product of greater value for the American public.

C. A. THOMPSON, chairman
Lumber Dealers Research Council

BOUQUETS

Sirs:

Editors more often get brick bats than bouquets. I wish to toss a bouquet.

The article, "Does a Community Pool Make Sense for You?" (July issue) is an extremely fine presentation of a subject that is rapidly growing in importance. It is excellently thought out and planned and presented in a down-to-earth manner that is bound to help builders and architects.

ROBERT M. HOFFMAN, publisher
Swimming Pool Age

Sirs:

... A very nice article.

The pool has been a fine feature for this neighborhood.

J. C. TAYLOR, chairman
J. C. Nichols Co.
Kansas City

continued on p. 112



trial by fire in a gourmet's workshop

POMONA TILE

All is poised in anticipation of sampling a culinary triumph. A sizzling, scorching, red-hot skillet is whisked from fire to tile top. No need for worry! This kitchen deck surface, fashioned of Pomona Tile's flint-hard Perma-glaze, really defies abrasions, highly potent acids, and red-hot temperatures. That's why Pomona Tile is the natural choice for installations surrounding built-in ranges. Color is Sandalwood, softly rich, handsomely textured in the popular 6"x 4 1/2" size. For client satisfaction, it's always smarter to specify Pomona Tile.

Write for free catalog with actual tile samples of full line of colors.

POMONA TILE MANUFACTURING CO.

629 N. La Brea, Los Angeles 36, Calif. • Webster 8-3861

Seattle • San Francisco • Pomona • Long Beach • Arkansas City, Kan. • Houston • St. Louis

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THE BEGINNING OF A NEW ERA IN HOME BUILDING
DOCUMENTED IN THE SEPTEMBER ISSUE OF **LIVING**
FOR YOUNG HOMEMAKERS

For the entire building industry and consumers alike

LIVING
FOR YOUNG HOMEMAKERS

presents...

23 RESIDENTIAL HOME DESIGNS IN ONE ISSUE!

THE ELECTRI-LIVING HOMES

ON 22 LOCAL SCENES throughout the country — twenty-three architect-builder teams have designed and built Electri-Living homes. These homes are tangible evidence for consumers of the technological progress and developments that can be theirs in the moderate cost home.

SPONSORED BY local utility companies, and builders' organizations . . . in cooperation with LIVING For Young Homemakers magazine which has long felt the need for local programs such as Electri-Living and has set out to forward them locally and nationally.

RESEARCH AND STUDY in each region determined the needs and tastes of the prospective homeowner after extensive consultation with architects, builders, utility companies, manufacturers, banks, suppliers and young families in search of better shelter.

ADVANCEMENTS in **DESIGN AND CONSTRUCTION** methods and materials were merged in these homes to make them a composite of today's best thinking.

THE INAUGURATION OF A NEW LEVEL OF ELECTRICAL LIVING in the Electri-Living homes makes them the homes of tomorrow — ready for the homemaker to live in today.

"MAJOR CONTRIBUTION TO THE BUILDING INDUSTRY" say architectural educators and utility companies consulted on the program. They also characterize the Electri-Living program as "a guide to home planning for young families . . . of inestimable value to builders . . . represents volume sales for manufacturers . . . opens up a new vista for home building in the U. S."

SEE THE RESULTS of this intensive home building program sponsored by **LIVING** . . .
23 homes distinctively designed and built for specific regions of the United States . . .
capturing a maximum of comfort, convenience and easy maintenance within each home
. . . proving that the individual family within an individual community can have—and
insists upon having—a home that satisfies the greater number of their needs and desires.

BE SURE TO GET YOUR SEPTEMBER ISSUE OF

LIVING
FOR YOUNG HOMEMAKERS

AT YOUR LOCAL NEWSSTAND

A Street and Smith Publication • 575 Madison Avenue, New York 22, N. Y.

Unique

SASH BALANCES

the
BACKBONE
of double-hung
windows

WOOD or METAL



60°

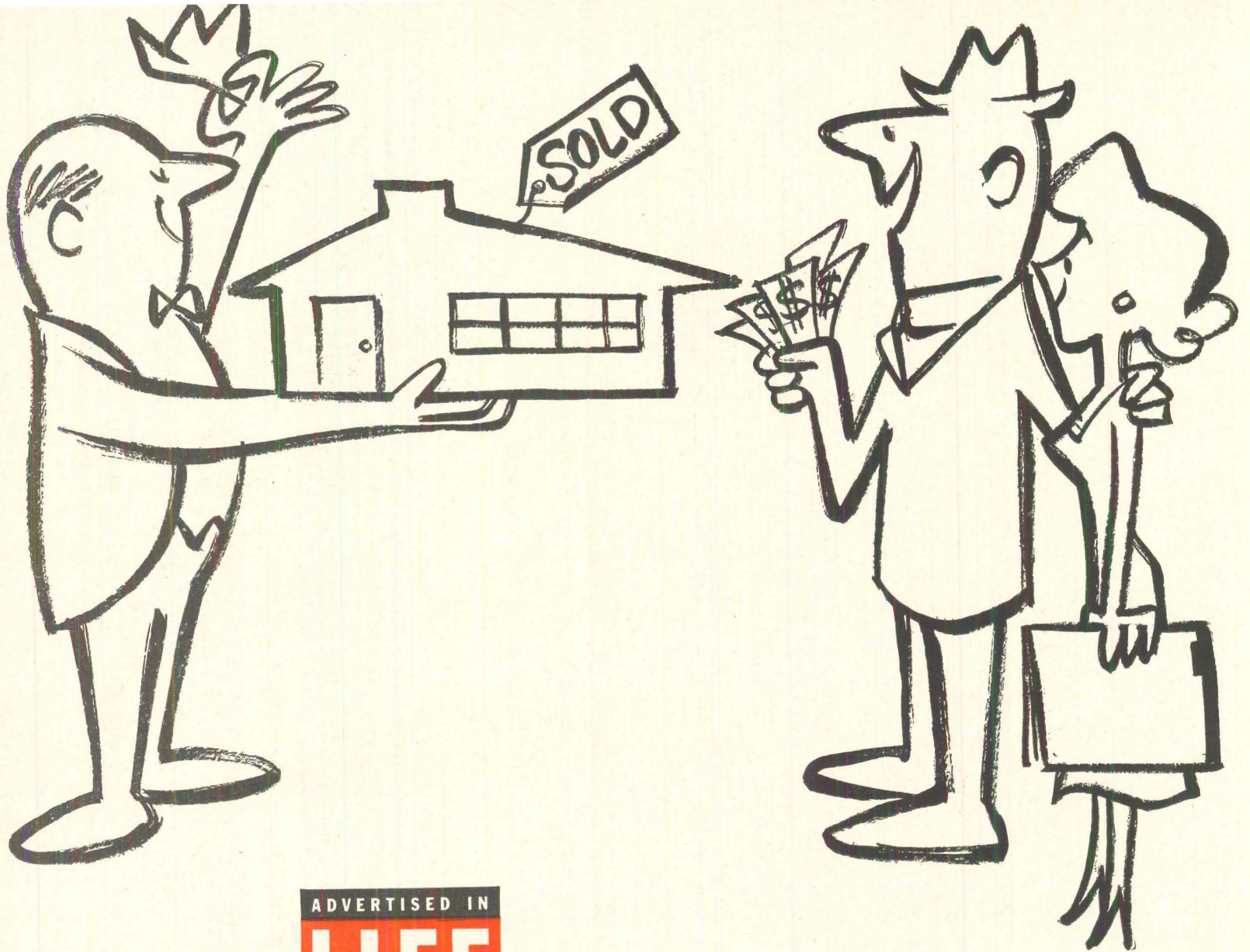
50°

40°

SEE

the reason for the
CHANGING PITCH

ENJOY QUALITY WHERE IT SERVES YOU MOST



PRODUCTS

ADVERTISED IN
LIFE

HELP CLINCH HOME SALES

You can put the clincher on plenty of deals simply by showing your prospect homes which feature the products and materials they're familiar with—the ones they see in LIFE.

Why LIFE? Because in the average community, LIFE reaches 3 out of 5 households in the course of 13 issues—more home-buying prospects than any other weekly magazine.

This is what's meant by the *local impact* of LIFE. LIFE pre-sells where it does the most good, right in your bailiwick.

Smart builders follow up on LIFE's great pre-selling power by slapping an "Advertised-in-LIFE" card or sticker wherever it applies in the homes they build. It really flags down prospects.

**The whole house looks better when you feature
"LIFE-advertised products" and materials**

LIFE

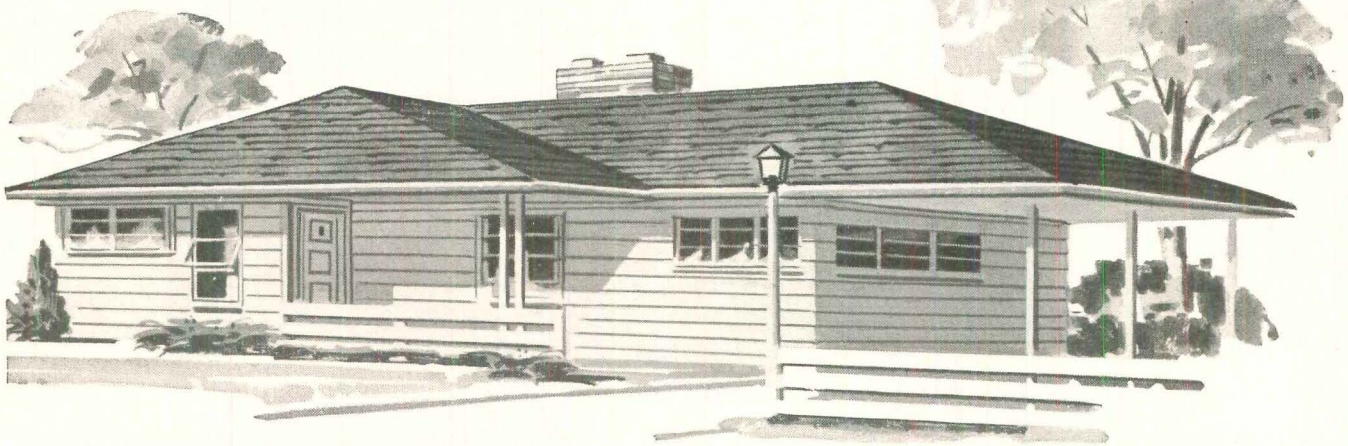
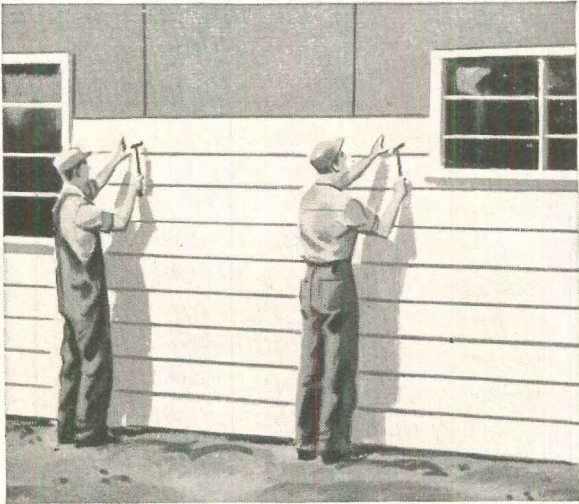
9 Rockefeller Plaza, New York 20, N.Y.

Audience source: *A Study of the Household Accumulative Audience of LIFE.*

SAVE UP TO \$100 PER HOUSE

with

UPSON PRIMED SIDING



1. COSTS LESS TO BUY

Lowest price in the field. Up to 35% less than conventional wood siding. Get prices now.

2. COSTS LESS TO PAINT

Front side and edges of each piece uniformly primed at the factory with high efficiency resinous coating. Developed especially for this purpose by the Upson Chemical Corporation. Finish coat will not blister or peel. Back side has special *reflective aluminum* prime for extra moisture protection. Yet, both coatings allow board to "breathe." Has superior water resisting, wearing and painting qualities. You save up to \$50 per house on painting costs alone!

3. AND THERE'S LESS WASTE

Cut to uniform size: 12" wide by 12' long. No shorts. Won't split, check, crack or splinter. Gives you 10" exposure for modern appearance. Applied on the site in easy, conventional manner.

4. NEW BEAUTY FOR YOUR JOBS

Edges straight and true, edges with deep shadow lines, accent simplicity of modern design. Helps give house popular long, low look. Get a quotation on your next job. Write or mail coupon for name of your nearest dealer.

UPSON

wall and
ceiling products
siding, sheathing



94% wood fibers laminated for great strength

THE UPSON COMPANY • 839 Upson Point, Lockport, N. Y.

Please send me free details on beautiful Upson
Primed Siding, and name of nearest dealer.

NAME _____

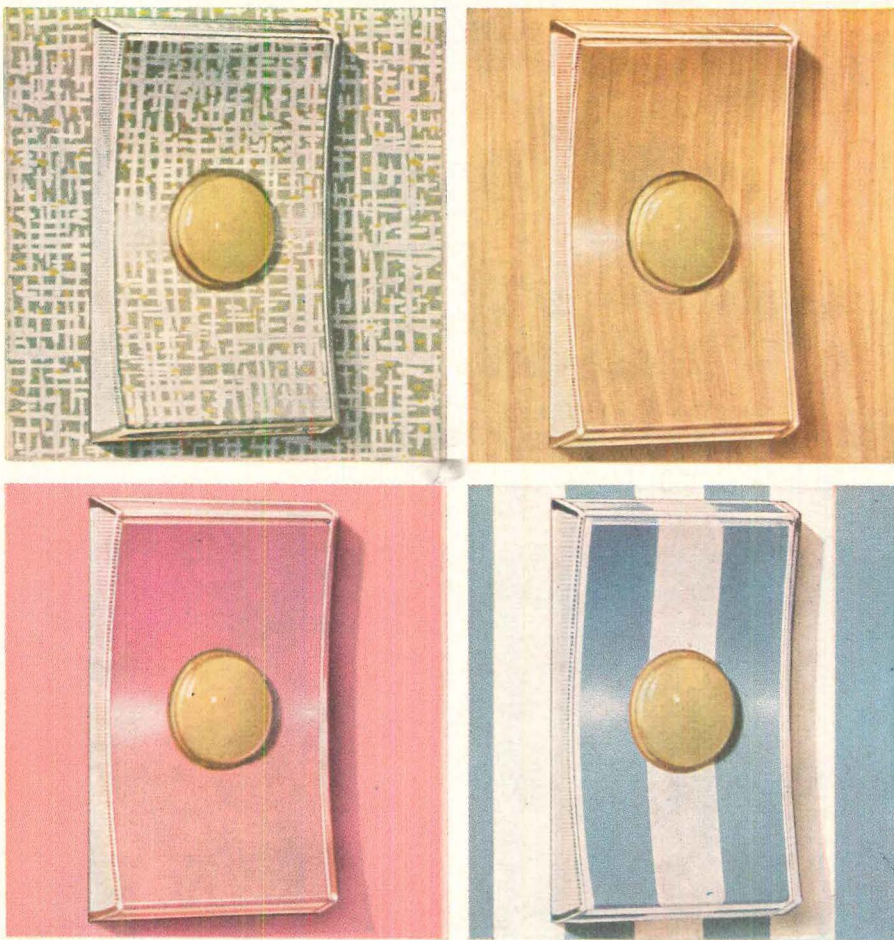
Title _____

Name of Firm _____

Street _____

City _____

State _____



Ever see a light switch
like *this*?



*New Tap-Lite wall
switch with fashion
plate that snaps on*

Put the extra sell of Tap-Lite into
every room for as little as \$15 more per house!

Now—a *decorator* light switch that matches any wall in minutes! Snap-in wiring; installs easily. Line voltage. Tap—it's on! Tap—it's off! Talk it over with your electrician.

Tap-Lite by **MINNEAPOLIS Honeywell**



ROUND TABLE HANDBOOK?

Sirs:

The thought occurs to me that HOUSE & HOME should publish a handbook on the Round Table's suggested standards. This could be sold for a nominal price and I am sure it would be welcomed by architects, builders, etc.

I had no conception of the work your Round Tables are doing and the far reaching benefits that should accrue until I had the privilege of sitting in on one of them. While I am not a builder I am certain that many, many builders would like to have all of the recommended standards individualized, condensed and available in a handbook.

D. A. MILLIGAN,
*Vice president, sales,
American Tractor Corp.,
Churubusco, Ind.*

Sirs:

. . . After reading a recent Round Table report, I dug out back issues and spent half the night reading other Round Table reports. I have read nothing that more vividly presents the challenge of a wonderful future in the home building industry for those who will open their eyes and minds, as your January editorial urged.

I have decided to cut out the pages of each issue pertaining to the Round Table reports and make them into a special folder.

Perhaps many other "open minded" members of the home building industry might like the same thing. What about printing a pamphlet that would consolidate the recommendations of the Round Table panels?

R. H. STRIEBY
*Strieby Lumber Co.
Kansas City*

POINT OF INTEREST

Sirs:

It might be a point of interest to know that builders in the Portland area are becoming more and more merchandising conscious. I believe they are realizing how beneficial model homes are to the sale of houses . . . We thoroughly appreciate your coverage of articles of interest to the home building industry. Congratulations.

ROBERT L. KING
*Executive secretary
Portland Home Builders Assn.
Portland*

CORRECTION

Sirs:

There are a couple of points in the school story (June, News) that need to be corrected.

The square footage of one of our classrooms is given as 32 x 32'. This does not include the 8' hall, which is part of the basic unit and is figured into the \$18,000 per-classroom cost.

Instead of dividing the \$18,000 cost figure by 1,024 sq. ft. (which you did to reach your figure of \$17.50), it should be divided by 1,280 sq. ft., reducing the cost to about \$14.

ALLEN DIBBLE
*Director of public relations
National Homes Corp.
Lafayette, Ind.*

THE AMERICAN

HOMIE

SERVING OVER 3,100,000 HOMEMAKING FAMILIES

SEPTEMBER • 25¢

READY TO FRAME!

No. 2 in a Series of collector's prints of State Birds and Flowers from exquisite, original paintings

• Rare Antiques in Disneyland

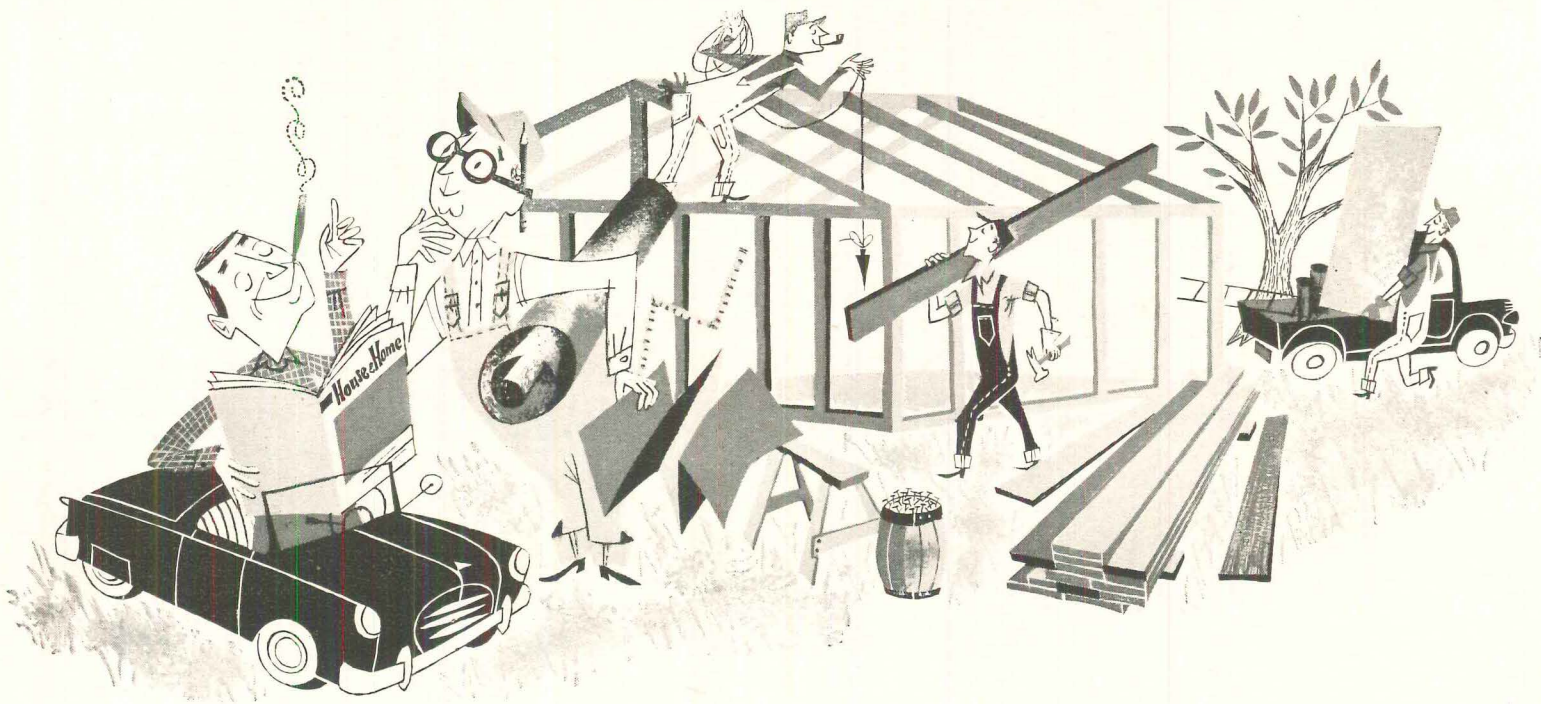
THRU-WAY TO

3,100,000 BUYERS

OF NEW HOMES



Before You Buy That House!

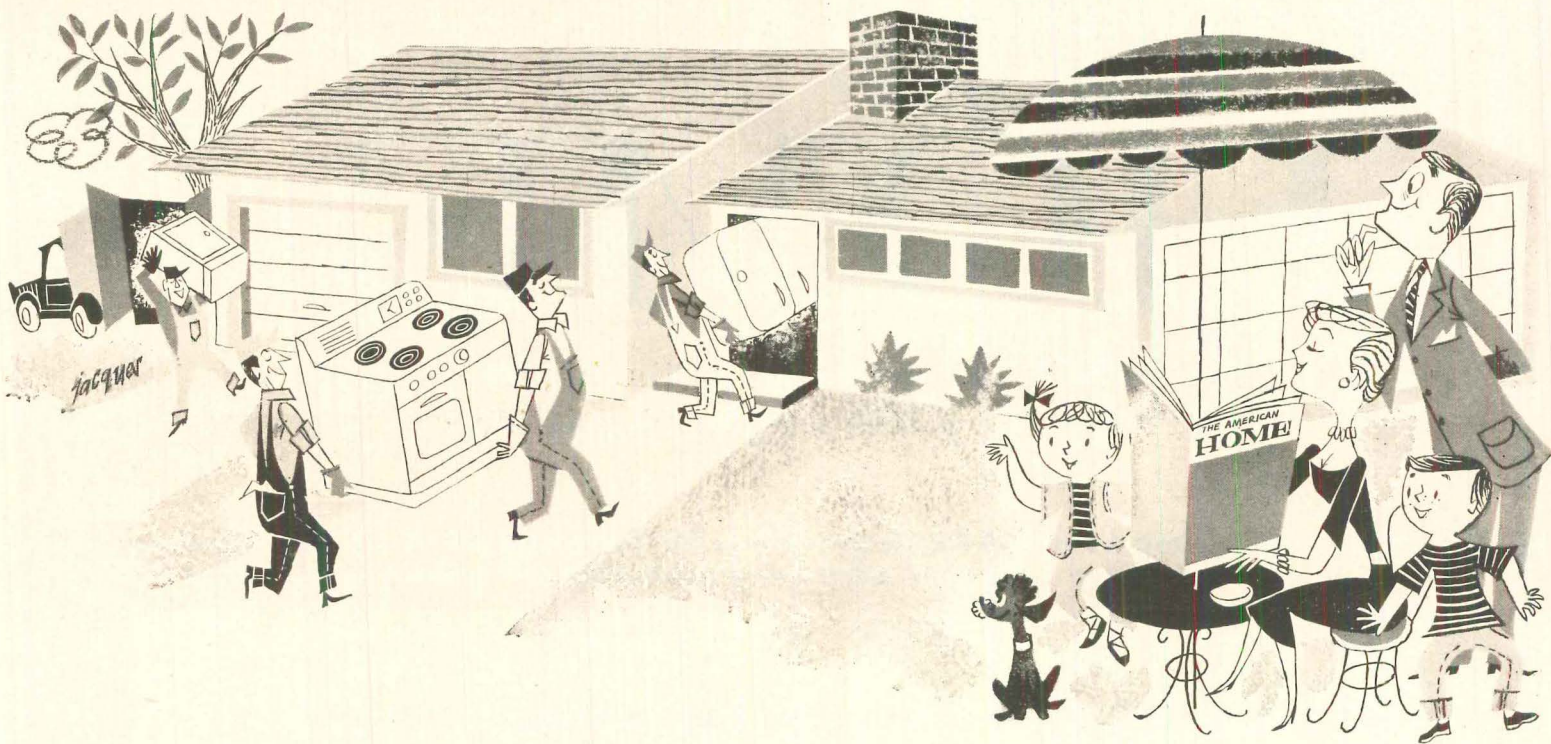


WHY DO YOU READ

House & Home?

It's a safe bet you read this magazine
for ideas and information about
your business — home building!

- INFORMATION ON HOW TO
BUILD AND SELL!
- IDEAS FOR MAKING MONEY!
- ALL HOME-PLANNING PAGES!



WHY DO 3,100,000 FAMILIES READ

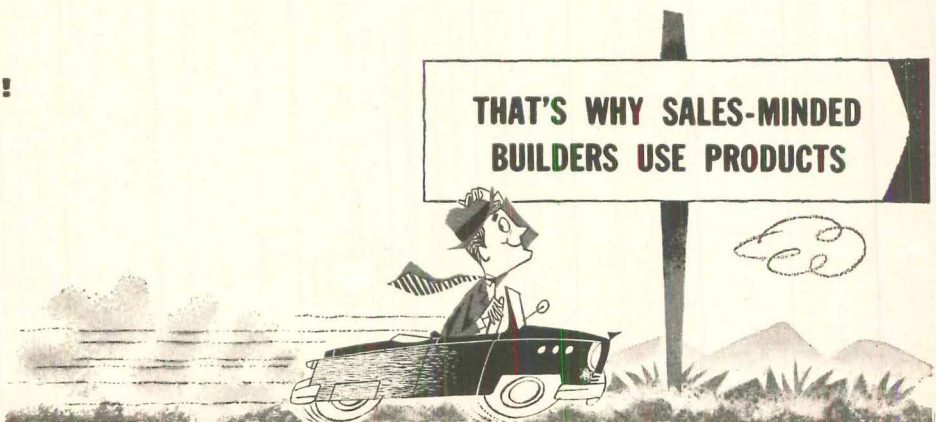
THE AMERICAN

HOME ?

It's a sure bet they read The American Home
(the whole family) for information and
ideas about their business – homes!

- **INFORMATION ON HOW TO BUILD AND BUY!**
- **IDEAS FOR SPENDING MONEY!**
- **ALL HOME-PLANNING PAGES!**

THAT'S WHY SALES-MINDED BUILDERS USE PRODUCTS



... ADVERTISED IN

THE AMERICAN
HOMIE

The "trade-up" magazine of the home-
building industry with a mass circulation

SALES TIP: your best 3,100,000 prospects for new homes are already sold
on these nationally advertised products in *The American Home*!

**A Partial List of Advertisers in The American Home
January - August 1956**

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Glidden Company

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Kelvinator Dehumidifiers
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Mueller, L. J., Furnace Co.
F. E. Myers & Bros. Company

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House & Home

September 1956

Volume X, No. 3

Published by TIME Incorporated

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STORY OF THE MONTH

- 117 *Plastics: Will home building be their biggest market?*

EDITORIALS

- 142 *Today's tough selling market is the smart builder's big chance*
by Frank W. Cortright
- 159 *What the package mortgage can do for everybody's sales*
- 170 *What readers say about money*

DESIGN

- 136 *Frank Lloyd Wright: A case study of 34 basic ideas*
- 144 *Campbell & Wong: Tract houses for steep sites*
- 155 *Consumer Magazine Review*

ROUND TABLE

- 150 *How to wire better for less money*

PRODUCTS AND PRACTICE

- 170 *Three more new ways to build better for less*
- 198 *New Products*
- 186 *BRAB advice on termites, septic tanks and vapor barriers*

NEWS

Washington: The 1956 Housing Act—the story the newspapers missed
Housing Market: Higher priced houses are the bright spot
Air conditioning: What will FHA do about it?
Mortgage Market—Materials and Prices—What the Leaders are doing

- 41 *Index to these and other News reports*

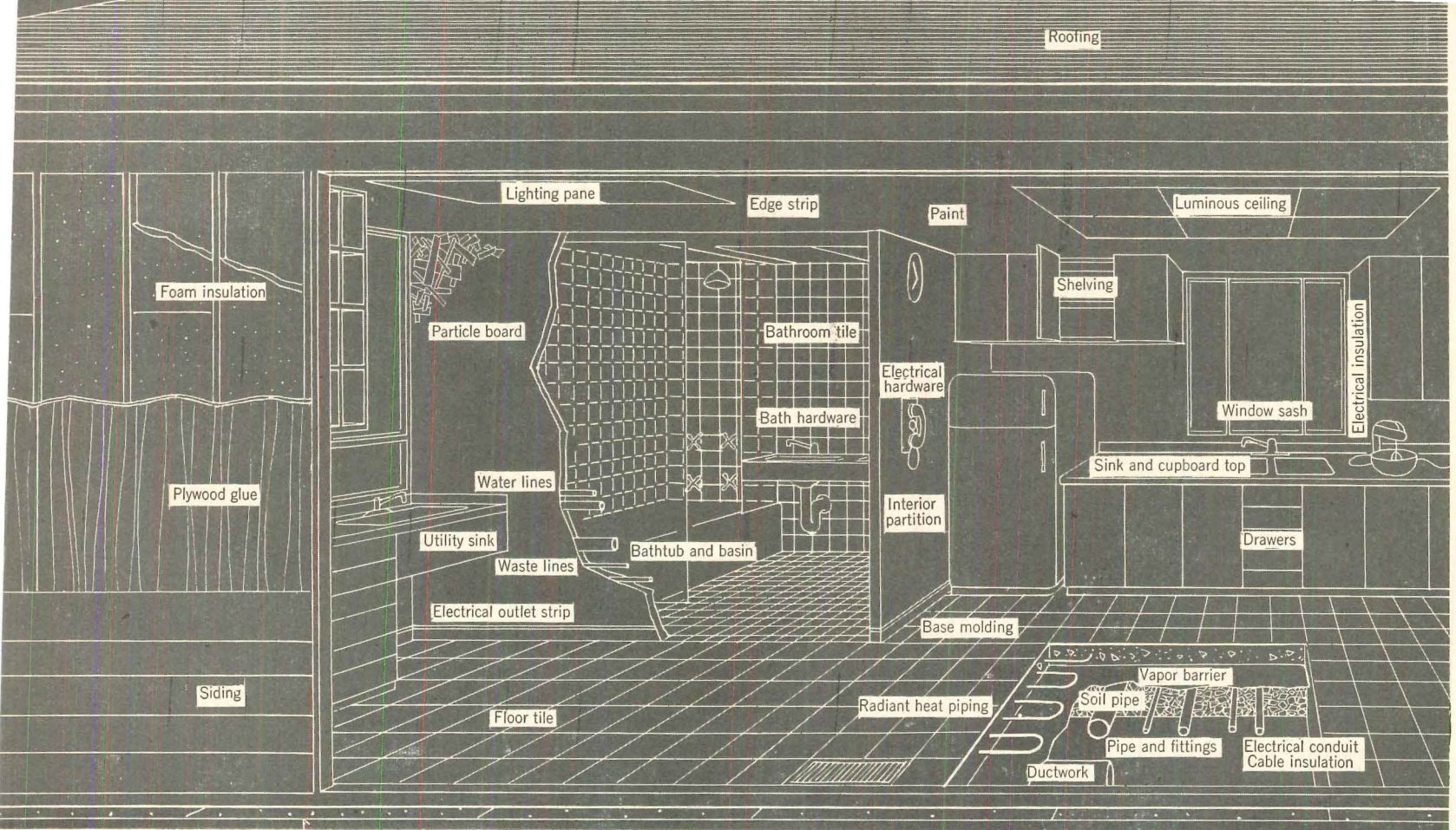
DEPARTMENTS

- 94 *Letters*
- 186 *Technical News*
- 252 *Technical Publications*
- 278 *Advertising Index*



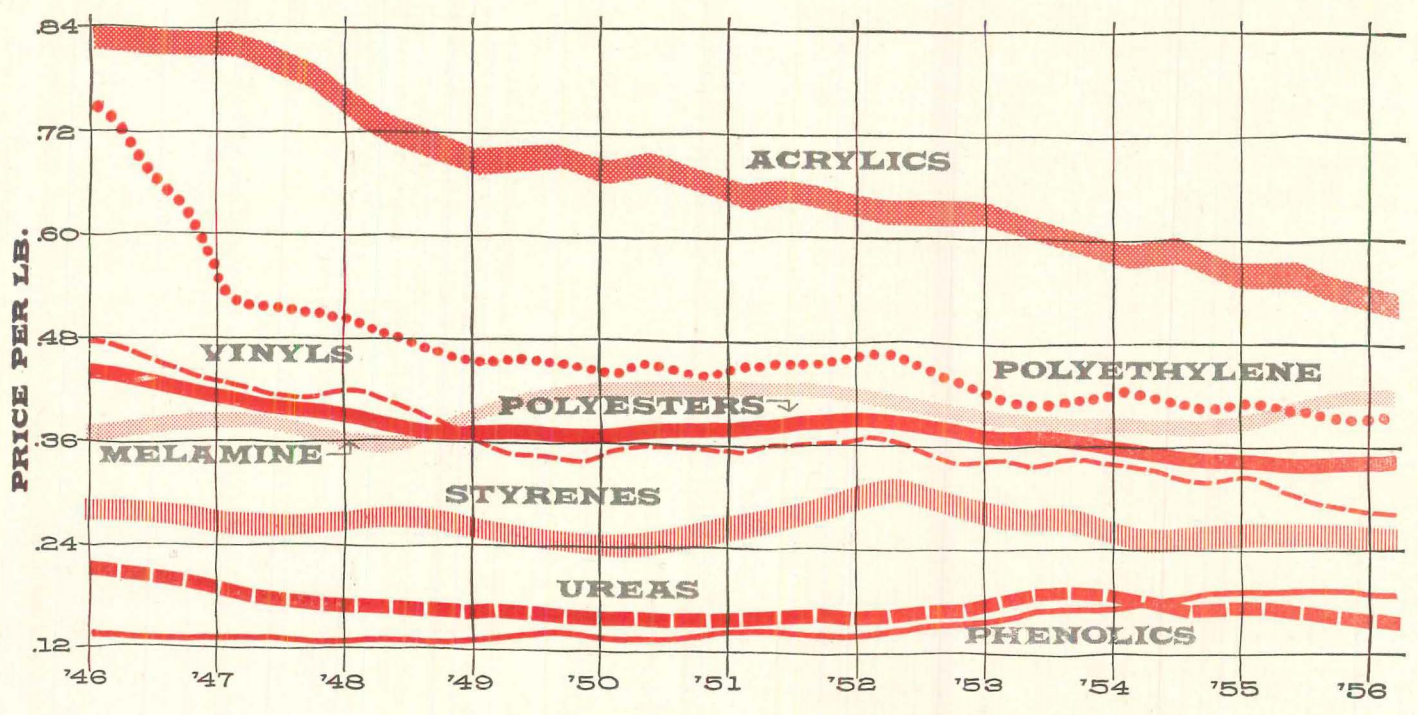
Cover: Monsanto's "House of Tomorrow" designed by MIT's Marvin Goody and Richard Hamilton. Photo: Bernard Spring





Look how many ways you can now use...

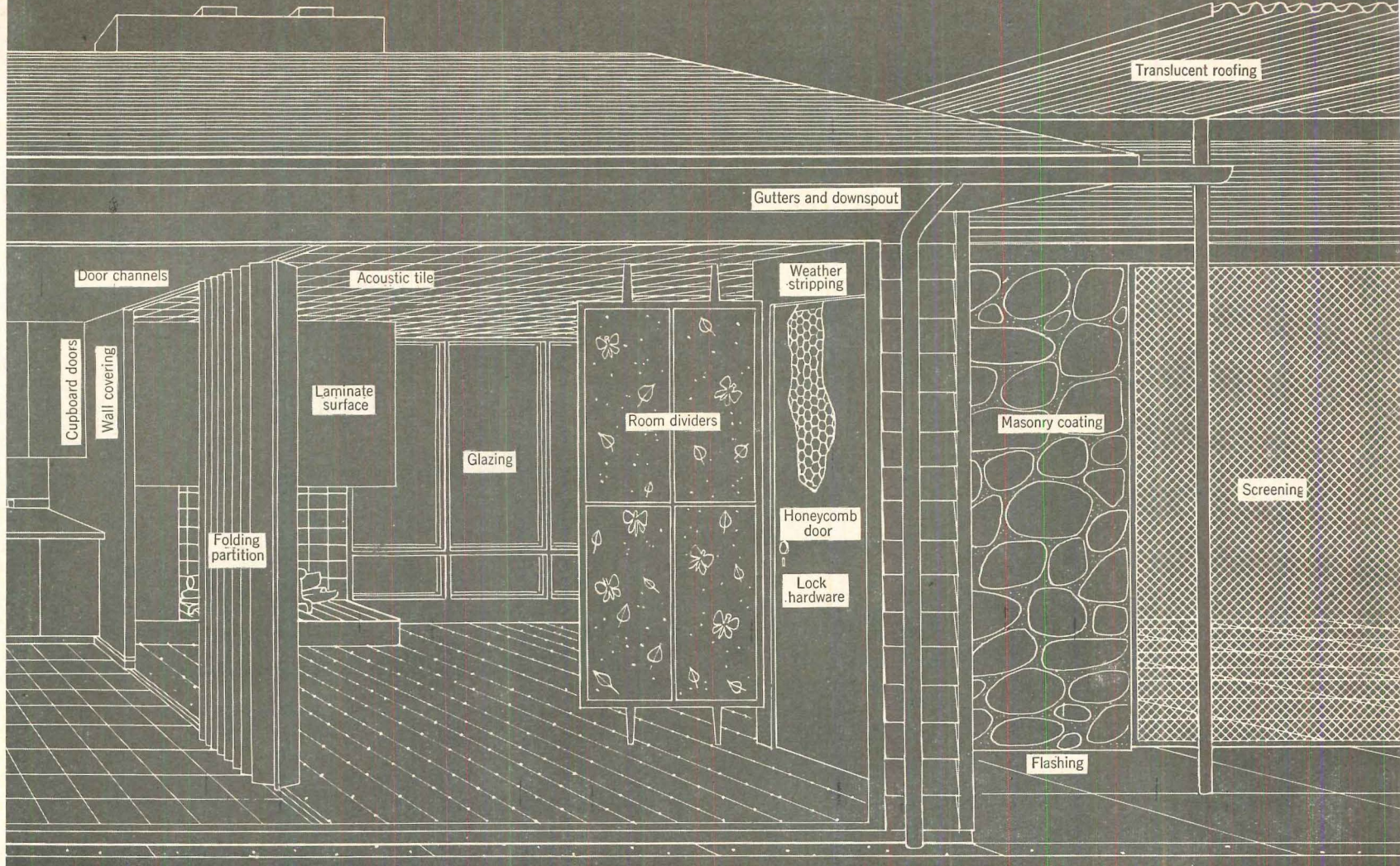
Look how plastic prices are coming down!



Plastics are getting cheaper so fast you will soon use them a lot more

Plastics are the only home building material whose price is lower today than in 1946—and remember all plastics

are so light a pound goes a long way. For many uses their installed cost is now less than any other material.



PLASTICS!

• Plastics have already found a big and growing market for some 50 uses in today's house.

And almost every day brings out a new plastic or a new way to use a plastic.

Pricewise, plastics are getting more and more competitive. Metal and wood prices keep going higher, but plastic prices can only come down.

There are 12 major plastics you can use (see pages 123-129), and dozens of minor ones. They are all made from much the same elements (see next page), but the end products vary widely.

Some are as strong as steel; others are easy to break. Some will stand high temperatures; others get soft at 120° F. Some are waterproof; others can't take dampness for very long.

Each offers a different value to home building. You should know what they can and cannot do be-

fore you use them in your house of tomorrow.

Plastics are bound to change house design in many ways, for they can seldom be used in the same way or form as wood or steel. They are economical only if the design takes advantage of their special qualities as plastics. (See pages 130-134).

They can be formed in any size and any shape. Their light weight is ideal for prefabrication. They can incorporate finish and structure in one piece. For example, one structural plastic panel, made up of two or three plastics, can replace the eight layers of an outside wall.

While metals, masonry, wood, ceramics and glass will always be ingrained in home building, plastics open up undreamed of new possibilities for better houses at less cost. And a lot of things are going to happen faster than you might suppose. For a forecast, see page 122.

Plastics are not always plastic . . .

There is more confusion over the word "plastic" than over almost any other word in the English language, because:

Plastics are not necessarily plastic.

According to Webster, plastic means "like plaster," but plaster is not a plastic. Plastic means pliable, pliant, ductile and malleable, but most plastics are nothing of the kind at ordinary temperatures. And nearly half of them (the so-called thermosets), once set, can never again be made plastic, pliant, pliable, ductile or malleable at any temperature.

The confusion is somewhat like the confusion about salt and salts. Salt is sodium chloride; salts can be almost any stable chemical compound formed by the reaction of an acid with a base.

Plastic vs. plastics

The plastics industry defines plastics, not in terms of plasticity, but in terms of chemical complexity. All the plastics produced and sold by the plastics industry are very complex *polymers*. A polymer is a very large molecule built up of long and complicated atomic chains, linking and cross-linking the atoms of a few common elements—usually carbon, hydrogen, oxygen, nitrogen and chlorine.

The difference between plastics as different as an acrylic and a phenolic is not that they include different elements. They don't . . . the difference is that the same elements are combined in a different proportion and linked in a different order. The result is that an acrylic is a thermoplastic (it can be remelted) and phenolic is a thermoset (it can't).

Plastics are a special magic

From the world of retorts and beakers in the chemist's laboratory has sprung a family of materials whose diversity is fantastic.

Plastics can be hard or soft, opaque or transparent, rigid or resilient, fireproof or inflammable. They can be almost anything you want. The business of the plastics manufacturer is really a business of arranging groups of atoms into desired new products.

Plastics are the result of man playing at being *mother nature*. They are more truly man-made than any other materials we use. Processes very like those found in the sun's rays, the earth's pressures and the waters of the world are used by *man* to make plastics. The huge chemical plants that turn out tons of plastics every year are simply mechanical simulations of nature's forces.

. . . but all plastics have

they are all made of very cheap



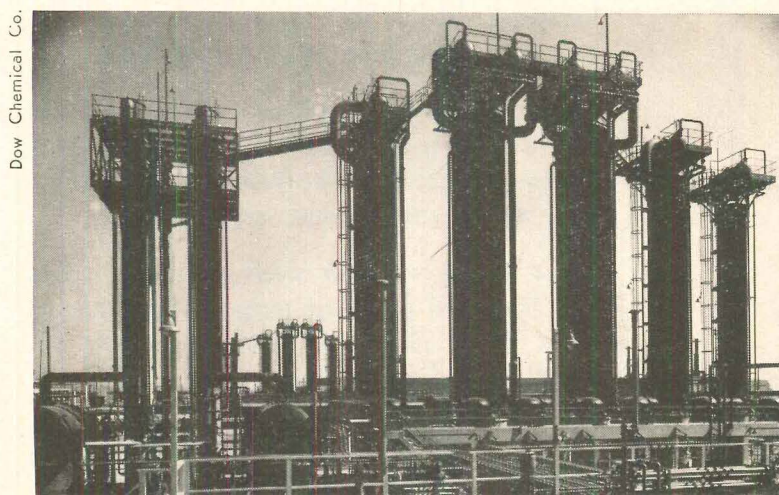
Plastics are mostly oxygen and nitrogen, common as air . . .

their atoms are linked and cross



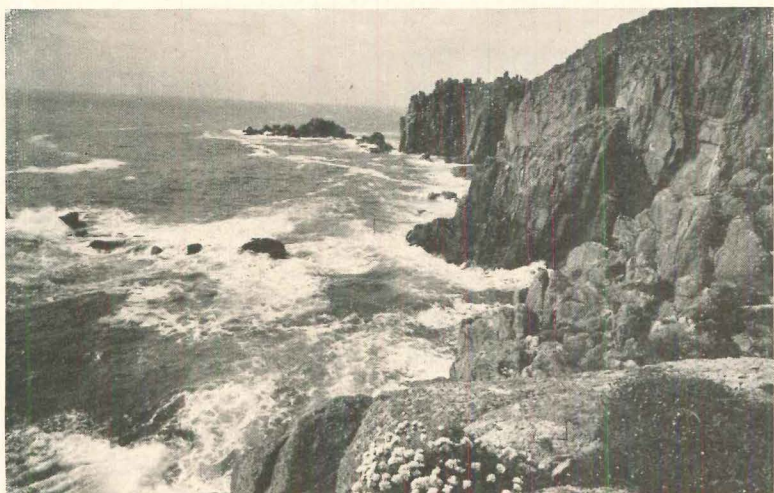
Models show how carbon (black balls) and hydrogen (white) combine to make styrene. The two small molecules (left) are called

they are made by very complex



these things in common:

and common elements (all costing much less than 1c a lb.) . . .



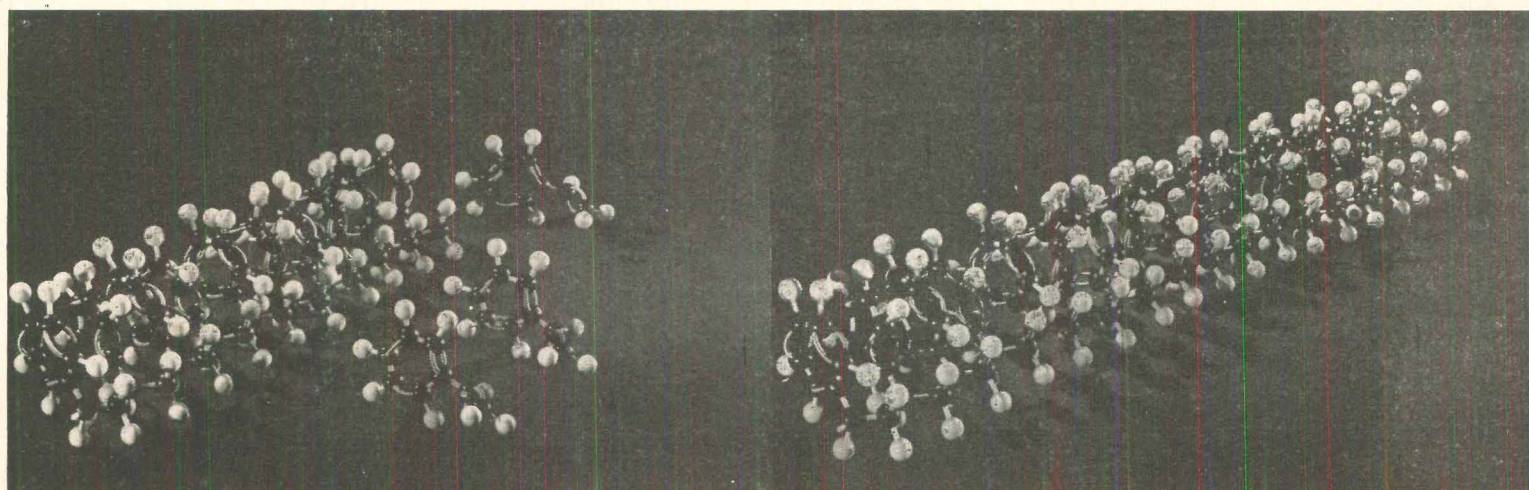
hydrogen and chlorine—common as water and salt . . .



and carbon, common as coal or oil

LIFE (l. to r.): C. E. Steinhilber; Farberman; Crane

linked in very complex molecules called polymers . . .

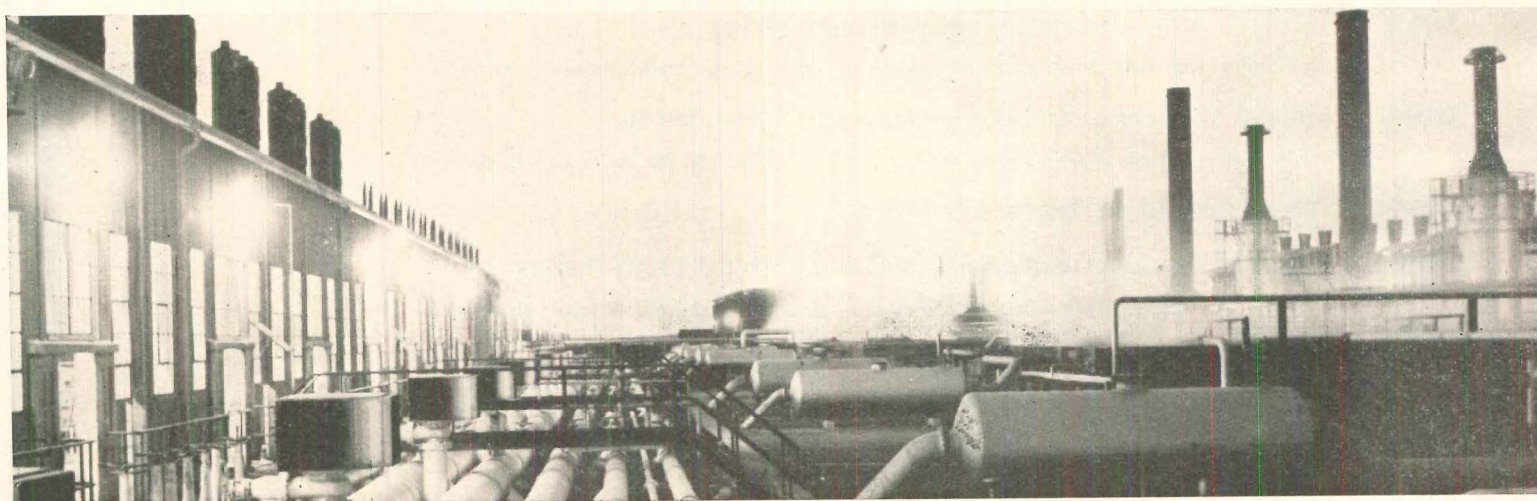


Models courtesy General Electric

styrene monomers, a liquid chemical from which this thermoplastic is made. Under catalytic action, the monomers start forming a

chain (middle picture) and the liquid becomes viscous. When the chain-like polymer of styrene is complete (right) the plastic is rigid.

processes in very big and expensive plants . . .



Celanese Chemical Plant; E. M. Payne

The top 12 plastics are as different from each other as they are from wood

They range in price per pound from 15¢ (ureas) up to \$1.50 (nylons). They vary in strength from strong as steel (polyester with glass fibers) to soft as down (flexible urethane foams).

Vinyl and acrylic look alike in their pure stage, but one is better for floors than for ceilings; the other is better for ceilings than for floors. Some, like melamine, are almost scratchproof; some scratch very easily. Some are shatterproof, like acrylic; some are quite brittle, like phenolic.

But scientists are constantly learning new ways to make each of the 12 better and new ways to use them better in combination (like polyester reinforced with glass, or phenolic and paper scratchproofed with melamine).

On the next seven pages you will find a brief report of each plastic and how it is used now. But not all of these applications are commercially practical yet.

Here is a timetable of how fast plastics may find wide commercial acceptance and use in homebuilding

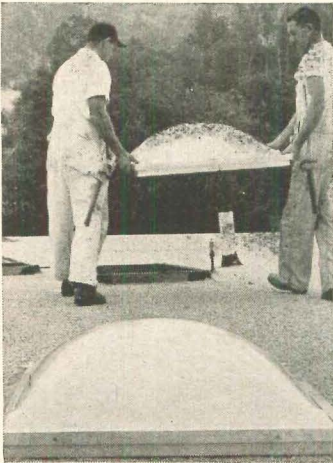
- 1956** Interior surfaces, floor and wall tile, skylights, translucent roofing, insulation, indoor paints, electrical devices
On the market for a long time, these form the base for plastics in home building.
- 1957** Pipes, hardware, light fixtures, luminous ceilings
Wider acceptance and better products will appear in these lines just now breaking into home building.
- 1958** Partition panels—standardized, movable, with integral finish
Now used in commercial buildings, panels may go into homes, especially prefabricated, two years from now.
- 1959** Whole walls (nonload bearing), plumbing fixtures, roof panels
The plastic wall and roof panel will be a unit embodying interior and exterior finish.
- 1960** Complete windows; prewired, prefinished, insulated, ceiling panels
- 1961** Complete bath assemblies with pipes and fixtures molded in wall
The molded bathroom with plastic piping will come in two pieces that nest together for shipment.
- 1962** Complete mechanical cores that can be traded-in like autos
Structural plastics will make it possible to assemble primarily metal equipment in one unit.
- 1963** Full floor units incorporating ducts and wiring
Finish floor on top, finish ceiling on bottom will be strong enough for heavy use on 4' centers.
- 1964** Unitized kitchens whose components can be traded in
Floor to ceiling cabinet and equipment units 24" and 36" wide. (Range and oven will be metal.)
- 1965** Whole house in packaged room units
- 1966** Plastics will make possible solar heat and power in many regions
Collecting mats of plastic for storing sun's energy mechanically or electrically will come on the market.
- 1967** Stabilized soil housing. Roofing held by inflated plastic tubes
Vacation housing, temporary and military housing will be made of plastic and earth mixed at site.
- 1968** Plastic domes to cover the total living unit, including gardens
Under domes people may live in controlled climates with "outdoor" living all year round.

ACRYLICS

are weatherproof, shatterproof, transparent and colorful
They are good for skylights, bathrooms, roofing, decorative dividers

But they scratch easily and cannot take loads. Today's price—55¢.

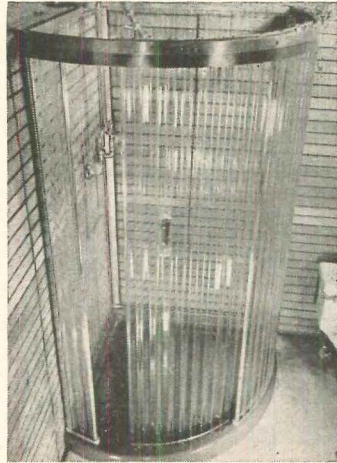
J. Hailey Arts & Architecture



skylights

Under such well-known trade names as Wascolite, Plexiglas and Lucite, acrylic is better than glass for skylights because it will not shatter and is easy to mold. It is impervious to sunlight and weather, lasts longer than any material except glass.

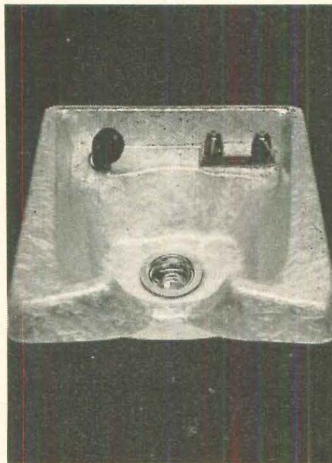
Rohm & Haas



shower stalls

Acrylic is unaffected by normal hot water temperatures, and the strong, fairly rigid plastic is resistant to sharp blows. The plastic has a slow burning rate and will not flash ignite. Lightweight sheets like this are easily handled and installed.

Bruce Elkus



wash basins

A basin like this (now used in plush beauty parlors) weighs only 10 lbs. vs. 50 lbs. for china. It is easy to mold, easy to color, chemically resistant, but it will not command a wide market until it can be surfaced with scratchproof plastic.

Bassons Industries



room dividers

Handsome acrylic panels can be laminated with leaves, butterflies, or fabrics to make room dividers and daylighting panels. Another possible use: acrylic can be sprayed on roofs to get gay sun-reflecting colors bonded to the surface below.

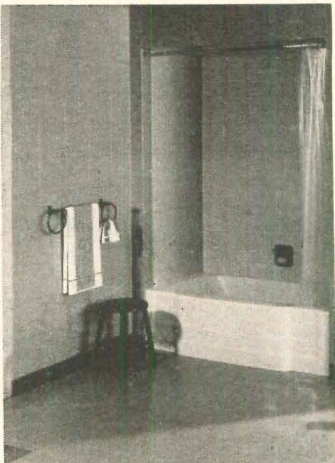
Wasco Products

STYRENES

are cheap, light, hard, colorful and waterproof
As a foam the plastic is a stable, good, easily handled insulation

But they cannot take sunlight and usually they are brittle. Today's price—25¢.

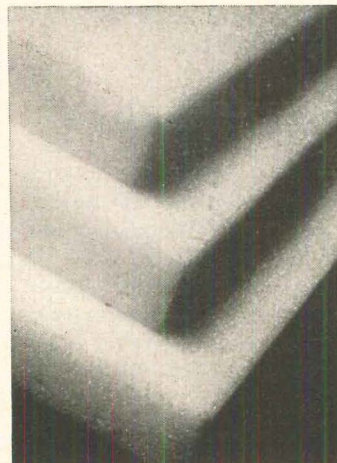
Simmons & Beal



bathroom tiles

Styrene's biggest role in home-building is in colorful wall tiles. Tiles are dimensionally stable and waterproof, but the plastic is not stable in sunlight, must be used indoors. Styrene is also cheap for cold water pipe, fittings and household hardware.

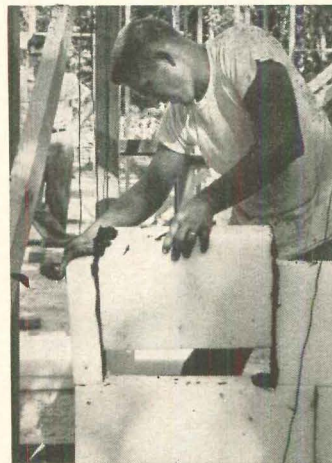
Bruce Elkus



insulation

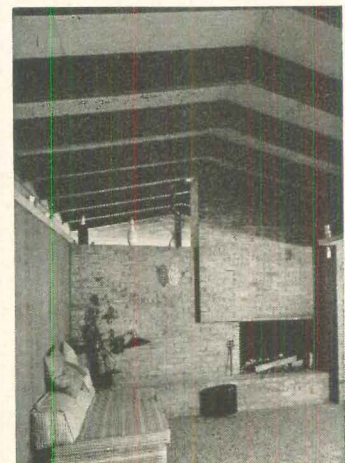
Blocks of styrene foam are excellent insulation—K factor 0.25. It costs more than Rockwool, but it does double duty as a vapor barrier, can be plastered and is laid up with bricks or concrete block. It is good foundation insulation around slab.

Dow Chemical



blocks

In Houston, materials dealer Dean Emerson laid up styrene blocks with waterproof adhesive and formed the house walls by guniting each side of 3" block with 1" of concrete (H&H Nov. '55, p. 75). The foam does not absorb water or moisture.



ceiling

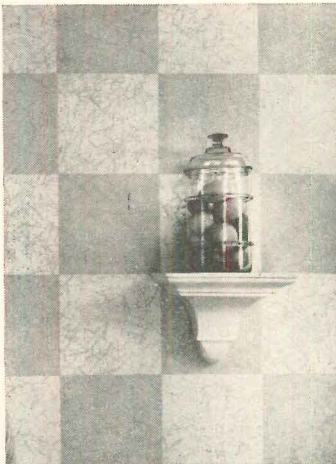
Architect Daniel Toshach, of Saginaw, used foamed styrene panels, faced on both sides with reinforced plastic sheets, as one-piece roof-ceiling units, from exterior finish to interior finish. Two-lb. per cu. ft. density makes roof lightweight, easy to build.

VINYLS, plastics' most versatile family, are strong and tough

They are good for floors, walls, pipe, fittings and hardware

But, like most plastics, 212°F. is usually too hot for them. Today's price—30¢

Bakelite



wall coverings

Vinyl wall tiles and sheets (used like wallpaper) will last as long as the house. Available in all colors and with inlays of many textures, they can be cleaned with soap and water and are extremely resistant to normal household damage. But it is not cheap.

Alexandre Georges



screening

In this Florida house architect Rufus Nims used vinyl screening over his combination porch-patio. Made of vinyl coated glass fibers, it is tough and weatherproof. It will outlast any metal screening, and is competitive with aluminum and copper screening.

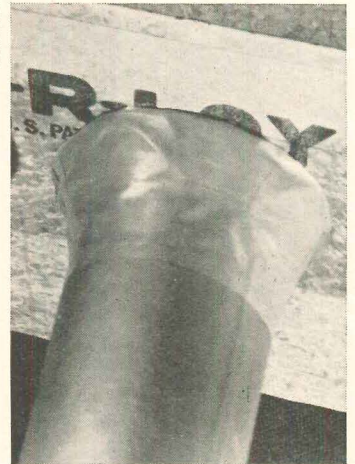
B. F. Goodrich



pipng

Vinyl piping, generally polyvinyl chloride or PVC, is rigid, chemically resistant, long lasting, good for cold water and sewage lines but not hot water. Connections can be threaded or made quickly with a solvent. Installed cost is between cast iron and copper.

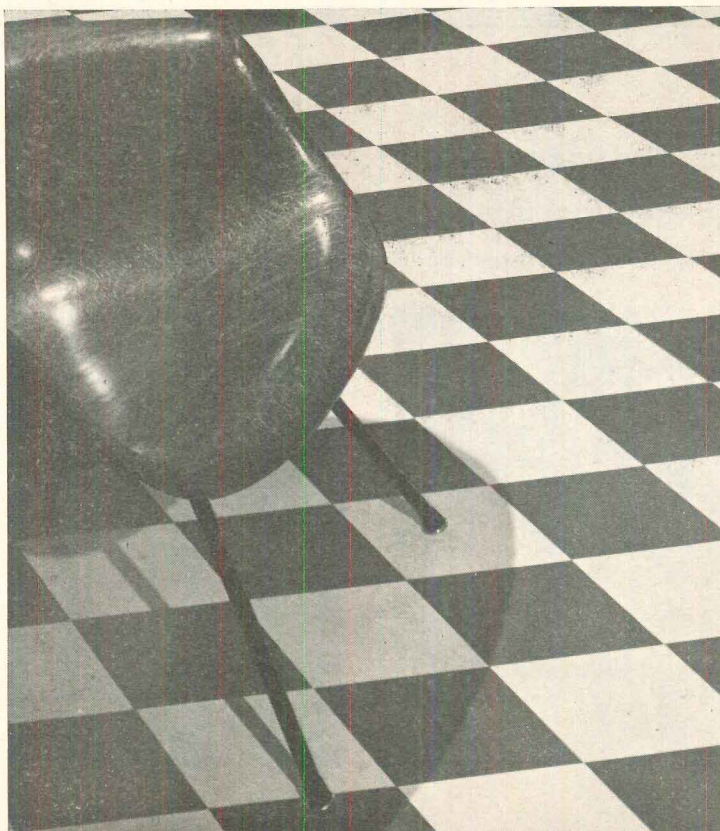
Coleman



duct covering

Vinyl sheeting is a good protective coating, used here for ducts. Vinyl is also an excellent wire insulator, can be formed into roofing, siding and window sash. Other uses include gutters, downspouts, luminous ceilings, louvers, blinds and hardware.

Monsanto



floor tiles

Floor tiles and sheets are now vinyl's biggest market in houses. They will outwear any other resilient floor covering. They are

best for the heavy use flooring gets in kitchens. Vinyl has excellent water resistance, can be used safely on slabs on ground.

Vinyl is a plastic jack-of-all-trades

Basic vinyl can be combined with a great variety of other organic compounds to produce materials ranging from very resilient flooring to quite rigid waste lines. In its natural form it is as clear as acrylic and can be used for daylighting. But in most forms, with fillers added, it is opaque. Glass and asbestos fillers make it tougher.

Vinyls can be used for moisture barriers, wall insulation, sprayed roofing, blinds, hardware, plumbing and lighting fixtures. The biggest member of the plastics family, production of its seven major types totaled 350,000 tons in 1955 (aluminum 1,550,000 tons).

Vinyls resist abrasion

All vinyls stand up very well under the abrasion of normal use, and there are special types made with very high wear resistance. While they are all tough and strong, only flexible vinyl can be bent back and forth without weakening and tearing. They are unaffected by prolonged contact with water, oils, food, common chemicals and most cleaning fluids. Certain types of vinyl are self-extinguishing. They must all be kept from the softening effects of direct heat.

Rigid vinyls have a big future

In translucent ceilings, pipes and fittings, siding, sheets, cupboard doors and drawers, rigid vinyl is making a strong bid for a share of the market, now partly held by acrylics, polyesters and phenolics.

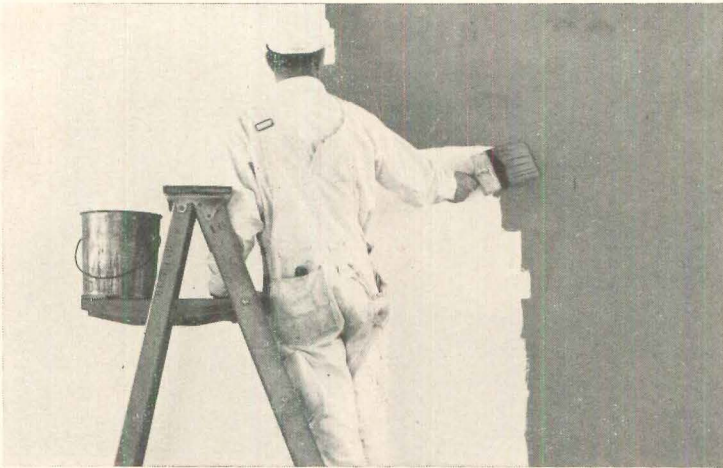
Rigid vinyls, or polyvinyl chloride, have tensile strengths up to 7,000 and 8,000 lbs. per sq. in. at room temperature. Increases in temperature reduce the tensile strength of these rigid plastics so at boiling point they usually become soft, but age increases their tensile strength.

ALKYDS

dry fast, have higher heat and electrical resistance
They are good in interior paints and some wiring devices

But alkyd paints won't weather and alkyd devices cost more. Today's price—35¢.

LIFE: Aldert Finn



painting

New interior paints called alkyd flats produce a more durable finish with better washability, better color and gloss retention. They brush easily, dry fast to form a flexible film. They can be applied to plaster before it is completely dry. They are almost odorless if used with low-odor mineral spirits. They can be baked for factory finishes.

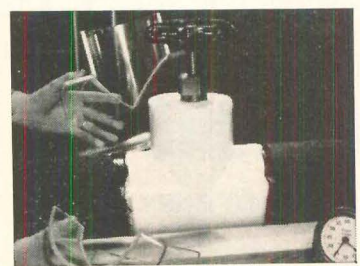
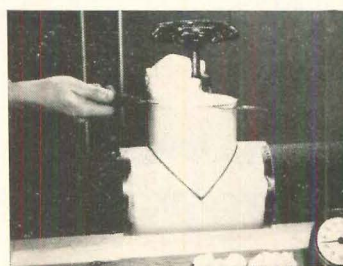
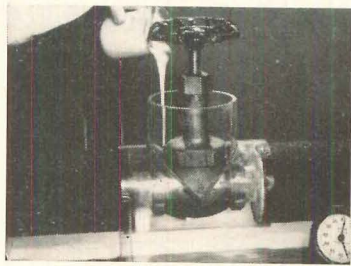
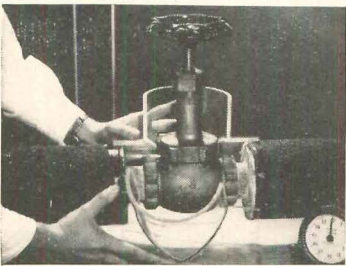
wiring devices

In electrical devices, alkyd molding compounds offer better insulation and arc resistance than any plastic except the more expensive silicones. But alkyds cost more than the commonly used most electrical hardware. Alkyds are used mostly around fuses and circuit breakers where space is tight and arc resistance important.

URETHANE

pours as a liquid, foams better on the job than any other plastic
The foam makes a fine barrier against heat, noise and vapor

But it can't be used by amateurs and the price is still in doubt



Photos: Photo Art

Here is a test demonstration on how to insulate a valve with urethane foam

1. Place a plastic mold (usually polyethylene) around the valve. Liquid urethane is then mixed with a catalyst in a beaker.

2. Mixture, beginning to foam, is poured into mold where it immediately starts to rise. It forms a fast bond with almost anything.

3. When foaming stops, urethane hardens, loses its stickiness. Excess is cut off with a knife when the foam is completely dry.

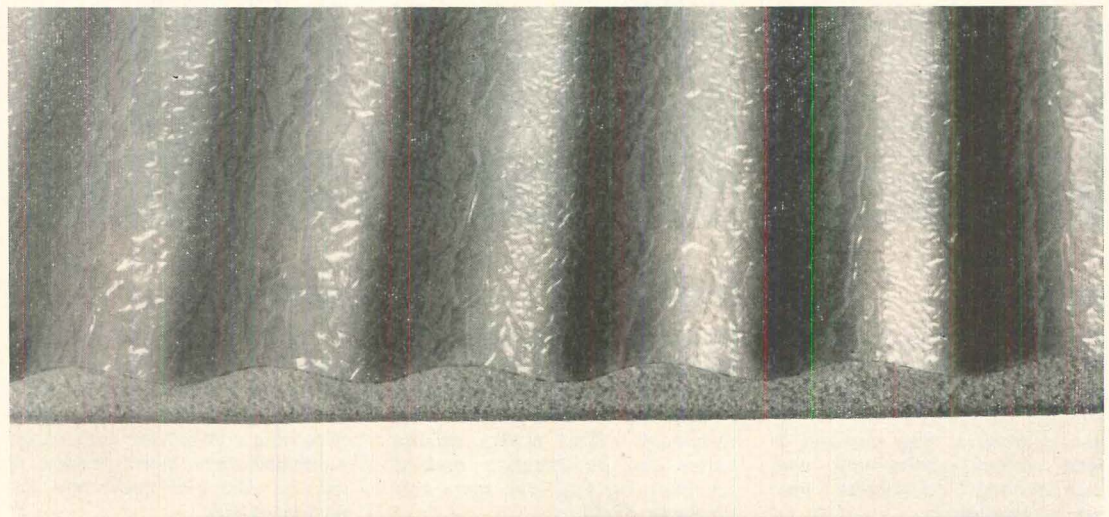
4. Take the mold off and job is done. Foam is fine for insulating hard-to-fit shapes, like this valve, and hard-to-get-at places.

foam core

Urethane foam between polyester sheet (on top) and plywood (beneath) makes a good sandwich panel in this test specimen. Its K factor is .27 and it can cut sound transmission by 90%. It weathers well. By varying foam formula and density (from 2 to 25 lbs. per cu. ft.) it can be made rigid or flexible and strong enough to support the roof.

Urethane surfaces weather as well as acrylic or silicone.

These new foams can be made in a number of chemical formulations. Recent developments promise a competitive position for the foam in the near future.



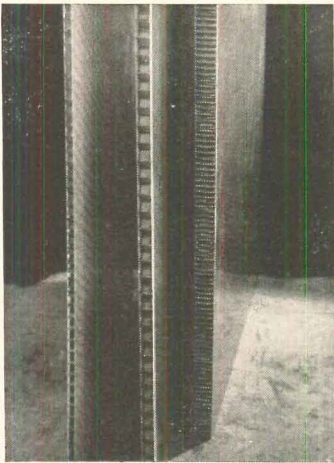
Du Pont

Bruce Elkus

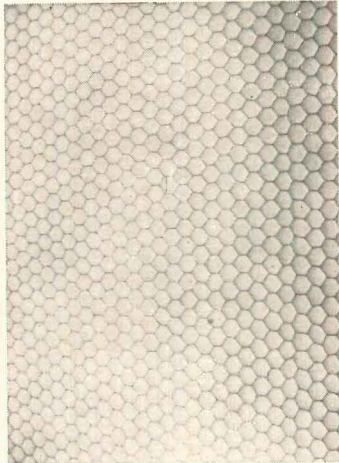
PHENOLICS

are cheap, strong and heat resistant up to 400° F.
They are good electric insulators, chemical and water resistant

But they are usually dark. They can't stand prolonged exposure. Today's price—20¢.



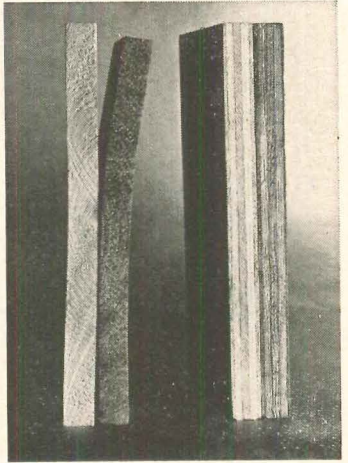
Russell



Monsanto



Ben Schnell



paper and phenolic

Phenol impregnation under heat is what makes paper honeycomb strong enough for doors and structural walls. Such wall panels have already found a market in commercial buildings. Honeycomb cores are surfaced with reinforced polyester sheets.

honeycomb

Most paper honeycombs are made in hexagonal shapes. Air spaces make an effective thermal insulator, especially if the cells are small. For exterior use the panels must be sealed to prevent moisture from getting at the paper honeycomb.

hardware

Phenolics are best known as electrical hardware in homebuilding. Easy to mold and dimensionally stable, phenolics won't support combustion and are shock resistant. They are also used in laminate sheets and can be foamed for insulation.

plywood

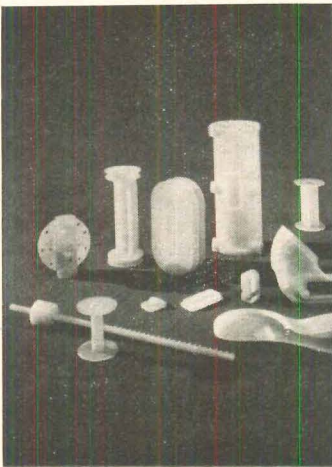
Phenolic adhesives are used for exterior grade plywood. They are waterproof and are not hurt by occasional wetting. They increase the strength of wood and decrease its swelling due to moisture. In homebuilding phenolics' biggest application is in plywood.

NYLONS

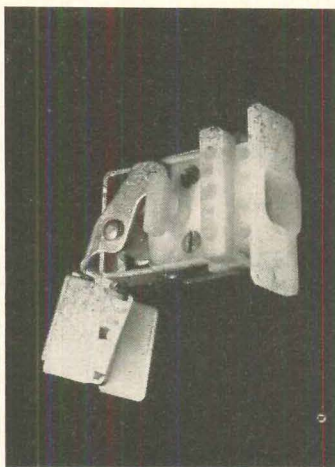
are very strong, tough, amazingly resistant to abrasion
They are easy to mold into complex, dimensionally stable shapes

But they are expensive and limited to small parts. Today's price—\$1.50.

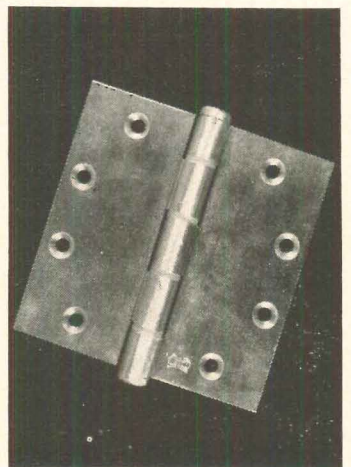
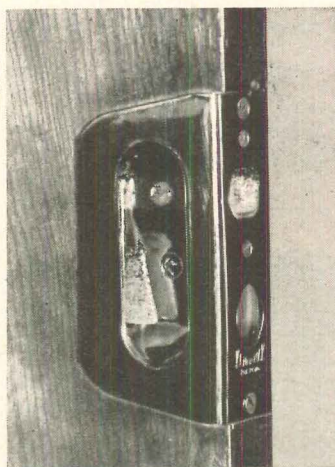
Du Pont



Bagbey Photo



Bagbey Photo



parts

Nylon for small mechanical parts wears longer than any other material known. Its flex-life (bending back and forth) can be almost timeless. The material is light, water-, corrosion- and heat-resistant, frictionless and self extinguishing.

hardware

Like the lock mechanism above, hardware made of nylon is fast becoming cheaper than machined brass. For instance, a washing machine's hot water mixing valve can be injection molded in nylon for 50¢—the same part in brass: \$2.50.

doorlock

Set in the door this nylon lock, also in picture at left, will last longer than almost anything else in the house. Nylon is rapidly becoming competitive with many machined metal parts because it can be fast and accurately injection molded.

hinge bearings

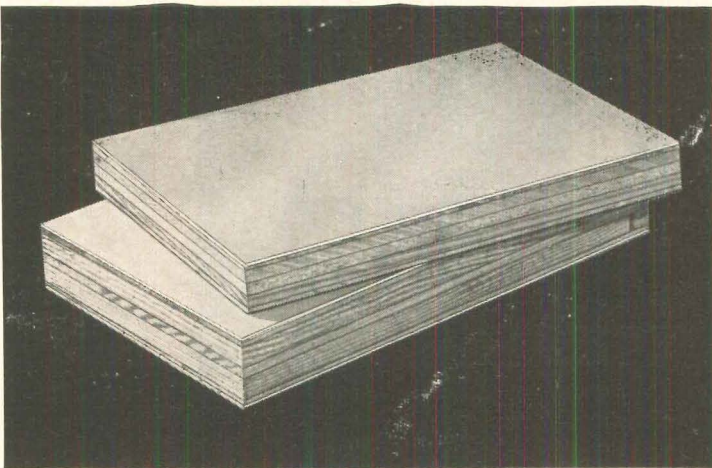
Heavy duty door hinges are often made with nylon bearings to prevent wearing out the bronze, brass or steel. Tensile strength can be as high as 11,000 lbs. per sq. in. and nylon can withstand steam sterilization without deforming.

UREAS

are strong and colorful, good for light hardware
They make excellent adhesives and are unaffected by common chemicals

But they cannot take 212 F. nor continued exposure. Today's price—16¢.

U. S. Plywood



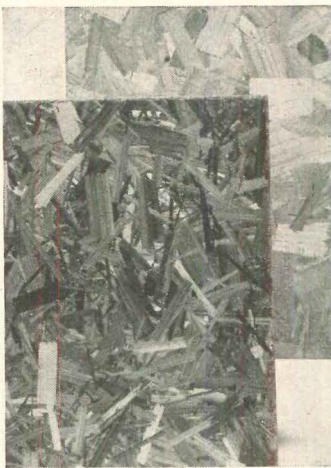
plywood

The better grades of interior plywood (including almost all hardwood plywood) are bonded with urea to get better fire and water resistance. It is not as good for exterior plywood as phenolic adhesive. Available as liquid or powder, urea adhesives

come with a variety of hardeners for curing at temperatures ranging from 70°F. to 270°F.

Urea adhesives can be fortified with melamine to resist boiling water. They can be used on the site for fastening drywall to studs and gussets to trusses.

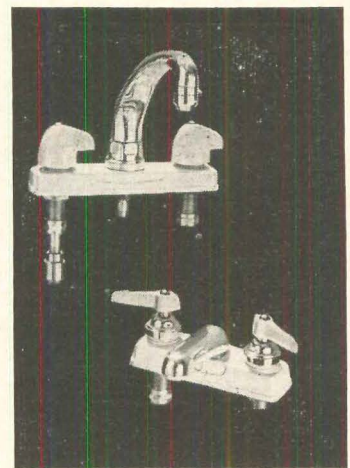
Bruce Elkus



particle board

Particle board is almost always bonded with urea. The board is made of a fine wood chip core surfaced with larger chips. Light colored urea is almost invisible in the attractive particle board above, but forms a very effective bond between chips.

American Cyanamid



hardware

Hardware made of urea (actual name: urea formaldehyde) is tough, scratch resistant and very colorful. It can be exposed to hot water for short periods without softening. Molded pieces have tensile strengths up to 7,000 lbs. per sq. in.

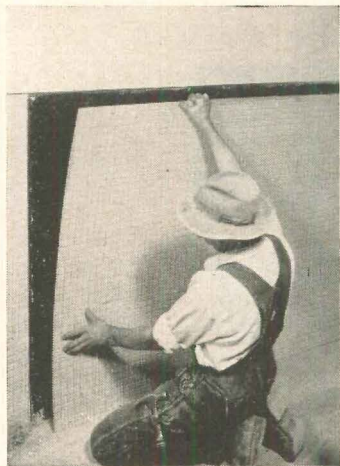
Du Pont

MELAMINES

are colorful, very hard, perform well from -70° F. to almost 400° F.
They are best for scratchproof, waterproof, acidproof flat surfaces

But they are hard to form cheaply and they can't stand continued sunlight outdoors Today's price—42¢.

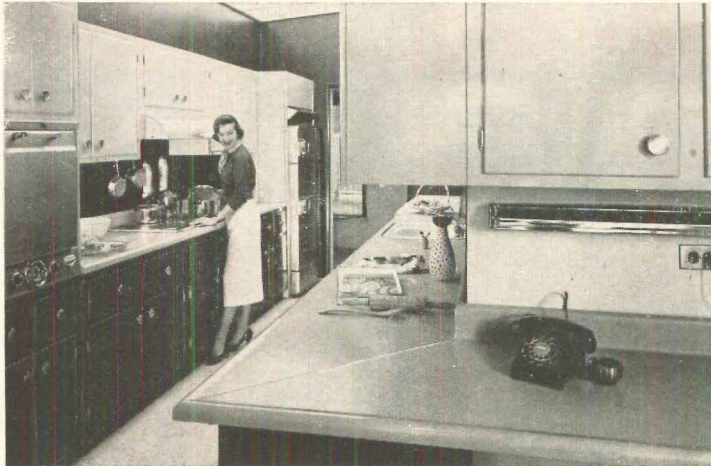
Consoweld



laminate sheet

Melamine is used only in laminations with cheaper materials, for its one big advantage is it makes the most indestructible surface of any but the highest-priced plastics. Above is 4 x 8 panel of phenol-impregnated paper surfaced with melamine.

Formica



counter tops

Known by such names as Textolite, Micarta, Consoweld, Formica and Panylite, melamine finds its biggest home application in counter tops.

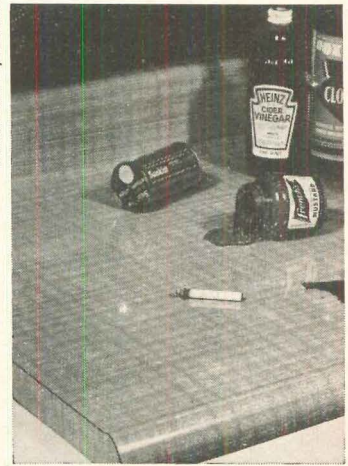
It offers unlimited color possibilities, it is self-extinguishing; it has good impact resistance and

can be chipped only by being hit hard with a sharp tool.

Indoors it will last as long as the house. Outdoors it cannot stand continued sun.

A thermosetting material, melamine can take a great variety of filler for varying properties.

American Cyanamid



resistant

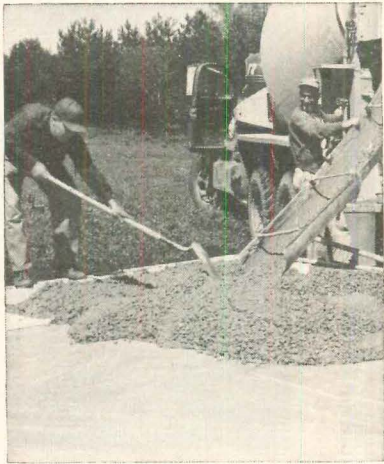
Melamine surfaces are resistant to all normal household chemicals. Water absorption is low, even under immersion. Maximum use temperature 350-400°F. It would make a fine surface for plastic plumbing fixtures if it could be formed deeply.

POLYETHYLENE

is flexible, waterproof, resists chemicals and fungi
It is tough, good for cold water pipes, best for vapor and moisture barriers

But it should only be used where its flexibility is desirable. Today's price—40¢.

Dow Chemical Co.



moisture barrier

Polyethylene barriers under slabs or crawl space will last the life of the house unless rotted by the sun. Ideal for building, it is not easily punctured. In the photo above, showing slab being poured over polyethylene film, note foamed styrene insulation in foundation walls. The plastic remains flexible and tough even in arctic temperatures. Rodents and termites can chew through it, but in usual installations this is no problem.

Paul S. Davis



vapor barrier

Fastened to inside face of studs, polyethylene makes an excellent vapor barrier in walls.

For mechanical uses polyethylene can be turned into an almost new material by irradiation (*Architectural Forum*, Sept. 1954, p. 102). Atomic rays give the plastic heat resistance up to 700°F. and greatly increased tensile strength and stiffness. This technique may permit added uses for this plastic in houses.

Triangle Conduit and Cable



pipe

Polyethylene pipe is the cheapest pipe to use for cold water lines, mains and laterals. It is already extensively used in farm areas and industry. Flexible and lightweight it can be run through walls and trenches like wiring, bending around corners with no joints. When impregnated with carbon black it will stand direct sunlight. High modulus (i.e. very strong) polyethylene pipe can be used at temperatures approaching boiling.

SILICONES

are water repellent, very resistant to weather, chemicals
They are stable up to 700°F. and are excellent electric insulators

But their current cost limits them to weatherproofing. Today's price—\$1.50.

General Electric



waterproofing

Silicone water repellants are sprayed on masonry to extend its useful life by minimizing the spalling, cracking and crazing effects of thawing and freezing.

Silicones are also used in small

parts and laminates to give flexural strengths up to 50,000 lbs. per sq. in. They are the best flexible insulation for electricity (but expensive). They are heat resistant up to 700°F. and can be foamed for insulating.



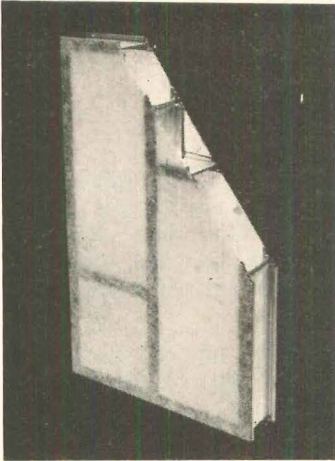
exposure test

In this freeze-and-thaw test, top block, silicone treated, was exposed to 90 cycles; center block, oil treated, 38 cycles; and bottom block, not treated at all, scaled badly after 40 cycles of freezing and thawing.

POLYESTERS are transparent to opaque, very tough, weather- and waterproof with reinforcing they are easily and cheaply formed into pieces as big as 500 sq. ft.

But while they are very strong, they are not a simple substitute for structural members. Today's price—35¢.

Bruce Elkus

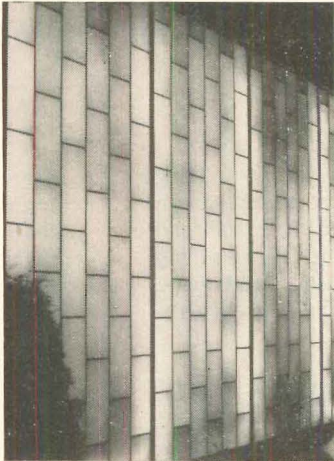


polyester panel

Sheets of polyester reinforced with glass fibers can be bonded to a great variety of core materials to make sandwiches of great strength using skin tension.

Above, the plastic is bonded to a grid of aluminum extrusions to form a complete vapor-proof wall panel, from interior finish to exterior finish. The chemically resistant panel is cleaned with soap and water.

Keller Products

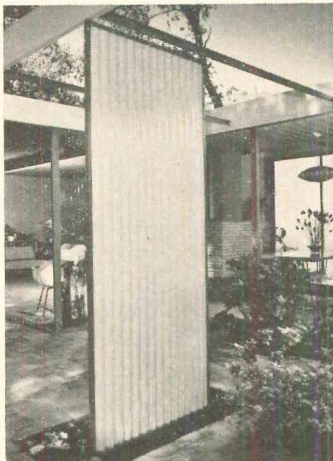


walls

This factory wall in Manchester, N. H., is made of the translucent panel shown at left. The air pockets formed by the aluminum extrusions provide thermal insulation.

Structural panels of polyester can be made to withstand temperatures up to 400°F. and their fire rating can be better than red oak and flame resistant impregnated plywood.

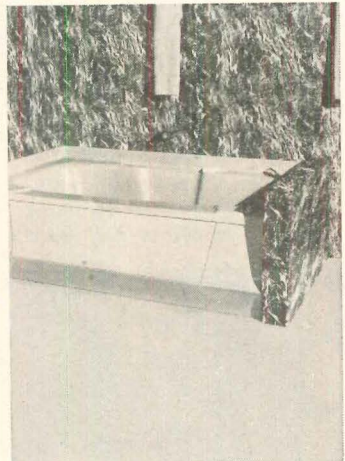
Julius Shulman



translucent panels

Homebuilding's biggest use of polyester is in the translucent, glass fiber reinforced corrugated sheets used for patio walls and roofs. Tensile strengths of the reinforced polyesters can be as high as 50,000 lbs. per sq. in. While their strength is comparable to steel, structural uses of the plastic must be designed with large safety factors, because of creep in the plastic.

Bassons Industries

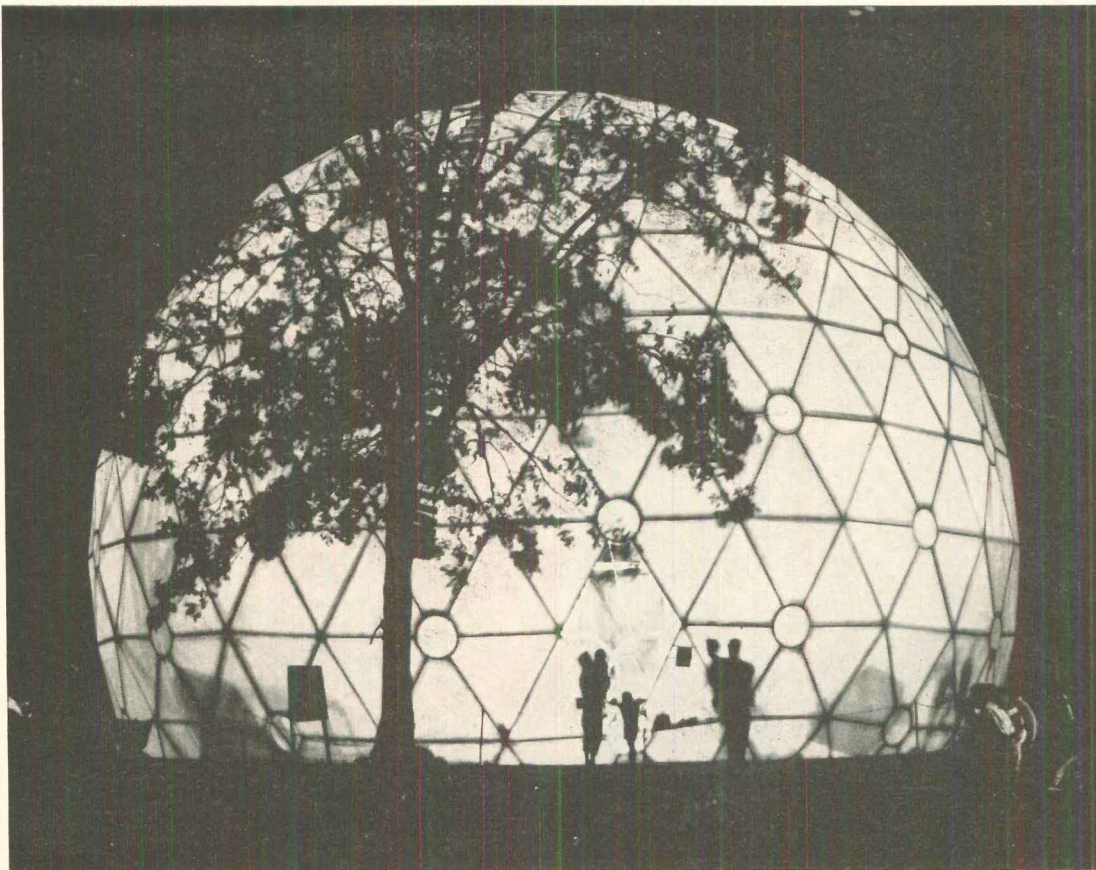


bathtubs

Plastic plumbing fixtures like the bathtub above, are easily formed of reinforced polyester. These lightweight fixtures can be installed by just one man. They withstand boiling temperatures.

While they have a superior surface hardness, they should not be scoured with abrasives. Like acrylic plumbing fixtures their wide use must wait for a scratch-proof surfacing.

Jay Maisel



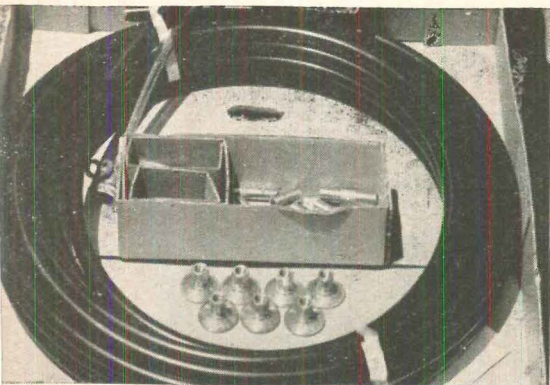
polyester dome

In big domes of plastic, made famous by architect Buckminster Fuller, reinforced polyesters have made their most dramatic impact on the building industry.

As in this Fuller dome built by Lunn Laminates of Long Island, the 363 reinforced polyester sections serve both as enclosure and structure. Flanges formed by the turned-in edges of each molded plastic section are the primary structural members. Secondary structural members are the plane surfaces of the sections themselves.

Designed as a military shelter, the lightweight dome (only 6 tons) spans 55' and towers four stories high. It can withstand wind velocities up to 200 mph and endure very severe weathering.

Reinforced polyesters will very likely be the workhorse of tomorrow's house. They can be formed into shapes from moldable resins by almost anyone with a shop. No heat, no pressure, just simple formwork is all that is required to work with them.



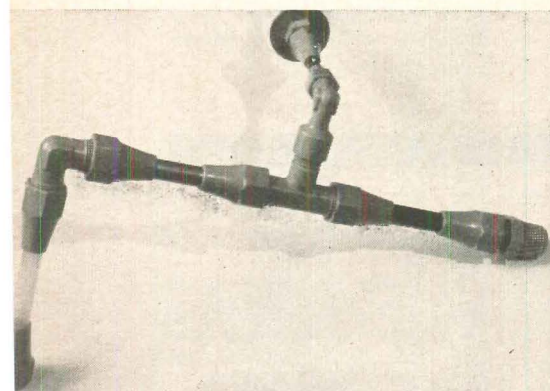
Bakelite Co.

This do-it-yourself polyethylene sprinkler system for 1,400 sq. ft. of lawn lists at \$40 or half metal's cost.



Eastman Chemical Products

Connections for plastic pipe can be made simply with a solvent "weld". No threading vise or dies are needed.



Du Pont

Nylon fittings like these, injection molded, never wear out, cost less than brass for most complex parts.

PLASTIC PIPE, a natural for cold water, may start the next big plumbing code fight

Plastic pipe is already being used where sanitary codes cannot stop its use. For example, railroad train builders use it for plumbing in their newest and finest cars. Factories use it where non-corrosion is important.

Farmers use miles of it in irrigation and water lines. Oil companies use it to lay nine miles of 4" pipe line in five days. Homeowners use it for do-it-yourself underground lawn irrigation systems.

At least one million separately owned potable water installations in the U. S. now use plastic pipe. Its use has expanded from \$500,000 in 1948 to \$45,000,000 in 1955.

But plastic plumbing is so new even the new national plumbing code does not approve it. The only states that now recognize plastic pipe in water supply systems are Maine and California.

For waste lines and cold water lines the only criticisms of plastic pipe are 1) rats can know through it even easier than they can know through copper. 2) Unless properly supported it may sag in vertical runs or under a heavy head of water. 3) Plumbers are not yet

familiar with its use. 4) Drainage fittings, like traps, are not yet on the market. 5) Hot water might possibly get into the cold water pipes if the system is not properly installed.

Advantages the pipe offers are 1) it costs less than any pipe except carbon steel. 2) Fittings are easier, and therefore cheaper, to mold. 3) It is flexible, snakes around corners as easily as wiring cable. 4) Joints are made simply with a solvent; no threading is needed (see photo.)

For hot water, plastic claims less advantages, because high-priced nylon is the only tough and flexible plastic at the moment that will not soften at water temperatures close to boiling. The cheaper heat-resistant plastics like polyvinyl chloride are ordinarily too stiff to take corners without joints.

The one sure thing is that before long some manufacturer will find an inexpensive way to lick the problem. One interesting possibility: polyethylene irradiated with atomic rays. It loses some of its flexibility in the reactor, but can then stand temperatures up to 700° F. Another possibility—polyethylene reinforced with a nylon or Orlon sleeve. DuPont is testing this right now.

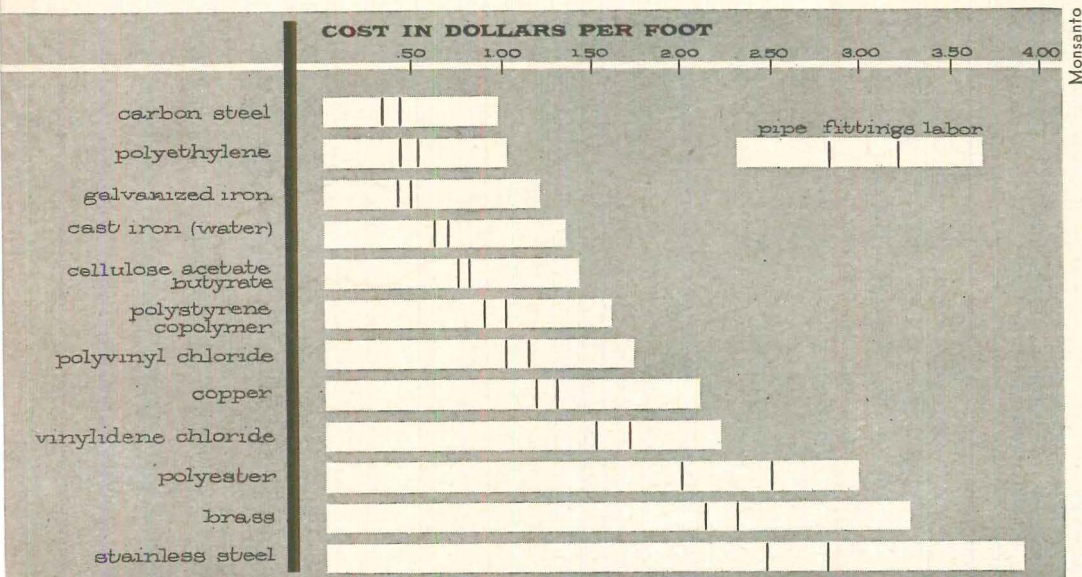
Installed costs

Monsanto claims (see chart) that the installed cost of polyethylene pipe, including pipe, labor and fittings, is less than any other type except carbon steel. It's 50% cheaper than copper, almost 70% less than brass.

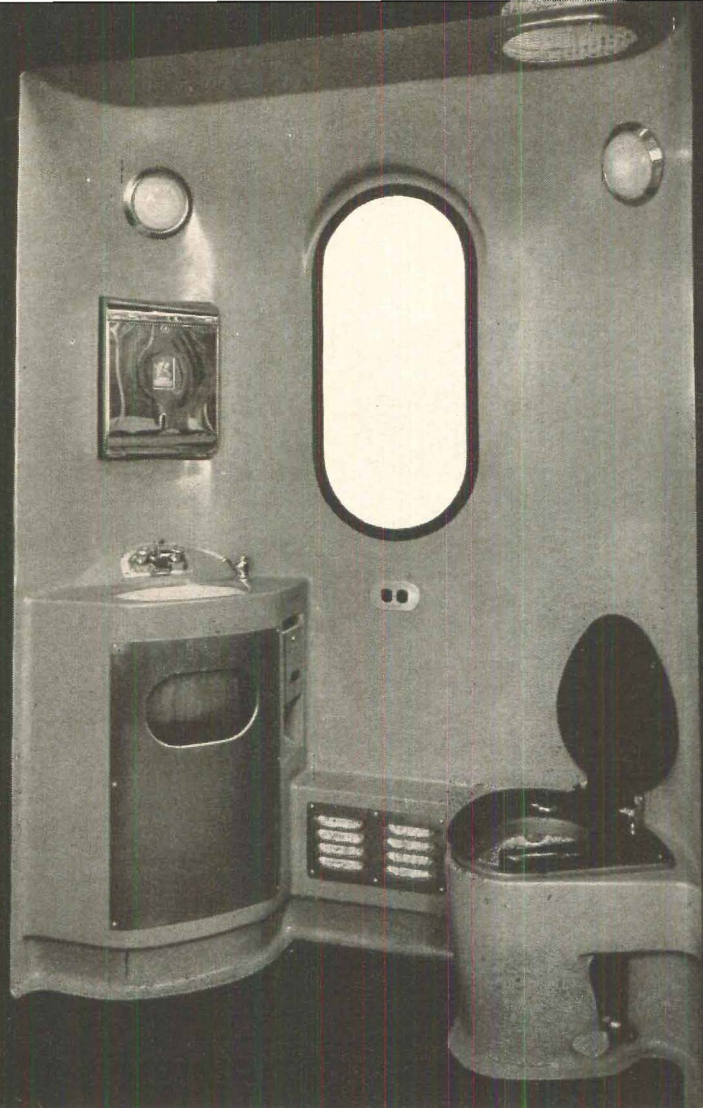
The chart at left is based on using 100' of 2" pipe in 20' sections, three 90° ells, one 45° ell, two tees and two couplings.

Actually the flexible polyethylene pipe would need no ells at all, but for comparative purposes in the chart only the 45° ell was dropped.

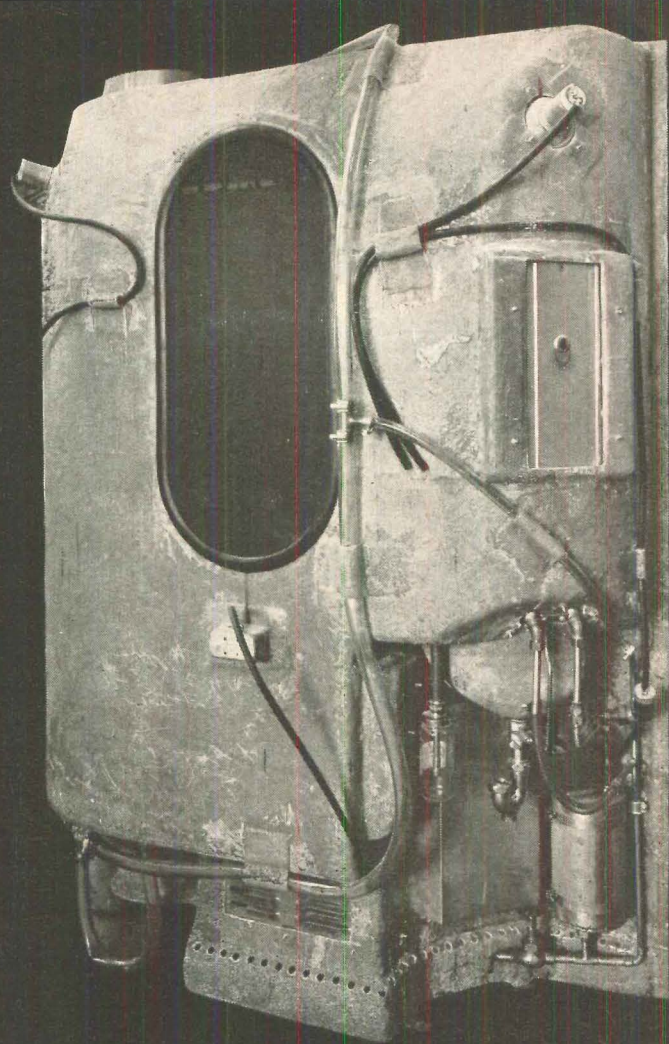
Polyethylene or styrene pipe can also be used in radiant heated slabs: if it softens under boiling temperatures, it is held in place by concrete. Best way to install radiant plastic pipe: tie it to mesh with string and fill with water before concreting.



Monsanto



Lawrence L. Williams



The Budd Co.

This is the all-plastic toilet in the newest lightweight railroad cars

Molded in one piece, walls, ceiling, basin, radiator and toilet enclosure are made of fireproof glass fiber re-

inforced polyester. Basin and toilet bowl are made of the same plastic and fastened to the shell. Plastic

plumbing pipes are connected at the factory. Bathroom is placed in car with minimum of connections.

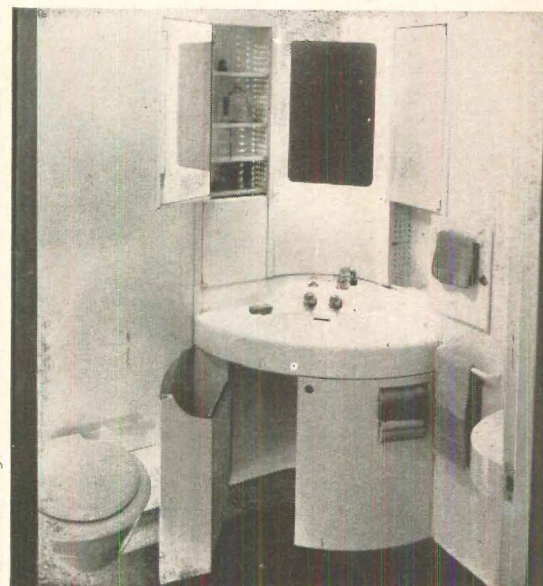
BATHROOMS with plastic walls, plastic fixtures and plastic pipe might cut today's \$30-a-sq. ft. bathroom cost in half

prefab

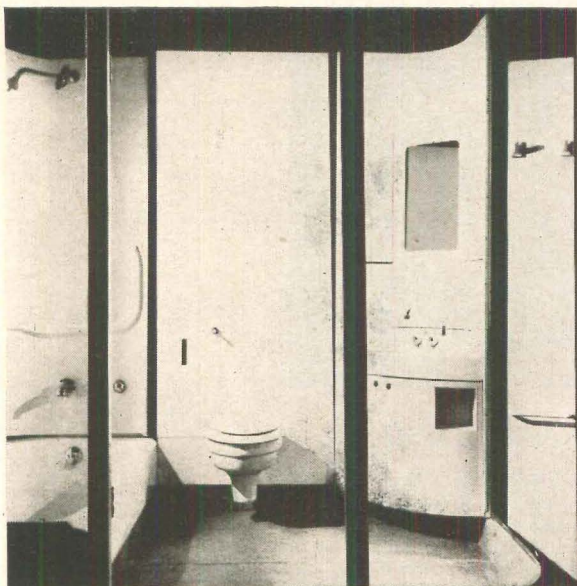
Panelized bathroom designed by Guy Rothenstein, is to be made of reinforced polyester and shipped in a relatively small, lightweight package of 12 pieces—tub, 3 tubs panels, door panel, vanity panel, lavatory panel, 2 more walls panels, floor and ceiling panels and toilet. (This prototype is porcelainized metal.)

Bathroom can be supported on rough floor or joists and does not need support from enclosing wall framing. Surrounding walls can be built before or after installation of the bathroom. Wall panel joints are finished with special filler strips to make them flush.

Installation follows a progression: floor unit is set, then tub and tub panels; the rest of the wall units are placed, ceiling goes in last.



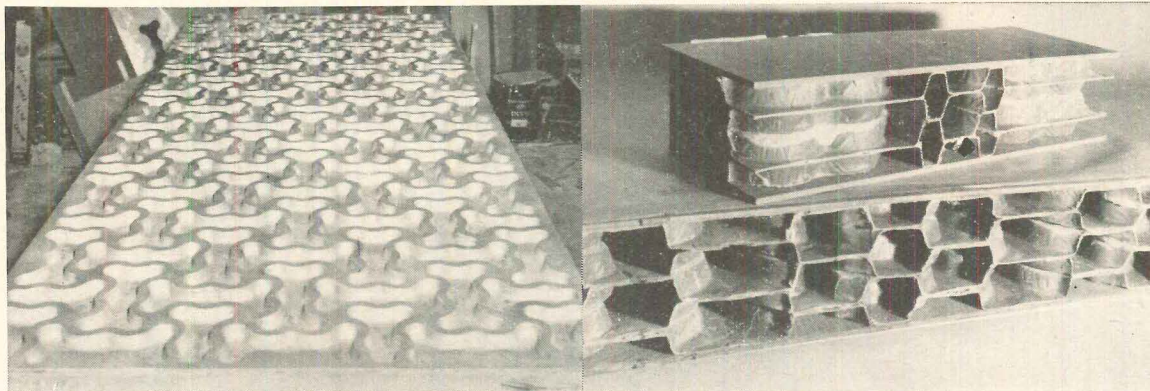
Fiat Metal Mfg.



PANELS—plastic sandwiches for floors and walls

can be fireproof, structural, insulating, easy to move

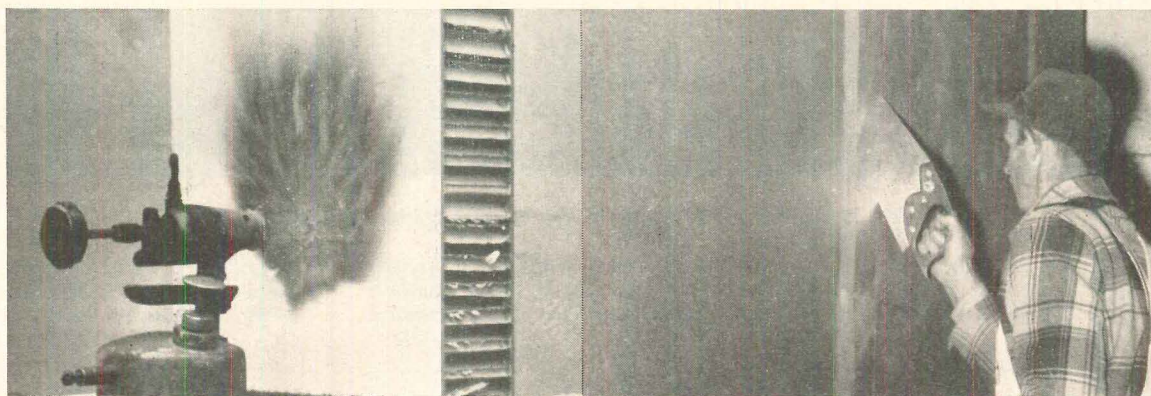
W. B. Wilkins



phenolic-and-paper floor panel

This is American Houses test floor. Strong enough to span 8' x 8', the 4" thick panel weighs less than 4 lbs. per sq ft. "Dog-bone" corrugations let it do double duty as a warm air plenum. A more expensive panel on the same pattern used polyester and glass

fiber. Reinforcing plastics with glass or paper makes them many times stronger. Core is bonded to Masonite facing with epoxy (best but costliest plastic adhesive). Other good plastic adhesives—melamine (expensive), phenolic, urea (cheapest). All are stronger and last longer than protein glues, but urea needs melamine mixed in for waterproofing.



fireproofed with a vinyl film

This five-layer sandwich has a phenolic and paper honeycomb core, Masonite facing on both sides and vinyl surfaces. Sizes are 4'x8', -10', -12', -16'.

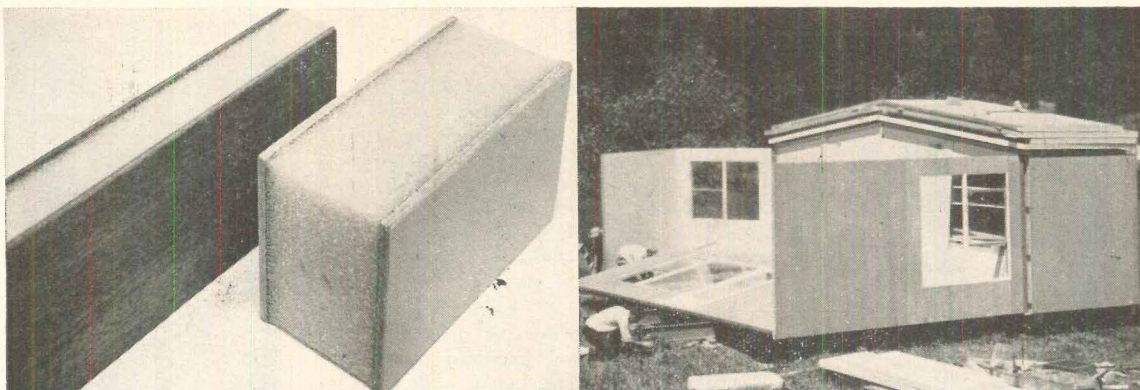
Panel could replace the eight layers of an outside wall—siding, vapor barrier, sheathing, insulation, studs, drywall, spackling and painting.

easy to saw for openings

Whole panels are set in place to make complete shell, and then windows, doors and slots for conduits, outlets and plumbing lines can be cut in place.

The 4" thick sandwich is used for floors, walls, roofs, and on-edge for beams. Designed by W. R. Chance Associates for Stirling Construction, Arlington, Va.

Bruce Elkus

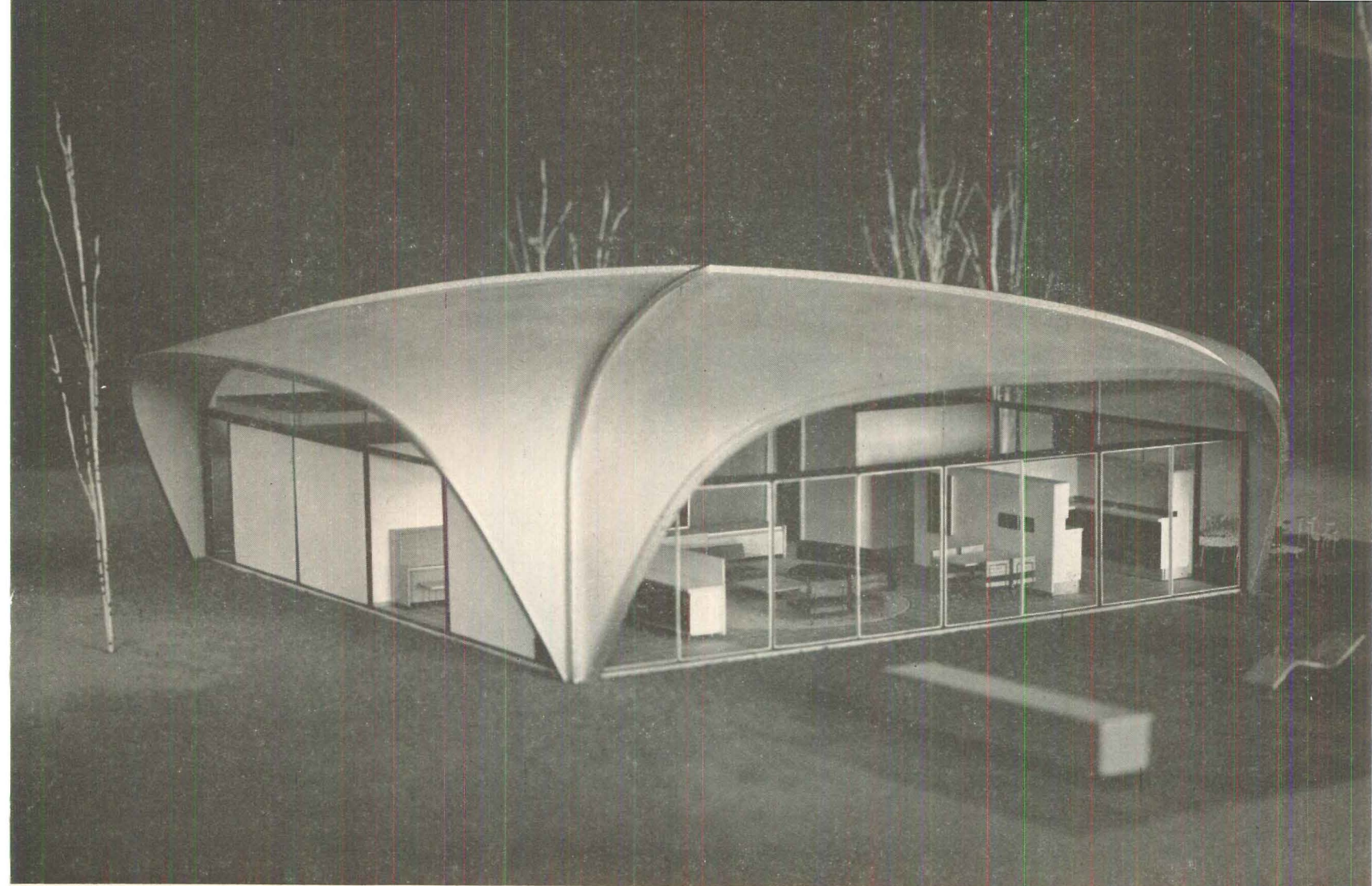


insulating sandwich panel

Panels are moisture and verminproof, won't warp and have a K factor of 0.25. Such a panel can replace everything in the outside wall but structural members. Cores of foamed styrene insulation are faced with wood veneer for interior surfaces and asbestos with reinforced polyester for exterior, span 4' in roofs.

Carl Koch's acorn house

Panels are phenolic paper honeycomb faced with plywood and hinged at the factory in a package which unfolds at the site to make a complete house. Basic package is 8' x 9' x 23' long, folds out to make almost 800 sq ft of house. Erection time is only 32 man-hours, plus 20 man-hours site preparation.



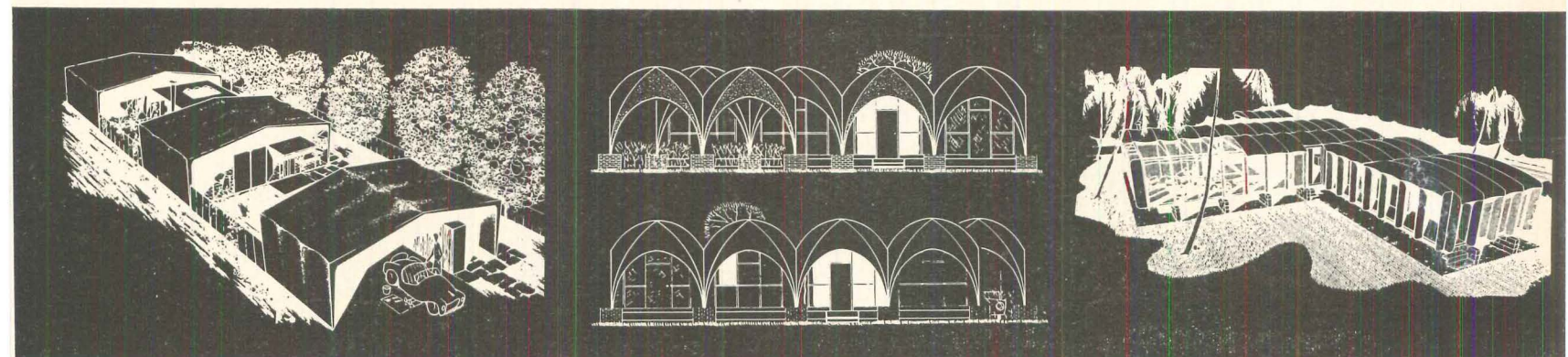
Elliot Noyes

Curving form makes this plastic roof many times stronger

Model shows how four preformed plastic panels can be put together to make a thin shell roof. Panels would have a foamed plastic insulating core faced

with reinforced polyester sheets. Open plan house has 1,700 sq ft and was designed by architect Elliot Noyes for a General Electric research project.

PLASTICS used as plastics will change the look of houses
Here is a new challenge to the architect of today and tomorrow

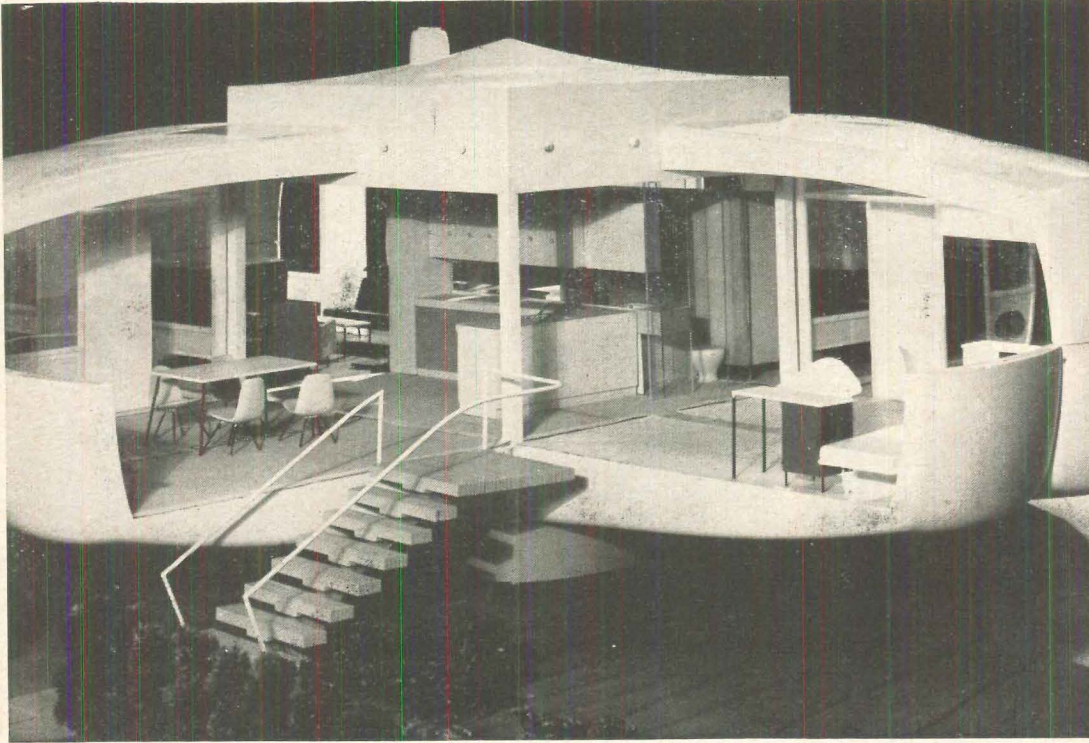


1st prize house, by William Goodwin, MIT, is made of three 34' span, reinforced polyester bents.

Series of four-piece domes, nested for shipping, form roof and structure for house by Allen Dworsky.

Plastic roof and insulation is suspended between plywood templates on plastic frame. J. Miller, MIT.

These designs, here and on the next page, are part of a competition sponsored by the Society of the Plastics Industry and show how young architects think plastic houses may look



This is the Monsanto House

Architects Marvin Goody and Richard Hamilton designed it for almost 100% use of plastics.

Plastic roof and floor sections (sandwiches of reinforced polyester and foamed urethane or styrene insulation) can be stacked (see front cover), plastic foundation (see drawing opposite), plastic wall panels (phenolic paper honeycomb faced with polyester), plastic windows (acrylic in vinyl, styrene or polyester frames), plastic ducts (vinyl or urethane), even plastic columns (reinforced polyester) will be used.

Because plastics bend fairly easily without losing their strength, the lightweight, cantilevered structure is over-designed to get rigidity. If it were just strong enough for its loads, the house would bend and deflect uncomfortably.

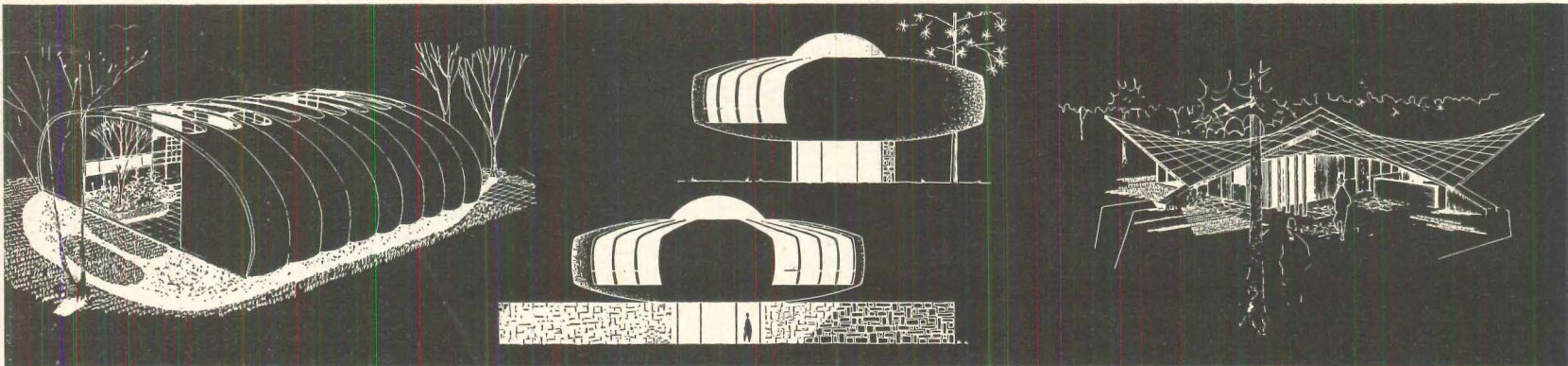
It will be built next year in Disneyland, Anaheim, Calif.

HOUSES of plastic will have many more colors and curves
Use more standard components, need special jointing

Plastics can be economical only if they are used as plastics, in forms and sizes suited to plastics. They will bring curves back into architecture—partly because they, unlike other materials, are so easy to mold, partly because their easily molded arches are stronger and more economical than beams.

They will be more colorful. Some of their colors will be bright and translucent. Others will be dark—for only acrylics, and some special vinyls and polyesters can stand sunlight, unless ultraviolet rays are screened out with aluminum or carbon black pigments.

They will speed up dimensional standardization, for most plastic parts must be sized at the factory where they are molded. They need special jointing systems, for changing temperatures make them expand and contract more than any other building materials.

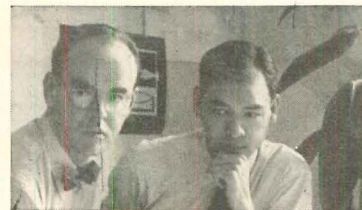


Series of arches with acrylic skylights at top form outside walls and roof of this house designed by Fuhsi Tijan, MIT.

Plastic skin on molded reinforced plastic ribs with acrylic dome at center form round house designed by Eric Bodticer, MIT.

Honeycomb core, reinforced plastic hyperboloids make sweeping roof lines in this house designed by John Napier, MIT.

Only a top flight architect could



John Campbell and Worley K. Wong

give a tract house



Houses planned for a hillside and a view . . .

such style*



. . . have distinctive, simple exteriors and good plans



Dramatic entrance displays the architects' simple and sure showmanship.

The wide overhang does much more than shield the entrance from the weather; it makes the doorway seem more important, and it ties the garage into the design. (See also small picture above.)

The wood strip pattern and handsome hardware are doubly effective with an unpaneled door as a foil, and the planned planting softens the precise lines of the doorway.

Builder: The Wm. Blackfield Organization.

Location: San Francisco.

Decorators: (for the downhill house, pp. 144-147) Frances Baer; and (for the uphill house, pp. 148-149), George Smith.

These are the first builders' houses designed by San Francisco's famed architect firm of Campbell & Wong. The houses were built on tiny lots winding around the foot of a steep hill that overlooks a magnificent view.

The architects took the job at a low fee because they wanted to break into the builder market. They designed four models at \$500 each (plus \$50 a house royalty), included eight color schemes and advice on furniture.

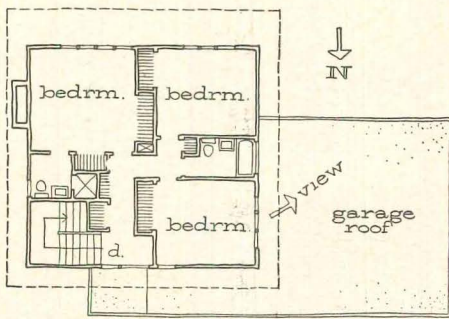
Of course, this was a one-time bargain. Now they are getting \$1,500 for each model plus \$100 a house royalty on their second builder job—a tract of 200 houses. But this fabulous buy sums up why a good architect is *always* a good investment.

Before half the houses could be built all but four of the projected 40 had been sold—at prices from \$25,000 to \$27,000!

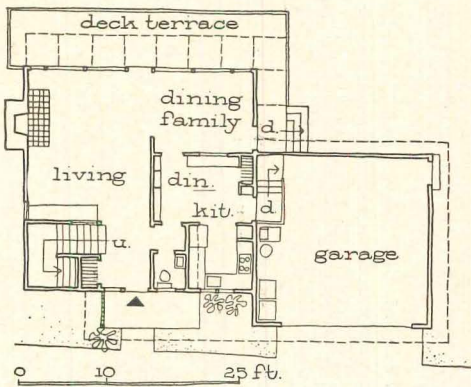


And it cost the builder only \$80 per house!





Two-story plan lets every room in house share wonderful view. Only a two-story plan could squeeze a 1,680 sq. ft. house, 350 sq. ft. terrace, plus a double garage on tiny steep lots. Houses had to be close to street, with deck instead of terrace in rear. Storage has extras like broom closet on each level, canned-goods closets near kitchen. Good traffic: kitchen is near garage; second full bath between two smaller bedrooms.



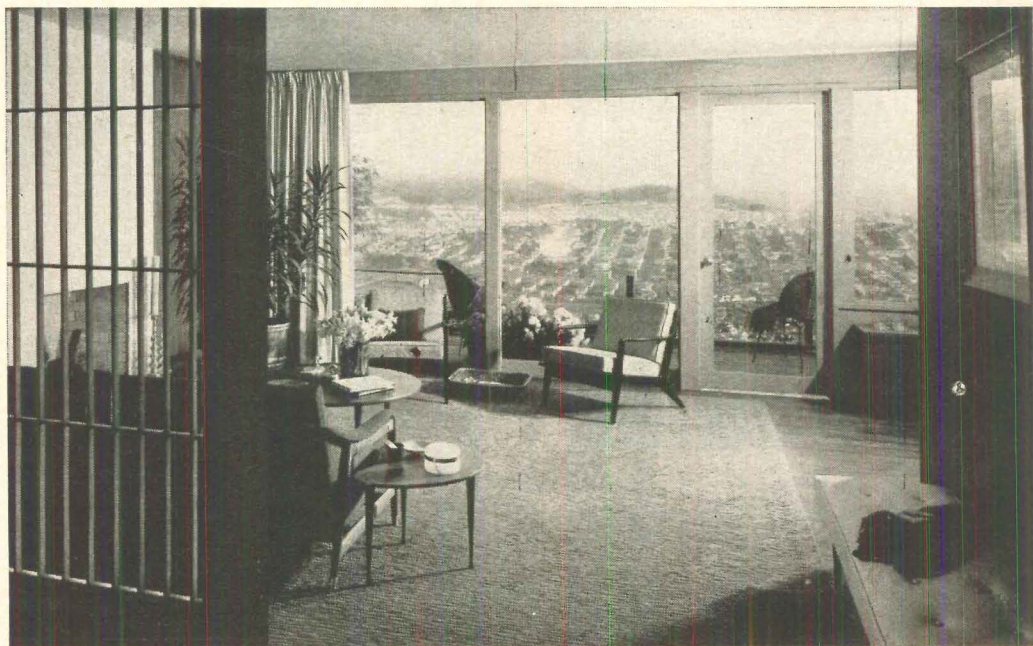
Rooms flow into each other and out onto the deck through wall to wall glass. Simple masonry fireplace sets off rich wood paneling. Fireplace is treated simply so it doesn't compete with the impact of the view. Small-scaled furniture makes room seem bigger inside. A second door to the deck (not shown) provides access to dining-family area, should the family decide to partition it from the living room.

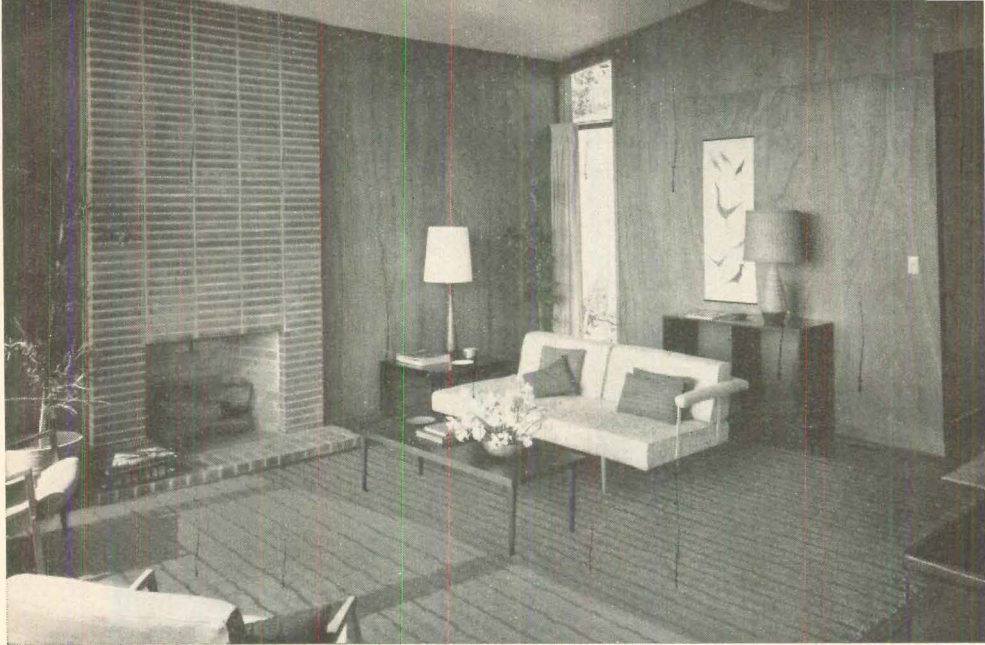
Only a top flight architect could

give a tract house such livability

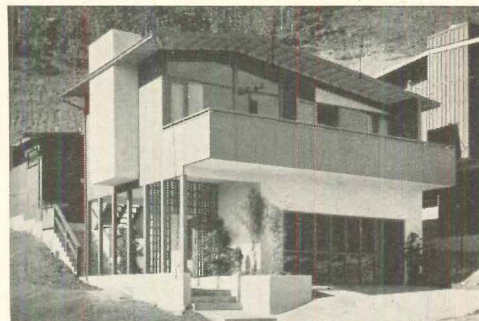
➡➡➡
Living room stretches through glass as far as the eye can reach. It is separated from the entrance hall by an open screen, which separates areas without setting limits.

←←←
Sun deck cost a lot less than a terrace would have on the steep hillside. It substitutes for terraces which site made impractical, extends living area. Shadow frame above can support vines, plastic panels, bamboo or canvas to shade big windows.

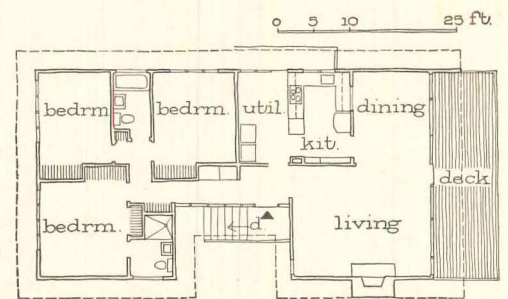




← Oriental serenity of the living room comes from skillful integration of its elements. The tall, narrow window, for instance, does two things: it "raises" the ceiling, making the room seem bigger, brings light into a dark corner. It is easy to arrange furniture in a room like this with plenty of uncluttered wall surface and a striking fireplace as focal point.



Exterior is painted in contrasting tones to cut height. Chimney is described on p. 169. Cantilevered deck shields living room from street. This is model; office subs for garage.

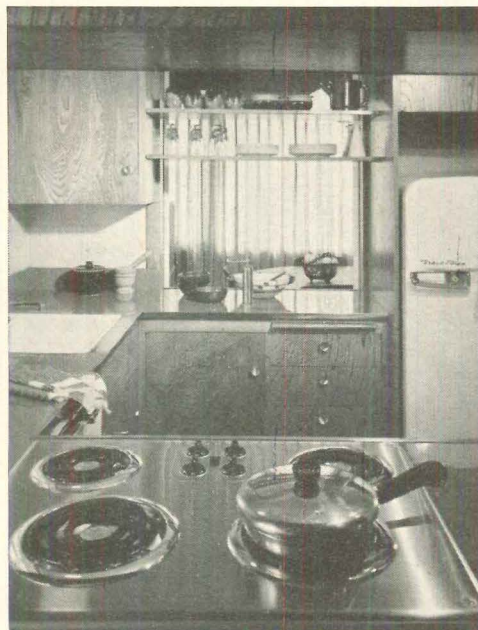


On uphill side, living room had to perch on top of garage to get the view, so architects passed up two-story plan (which would have put bedrooms two full flights up).

Only a top flight architect could vary the basic model with the same good looks and bright ideas

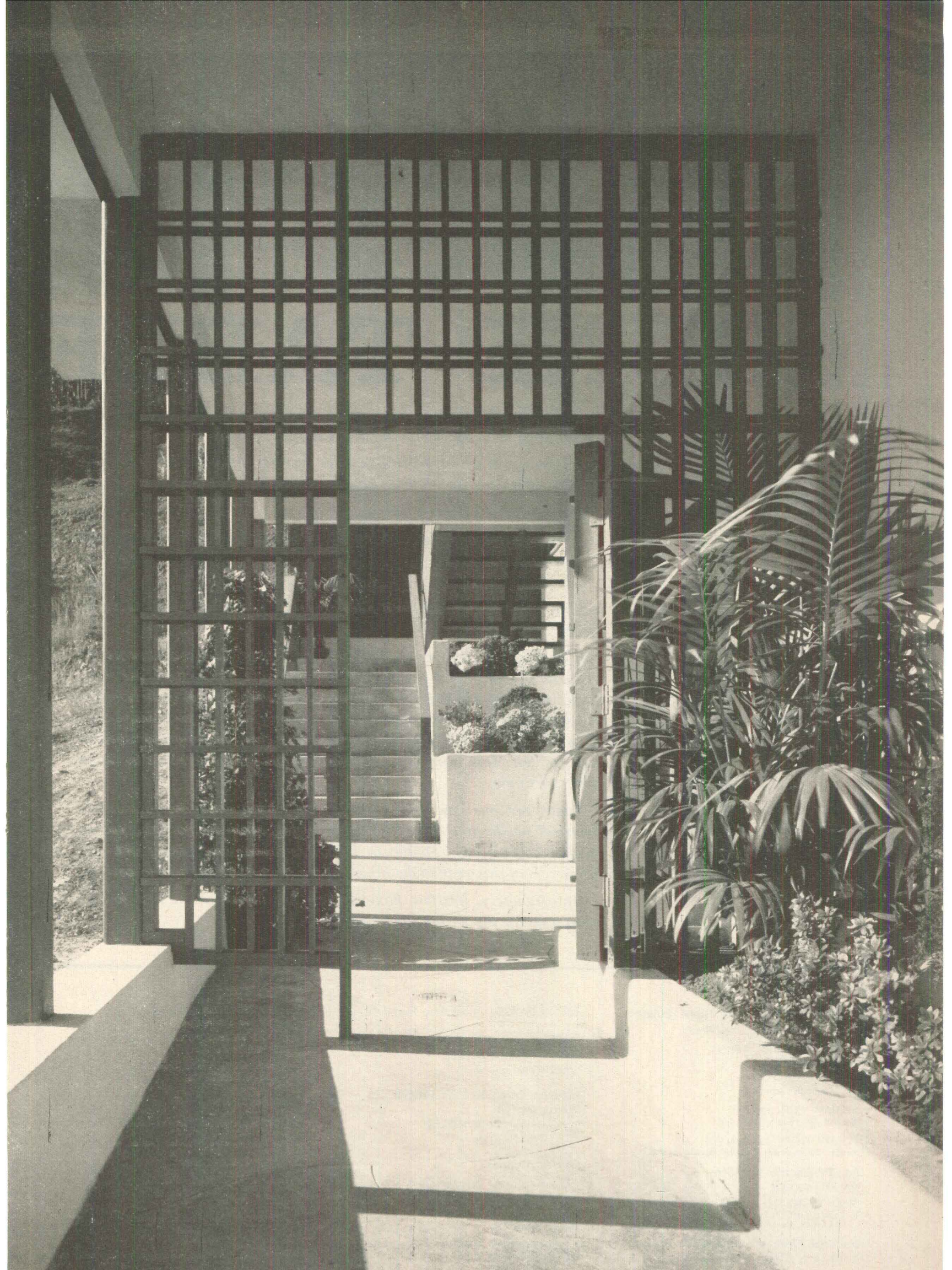


Pass-through between kitchen and dining room can be completely closed when desired. Full length doors are formal, in keeping with the formal character of the dining and living areas.



← The compact kitchen fits appliances and 15' of counter space into an economical U-plan. And it gets the view through the open pass-through. Cabinets up to the ceiling hold infrequently used items as well as daily-use utensils. This picture was taken from the adjoining laundry area, which does double duty as an informal eating space. Corner cupboard at left of range counter opens into the utility room.

Walking into this house is an occasion—and the first step toward a house sale. The covered walk promises relaxed, comfortable living—a promise fulfilled by the architects. →





ROUND TABLE

Here is the report of
an industry Round Table
on wiring costs
jointly sponsored
by House & Home
and the Research Institute
of NAHB

Adequate wiring costs a lot more to add after a house is finished than it costs to install while the house is being built.

It costs so much more to add later on that FHA, VA, and all other appraisers in their new house valuations should:

1. *Penalize inadequate wiring*
2. *Encourage adequate wiring by giving full credit for its reasonable cost.*

It costs so much more to add later on that FHA should require less income rather than more (as it does now) to buy a house with adequate wiring.

It costs so much more to add later on that home buyers are penny wise and pound foolish not to insist on adequate wiring from the start, even if it should add \$100 or even more to the first cost of their home; it will save them a lot more than that in the long run. In fact, home buyers would be smart to demand wiring more than adequate for today's uses, for ten years from now the average home will use twice as much current as now.

Today not one new house in five gets wiring adequate for today's electrical needs; not one in ten gets wiring adequate for tomorrow's much greater needs. Sooner or later this inadequate wiring will cost the buyers of this year's new houses more than \$100 million to correct.

Unfortunately, too few home buyers are informed enough to pay extra now for the wiring they need, so . . .

National Association of Home Builders

RALPH JOHNSON, technical director

DAVID SLIPHER, past chairman
Research Institute

ERNEST ZERBLE, chairman
Small Builders Committee

WILLIAM WEIST, engineer
Place & Co., South Bend, Ind.

EDWARD REGAN, vice president
Hughes Development Co., Wichita Falls, Tex.

Edison Electric Institute

EDWARD GEORGE, chairman, Wiring Prom. Com.
FRANK KITZMILLER, manager, house power program
T. O. McQUISTON, chairman
executive committee, commercial div.

National Electrical Contractors Assn.

CHARLES P. BOBE, chairman, research & education

JOSEPH D'ANGELO, North Shore Electric Co., L. I.

National Adequate Wiring Bureau

CARL BREMICKER, chairman
JOHN BIGGI, manager

Industry Committee on Interior Wiring Design

HOWARD STEVENSON, chairman
H. H. WATSON, engineer

Electric Utilities

CARL BREMICKER, vice president
Northern States Power Co.

EDWARD GEORGE, vice president
Detroit Edison Co.

T. O. McQUISTON, vice president
Metropolitan Edison Co.

LOUIS A. SCOFIELD, vice president
Consolidated Edison Co.

HOWARD STEVENSON, asst. mgr. of operations
Detroit Edison Co.

JAMES O. COVINGTON, mgr. adequate wiring bureau
Consolidated Edison Co.

Manufacturers

Arrow Hart & Hegeman Electric Co.

P. C. SMITH, executive vice president

Bulldog Electric Co.

WILLIAM H. FRANK, president

Carrier Corp.

WILLIAM McGRATH, chief engineer

Frigidaire

JOSEPH M. RUSHTON, supervisor, major dealer sales

The more we cut the cost of adequate wiring the sooner all new houses will provide it

And the plain and simple fact is that:

Most houses cost much more than they need to cost to wire for their present electrical capacity and many houses could have adequate wiring for little if any more than today's average cost of inadequate wiring

Builders and architects say this too high cost is not their fault—they leave the wiring to the electrical contractor and take the lowest bid. Electrical contractors say it is not their fault—they do the job as cheaply as they can with the materials and methods they know—if their local code allows them. Manufacturers say it is not their fault—they make what the contractors order and often they have tried in vain to market more economical devices.

In brief, this too high cost is nobody's fault and so it is everybody's fault. It shows up a serious failure of team work between the electrical industry and the home building industry. It shows up a serious failure of industry communication.

And the end result is that, after 30 years of almost unbelievable electrical progress, most new houses are still wired with many of the same methods and devices as houses built a generation ago. The use and acceptance of better wiring systems has fallen far behind the soaring use and acceptance of the electrical appliances which make better wiring essential.

There is a better way—and often a lower cost way—available today for every step in wiring the house. There are better materials and better devices—but too often manufacturers do not push them, distributors do not stock them, contractors do not know them. There are better methods and better systems—but architects and builders do not plan for them or specify them, contractors do not push them and often do not know them, appraisers do not encourage them and backward local codes do not permit them.

So today anyone who insists on wiring a house the most efficient and economical way must *pay not less but more*, because contractors bid high on unfamiliar specifications, journeymen work slower on unfamiliar methods and much of the material and devices must be bought on special order!

The sooner we can get these better methods into general use the sooner this general acceptance will let us realize the savings they should offer.



BIGGI: *The first advice I would give builders is to do more preplanning in the wiring layout.*



STEVENSON: *A builder can almost always save money by giving careful thought to his wiring.*



COVINGTON: *The wire is cheap. It's the labor that's expensive.*



BOHE: *Labor is three-fourths your job—material is one-fourth.*



SLIPHER: *What goes into a house is determined by whether it can be financed.*



JOHNSON: *Big reason wiring costs are important is that FHA sets a limit on what people can pay for a house.*

General Electric Co.

CONSTRUCTION MATERIALS DIV.
C. HOWARD BLACK, general manager
H. H. WATSON, commercial engineer
TRUMBULL COMPONENTS DIV.
W. W. SMITH, product planner
ROBERT DORSEY, advertising manager
MAJOR APPLIANCE DIV.
GEORGE T. BOGARD, manager, utility relations
LARGE LAMP DEPARTMENT
J. C. FORBES, manager

Leviton Manufacturing Co.

H. LEVITON, vice president

Pass & Seymour Inc.

V. R. DESPARD, vice president

Pyramid Instrument Co.

MARTIN SCHWARTZ, sales manager

Square "D" Electric Co.

F. H. ROBY, vice president-sales
Electric Controller & Mfg. Co. Div.

Wiremold Co.

JOHN D. MURPHY, president

National Bureau of Standards

R. L. LLOYD, head, Safety Codes Group

National Electrical Inspectors Assn.

JOSEPH E. HAGENDORN, past president, eastern section

N. Y. State Building Code Commission

FRED MAYGLOTHLING, assoc. bldg. electrical engineer

Consultants

CARL BOESTER, housing consultant
Purdue Research Institute

JAMES T. LENDRUM, director
Small Homes Council, Univ. of Illinois

FHA Observers

NEIL CONNOR, director, Architectural Standards Div.
FRED McGHAN, Architectural Standards Div.

VA Observer

ROY FUNK, architectural engineer

Moderator

P. I. PRENTICE, editor & publisher
House & Home



ROBY: *We electrical manufacturers are fighting codes in all parts of the country for a chance to furnish less expensive equipment.*



RUSHTON: *We face a continuous pressure to give more for less.*



BREMICKER: *An extra \$50 spent for better wiring can save homeowners a lot of money later on.*



REGAN: *In my part of the country it just is not true that home buyers will pay \$70 extra to get adequate wiring.*



E. O. GEORGE: *Consumer education to demand better wiring will help help trim down its cost by creating a greater market.*



KITZMILLER: *Many utilities are glad to provide a free wiring check-up.*



T. O. MC QUISTON: *Better wiring standards and techniques are in the public interest.*



FORBES: *Better lighting was the first reason for wiring the home.*



FRANK: *Surface wiring offers both flexibility and convenience.*



SCOFIELD: *Adequate wiring must start with an adequate service entrance.*

To cut the cost of adequate wiring we have a big teaching job to do

The electrical manufacturers and utilities have launched a fine educational campaign to teach the public to insist on adequate wiring for adequate *housepower*. Now we need an equally effective campaign to teach every one in our industry how to provide that adequate *housepower* at the lowest possible cost.

Today the National Electrical Contractors (NECA) are the only national organization sponsoring a nation-wide effort to spread the know-how needed to get better wiring for less money. They conduct a good educational program in many cities, but it reaches only their own members. It does not reach the builders, or the architects, or the dealers, or the appraisers.

Everybody learns best and fastest by seeing, so one excellent way to teach economy in good wiring would be to wire demonstration houses in which architects, builders, appraisers, electrical contractors, and electrical dealers could all see with their own eyes what is needed and how to do it. The Research Institute of the National Association of Home Builders has suggested making houses under construction available for such demonstrations in each of the 262 cities where NAHB has a chapter. This is a fine offer.

But before those demonstration houses can be wired we need a wiring economy primer, setting forth clearly and simply the best methods and materials to get adequate wiring at minimum cost. No such primer has ever been written, so we are including such a proposal in our report.

To cut the cost of adequate wiring we need wiring-wise appraisers

The merchant builders (who now build five new houses out of six) seldom spend a dollar for anything the appraiser will not recognize and add to their valuations; they seldom spend a dollar for anything the mortgage lender will not approve and finance. Any other costs must be added to the down payment and builders have learned the hard way that whatever adds to the down payment hurts their sales instead of helping them.

That makes it essential that appraisers should learn a lot more than they know now about what adequate wiring ought to cost, so they will stop discouraging adequate wiring with inadequate appraisals.

Appraisers must learn the difference between good devices that will last and cheap devices that will soon give trouble. They must learn to give full credit for money wisely spent to make future wiring additions cost less. Conversely, it would be a fine thing if they could stop subsidizing waste (as they now do) by giving higher appraisals to cover the cost of useless features required by backward codes—features that add many dollars to the wiring cost without adding a penny to its value.

We could achieve adequate wiring in all new houses almost overnight if FHA, VA and all other appraisers would announce a policy of knocking \$50 off the valuation of any small house that does not qualify for an adequate wiring certificate and adding \$50 to the valuation of every small house that does.

To cut the cost of adequate wiring we must find ways to save on labor

Every industry in America is heading into a very difficult shortage of all kinds of labor to meet the needs of our fast-expanding economy. The electrical industry is among the fastest-expanding segments of this expanding economy so the shortage of skilled electricians will soon be very serious indeed; it is already bad in many areas. The US labor force is growing only 1.3% a year. The demand for electrical equipment and electrical wiring is growing at least ten times that fast.

It is foolish to think we can find enough electricians to install adequate wiring by present methods in the 2,000,000 homes a year we will have to build in the mid-Sixties. Right now it is doubtful if we could find enough electricians to install adequate wiring by present methods in the 1,200,000 houses we hope to build this year. And if the adequate wiring campaign were to catch on in a big way and bring a heavy demand for adequate wiring in the 40,000,000 homes now inadequately wired we would find ourselves in a really impossible mess and have to admit the job could not be done.

So economy of labor must be the first purpose in any rethinking of how to provide adequate wiring more economically. Economy of labor will almost automatically spell economy of dollars too, for labor costs more than the materials used to wire a house.

Many local electrical codes and many labor practices in wiring are designed to require as much local labor as possible. *The growing shortage of electricians makes it more important than ever to change these codes and practices before it is too late.*

It takes a skilled electrician to wire a house safely. But today too much of the work the skilled electrician does in the average house is work any high school sophomore could do—like drilling 200 holes in the framing or tightening 800 screws at switches, outlets and other devices.

To cut the cost of adequate wiring we need new easier-to-use devices

With today's molds, machines and methods almost everything can be done better and cheaper in the factory than in the field. To profit on this economy we need many new wiring devices engineered to save the installing electrician's time.

There is no use expecting electricians and builders to figure out what these devices should be or how they could be made for the same cost as today's harder-to-connect-up devices. This is a challenge only the manufacturers can meet, for only the manufacturers know their own production economies, only the manufacturers have the nationwide volume needed to spread the cost of such a research and development program and only the manufacturers have a big enough profit incentive.

Not enough manufacturers are meeting this challenge. Too many manufacturers are waiting for the electricians to demand new products instead of taking the initiative.

Our two-day Round Table gave us too little time to list all the new wiring parts we need. Here are a few of the most obvious items:

No manufacturer we know makes the easiest-to-install devices for convenience outlets on the 3-wire circuits whose general use the Adequate Wiring Bureau recommended more than a year ago. No manufacturer makes a low cost duplex receptacle in such a way that it can be connected with one outlet on each circuit by just pushing three wires in from each side. No manufacturer makes the device we need to take off a tap without a splice by just pushing the wires into prewired connections in the nearest outlet box. No manufacturer makes the right outlet box for such a tap. No manufacturer makes a three-wire device with its terminals arranged for wiring straight through from both sides—the easiest way for the electrician to wire a convenience outlet on a circuit run through the studs at a base plug level. And no manufacturer makes the right outlet box for such a device.



LENDRUM: In Chicago squeaky floors are standard because the electrical code requires rigid conduit.



SCHWARTZ: On a three-way switch low voltage should cost less.



MURPHY: I hate to admit that the electricians and builders don't know what we are making.



WATSON: Soldering is an archaic method of making connections, but it's still required in some areas.



DESPARD: We'll develop devices for 3-wire circuits.



BLACK: About 25% of the devices we sell are pressure locked.



LEVITON: The pressure lock connection is the biggest wiring advance in 25 years.



CONNOR: Should FHA outlaw No. 14 wire? Should FHA require a 3-wire system?



MCGRATH: What would it cost if you just outlawed No. 14 from the house?



P. C. SMITH: It costs more to make a quiet switch because it uses silver.



D'ANGELO: It could be cheaper to use aluminum wire to the range.



MAYGLOTHLING: What do you do about portable appliances?



BOESTER: With all these new cooking gadgets cooking will soon be done all over the house—not just in the kitchen.

Here is a brief and simple primer telling how to wire better for less

There is a better way, a better method, a better device, a better size for every step in wiring the house—by this we mean, a more efficient way, a more economical way, a way to provide more adequate current either at a lower cost or at minimum added cost.

Here are 34 specific recommendations that should be followed in almost every house but all too seldom are.

Most of them will cut the first cost of wiring. A few would increase the first cost to save four times as much later on.

Taken separately, many of the separate savings can be counted in pennies. But taken together they add up to a new planned approach to wiring economy—a new approach that should provide adequate wiring at a cost lower than most builders now pay for inadequate wiring.

The key to this saving is teamwork and preplanning to do everything in the easiest way with the easiest-to-wire devices with the least waste of time, labor, and materials.

By the definition of "best" offered in the opening paragraph above:

best conductor to use from entrance cap to entrance box is 3 wire No. 2 service entrance cable.

In a one-story house it takes only a few minutes longer to install and costs the contractor less than \$10 more for materials than the 3 wire No. 6 still often used. The 3 wire No. 6 is so small it must be replaced at a cost to the home buyer of not less than \$40 to meet any major increase in demand, like an electric range or an electric dryer plus an electric water heater.

All these costs are four times as big in areas where rigid conduit entrance wiring is required.

best entrance box size is at least 100 amp. which is the minimum standard of the Adequate Wiring Bureau. In some makes a 100 amp. box costs no more than a 60 amp. box for the same number of circuits and a 150 amp. box costs the contractor less than \$1 more.

If the original entrance box is not big enough for future needs it will cost the home buyer from \$15 to \$60 (depending on his city) to install additional entrance equipment later on.

best service and distribution panel to use in most houses is the split-bus type, in which major appliance branch circuits and feeders up to a maximum of five are taken off ahead of the main lighting disconnect.

This saves money in three ways:

1. The split-bus costs less than any other device that can handle today's heavier loads (up to five heavy appliance branch circuits and ten single pole general purpose branch circuits).
2. It ends the need for a single main switch or circuit breaker, saving its entire cost (which may be anywhere from \$6 to \$60).
3. It is easier to make all the connections in one box.

The split-bus panel has been permitted by the National Electrical Code since 1937 and is now accepted by all progressive local codes. With circuit breakers it can be bought with only the take-offs needed for the initial wiring; the blank positions

can be filled with the right sized breakers as additional circuits are added. With fuses the same flexibility will soon be available. The panel box should be so designed that the electrician can see at a glance where to connect the neutral for each circuit.

The old "main, range and four" is quite inadequate for today's wiring needs; so most contractors install more than one. A pair of too-small boxes with fuses costs them about \$9 less than a single split-bus panel the right size, but their installed cost is quite a bit higher.

Despite their economy—both immediate and long range—split-bus panels are being used in only one house in ten.

best place for the entrance box is as close as possible to the center of heavy loads (range, water heater, laundry).

best way to wire a rear kitchen-utility area is to run a 3-wire No. 4 feeder to a rear load center from the service entrance which should be located at the nearest point in the front of the house (3-wire No. 6 is enough if cooking is never to be electrical). This will permit very short branch circuits in the appliance area. At trade prices 20' of 3-wire No. 4 costs the electrical contractor less than \$8; an 8-circuit sub-panel costs the contractor about \$11.50.

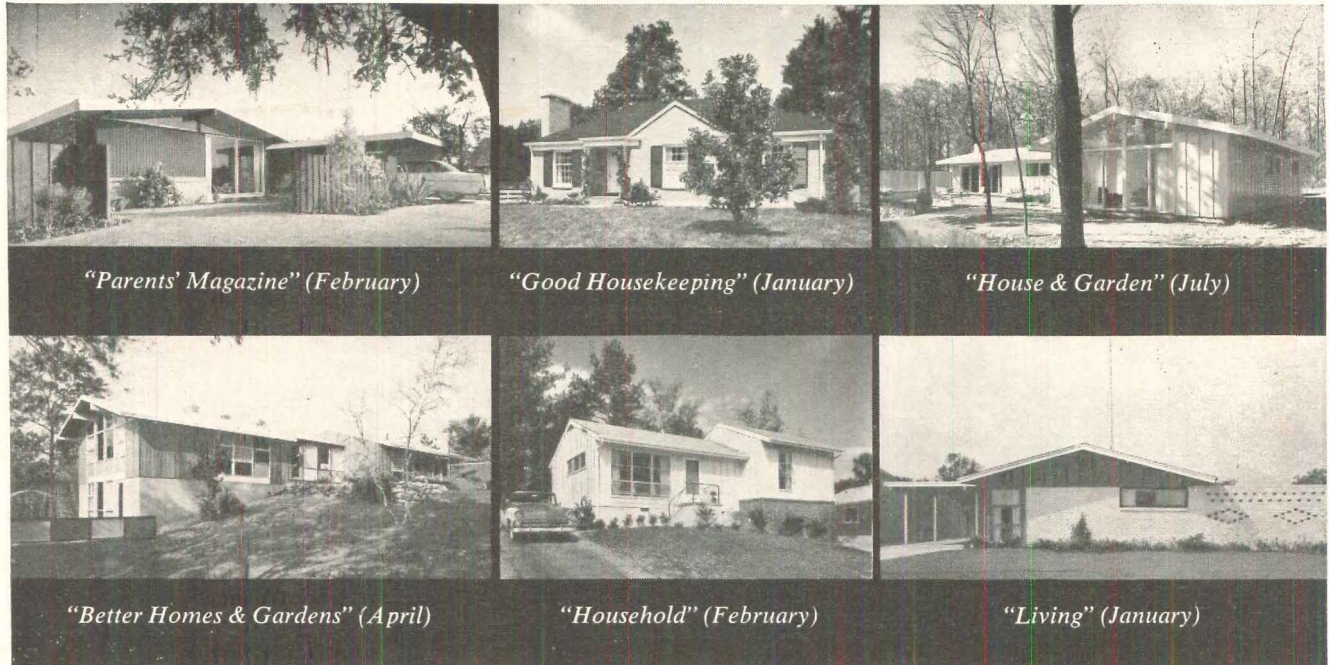
Today not one rear kitchen house in 100 takes advantage of this economy.

best way to wire a house is with non-metallic sheathed cable (like Romex) because its installed cost averages about 15% less than any other. Second best is armored cable (BX) which does offer the advantage of an automatic ground. Third is knob-and-tube,* the way homes were wired

Continued on p. 174

** In a knob-and-tube area like the Pacific Northwest you can get lower bids for knob-and-tube than for Romex, because local electricians are accustomed to it. But that does not alter the proven fact that where workmen are equally skilled in different systems Romex is substantially cheaper to install. Knob-and-tube is the best system if the house is likely to be flooded, but it is likely to make trouble where insulation is blown into the walls.*

The shelter magazines know that, more and more...



people no longer build houses ...

...THEY BUY THEM

Today not one house in six is custom built and the percentage of custom built houses gets smaller and smaller as the merchant builders call in architects, get better design and move up into the higher priced field.

So this year the shelter magazines have been giving more and more space to ready-built houses—what to look for in a ready-built house, how to give individuality to a ready-built house, how to decorate a ready-built house, how to live in a ready-built house.

For example, take a look at the houses shown above: *Parents' Magazine* featured a Stern & Price house built in Cupertino, Calif.; *Good Housekeeping* showed a house built by John A. Walser in St. Matthews, Ky.; *House & Garden* featured a Scholz prefabricated house built by Seamen Construction Co. in Princeton, N. J.; *Better Homes & Gardens* featured a Carl Koch Techbuilt house in Cambridge, Mass.; *Household* ran a house built by Thomas Northcutt of Nordec, Inc., Cobb County, Ga.; and *Living* showed a house from Robert Gerholz in Flint, Mich.

Photos:
Ernest Braun
Wm. Howland
Andre Kertesz
Lisanti, Alderman
Rodney McCay Morgan
Luis Lemus

This month, *American Home* has a story on how to live in a tract house and like it (see page 158); *House Beautiful* gives eight pages to its idea of how to decorate a fairly typical tract house (see next page).

This is how *House Beautiful* would decorate Andy Place's model

Photos: William Howland



Dolled up by "House Beautiful," the Place model shows results of \$1,200 worth of landscaping and individual color schemes.

Who would ever dream this is a builder's tract house?



BUILDER: Place & Co., Inc.
DESIGNER: William Weist
LOCATION: South Bend, Ind.



Custom-house touch of wood paneling (used in family room (left) and also in formal living room) costs only \$300, does a lot to style up the house.



The family room doesn't look like yesterday's "rumpus room." But asphalt tile floor, wood paneling will take a lot of wear. Warm wood tones are shown off by blue ceiling and fabrics.

Blue, used in master bedroom, living and family rooms, helps to unify the decorating plan. Bedroom looks bigger because of its one-color scheme.

How to live in a tract house—and like it

“Basic living expenses should not and need not eat up all your money.”

That’s why it makes sense to buy a tract house, says the September *American Home*. By way of contrast, the magazine first cites the case of two young couples who *don’t* live in a development.

The first couple won’t settle for less than their dream house. They have been looking for it for five years without finding it. Meanwhile they “make do” with an inadequate house that limits their living.

The second couple have their dream house and a mortgage to match—so they “make do” with an inadequate budget and a huge debt.

But a third couple who did buy a tract house have now had seven happy years in it. The cost was low enough to leave them money for extras like trips, theatres. So *American Home* gives you two reasons for buying tract houses:

You get a house you like for a price you can spend—and you get it *now*.

“American Home”—Fairchild Aerial Surveys



What “American Home” tells 3,000,000 readers to look for

Good builder: “A builder with a good reputation who has an architect design his homes is one of your best guarantees.”

Good floor plan: “Space, privacy and efficiency. It shouldn’t be necessary to walk through the living room to get from the kitchen to bedrooms and baths.”

Good rooms: “Door and window locations should allow easy furniture arrangement. Bedrooms should have cross ventilation.”

Good storage: “Check for ample closet space, space for linens, a big guest closet, a cleaning closet, an area for long-term storage.”

Good kitchens: “Look for a kitchen large enough to meet the demands of your family, with ample storage space and efficient arrangement, and near the dining area.”

Good design: “Be sure the builder offers an assortment of designs and varies the position of the houses in relation to the street.”

Good expansion: “Make sure that the house you buy can be expanded without too much expense without ruining the design. A good dry basement offers possibilities; so do attached garages and breezeways.”

Good orientation: “The house should take advantage of the best view from the living area and insure privacy for outdoor living.”

Good landscaping: “The ground should slope gently down and away from foundations. Beware of builder who strips the land.”

Good streets: “Streets should be curved to prevent high-speed driving. They should be completed when your house is ready. Look out for very steep drive to your garage.”

Good wiring: “The service entrance should have at least 100 amp. capacity. See if there are enough outlets and switches, with outlets located to fit furniture arrangement.”

Good heating: “Find out who makes the boiler or furnace and the reputation of the contractor who installed it. Make sure the builder includes ducts or piping for future air conditioning.”

Optional extras: “Be sure you know exactly what’s optional.”

Good workmanship: “Look for seasoned wood, good tight joints free of splits, interior trim free from dents, nail heads counter-sunk, paint free from streaks.”



THE PACKAGE MORTGAGE gave her this work-saving PACKAGE KITCHEN

The Package Mortgage has made housework easy for millions of busy women. It has sold millions of appliances. It has helped sell millions of new houses. It has helped sell millions of better kitchens into older houses.

The Package Mortgage lets home buyers finance almost all the equipment needed for the house the same way the furnace and hot water heater are financed—under the mortgage.

The Package Mortgage has taught millions of families to want all the best new labor-savings aids *now*, creating far quicker acceptance and demand—in homes both new and old—for new products like dishwashers, disposers, clothes washers, clothes dryers, freezers, built-in ovens, burner tops, intercoms and exhaust fans.

Now the Package Mortgage is in danger

The Package Mortgage is caught in a sudden and surprising crossfire from two smart Washington lobbies. One is a retailer lobby, fighting because retailers do not get a big markup on appliances sold to builders. The other is a furniture lobby, fighting because up to now the appliance industry has made better use of the package mortgage to sell its product.

Their double attack on the Package Mortgage almost succeeded, for it caught the home building industry unawares. It came so near success that the Senate Finance Committee almost voted a package mortgage ban for VA and FHA financing. It came so near success that FHA has in fact been told to show cause why the Package Mortgage should not be banned by the next housing act.

Before Congress makes any such mistake, let's take a fresh look at the Package Mortgage. Whom does it help? And how true are the arguments against it?

The Package Mortgage is good for

1. The Package Mortgage is the only way most families can afford to buy both a good house and a good kitchen

On short term credit at the usual 9.6%-or-more interest, the monthly payment on a \$1,500 kitchen doubles the monthly cost of owning a \$12,000 home—increasing it from \$72.42 per month to \$144.32 per month for the critical first two years. By FHA minimum income standards not one family in ten can afford this double cost—for FHA will not let any family whose No. 1 bread winner makes less than \$7,800 a year take on a monthly home-buying payment of \$145 a month.

2. The Package Mortgage saves home buyers hundreds of dollars in installation costs

Every major appliance except the refrigerator involves installation expenses which often run over \$100 and some times \$200 for a single unit. The washer-dryer must not only be connected up to the plumbing and the electric or gas lines, but also be vented outdoors. The dishwasher and disposer need both plumbing and power connections. Stoves need gas connections. Ranges require heavy electric wiring. Exhaust fans should be built into the wall. Even freezers need separate circuits to the entry box.

All these installation costs are four times as big if the home buyer has to pay for them after the house is finished. The installation saving made possible by selling the house fully equipped is often more than the whole difference in interest cost between two-year short term credit and 20-year mortgage credit.

3. The Package Mortgage gets the home buyer a good price on his appliances

FHA makes the builder pass on to the buyer most of the discount he gets on his volume purchase of appliances. (Usually FHA includes in its valuation only the average price builders in the area pay on each, plus 10% for overhead and 5% for profit.)

In practice many builders offer home buyers an even better appliance deal. For example, Builder Wilson Brown in Dallas puts only \$1,700 into the price of his \$13,200 house to cover the installed cost of seven built-in appliances whose list price totals \$2,500. California Builder David Bohannon takes no markup at all on built-in oven, range, dishwasher and refrigerator, figuring their inclusion in his house package cuts his selling cost more than enough to make their profitable.

4. The Package Mortgage usually assures the home buyer a quality product

Smart builders offer appliances for just one reason—to increase the sales appeal of their house. And all smart builders know that the added sales appeal of a nationally-known appliance is worth a lot more to him than the few dollars extra discount they could squeeze out of an off-brand product.

5. The Package Mortgage helps home buyers get a better planned kitchen

Says Detroit Builder Ted Pratt: "Built-in appliances make it easier to design a good efficient kitchen."

Says Miami Architect Alfred Parker: "I wish I could build everything in, because 1) I can do a better design job, and 2) the builder can get a better installation job."

the home buyer because . . .

On a package mortgage FHA would require a down payment of 25%. On a 20-year amortized mortgage (the most common length of package deals), 5% interest on the \$375 balance would be \$219. But this \$219 is *gross*. It makes no allowance for the fact the owner would have had the use of his money a lot longer and could, if he wishes, get 3% interest on it from a savings bank.

So the homeowner's true interest cost of the long-term financing is not 5% a year, but 2% a year—the difference between the 5% interest he paid and the 3% interest he could earn on the money if he had not paid it out so fast. Over 20 years that difference on the declining balance of the mortgage adds up to only \$81. This is not \$354 more than the cost of short term credit. It is only \$27 more. Of this \$27 difference nearly \$7 (or 25%) is tax deductible, bringing the net difference down to only \$20 spread over 20 years!

And the chances are the homeowner who bought under the package mortgage got his appliance \$20 cheaper and saved a lot more than \$20 on the installation.

6. The Package Mortgage does NOT spread the payments beyond the life of the appliances

Everybody knows that some parts of the house wear out faster than others. After 20 years the frame and the foundation should still be good as new, but most average roofs last only 15 years, most paint lasts only five years, most kitchen asphalt tile lasts less than five years and too many one-year-warranty hot water heaters last only 366 days.

General Electric reports the peak replacement demand for kitchen appliances comes after about 12 years—15 for refrigerators and freezers, 13 for ranges, 12 for dishwashers and dryers, ten for clothes washers, disposers and water heaters—but usually they are replaced not because they are worn out but because the owner wants a newer model.

Westinghouse says: "Every appliance we have ever made can be restored to efficient working condition. Most appliances are replaced not because they are worn out, but because newer models have new features the homeowner wants. More than 90% of the first automatic washers we made in 1940 are still in use. Many refrigerators and ranges perform for more than 20 years without a single service call. Their life is as long as automatic furnaces and water heaters, both of which are financed by the mortgage without question."

By the time appliance replacement peaks up in the 12th year, a 20-year 90% mortgage is paid down to 45% of the original valuation and represents not much more than the cost of the land, the foundations, and the walls and structure.

7. The Package Mortgage does NOT make the home buyer take unwanted appliances

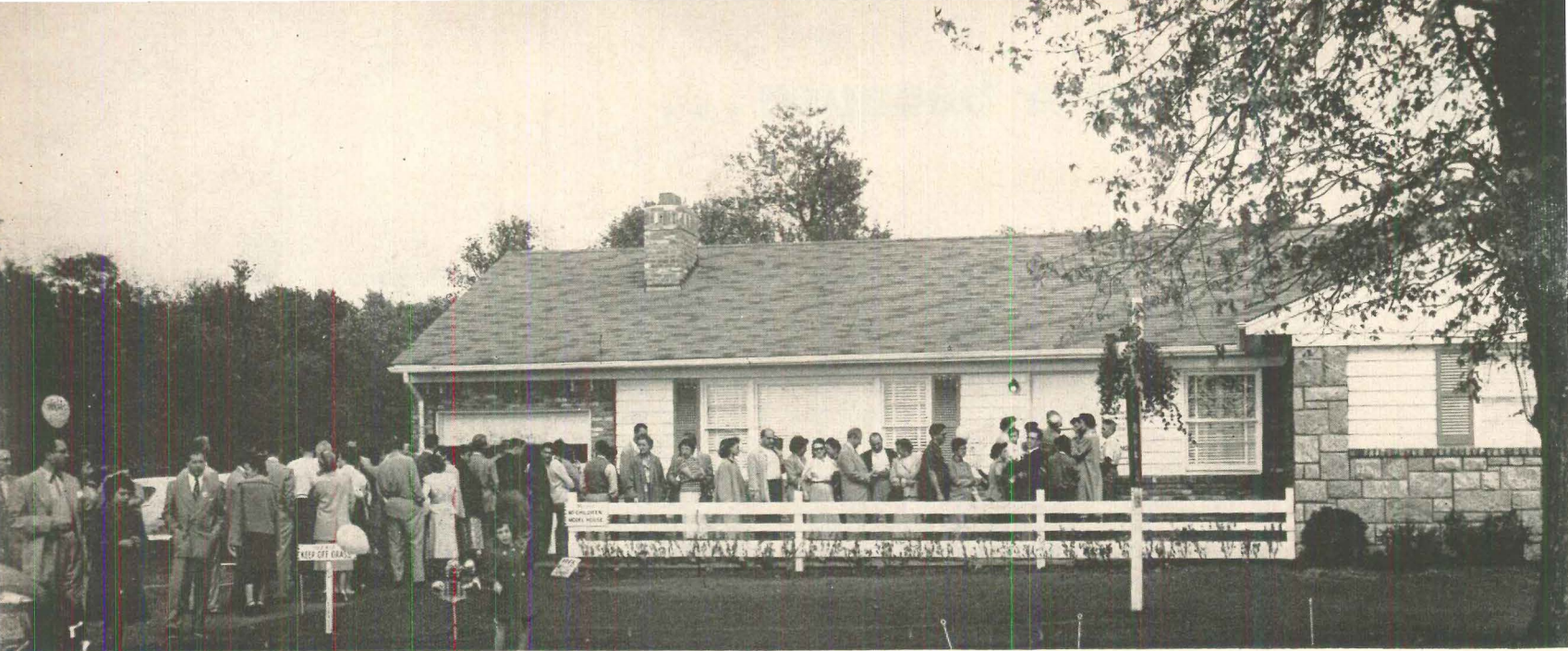
Around most cities home buyers have a wide range of choice. They can buy houses with no appliances, houses with many appliances, houses with a few appliances, houses with optional appliances, houses with appliances of every make.

With all this freedom of choice, it is noteworthy that in the most competitive markets the best selling houses are usually those that offer the best equipment under the Package Mortgage.

8. The Package Mortgage does NOT cost the home buyer a lot more interest

The furniture dealers were not telling the whole truth when they told Congress the interest cost of a \$500 item bought under the package mortgage is \$414; on short term credit is only \$60.

On short term credit the down payment would be 10%; the two-year 6% discount on the balance would be \$54.



The Package Mortgage is good for the appliance dealers because . . .

1. It makes the model house do double duty as an appliance display room

Every week end thousands upon thousands of families visit the show houses kept open by between 2,000 and 3,000 merchant builders. Some of them are looking for a house to buy. Most of them are just looking for new ideas. All of them see the smart, labor-saving appliances in the package mortgage kitchens and learn to want them too.

2. It fills new houses with appliances, makes every guest want more appliances

The new house sets the standard for the old. By definition modernization means making old houses look and work like new. Thirty years ago the appliance makers learned that the one best way to sell electric refrigerators into old houses was to sell them first into new apartments. Every new appliance—the dishwasher, the built-in oven, the disposer, the exhaust fan—has caught on first in the new house market and then spread from the new house to the much bigger old house market.

That's why manufacturers find the Package Mortgage so important. That's why they make such a special drive to sell the new house full of new appliances—preferably through their dealers if the dealers will get out and hustle for the builder's business, direct to the builder if the dealer can't sell him.

So . . .

3. It helps the dealer sell more appliances into new homes

Thousands of builders buy from their local dealers the appliances they finance under the package mortgage. And thousands of new home buyers buy additional appliances through a dealer.

4. It helps the dealer sell more appliances into older homes

5. It gets the dealer a lot of profitable servicing

Just listen to these enthusiastic appliance dealers on Long Island, where the package mortgage started

"Model houses are free show rooms for us. We can't afford to create demand. We don't have the showroom space and we don't have the foot traffic. The demand for wall refrigerators and colored appliances was built almost entirely by model homes and the publicity they got. We felt the public demand almost immediately.

"It's up to the manufacturer to create the demand. He has to get his equipment into the model houses and before the public. Then it is up to the appliance dealer to take advantage of this demand.

"In fact, most of the people who go through model houses are just shopping, and equipment on display there builds up demand for us in the older houses.

"Manufacturers sell the big jobs and frankly most of us dealers couldn't handle them anyway. We just don't have the financing. We can't carry a builder for months on his appliances, when he might be moving in a few hundred families every month. We still get the smaller tract jobs, for we can offer the service and freedom from call-backs that the small builder wants.

"New houses give the remodeling buyer his ideas. Between model houses and magazines, they may make Mrs. Old Homeowner want to change her kitchen. Our problem is not selling the equipment, which is done for us, but adapting too-lavish display kitchens to a smaller budget or floor space.

"Maybe if I could handle the big builder and couldn't get his business, I would feel badly, but I know I can't handle it, so I don't let it bother me."

FRANK TOMMASINI, *appliance dealer, Nassau County, N.Y.*

"New model houses are the biggest showrooms the retailer has ever seen. Every visitor to the model or to the home of a moved-in new family sees the new appliances and begins to want them for his own house. All this exposure to new appliances creates business for the nearby dealers.

"Furthermore, the new home buyers are good prospects, since their houses usually need more appliances than the builder includes; we retailers get these added sales.

"Criticism of the Package Mortgage stems mainly from the furniture people, who have not been able to get their merchandise accepted by FHA as eligible for long term financing, and from appliance dealers who are not experienced enough to realize they are not being hurt by the new house builder, but actually helped.

"We sell to many builders (we think we're one of the biggest on Long Island) and we also sell retail. We think things are going to be so good that we have just greatly expanded our retail store, right in the heart of the new house market here in Hicksville. Both ends of our operation have been growing steadily; neither one hurts the other.

"All these new houses—and new possible customers—spell opportunity for the retailer, but he has got to get out and work for the business. No dealer any longer can sit in his store and wait for the business to come to him."

A. W. (GUS) HARDT, HARDT & REID, *appliance dealers, Hicksville, Long Island.*

"Of course it hurts when a builder buys in one or two appliances direct from the manufacturer, but don't forget that the builder is adding another customer to your community, and that the customer will be there as long as you are. Each new house in your town means one more possible buyer for appliances at retail—first the extras and later the replacements.

"All this attack on the Package Mortgage is really aimed at the manufacturer who sells direct to the builder, often at prices lower than the retailer can get.

"We think all appliances sold by the manufacturer should be billed through some local dealer, with a small profit allowed him to compensate for servicing the goods. With the servicing the dealer would get a better chance to sell the customer whatever future appliances he may need."

ROBERT BLUMSTEIN, *managing director,*
Intercounty Distributors, a buying co-op serving 18 Nassau County retailers.

The Package Mortgage is good for the builder because it helps him sell a lot more houses

As selling gets tougher . . . as more and more builders find their best market among second-time buyers trading up for a better home . . .

The Package Kitchen sold under the Package Mortgage is proving itself the builders' best new sales appeal.

Listen to what builders themselves say:

St. Louis—"We would lose 50% of our sales if kitchen and laundry equipment were not in our mortgage. Many buyers have told us: 'If we can include the built-in oven, range, disposer and dishwasher in our loan we can buy this house, because then we can also buy some furniture, rugs, draperies, etc., on our budget.'"—FRED KEMP, *Contemporary Homes, Inc.*

Columbus, Ohio—"A majority of our prospects rate kitchen and laundry equipment as the most important thing they want in the home. Most of our buyers (at \$14,000-\$15,000) could not afford all these appliances if they had to buy them on short-term credit. Of our last 70 sales, 68 included a washer, dryer, range and refrigerator even though some purchasers already owned some of these items."—S. J. SLAVEN, *20th Century Builders.*

Richmond, Calif.—"At least 50% of our sales would be lost if we did not include appliances. Many buyers say: 'If we had to pay for our appliances on short-term financing on top of our house payment, the double expense

would price us out of the market.'"—GEORGE G. HOYTT, *Hoytt Enterprises.*

Norfolk, Va.—"Prospects rate kitchen equipment first among the things they want. About 70% of our buyers couldn't afford a complete kitchen or laundry if they had to buy them on short-term credit."—EMORY H. AUSTIN, *Poplar Halls by Larrymore.*

Palo Alto, Calif.—"I believe the home buying public considers built-in kitchen equipment a necessary part of the house. They expect the builder to supply it as they expect their auto to come equipped with a motor. Our present practice is to install all items of kitchen equipment that can be built in."—JOSEPH L. EICHLER, *Eichler Homes.*

Baltimore—"Built-in appliances are the best things you can offer people. The package mortgage lets them buy a lot of better living they could not otherwise afford. Every buyer in our 100 houses wanted every piece of equipment we offered."—MAL SHERMAN, *realtor.*

The Package Mortgage is flexible, lets a builder offer appliances as options so each family can take what it wants

Colorado Springs—"In my last 60 sales, 59 out of the 60 families bought some optional equipment under the mortgage. By offering a choice of these items, I don't force anything on anybody. They bought what they wanted."—H. M. (TODD) SLOAN.

Redwood City, Calif.—"About 80% to 85% of our buyers take built-ins as options under our loans. Built-in ranges and ovens are first in preference. Other popular options are, in order of preference, extra weatherstripping, extra insulation, tub enclosure, music intercom system, built-in mixer-blender, electric time thermostat, water softener, carpeting."—DON STOFLE, *Oddstad Homes.*

Memphis—"As optional equipment, 60% of the buyers of our \$10,500-\$11,700 houses paid

\$350 extra to get a built-in oven and range set in a brick wall backing."—WM. JAMISON.

Flint, Mich.—"When we offer laundry appliances as options, 75% of our buyers take them. Our models featuring completely built-in kitchens are sold first."—JOEL R. STEICH, *Gerholz Community Homes.*

Denver—"One of our most talked-about items is our built-in kitchen. We will install any brand of appliance that a buyer wants and finance it under the mortgage."—GEORGE J. MONACO, *H. A. Swanson & Associates.*

River Forest, Ill.—"Buyer acceptance is beyond our expectations. About 75% bought our whole appliance package. Another 20% took all but one or two items."—GILBERT L. HOUSTON, *R. Houston Jr. & Sons, contractors.*

When a builder offers appliances or other equipment under a Package Mortgage the manufacturers often help him sell his houses—sometimes with tie-in advertising, always with point-of-sale promotion.

The Package Mortgage is good for furniture dealers because . . .

Families who buy their appliances with the mortgage have more money left to spend now on their living rooms and bedrooms.

There is a limit to what any family can afford to buy with cash or short term credit.

Today the furniture and house furnishings dealer is too often low man on the totem pole. Most home buying families are buying a car on the installment plan, and a great many home buying families give the kitchen next priority on their budgets.

Says JOHN HARMON of Drexel Furniture Co., Drexel, N.C.:

"Home building today is not so much housing as rehousing. People are moving to larger homes and better homes, and they all need to

buy new furniture. *People who don't have to pay for their appliances with cash or short term credit can spend more money for furnishings.*"

The Package Mortgage will be still better for furniture and home furnishing dealers when they learn to use it themselves.

Already FHA has told the carpet industry it can finance carpets under the mortgage when, as and if it establishes satisfactory industry standards for how long its product will last.

Already FHA stands ready to finance many items of built-in furniture under the Package Mortgage—everything from built-in storage to built-in vanities and built-in beds.

How much longer will the furniture industry fight the trend to built-ins instead of recognizing the great new market built-ins offers?

The Package Mortgage is good for the mortgage lender because . . .

It takes care of the biggest single cause of mortgage defaults—the home buyer who buys so much on short term credit that he can't keep up with his payments.

Listen to lenders who have offered the package mortgage for years:

"The Package Mortgage inaugurated more than a decade ago is a conspicuous forward step in the modernization of home financing.

"The Package Mortgage reduces the burden of home ownership in the early years and thus makes it less likely that the borrower will be unable to meet his payments. The Package Mortgage simplifies the financing for the borrower who has only one lender to deal with instead of several. The successful experience of many lenders with the Package Mortgage has established its position as an integral part of modern home financing." L. DOUGLAS MEREDITH, *vice president National Life of Vermont.*

"The Package Mortgage provides an added safeguard for the home mortgage lender's investment by reducing the required monthly payments for the appliances more than 80%. The high payments required under the installment

loan plan can and sometimes do result in mortgage defaults."

"Major appliances are no more a wasting asset than a heating plant or other mechanical items which have to be maintained and kept in repair."

GEORGE C. JOHNSON, *president of The Dime Savings Bank of Brooklyn.*

"The Package Mortgage has been one of the most significant recent advances in home finance. It contributes greatly to the stability of home ownership and eases the financial problems of the new homeowner. It is not only an ideal way to finance the home and its necessary equipment; it is also a safer and more desirable investment for mortgage lending institutions."

ARTHUR WIEMER, *Dean, School of Business Administration at the University of Indiana.*

In brief, the Package Mortgage is good for everybody!



Bouquets of flowers were one of the many expressions of hospitality. Earl Smith (center); Coogan (right).



Open-top bus took us sight-seeing in the beautiful Black Sea area. Usually we took side trips in automobiles.



Caviar, wine, big meals, official receptions were an everyday event. Here, lunch at river station in Moscow.

We watched the Russians



Women do most construction work. This one makes prefabricated apartment house walls (like one at rear). Relatively unskilled, her work is kept accurate by steel jig which rolls on track as sections are finished.



Punishment to slow workers comes when their names are posted on this big crocodile list outside apartment house. But groups of workers who make or exceed their quota are honored by having names posted on honor roll at right and receive bonus pay. Most projects have such incentive schemes.

Our trip to Russia this summer gave us an opportunity to observe the accomplishments of the Russian building industry. Unlike the US, residential building in Russia is predominantly apartment construction and is completely dominated by the State.

We traveled over 6,000 miles, visiting 14 major cities. We also managed to visit some of Russia's many scenic and historical landmarks. The Russians were generous and hospitable hosts. Food and accommodations were good. We were at liberty to take pictures, some of which are presented on these pages.

Curious crowds, sometimes several hundred people, gathered around us wherever we went, asking questions through our interpreters. Many of the children spoke some English.

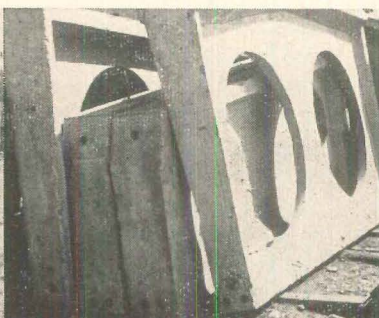


building

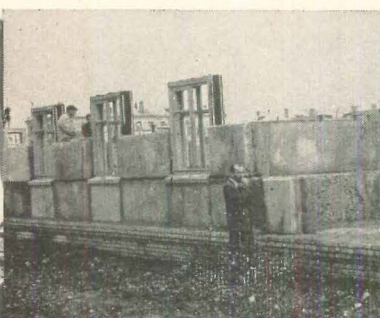
Pictures and text by Tom Coogan



Prefab masonry is seen everywhere. Joints looked sloppy to us but Russians don't worry about finish, will cover with stucco.



Reinforced concrete roof girders are made in sections. Note precast steel pins at bottom of piece at right which fits into next section.



Precast panels like these interested all of our party as we thought they made a lot of sense for Russian building conditions.



In Stalino we saw an apartment house getting started. Not shown are the big cranes which lift these heavy prefabricated sections.



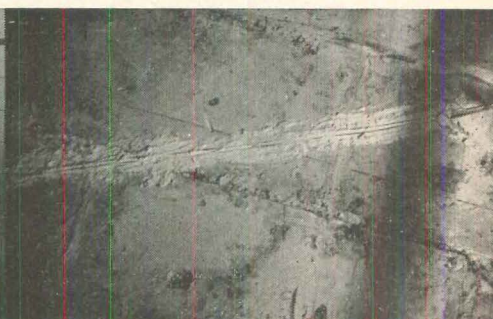
Finished apartments are usually about nine stories, have elevators, good size rooms, high ceilings. Stucco is often painted yellow.



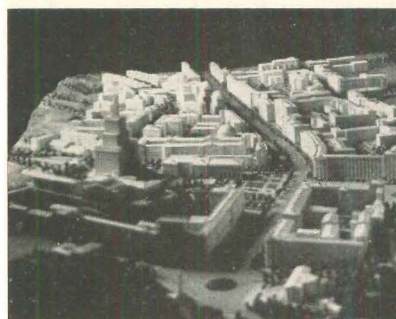
Excellent feature is a pleasant green park area inside hollow square of apartment where children can play. This is in Moscow.



Kitchens in new apartments were bare. Families get gas stove, double compartment sink but no cabinets or other kitchen appliances.



Electric wiring, inside plastic tube, is first plastered to interior walls, covered with finished plastering. Most wiring, however, is left exposed.



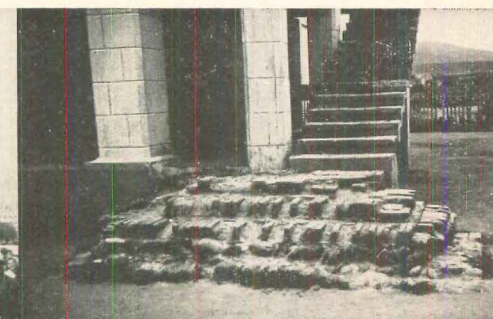
A model of their future city is proud possession of every town, shows careful planning. This one is at Kiev.



City planning offices have few problems as government owns land, does designing, and also all of the building.



Typical architecture of public buildings is mixture of old and new. This scene is in Leningrad.



Poor maintenance shocked us. This brick platform is typical, has crumbled away in only a few years.

3 MORE NEW WAYS

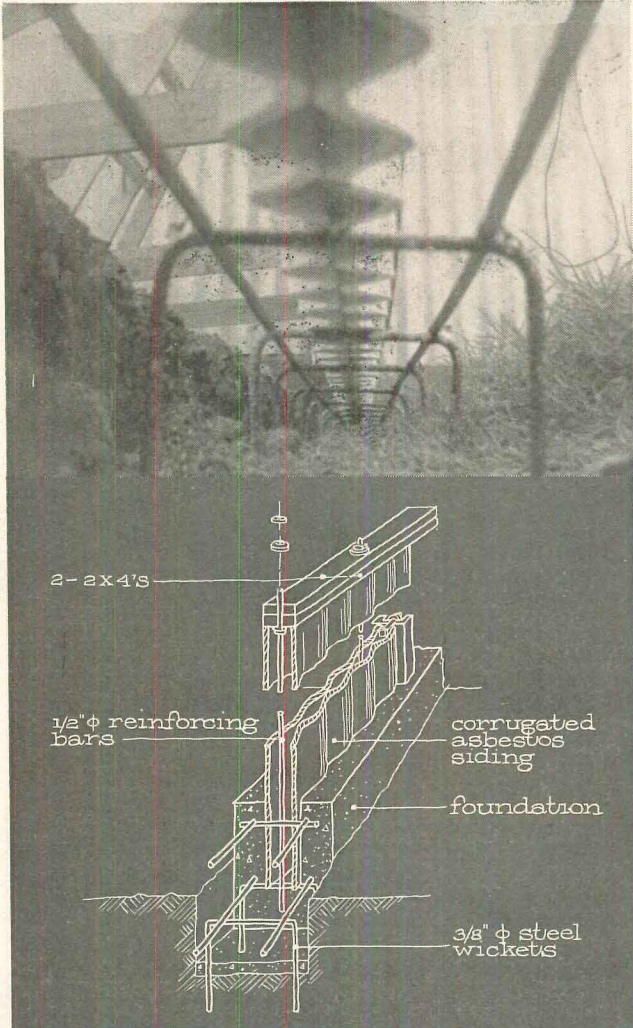
67 Corrugated asbestos siding gets a new job to do

Homeowner Orlando Klein has risked every penny he can raise on a new way to make corrugated asbestos siding do double duty in every wall.

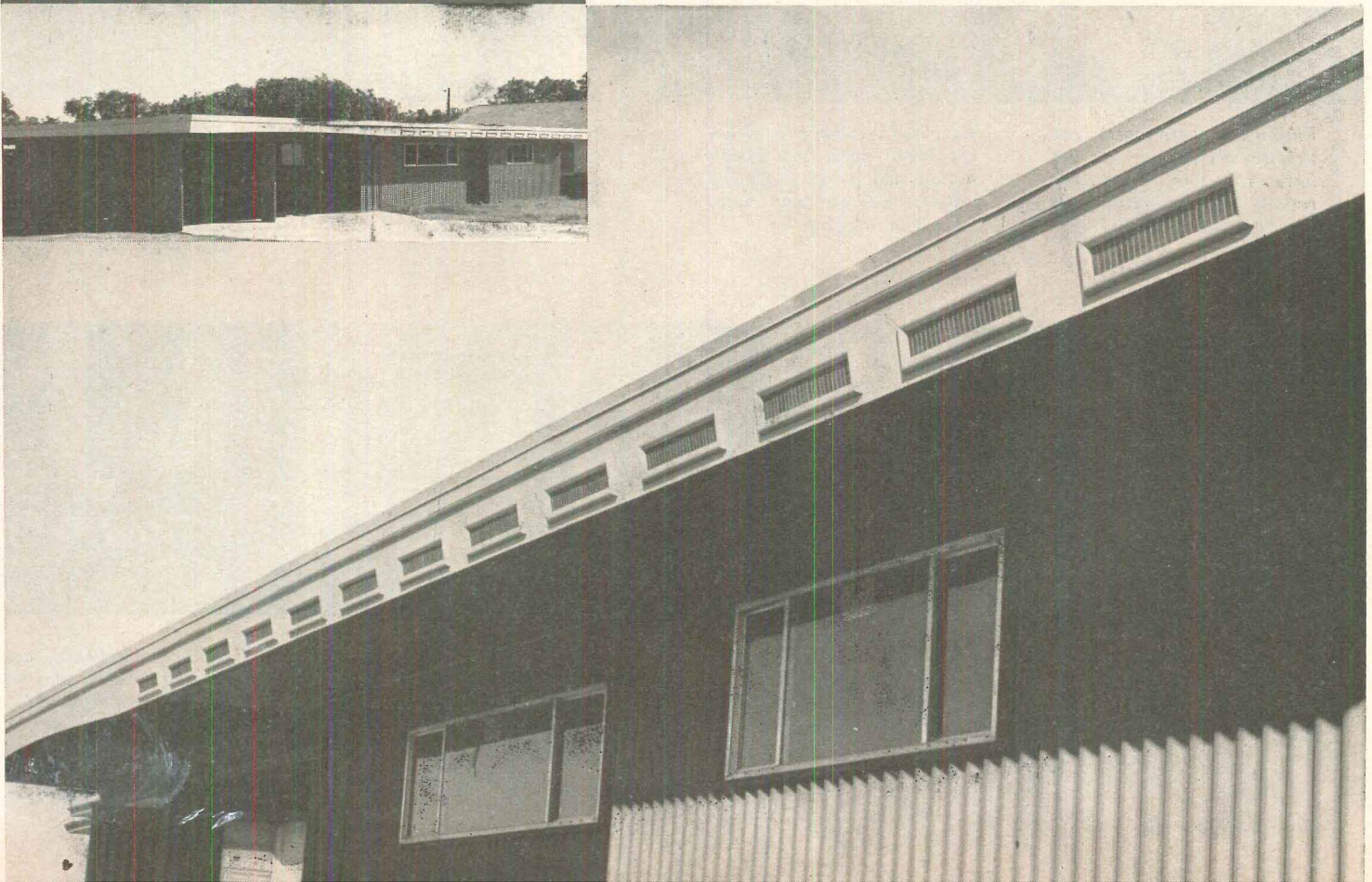
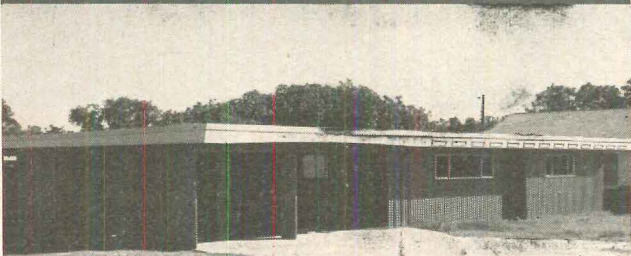
By using the siding as a form and pouring reinforced concrete in every seventh corrugation, he makes any other wall framing unnecessary. The result is handsome (see below) and Klein is sure it will be cheaper than hanging the siding on a wood frame. He also claims substantial wiring economies because his wall is so fire-resistant he needs no boxes around his outlets. He also says it is cheap and easy to insulate the wall with blankets of insulation hung between the inside and outside corrugations.

The walls are so light that they can be carried on wickets of $\frac{3}{8}$ " reinforcing steel, with the foundation poured around them (see drawing). The $\frac{1}{2}$ " reinforcing steel in the columns extends up through the double 2 x 4" plate above, anchors it to the wall.

Right now Mr. Klein is in trouble because he can't raise the last \$1,000 needed to finish his house in Seagoville, Texas (pop. 2,000) and unless he finishes it, he can't get a mortgage. But Klein still has enough faith in this system to go ahead and apply for a patent on it.



John Mazziotta



TO BUILD BETTER FOR LESS

68 Aluminum pole holds wall plumb while bracing it

Most builders use "scrap lumber" to brace their walls during construction.

But smart San Francisco builder Andy Oddstad says lumber costs too much to treat any of it as scrap—especially the plate and rafter lengths used for bracing.

So Oddstad has developed (and is trying to patent) a set of lightweight aluminum braces that his workers can carry from job to job and re-use on hundreds of houses. First cost of each brace is \$5.50, but on volume production Oddstad figures they cut his lumber costs \$6 a house and save \$2 a house on labor.

The braces are nailed to the upper place; the wall is plumbed in the usual manner. The braces are then secured to the subfloor. Rigidity of the braces and the secure nailing holds the wall plumb while ceiling joists are set in place.

The poles work extra well on above-ground-level construction, where the outside wall can be braced from the inside only.



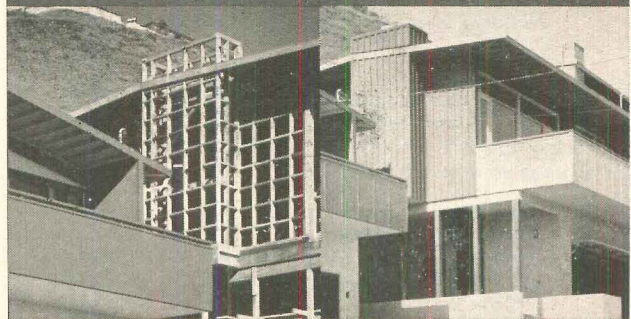
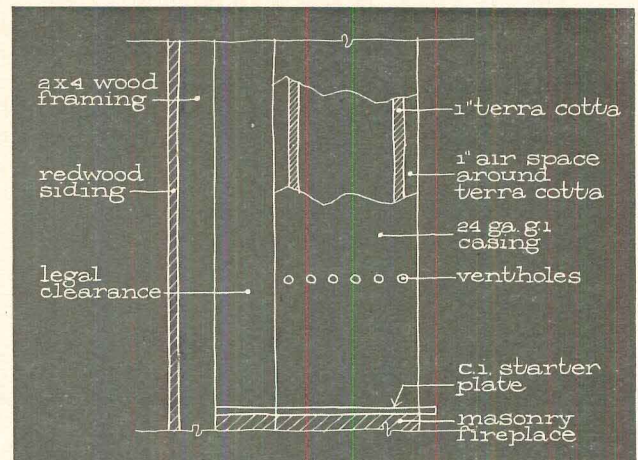
69 Patent flue, wood chimney cut fireplace costs

How can you get the economy of a patent flue without sacrificing the conventional appeal of an old fashioned chimney?

One good way is to build the chimney of redwood, which is so much lighter than brick that it needs no foundation. With a wood exterior, a second story fireplace can rest on a cantilevered platform.

The photographs show how well architects Campbell & Wong used patent flues in redwood chimneys on the houses pictured on pages 144 to 149. Builder William Blackfield figured they saved nearly \$400 on each uphill-side-of-the-street house, where they cut out the whole cost of a story-high masonry foundation under the fireplaces. They saved perhaps half as much on the downhill side.

Some codes (like San Mateo County's) won't allow cantilevered fireplaces.



Here are the first fast reactions to last month's editorial entitled...

THE SECRETARY OF THE TREASURY
WASHINGTON

BANKERS *Life* COMPANY

FILL MORTGAGE CORPORATION

W. A. CLARKE MORTGAGE CO.

COLONIAL MORTGAGE SERVICE COMPANY

LIBERTY NATIONAL
LIFE INSURANCE COMPANY

UNITED STATES SAVINGS AND LOAN LEAGUE

Columbia University
in the City of New York

THE MUTUAL BENEFIT LIFE INSURANCE COMPANY

THE PRUDENTIAL SAVINGS BANK

NATIONAL ASSOCIATION
OF REAL ESTATE BOARDS

DOVENMUEHLE, INC.

FEDERAL HOME LOAN BANK BOARD

CALIFORNIA FEDERAL SAVINGS

Let's do something about

MONEY!

For six years our industry has bounced from one mortgage crisis to another.

For six years we have listened to pious talk—pious talk urging us to have faith in the free market for money, pious talk bidding us be patient and wait for added savings to provide the money we need, pious talk suggesting we follow Mr. Micaewber's example and wait for something to turn up.

For six years we have listened to foolish talk—foolish talk saying we are already getting too much money, foolish talk calling our present rate of mortgage borrowing a menace to the whole US economy, foolish talk saying we ought not to be asking proportionately more money for mortgages than we got in the Twenties.

For six years we have also listened to wild talk—wild talk demanding that the Federal Treasury play Santa Claus to solve all our money problems, wild talk demanding that the Federal Treasury buy through Fanny May all the 4 1/2 % mortgages the banks and insurance companies do not buy, wild talk demanding, in brief, the free and unlimited usage of 4 1/2 % mortgages at par.

For six years we have listened to pious talk, foolish talk, wild talk, but in six years nobody—but nobody—has done anything about it. Right now our mortgage money mess is worse than ever, with no relief in sight.

Enough is enough. We have had enough wild and foolish talk. We have had more than enough mortgage money trouble.

THE SCHENECTADY SAVINGS BANK

BANKERS TRUST COMPANY

THE FIRST SAVINGS & LOAN COMPANY

THE TITLE GUARANTY COMPANY

T. B. O'TOOLE, INC.

PIPESTONE FEDERAL SAVINGS

Eberhardt Company

CAPITOL FEDERAL

Savings and Loan Association

BAIRD & WARNER

THE GREAT-WEST LIFE ASSURANCE COMPANY

HOME FEDERAL SAVINGS & LOAN ASSOCIATION
JAMES W. ROUSE & COMPANY.

OLD COLONY CO-OPERATIVE BANK

UNION FEDERAL
SAVINGS AND LOAN ASSOCIATION

THE
AMERICAN BANKERS
ASSOCIATION

This is a challenging editorial and though I cannot agree with a number of its statements, I feel that it should create constructive thinking on an important economic area.

G. W. HUMPHREY
Secretary of the Treasury

Of course I like it! It is very interesting, but why didn't you say something about the real answer to the problem and that is to unfreeze interest rates as far as FHA and GI's are concerned.

AKSEL NIELSEN, *president*
The Title Guaranty Co.

Your courageous editorial brings the money situation into focus. It demands the undivided attention of all segments of the housing industry so that a realistic re-appraisal of our industry's problems may be made.

MARTIN L. BARTLING JR., *secretary*
National Association of Home Builders

A wonderful contribution to thinking on the future market. Sure it will receive wide publicity and some controversy but it is a story which needed to be told and you've done a wonderful job.

HARRY HELD, *vice-president*
Bowery Savings Bank
Chairman, Real Estate Investment Committee
Ass'n of Mutual Savings Banks

By and large I agree with everything you have said, and I think it is a fine article and should be very well received.



While your arguments slightly favor the builders' point of view, this is only natural. The mortgage bankers have certainly felt the decreased allocations for mortgage investment purposes.

We believe in a stable dollar, but nothing helps our business more than an easy money market.

M. T. MACDONALD, *past president*
Mortgage Bankers Assn.

In your usual hard-hitting, free-swinging style, you have faced up to many of the hard facts about the money market. It seems clear to me that we have been, for some time, borrowing faster than we are saving. Our aspiration for things to build exceeds either our willingness or our capacity to save. This inevitably leads to congestion in the money market such as we are now experiencing.

Your are wise to point out that there is no simple-pat solution. The problem must be attacked along the lines you suggest and, at the same time, we must recognize that higher interest rates, shorter terms and stricter underwriting standards are an inevitable product of the present money market. This may not be bad at all. It may be very good, in fact. Higher interest rates means a higher return on savings and thus tend to increase the quantity of savings. Stricter terms tend to increase amortization and thus enlarge the flow of money back into the pool for reinvestment. More rigid underwriting requirements may eliminate many marginal projects which, at this time, it would seem reasonable for us to pass up.

You perform a great role for the home building industry as its philosopher, advocate and conscience.

JAMES W. ROUSE; *Baltimore*
Member, President's 1953 Housing Policy Committee

"We need a broad study of money and banking"

Your editorial is interesting, constructive and important.

The real problem is where the American people and American business can get the tremendous credit and capital to sustain this ever-expanding economy, to sustain its present and its future growth. Bringing back the ratio of savings to our gross national product to its high of '53 will not be enough. Our dynamic economy demands more and more capital investment, not only because of the growth of our population but perhaps even more because of our fabulous technical advance and the needs as the result of our present research.

I am heartily in accord with Allen Sproul, past president of the Federal Reserve Bank, that we need a broad national type monetary and banking inquiry. We have had no such comprehensive study and investigation since the Commission of 1911 which led to the formation of the Federal Reserve system, and much water has gone over the dam in the past 45 years. Out of such a study may come new methods to raise capital and new devices to save funds. It is important, as you point out, that we constantly seek a solution to these problems, so that we can continue to meet the demands of our new American capitalism.

MILFORD A. VIESER, *vice president*
The Mutual Benefit Life Insurance Co.
Newark, N. J.

Your editorial is wonderful.

Can we get 5,000 copies to distribute to each of our members?

NORMAN STRUNK, *executive vice president*
US Savings & Loan League

"Urban renewal can reduce money needed for new homes"

You have dramatically stated the problem and given money lenders, builders and many others, a lot of things to think about!

I cannot say I am happy over every line in the editorial but the entire editorial is constructive and will make many of us think, if only for the purpose of disputing some of your conclusions and adopting others.

Here is the important factor your editorial omitted: Our Build America Better program feels that today's six to eight million substandard units should not be written off as useless and completely discarded. We believe a large percentage of them are worthy of rehabilitation at a cost substantially less than it would cost to replace them. This program might lessen the demand for new money enough to make the Federal Reserve's attempted credit control unnecessary.

I have sometimes been urged to blame the current alleged tightness of money upon alleged excessive demands of industry for a disproportionate share of the available pools of funds, but I have refused to do so, feeling we should make the case for home building and home rehabilitation on its own foundation rather than attack any other segment of the economy.

I do not altogether go along with you on the premise, as I understand the editorial, that housing loans should be limited to 20 years but I do go along with you 100% in your feeling that every conceivable inducement should be offered to the borrower to repay his obligation so as to get out of debt as quickly as possible and create additional funds through revolving this capital for additional new construction or rehabilitation.

For FHA this would mean eliminating the prepayment penalties and setting higher interest rates on longer maturities. Both these steps would, in my opinion, tend to encourage prepayments.

CLARENCE M. TURLEY, *president*
National Association of Real Estate Boards

By far the most comprehensive, factual, hard-hitting diagnosis of the home building industry's anemic condition. It will furnish an invaluable guide to all segments of the industry. This is your greatest contribution to home building (and you have made many).

ROBERT GERHOLZ, *past president*
NAREB and NAHB

I agree with all of the things you say and it is certainly a masterpiece of summation and constructive suggestion. Over the years we have defended our inconsistencies with some success, but I dream of the day when we will not be condemning too much government in housing with one breath and in the next breath asking more government help.

It is my conviction that the FHA and the VA interest rate should both be increased immediately at least a half per cent. Unless our loans offer a yield enough higher than liquid investments, we must always be dependent on semi-subsidies of various kinds.

I am sure your courageous and factual statement is a milestone on this basic problem. It is another evidence of the statesmanlike leadership you give our industry.

FRANK W. CORTRIGHT, *founder*
National Association of Home Builders

I cannot help realize from the development of your editorial that here is a challenge that can be answered only by the coordinated efforts of all elements of finance. There is no room for bickering and jealousies, nor for the rather fantastic destructive feeling that seems to follow the field of finance. This is a challenge that can be met only by complete co-ordination of all the brains and abilities of everyone in our industry, from the labor unions to the top thinking of the Federal Reserve System. I know of no better impartial point for such a program to start than your own organization. I trust that our United States Savings and Loan League will be called upon by you to lend the best of its abilities to this problem, and that other affiliated interests will be equally broad in their approach to a staggering challenge.

I agree with you that time is running short, but men working in a common cause can accomplish amazing results, and I trust that your interest will be continued to the end that a real, active coordination of all elements involved can be brought together.

JAMES H. JEROME, *Executive Committee*
US Savings & Loan League

"Commercial banks could lend \$8 billion more on mortgages"

After reading your editorial Let's Do Something About Money I am more optimistic about housing finance than I have been for some months.

It was a courageous act on your part to lay the facts of life on the line, and you are talking to the right people. When we have tried to say some of the things your editorial expresses so well, we have been often attacked by the building industry.

You have produced the most convincing job that I have yet seen—better than anything we have done.

As you know, the commercial banks in recent years have increased their ratio of mortgage loans to time deposits at a greater rate than any other lending institutions. At the present time the commercial banks hold about \$22 billion of mortgage loans. They could still lend another \$8 billion before they reach anywhere near their lending limits.

The commercial banks attitude toward mortgages has been improving and would improve even more if we had a realistic rate, preferably a flexible rate, on insured mortgages. I believe their attitude would be still better if the builders would recognize the main points in your editorial, such as the desirability of paying off the mortgage as fast as possible according to the abilities of the homeowner.

It is my understanding that the pay-off in the commercial banks is about \$2 billion a year. If we could, with the help of the builders, bring about a realization that the most favorable terms are those where the mortgage is paid

off fastest we would, of course, have an even higher pay-off than \$2 billion a year. That would be true of the other lenders as well.

Your editorial mentions that, in considering who should get first crack at new money, the stock answer has always been that only short term borrowers should be allowed direct access to money created by credit expansion. The editorial also states that this answer may suit the commercial bankers.

I think I ought to say that we have recognized for a long time that the savings and the mortgage business go hand in hand. The commercial banks that are doing the best savings job are, in most instances, lending a higher ratio of their money in mortgages, although few are up to the legal limit. I think this attitude was evidenced by our efforts to get a bill through Congress giving national banks the right to make loans up to 66 $\frac{2}{3}$ % of appraised value rather than the previous limit of 60%.

I believe there is a greater mortgage potential in the commercial banks than in the competitors, especially now that the commercial banks are aggressively seeking savings deposits. In this business I should like nothing better than to see a complete understanding of each other's problems on the part of the builders and the bankers.

Your editorial is a wonderful beginning and, as I said earlier, I am very optimistic.

RAY DUNKERLEY, *senior deputy manager*
The American Bankers Assn., New York City

You have ably and courageously outlined this involved and complex problem which threatens to throttle the home building industry.

It is foolish to speak of building a million plus houses a year unless money is provided to do so. You have approached the problem on a practical and realistic basis. I am sure the editorial will provoke thought and discussion which all of us in the industry hope will result in the development of some solution to this critical money shortage.

I am sure that the industry as a whole is grateful to you for your splendid analysis.

FRANK P. FLYNN, JR.
Executive vice president
National Homes Acceptance Corp.

Just finished reading your article on the mortgage market situation. It is both timely and courageous and you are to be sincerely congratulated for your fine contribution to our industry.

My heartiest congratulations.

STANLEY M. EARP, *president*
Citizens Mortgage Corp., Detroit

Do I like it! I love it!

Your editorial makes more sense and tells more plain truths than any I have read. I hope every mortgagee and home builder reads it.

If all the forces interested in making more money available to build more houses would join hands to change FHA mortgages to a variable interest rate, we would be off to a good start. It would end complaints of builders against mortgages which are not justified and are a psychological drawback—if not an actual one in some cases—on new construction. It would encourage mortgagees to step up the payment of present mortgages (which would be carrying a lesser rate), thus putting more money into the mortgage stream.

We, of the US Savings & Loan League, would be most happy to participate in such a program, along with many other forward steps which we are now taking, such as trying to transform the Home Loan Banks into a major reserve credit system. By the way, there is a technical error in your statement concerning the number of years the Federal Home Loan Bank System has been in existence—it should be 24 years.

HENRY A. BUBB, *past president*
US Savings & Loan League
Chairman, Legislative Committee

The National Savings & Loan League at its Houston meeting in Oct., 1955 took the first industry action to make The Federal Home Loan Banks better credit instruments, your editorial to the contrary notwithstanding.

HAROLD P. BRAMAN, *executive manager*
National Savings & Loan League

I cannot say that every line makes me happy, but on the whole I think it is excellent. A lot of it is excellent philosophy as well as policy.

ERNEST M. FISHER,
Professor of Urban Land Economics
Columbia University.

Congratulations! You did it again.

Your August editorial on money is extremely well done and I sincerely hope that the joint effort of you and Miles Colean causes some constructive thinking among your readers.

Keep up your intellectual and practical leadership.

J. HOWARD EDGERTON, *past president*
US Savings & Loan League

. . . Certainly a forthright and stimulating discussion, and I must say that I concur wholeheartedly with your tripartite conclusions.

I have been concerned as apparently you have with our tendency to float away our problems on a sea of easier and easier lending terms. What has troubled me is the absence of forthright analysis and leadership on the other side. This is a very important problem, and I certainly think your discussion is a very useful contribution which I hope will stimulate the study of the problem.

ROY L. REIERSON, *vice president*
Bankers Trust Co., New York

Your editorial has puzzled me considerably, so my reactions are rather mixed. It seems to contain some economic contradictions and circular reasoning.

You favor a large increase in mortgage funds; yet you admit savings cannot be increased enough to provide such funds in large quantity.

You want all the credit expansion the economy can stand without inflating prices; yet I'm sure you know our economy is straining against capacity ceilings, so any credit expansion above a sustainable level would quickly be reflected in rising prices. This is what I call circular reasoning, and I assure you I don't mean it impolitely.

Further, the editorial complains about restricting bank credit to short term borrowers. This bothers me greatly, for to use bank credit for a large amount of mortgage money would inflate prices and costs and make worse the cost situation you deplore. . . .

As I see it the only way a reorganized Home Loan Bank system could make large amounts of mortgage money available would be to borrow heavily to supply credit to its member organizations. If such borrowing were from banks it would be inflationary. If it were from savers it would only shift the competition for savings.

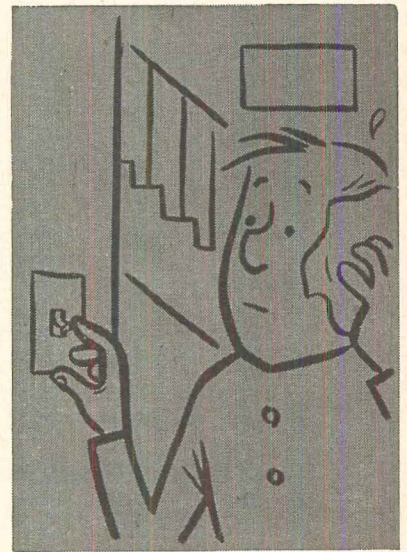
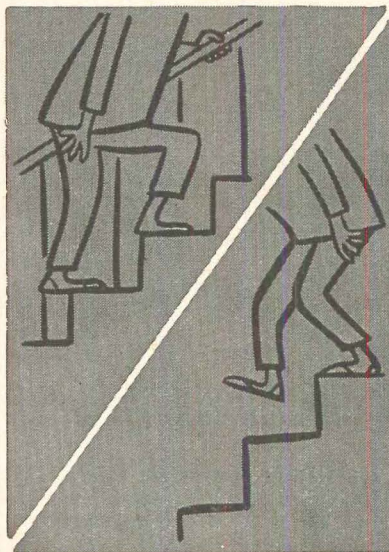
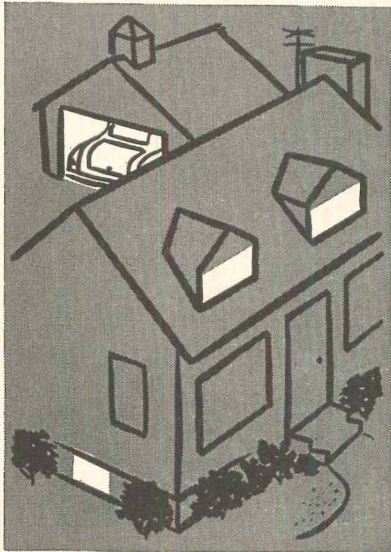
Lowering costs is a noble goal and I favor it, but I don't believe the construction industry has much control over labor or material costs; so short of a revolution in housing construction methods cost savings are not likely to stretch the current pool of savings to finance many additional houses.

On the whole, I believe your editorial is inflationary in its approach. Certainly there can be no escape from inflation if the supply of credit is increased when the economy is working at full capacity. Again it seems to me your editorial is inflationary when you plead that something be done for the six to eight million families living in dilapidated units. Only through very easy credit and attendant inflation could mortgage money be made cheap enough at this time to build and finance homes for these families, who at best would be marginal borrowers.

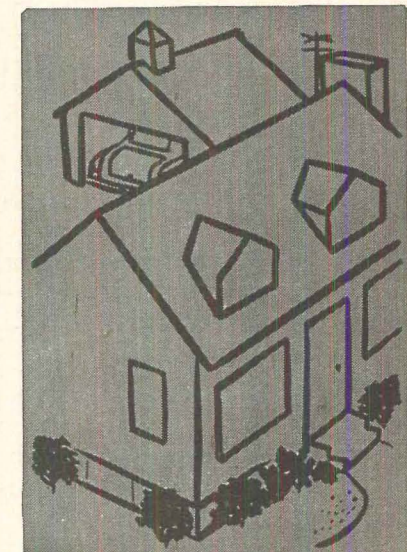
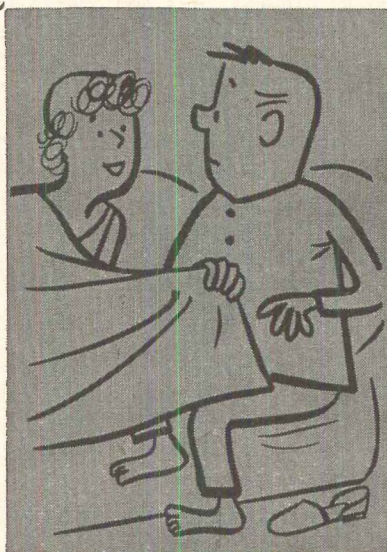
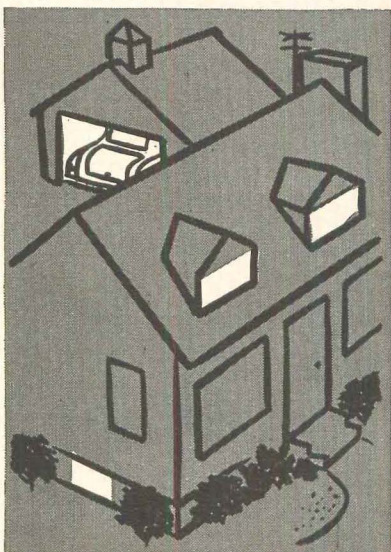
R. B. PATRICK, *financial vice president*
Bankers Life Co.; Des Moines

continued on p. 180

Which would you choose for your own home?



CONVENTIONAL SWITCHING with the tedious bedtime job of turning off forgotten lights in the attic, basement, and garage



REMCON SWITCHING with a REMCON master switch panel at bedside that turns off lights upstairs, downstairs, everywhere!

For as little as \$50.00, you can speed up the sale of your houses by giving your customers what they want — what you yourself would like to have — all the step-saving convenience of REMCON switching. ● Bedside control of lights throughout the house is only one of the ways REMCON can add exciting sales appeal to any house. From the same panel, the home owner can flood house and grounds with light to frighten away would-be burglars. ● In the kitchen, silent REMCON convenience switches save the woman of the house

hundreds of steps a day. And, thanks to REMCON, you can economically place switches at two, three, four or more entrance points to the living room. ● The development of simplified REMCON low-voltage switching opens a new era in home lighting. Never before has it been possible to add so much to your houses for so little. ● For more information about REMCON, speak to your electrical contractor or write to... Dept. RB-61, Pyramid Instrument Corporation, 630 Merrick Road, Lynbrook, New York.

REMCON *low-voltage convenience switching sells houses.*

75 years ago. Fourth best is flexible conduit; fifth is thin-walled rigid conduit; sixth is heavy wall rigid conduit.

All are safe. All are accepted by the National Electrical Code—and there is no excuse for any local electrical code whose safety requirements are in excess of the national code.

Today backward codes and restrictive practices make about one house in four pass up the economy of nonmetallic sheathed cable and compel about one house in 20 to waste a lot of money for very little benefit on one of the three types of conduit.

best conductor for the all-electric house of 1,200-2,000 sq. ft. will usually be:

- Two 3-wire No. 12 circuits for general purpose.
- One 3-wire No. 6 circuit for the range
- One 3-wire No. 10 circuit for the water heater*
- One 3-wire No. 10 circuit for the dryer and washer (see item 176 below)
- One 3-wire No. 12 appliance circuit in the kitchen-dining room area
- One 3-wire No. 10 circuit for central air conditioning (or 2-wire No. 12 for a fuel-burning furnace)
- One 2-wire No. 12 circuit for the freezer

The panel board for these circuits should permit at least two and preferably five future additions.

best place to run the general purpose wires is not through the ceiling but through the walls at base plug level, because the average house has four times as many base plugs as ceiling outlets.

best wire size for general purpose electricity is No. 12 instead of No. 14, for it takes too many small circuits to meet today's much greater current demand with the small wire which was most economical for yesterday's much smaller demand.

No. 12 wire carries 33% more current (20 amps. vs 15 amps.) for only 20% more material cost and less than 10% more labor cost.

But 95 new houses out of 100 still use No. 14 wire for most of their general purpose circuits!

best thing to do with No. 14 wire is not to stock it or use it. Progressive codes are beginning to forbid its use. It costs so nearly as much as No. 12 (which carries 1/3rd more electricity) that it will not pay electricians to carry a double stock so near the same size.

best general purpose layout for 1,200-2,000 sq. ft. houses is a split ring of 3-wire No. 12 at baseboard level, with 2-wire No. 12 taps into the partitions and the ceiling. This will make 240 v. available in every room and carry 9,600 watts—a comfortable margin over the 4 watts per sq. ft. recommended by the Adequate Wiring Bureau. This margin is big enough to handle room coolers, bathroom heaters and similar appliances without a separate home run, whether they use 120 v. or 240 v. It is also big enough to handle the dishwasher and garbage disposer if they are located along the outside wall.

In two story houses these two 3-wire No. 12 circuits can be run up on either side of a door and continued around the perimeter of the second floor.

best electrical connections are the new push-in or pressure lock type that came on the market three years ago. These are so much easier to use that they should be made much easier to buy. For

* Unless the local utility rates favor off-peak water heating, in which case two 2-wire No. 12 circuits may be needed.

comparable quality push-in devices cost no more than the old-fashioned screw type, but they are not yet available in the cheapest grades.

Today not one house in ten takes advantage of the saving these new pressure lock devices offer.

best thing to do with all the old-fashioned wiring devices whose wires had to be looped around a screw is to stop making them, stop distributing them, stop selling them and stop installing them. The wiring industry should not be plagued with a double production problem and a double inventory problem waiting for behind-the-times users to learn how much easier (and therefore how much quicker and cheaper) it is to use the new push-in devices.

Solder connections cost far more than they are worth. Only backward codes require them. Utilities use them only for high voltage splices in cables.

best devices to use are those that will stand up in service. They are the cheapest in the long run.

In receptacles the main difference between the better grades that will stand up and the so-called "competitive" grade that may not stand up is that in the competitive grade the plug makes contact on only one side of the plug cap blade; in the better grade the blade fits into a V or U and makes a firm contact on both sides. The better contact thus provided operates cooler, maintains the spring tension, and so assures longer life. The competitive grade, operating with more heat, loses tension and so increases the frequency of arcing. This arcing uses up the contact metal within a fairly brief time, making it necessary to replace the device at a labor cost seldom less than \$2. The competitive receptacle costs the trade about 13¢. The better grade is priced at about 22¢.

In switches the difference is much the same, for in the better grades (easily identifiable by the underwriters' laboratory "T" rating stamped on them) the switch arm makes a double contact when closed; in the competitive grade only a single contact. Mercury switches and silver contact AC rated switches will last as long as the house itself.

Only the better grades meet the Federal wiring requirements, and it would be a fine thing if FHA would bring its wiring MPR in line with the Government's own minima. It would also be a fine thing if the Adequate Wiring Bureau withheld its insignia for houses using the "competitive" grade.

best convenience outlet to use is always duplex or triplex.

best outlet boxes to use with 3-wire No. 12 circuits are those one size larger than usually employed, for it wastes time to cram three heavier wires into the small boxes designed for two No. 14 wires.

Best box size on a 3-wire No. 122 circuit is 3" x 1 3/4" x 2 3/4" unless a tap is to be made. Best box size now available for use where a tap is to be made is 1 1/2" x 4" x 4", but this size needs further study by the manufacturers, because it is not well adapted to dry wall construction if a single gang cover is used and two gang covers for a duplex convenience outlet are not suited to ordinary household use.

best location for an outlet is near the end of a wall space (or at any rate away from its

continued on p. 176



Vinyl tile flooring...

Up-to-Date Styling—Years-to-Come Savings

Flooring made of BAKELITE Brand Vinyl Resins gives you a greater selection of colors and patterns that satisfy buyers' desires. You not only have more to please them with, you can assure them that the lustrous beauty of flooring made of BAKELITE Vinyl Resins will last years longer.

Remember: because of BAKELITE Vinyl Resins, the impervious nature


of this flooring shuts out soil and wear, resists chemicals, cleansers, scuffs and scars. Therefore, you can assure excellent economy and very low maintenance.

These are attractive advantages for any house. You can provide them easily by making "Flooring made of BAKELITE Vinyl Resins" your standard specification.

*Another way
to build
better with...*



Also see pages 177, 179, 181, 183, 185 and 187.

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center) where it will be less likely to be blocked by furniture.

best positioning for outlets on opposite sides of an interior partition is back to back, so they can use the same box.

best way to provide for future base plugs (where surface raceways are not used) is to leave a 2' loop of slack in the wire between wall outlets (unless the outlets are already spaced close together). Codes which restrict this practice should be changed.

Two feet of 3-wire No. 12 Romex costs less than 20¢ at trade prices, less than \$3 for a whole house wired with a base plug for every 12' of wall (the adequate wiring minimum standard). It will often save the homeowner more than \$3 on each base plug added later if the original electrical installation provides enough wire wherever a future outlet is likely to be wanted so new wire need not be run through the studs from the nearest connection.

best way to splice (if you must) is to use a mechanical splicing connector.

best way to drill 150 holes in the studs for a perimeter ring with branches into the partitions is to predrill all the studs at the same time they are being precut. Holes 1" in diameter will not materially affect the strength of a 2" x 4" stud; they are just as easy to drill with a gang drill; and cable can be threaded through them a lot easier and faster than through the 5/8" holes electricians now drill for themselves with portable power drills.

best standard height for the holes would be 10" up from the plate (about 12" up from the floor) to enter outlet boxes centered at the recommended 12" above the floor.

best place to cut general purpose cable to length and strip to the individual wire is at the factory; second best place is in the shop (if the local unions insist on doing the cutting and stripping locally).

Housing components are standardizing so fast on a 4' module that it might save on-site labor and waste very little material to precut the wire for base plug service to standard lengths for spacing on a 4' module; i.e., 4' plus enough slack; 8' plus enough slack; and 12' plus enough slack. Quite a few cost-conscious contractors already practice this economy on large projects.

best way to tighten the hundreds of screws in residential wiring devices is with a ratchet screwdriver, so one motion will do the work of ten. But very few electricians use them.

best way to run circuits around at base plug level would be through surface raceways if they were widely enough used to bring down their price. With careful planning they can even be made competitive at today's price of 40¢ a ft. (including factory prewired duplex receptacles every 30"), according to builders and electrical contractors who have used them. They are definitely the cheapest way to add more base outlets above finished ceilings in existing houses. They are also the cheapest way to provide outlets in nonbearing partitions erected after the perimeter walls are finished. Reason: they

can be installed and inspected at the same time as the finished wire for the perimeter ring, whereas branches run through the partition studs would require an extra call from the electrician and an extra inspection. The thinness of these nonbearing walls (1 5/8" studs instead of 3 5/8") is an added reason for surface circuits.

Since 1955 surface wiring systems have been approved for wiring outlets on both sides of the partition from the same circuit if the builder prefers not to install a raceway on both sides.

best way to wire a single room switch is with a 120 v. circuit, for a transformer and relay for low voltage cost far more than the labor and material saving offered by substituting bell wire at 1 1/2¢ a ft. for Romex at 4 1/2¢. But . . .

best way to provide multiple switching or remote control switching is with a low voltage system. Best way to mix conventional and low voltage systems for greatest economy is to use relays with built-in transformers at lighting fixture and run low voltage circuits to the switches; but for more elaborate systems it will usually be cheaper to install a single, larger transformer (trade price \$10 to \$15) to supply the group of relays (trade price \$1.15 each—one for each lighting circuit).

best way to wire the kitchen-utility room appliance area (which uses about five times as much connected load as all the rest of the house combined) is to run a surface metal raceway around the walls above counter level, big enough to hold all the wires which are now or may later be needed. For built-in kitchens it could be designed to do double duty as a splash board. In other kitchens it could be attached directly to the studs above splash-board height before the dry wall and surfacing are applied. It should be so designed that convenience outlets can be installed where needed.

Such a raceway would cut the first cost of adequate wiring by making it unnecessary to include in the initial appliance area wiring any other provision for future appliances. It would cut the cost of later additions to the appliance area wiring by making them easy to install without fishing heavy wires through walls and ceilings.

The surface wiring channels now used in residential living areas are too small to hold all the heavy wires needed in the appliance area, but the channels made for industrial use could easily be adapted. In a big enough size their trade price runs about 41¢ a ft. unwired.

best way to supply a clothes washer and separate dryer is to run a 3-wire No. 10 circuit (capacity 7,200 watts) to the dryer and tap this circuit with 2 No. 12 wires through a 15 amp. fuse or breaker for the washer. The dryer uses 4,500 watts; the washer only 700. They are usually installed side by side.

best place to wire appliance combinations, furnaces, and central cooling systems is at the factory, so they will require only a single connection to install. Some manufacturers are already doing this and others should follow. One builder saved \$29 per house by persuading his furnace supplier to prewire the furnace, blower and control relay for a single connection.

The cost of adequate wiring is mostly the cost of carrying current to the appliances and mechanical

continued on p. 178



Ask your dealer for wall tile made of BAKELITE Styrene Plastics which meet the industry's standards. It's eligible for FHA loans.

Tile—smart as can be...

for a fast, positive decision on the whole house!

Smart, with stamina. Warm and easy, with a party-dazzle—the newest kitchen has to be all that. Nothing captures all these qualities as completely as tile made of BAKELITE Styrene Plastics. The variety of colors and sizes and types is a spring-board of ideas, adaptable to any architecture. And, these tiles are sur-

prisingly low in cost, easy to install.

BAKELITE Styrene Plastics give tile all these features: Resistance to acids and alkalis. Easy cleaning, safe with soaps and detergents. Clear and uniform colors, right to the back. Resistance to denting, chipping and crazing. Meets RHA requirements.

*Another way
to build
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Also see pages 175, 179, 181, 183, 185 and 187.

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equipment. Only two "3-wire No. 12" circuits are needed to provide more than adequate wiring outside the appliance area.

best fuses to use in motor appliance circuits are the time delayed type, which are designed to take without blowing the three-times-as-heavy starting current of the motor. They cost only 5¢ more, and they will give the builder many a call back.

cheapest raw metal for conductors is aluminum. Volume for volume it costs only 1/6 as much as copper; allowing for the larger wire size aluminum usually requires, it costs only about 1/4 as much. This year, for the first time, the National Electrical Code will give a complete set of current ratings for aluminum conductors in all sizes in all types of insulation.

Aluminum is now definitely cheaper than copper for the heavy wire used for 100 amp. service drops and is fast coming into general use for this purpose. It is almost certainly cheaper now for the wire in the service entrance and it may soon be cheaper for the No. 6 wire used for stoves and sub-feeders.

Four reasons have delayed the use of aluminum conductors for wiring houses:

1. Aluminum wire is too stiff to loop around screw connections. (This objection is ended by the new push-in devices and by the Underwriters' Laboratories' new requirement that solid aluminum wire can be only 3/4 hard.)

2. Aluminum and copper are subject to corrosion from electrolysis wherever they touch in the presence of oxygen and moisture. (On No. 6 or heavier circuits, where aluminum is now being used, this can be prevented by interposing a plating of one or more other metals. On small circuits no special protection against electrolysis may be needed.)

3. Pure bare aluminum oxidizes the instant it is exposed to air, and the aluminum oxide formed has very high resistance so that somehow or other it must be pierced to establish a satisfactory electrical connection. (This objection can be met by coating the aluminum with special grease to keep out the air and by applying abrasion and pressure at the connection to pierce the oxide.)

4. Aluminum wire of a given rating costs more to insulate than an equivalent copper wire because it is thicker. (This cuts the material cost differential in favor of aluminum to a figure nearer 25% than 75%.)

The labor costs for aluminum wiring will always be more than for copper, because it is larger in diameter and because it takes time to clean the aluminum thoroughly and to get a good contact and it takes time to apply just the right pressure in each device (too much will make the aluminum flow; too little will not make a good enough contact). The lesser weight of aluminum cancels out some of this extra cost.

For wires smaller than No. 6 the higher labor cost will probably be greater than the material saving; but for No. 6 and over aluminum should be cheaper when contractors learn the slightly different techniques needed to use it and manufacturers give us the slightly modified devices needed to handle either aluminum or copper.

To cut the cost of adequate wiring we need teamwork from start to finish



BOGARD: *One house in ten has an electric dryer.*



WEIST: *We had to educate our contractor on how to use surface raceways economically.*

We will not get the wiring we need at the costs we want until we get better understanding and team work between builders, architects, electrical contractors, electrical dealers and electrical manufacturers. That means specifically:

1. Architects and builders must learn a lot more than they know now about wiring. They must learn what costs more and what costs less. They must learn to work closely with their electrical contractors to develop an economical specification, instead of asking the contractor to make the best of an unplanned layout. The time to save money on wiring is before the electrician comes on the job.

Many a builder who saves \$3 or \$4 with 11¢ devices that may not last a year wastes \$100 by not preplanning for wiring economy.

2. Electrical contractors must give their customers an evident incentive to write an economical wiring specification, instead of bidding the same per outlet price whether the layout is economical or not.

3. Electrical manufacturers must study the contractors' methods and problems more closely. They must take more responsibility for developing the materials and devices contractors need to do the job more economically.

4. Electrical distributors and dealers must take more responsibility for stock and selling devices that will help cut costs, instead of waiting for contractors to demand them. (For example, it is three years since the manufacturers offered the great economy of pressure lock (push-in) connections, but many wholesalers still do not carry them.)

5. Electrical contractors must learn to take quicker advantage of the new labor-saving methods and labor-saving devices (like push-in connections) that make better wiring cost less./END.



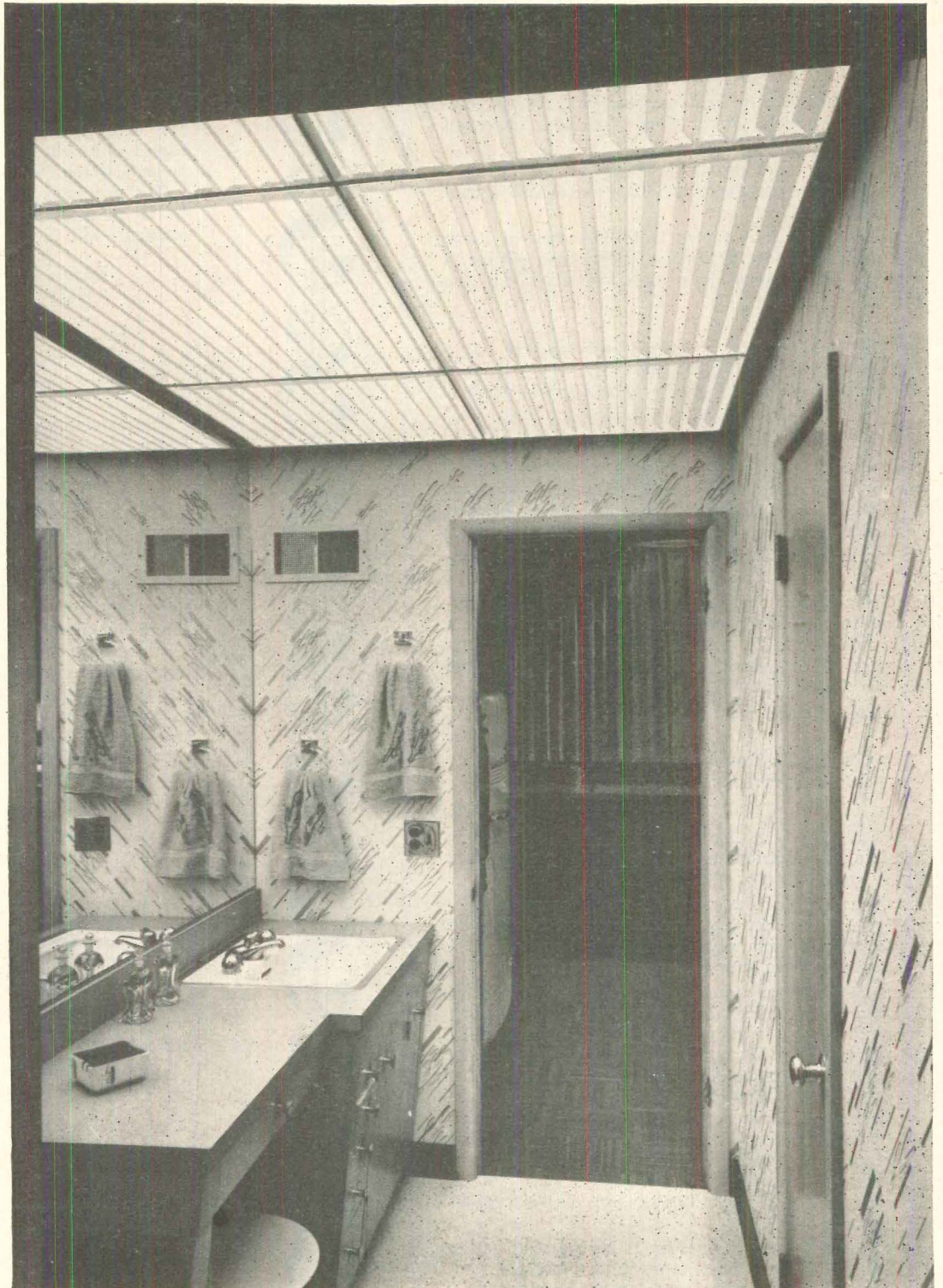
ZERBLE: *Surface raceways give you a wonderful chase.*



W. W. SMITH: *We must anticipate new appliances that we can't even visualize today.*

This bathroom is 15 feet from the nearest exterior wall, yet every buyer will remark on its lightness. Made possible by fluorescent lighting hidden by panels of BAKELITE Rigid Vinyl Sheet.

A Glowing Ceiling puts a gleam in her eye!



Soft, glareless light in a center hall, a den, a basement or an interior bathroom may make the difference in promoting your houses.

How is it done? Milk-white plastic ceiling panels—made of BAKELITE Brand Rigid Vinyl Sheets—shield continuous fluorescent strip units that give lighting as close to daylight as possible. And, there's no color distortion.

The shields have other advantages, too; high light transmission, high resistance to warping, cracking or discoloring with time.


Finger marks, creams, soaps and cleaning materials won't harm them. In fact, they can be cleaned in soap and water whenever necessary. And, your cost is much lower than you might expect.

Take a look at your house plans. Are you going to save by locating baths and halls away from windows? Is your floor plan going to be more compact and more economical? Then investigate hidden light sources . . . made possible with BAKELITE Brand Rigid Vinyl Sheet. See your lighting contractor or write Dept. TD-78.

*Another way to
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**First fast reactions
to last month's editorial:
"Let's do something about money."**

Chapters could be written on practically every paragraph in the article, but I think the most important statement is:

"Our industry does not want to pay as much net interest as the other borrowers pay. That makes us low man on the totem pole."

If we could work it out so that FHA and GI home buyers could compete for money in the open market, I believe we would go a long way toward solving the problem.

EHNEY A. CAMP, JR., *vice pres. and treasurer*
Liberty National Life Insurance Co.
Member President's 1953 Housing Advisory Comm.

You have dramatized the situation and the shortage of money very effectively. Such a clear-cut statement, even without a cure, is helpful to any solution because it stimulates a proper and eventual solution.

We can do at least two things which you did not mention:

1. Get a greater share of the available credit by tapping new sources like pension funds and foundations. I am also referring to the method employed by the Investors Central Management Corporation to entice these funds into the market.

2. Obtain greater down payments.

GEORGE H. DOVENMUEHLE, *president*
Dovenmuehle, Inc., Chicago

This is a fine contribution and a splendid presentation. And your arguments are sound.

For the security of the country I would concur wholeheartedly with the fact that something must be done to keep the cost of land within reasonable bounds, and I most heartily approve your idea of cutting costs.

I also agree that a more suitable secondary mortgage market is essential. I don't know whether the Home Loan Bank would be that agency because it is not sufficiently capitalized to serve that purpose. You have undoubtedly noticed that a committee has now been appointed by the Banking & Currency Committee to study the entire banking situation, and I am sure that the savings and loans and the Mutual Savings Banks will both present a good case for an agency which will provide those institutions, already heavily invested in mortgages, with needed liquidity so that they might further expand their investments in "long terms."

But if we want to sell houses on as large a scale as the need requires, we will have to keep the monthly payments low. If we try to follow a 20-year mortgage pattern, I would say that 40% of the applications we approve today would have to be declined because of shortage of income.

F. V. GOESS, *president*
The Prudential Savings Bank, Brooklyn

I must say that your questions and answers are very thought provoking. They are especially interesting to me, since I have had the privilege of being chairman of our Federal Home Loan Bank Committee, and so many of the things you bring to the attention of your readers certainly are borne out by the facts and figures.

There was, however, an absence of two items: one is the unrealistic interest rate on FHA and VA loans in this time of tight money with the rate the same for 15, 20, 25, or 30 year paper. While money rates were going up, FHA and VA were increasing the term of their loans, which is in effect cheapening money when actually money is getting tight.

Also, you did not bring out the question of how certain areas were able to get high enough appraisals to allow for fees, commissions and discounts when other areas of the country seem to be operating pretty close to par on both VA and FHA loans except in cases where they make their purchases in the outside market. These are two items which are very rarely spoken of but have a considerable effect to the lender and the builder in the areas in which they operate.

The article is excellent, as usual, and should be read by all in the home building business in order that each segment will appreciate the other.

RALPH R. CROSBY, *past president*
US Savings & Loan League

. . . Excellent!

Not every line of it makes me too happy, but telling the truth has never hurt anyone.

Congratulations on the forthright position you have taken.

KILGORE MACFARLANE JR., *president*
The Schenectady Savings Bank

I passed it around to my associates for comment. Our consensus is: although we may not agree with everything you say, we must agree that everything you say is sound and constructive.

It has been my privilege as president of the Ohio Savings and Loan League to make many recent talks. On some of the topics you covered, and I did not receive agreement from everyone either.

I sincerely hope your editorial will create comment and constructive criticism, because you have made a very fine analysis of the problems facing all institutions that handle money.

FRANCIS L. VESY, *president*
Ohio Savings & Loan League

. . . One of the finest treatments I have ever seen, and I know that most of the more progressive people in the industry will agree wholeheartedly.

I would like to help the cause along a little by placing a copy in the hands of a number of my friends and would greatly appreciate it if you would send me two dozen copies.

Congratulations for an article which, I believe, is of the utmost importance today.

WARREN STEINER, *vice president*
Home Federal S. & L. Assn. of Cincinnati

. . . An excellent editorial.

I agree with most of what is said and I believe you are performing a real public service in saying it in plain words that everyone in the industry should be able to understand.

There seems to me to be only one important omission, i.e., any statistical data which would give the reader some idea of the present size of the mortgage money problem. It might well be pointed out that real estate mortgages "gobbled up" over \$16 billion last year (1955 net increase in mortgage debt)—a sum nearly equal to the entire net increase in the supply of funds available for investment from all the life, fire and casualty insurance companies, the mutual savings banks, the savings and loan associations, the corporate pension funds and the state and local government retirement funds.

Or to put it still another way, this is the third year that the net increase in mortgages has been about half of the total net increase in funds available for investment from all sources.

If you have any extra copies available, I would very much appreciate having copies to send to our top investment officers.

L. DURWARD BADGLEY,
director of real estate & Mortgage Research
Mutual of New York



Leonard W. Besinger, Carpenterville, Illinois...

"7,000 homes with polyethylene moisture barriers"

"... plus 5 school buildings, 102 stores forming the world's largest shopping center under one roof"

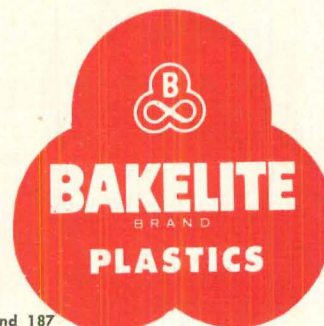
"We wanted no part of old-fashioned materials. Polyethylene cuts laying time 50% ... we have no waste due to cracking and tearing ... and we do away with equipment necessary to seal joints. Polyethylene stays moisture-free, never gets saturated. And, we exceed the minimum requirements of both VA and FHA."

"The buyer is given advantages in health


and upkeep", said Mr. Besinger, "no housewife wants to look at sweaty walls with streaks or blisters, mildew on furniture or rugs. Polyethylene ... assures no condensation even with contact tile floors."

Have you investigated using moisture barriers of film made of BAKELITE Brand Polyethylene? Or, its applications for dust barriers, covering equipment and stored materials, covering uncompleted windows in bad weather? Your supplier has full information, or write Dept. TE-78.

*Another way to
build better with...*



Also see pages 175, 177, 179, 181, 185 and 187

BAKELITE COMPANY, A Division of Union Carbide and Carbon Corporation  30 East 42nd Street, New York 17, N. Y.
The term BAKELITE and the Trefoil Symbol are registered trade-marks of UCC

Levitt jumps to \$30,000 houses on main line tract

The country's biggest builder, fast-moving **Bill Levitt**, plans his first big jump into the luxury house market.

He bought the 145-acre Cassatt estate near Villanova, right in the heart of Philadelphia's plush Main Line. There he plans to build a "much higher type" house than his Bucks County models. Reported price: \$30,000.



LEVITT OF LEVITTOWN, N. Y., PA., N. J.

Levitt asked Radnor Township to rezone the whole tract for half-acre lots, but says his smallest site will be 27,000 sq. ft. (most will be 30,000 sq. ft.). He also asked the township to forego a 12-acre park planned for his land.

A stormy public hearing was expected Aug. 27. More than 400 irate neighbors turned out when the previous owner tried to get the zoning cut from the original one-acre restriction.

Levitt still has several thousand houses to go in Levittown, Pa., and is just getting started on his new 4,000 acre Levittown, N. J., but one Philadelphia home builder predicts: "He'll have less trouble selling \$30,000 houses on the Main Line than \$20,000 ones in Bucks County."

Mass-producer Levitt is no stranger to the quality market. His first Country Clubber in the Roslyn-Manhasset area is still the best Long Island has turned out for the price, and the Roslyn houses sell today for almost twice the original \$16,990.

Los Angeles' Aldon moves up

Likewise on the West Coast, **Aldon Construction Co.** (eighth biggest in the U. S. last year—26,000 houses since WW2 is moving up to mass produce higher priced houses. It has bought 160 San Fernando Valley acres for 500 expensive houses (average \$35,000), and 135 acres for 500 medium priced houses (\$20,000 to \$22,000).

Says Aldon President **Willard Woodrow**: "Why should only the lower income groups benefit by mass construction? The market for development houses is changing, and we are changing with it."

Woodrow has not changed his mind about architects, still plans to do his own design and keep it very close to what his sales experience tells him the public wants.

"I keep my finger on the public pulse, because a hot number can become a dud overnight, often without any real reason you can spot. Merchant builders in southern California face the toughest competitive situation in the world; if you miss once you can be in trouble."

Aldon plans to offer six basic expensive models and six basic medium priced models, but will allow each buyer to make changes as he wishes. Says Woodrow: "Buyers in this price class won't let us say 'This is it, period, take it or leave it.'"

Meantime, Woodrow reports sales are 1,000 ahead of production on Aldon's \$15,000-\$16,000 houses in Canoga Park.

New models up Hughes' sales to highest point since 1950

Dick Hughes says he is sold further ahead than at any time since 1950. Early in August, his sales were 50 ahead of production in Wichita Falls, about 15 ahead in Pampa, Borger, and Bartlesville.

Hughes' explanation: "I've got a good house (H&H, Mar. issue) and I pick the right towns to build in. My only trouble is my costs are up so much I can't make any money on my sales."

Same 2½ baths; \$1,000 less

Jack Bagon, who builds both on Long Island and in Connecticut, reports plumbing bills for his 2½ baths are \$1,000 lower on the island for just as good a job. Says Bagon: "Specialization and competition account for the difference. You can't beat L.I. subs."

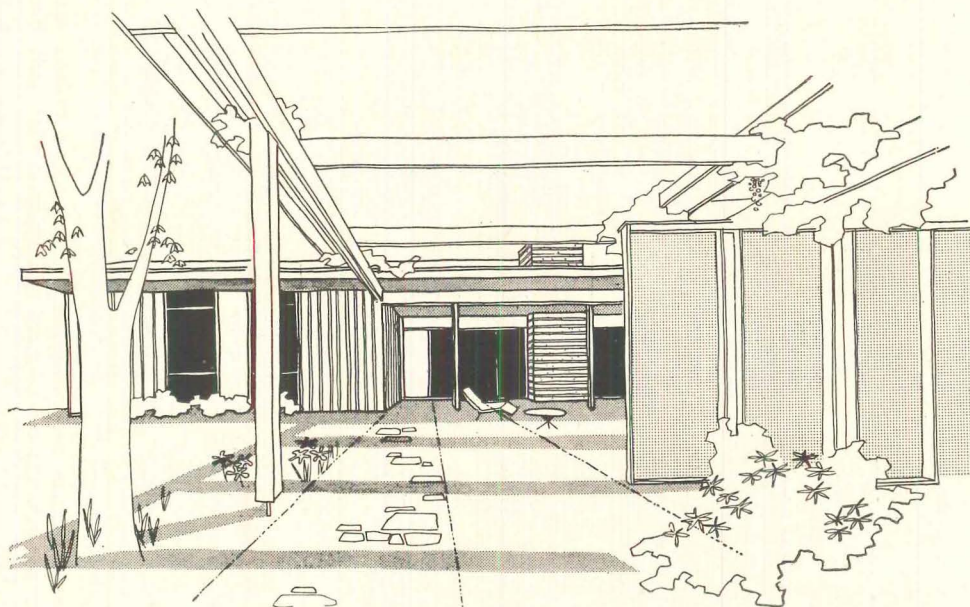
Slow sales boom new designs

On Long Island, Architect **Hank York** reports that the tougher market for houses is making him busier than ever, as more builders try to get better design and new models to help their sales. And builders don't hesitate to ask him for "a four-bedroom house we can sell for \$13,000."

Highest priced sub in country buries all wiring, even TV

Paul Trousdale is getting \$59,000 per acre, selling off homesites on the Doheny ranch above Beverly Hills (late home of the Teapot Dome oil man).

To get that price he says he has to spend \$15,000 per lot for improvements. Not only power and telephone lines, but TV antennas as well are going underground. A 51 mi. coaxial cable serves the entire 400 acre area, with laterals to each homesite. One master pickup tower will be built on a high ridge, and the cable will allow as many as eight TV sets to be installed in any house. An extended system could serve all of Beverly Hills.



Biggest builder in Hartford will try 80 contemporary houses

Hartford's biggest builder is taking an 80-house flyer in architect design and contemporary styling. He says they will be the first really modern tract houses in Northern Connecticut.

Says Builder **Irving R. Stich**: "Up to now I've always told my architect what to do. Now I've taken a lot of care to find just the right architect and I'm giving him a pretty free hand."

The architect is MIT trained **Elroy Webber**, AIA. His basic model features a 4' in 12' roof pitch, wide overhangs, sliding glass doors to a patio behind the carport, a family room with built-in open kitchen. Explains Webber: "We're trying to give most features of the more expensive house." Stich hopes to price the 1,400 sq. ft. homes on 80 x 150 lots "under \$20,000." *continued on p. 184*



Photographed at "HALEKEA," the residence of Mr. & Mrs. G. C. T. Remington, Everglades Island, Palm Beach, Fla. Architect, Gustav A. Maass, A.I.A.

Owner's report on molded plastic drawers:

New versatility...unmatched cleanliness!

Mrs. Remington used over 50 drawers molded of BAKELITE Phenolic Plastic in her new home. Here are her comments: "These drawers allow infinite arrangements. We saved space by using them in closets in the place of bureaus . . . 44 drawers in four closets! And, in this climate, the plastic eliminates swelling and mildewing.

"The fact that they are seamless helps in cleanliness. I think it is marvelous that I can take a damp cloth and clean them without a worry. The big thing is that I don't have to put paper in the drawers and there are very few spots where insects

can hide."

Here's proof that these molded plastic drawers will appeal to your customers. They give you that "built-in" sales advantage.

You, the builder, gain, too. Drawers molded of BAKELITE Phenolic Plastic require no finishing, are shipped ready to install. You just add handles, slide into place. Runners and center guides are molded in, the satiny black finish goes all the way through, and they are tough, durable. Best of all, the cost is competitive!

For further information, see your building supply dealer, or write Dept. TC-78.

*Another way to
build better with...*



Also see pages 175, 177, 179, 181, 185 and 187

Gerholz scores with summer REopening of same models

Pulls first day crowd of 2,000; \$120,000 sales before night

In the bad old summertime sales often go down as the thermometer goes up.

But NAHB and NAREB ex-President **Bob Gerholz** put new life into warm weather sales with a dramatic REopening of his Flint houses, called a "Summer Festival."

All the fanfare of the original opening was revived with some new excitement added. Though his four models are almost the same houses he has been offering, the REopening brought 2,000 people out in the rain on opening day and resulted in \$120,000 in sales.

Frank Fulkersin



GOOD SIGNS ADD IMPACT

- Ace merchandiser Gerholz enlisted help:
 - ▶ A pre-view aroused interest in bankers, FHA officials, press, radio, and TV.
 - ▶ Manufacturers and suppliers joined in an eight page tabloid section run in the local newspaper.
 - ▶ Patio and yard plantings were put in by the Flint Yard and Garden Club.
 - ▶ One model was furnished right down to the last ashtray, three others had everything but living and bedroom furniture. All were completely carpeted by a local store.
 - ▶ Three kitchen specialists, General Electric, Hotpoint, and Westinghouse showed off their latest equipment in model kitchens.



Realtor uses bullseye as bait for boys' sign-ruining stones

Vandalism can be cut down—or at least diverted harmlessly.

In Carle Place, L. I., broker **Ernest Chester** has a fine spot for his business sign, right beside the Long Island tracks. Thousands of commuters see it each day, but so do stone-throwing boys. The dented metal always needed repainting or replacing.

Now Chester has put up a small bullseye sign right next to the large billboard, with the notice, "This sign is for kids." Since then, would-be Bob Fellers sharpen up their aim on the target sign, leave the big one alone.

Kitchens still sell houses, color styling helps, too

When **Sam and Harry Madway** found sales lagging in their suburban Philadelphia tract they spruced up their kitchens with 15 lin. ft. of colored metal cabinets (formerly 9½ lin. ft. in white), added a built-in cooking top and oven. And they called in Consultant **Beatrice West** to color style the exteriors of all the houses.

Result: FHA upped its valuation \$500, to \$12,500, and 94 houses sold at the higher price in the next 56 days.

Whittier project strikes snag, Jalonak plans now in doubt

Irwin Jalonak won't play it wide and handsome after all.

Right now, the only thing sure about the big (4,000 house) Whittier project reported in the July HOUSE & HOME is that there has been a big blow-up among the sponsors and Jalonak is out. How many of his ambitious plans his late associates will go through with, nobody seem to know.

Contemporaries keep selling, with extra boost from trade-ins

Leon Weiner's fast selling tract of contemporary houses (H&H, Feb. issue) is still the talk of Wilmington, Del.

Said one recently arrived DuPont executive: "Every older house we looked at was on the market because the owners wanted to move to Weiner's houses. We decided it was silly to take what others were discarding, and bought the new house ourselves."

To keep variety in his project, Weiner added two more contemporary models at \$20,000: one split and a one-floor house. First sales results give the ranch model a 5 to 1 edge over the split. Chief reason: an enclosed patio borrowed from a successful Long Island version of the Hawaiian lanai (Mar. issue).

Four months ago, Weiner found that over 80% of his buyers were second-timers and started trading. Already 11 successful deals

have been made, five of them buyers enticed by the trading angle who sold their own houses before the trades went through.

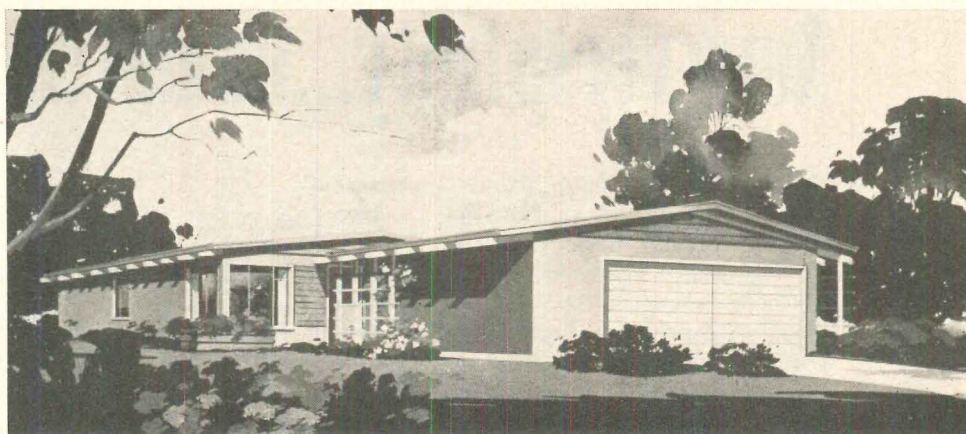
Stock offering invites public to share in land development

Want to buy stock in a big waterfront land development for \$1 a share?

Two New Jersey builders think they can finance a 225-acre tract on Barnegat Bay by a public stock offering of 690,000 shares at \$1 each. **First Jersey Securities Corp.** in Newark has underwritten the issue, which can be sold only to N.J. residents (to avoid SEC complications).

The builders are **Thomas H. White** and **Elliott E. Tyler**, of Plainfield, N. J., operating as the **American Land Investment Corp.** They bought their acreage for \$170,000, plan to spend \$300,000 for fill and drainage to manufacture building 1,200 lots, all with private boat landings.

Frank Fulkersin



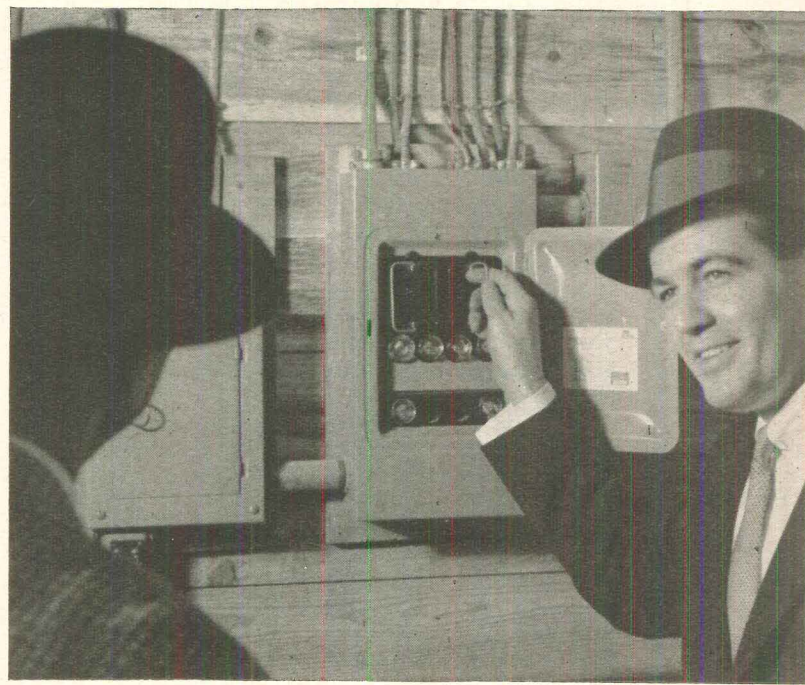
Here is Earl "Flat-top" Smith's new pitched roof house

Other new features include: wider overhangs (up to 52") with outrigger rafters projecting a foot, aluminum sash throughout, colored kitchen cabinets and 15% more of them. The 2' in 12' roof pitch is optional at \$400 extra and all Smith's prices are up \$500 to \$600 to cover added amenities and increased labor and material costs, with no change in size or floor plan. With flat roof, the 910 sq. ft., three-bedroom, one-bath house will be \$9,000. An extra \$1,000 adds a two-car garage, extra half-bath, and a 90 sq. ft. concrete patio. The four-bedroom, two-bath, 1,200 sq. ft. version will be \$11,000, with both garage and patio. Says Smith: "We are trying to keep our prices as low as possible to serve the industrial worker."

continued on p. 194



Selling the house in every room



Upstairs, downstairs—whatever room you show a prospect—you've got a selling point in modern wiring insulated with BAKELITE Brand Vinyl Plastic.

When you talk about this up-to-the-minute wiring, you're talking years of extra service life. Vinyl plastic insulation is so resistant to aging factors—cracking, stiffening, and oxidizing—that it far outlasts ordinary insulation. This is the kind of wiring-for-the-future that home-buyers are looking for.

Your electrical contractor can do a

faster installation job with this insulating material. Stripping and splicing are quick and clean because conductors insulated with vinyl plastic have no braid or saturating compounds.

BAKELITE Vinyl Plastic is listed by UL for 60 deg. C. building wire and for non-metallic-sheathed cable—including the new all-plastic types UF and NMC. Tell your electrical contractor to install wire insulated with this modern, long-lived material. It's a selling point for every room in the house.

*Another way to
build better with...*



Also see pages 175, 177, 179, 181, 185 and 187

Remember—everyone benefits from ADEQUATE WIRING insulated with BAKELITE Brand Vinyl Plastic

BAKELITE COMPANY, A Division of Union Carbide and Carbon Corporation 30 East 42nd Street, New York 17, N. Y.
In Canada: Bakelite Company, Division of Union Carbide Canada Limited, Belleville, Ontario

Here is the best termite advice you can get

1. Keep the whole house dry.
2. Poison the soil.
3. Put your barriers in right.
4. Watch out for cracked masonry.

These are the four best ways to protect houses against both subterranean termites and the fungi that cause wood rot. So says the new report made for FHA by a panel of BRAB experts, who urged FHA to stiffen its minimum property requirements in termite areas to enforce these rules. But the less termites are found in a given area, the less reason there is for FHA to make builders spend money for these safeguards, the report says.

Termites and wood rot cause an estimated annual loss of \$500 million damage and the damage is getting heavier, partly because termites are spreading north, partly because contemporary houses are more vulnerable (being closer to the ground), partly because more houses are being built on outlying land.

(Because most termite damage is caused by the subterranean specie, the BRAB report does not cover the less serious damp- and dry-wood termites.)

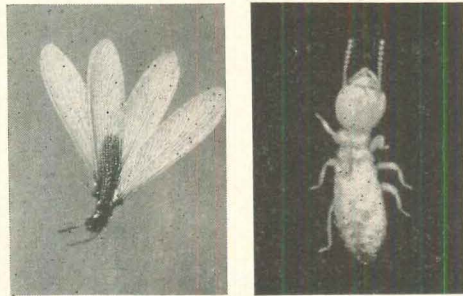
Moisture control. Since a dry house is the best insurance against both termites and fungi, the experts put top emphasis on ways to keep out moisture:

1. Keep the site dry with good drainage, and install flashing with care.
2. Don't put wood too close to the ground; the minimum clearance depends on the type of foundation.
3. Ventilate crawl-spaces and attics, especially in winter. (Homeowners should be cautioned against the natural tendency to shut crawl-space and attic vents in cold weather.)

4. Use vapor barriers and proper sheathing papers.
5. Provide good site sanitation.
6. Provide for easy inspections of the substructure (so a termite breakthrough can be spotted at once).

Except in severe termite or decay areas, the above measures will "minimize" the need for other precautions.

Poison in the soil. A good chemical poison, properly injected under and around a house, should keep out termites for ten years. The report suggests that FHA should make soil poisons mandatory for all slab-on-grade houses in critical termite belts (region 1 on the map below), in other specific areas when necessary. Soil treatment is not required in present MPR's. (The panel also okayed seven different oils and chemicals good for houses and spelled out how each should be used.)



Subterranean termites: At left is winged sexual adult, which has a brown or black body and two pairs of long whitish wings of equal size; at right is adult worker, which is wingless, grayish white. Not shown is adult soldier which looks like the worker, except for larger head, longer mandibles.

Physical barriers. A good barrier serves to fence out termites but it must be well-designed and thoroughly checked after installation. Past failure of many termite shields has been traced to "nonobservance of [these] fundamentals." BRAB recommends that FHA require an inspection immediately after shields are installed and again when the house is finished.

Concrete and masonry foundations are also good barriers. But they must be properly built so their inevitable cracks will not exceed 1/64" in width. And cracks must not extend continuously from grade to foundation top.

Wood treatment. Wood treatment is particularly good for exposed sash, frames and millwork. Its chief purpose is to prevent decay or rot, especially in localities subject to condensation or direct wetting over prolonged periods of time. (Wood treatment is not the best defense against termites because "they can tube around treated wood to reach untreated wood.")

continued on p. 190

* "Protection Against Decay and Termites in Residential Construction."

FHA gets \$76,000 worth of good advice from BRAB

The three reports summarized here and on page 190 are part of the gold mine of expert advice FHA bought for \$76,000 in eight big reports from the Building Research Advisory Board.

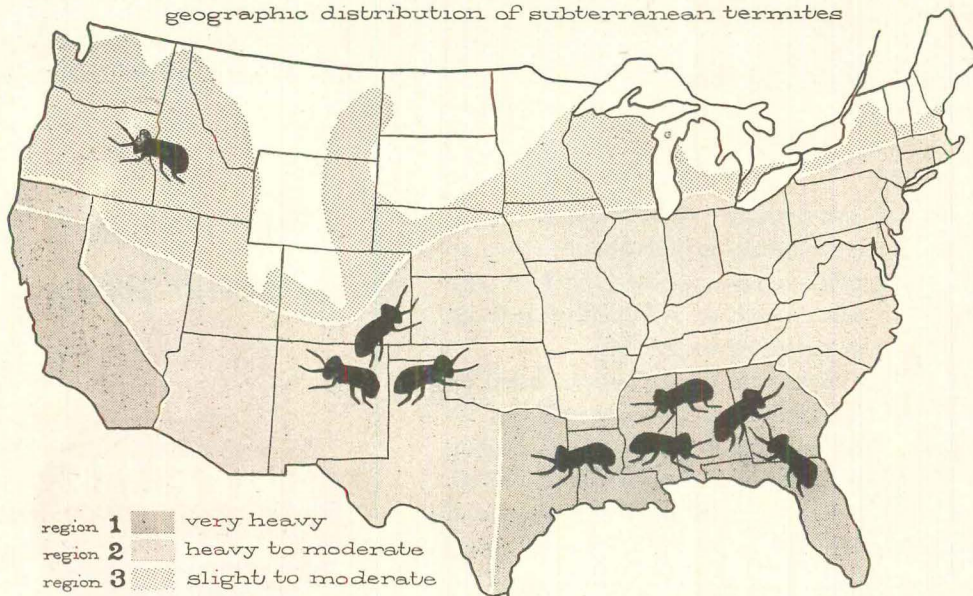
Each report was made by a panel of top experts assembled by BRAB to pool the latest research information on: Termite Control, Vapor Barriers and Septic Tanks (reported here); Slab-on-Ground Construction (Sept. '55 H&H); Anchorage of Exterior Frame Walls (July '56 Tech News); Wood Block Flooring and Sizing Hot Water Heaters (Aug. '56); and Concrete Face Brick (H&H next month).

Each BRAB report not only updates all available information but also recommends appropriate MPR changes. These recommendations will be reviewed Sept. 29 in Washington by FHA's Architectural Standards Committee, which includes building experts Harold Hauf, Leonard Hager, Andy Place, Dave Slipper, Jim Lendrum, Ed Fickett, Irwin Jalonack and Howard Vermilyea.

BRAB is a private, nonprofit organization chartered by Congress as a unit of the National Academy of Sciences. It is supported by private industry to make available to government the best research and experience developed by the building industry.

The eight reports made for FHA are now available for \$1.50 apiece from the Building Research Advisory Board, 2101 Constitution Ave., Wash. 25, D. C.

geographic distribution of subterranean termites



- region 1 very heavy
- region 2 heavy to moderate
- region 3 slight to moderate

Map divides country into regions of heavy, moderate and slight termite damage. Amount of termite prevention needed depends on local conditions which may be more severe or less

severe than indicated above. Wood rot from fungi is most serious in areas of heavy termite damage, but may be more severe in region 1, less severe in arid areas.

PLASTICS...

for the NEW ideas in building



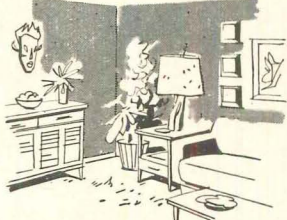

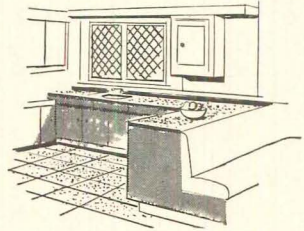

There isn't a single phase of building today that isn't being affected by new products and new methods made possible by plastics.

It's just the beginning. From plants and laboratories, new plastics, improved older plastics are laying at the designers' feet a wealth of properties and advantages never before attained.

The preceding pages highlight but a few of the practical, decorative, idea-stimulating uses of modern plastics. Think also of masonry and other coat-

ings based on BAKELITE Vinyl Resins . . . of new flexible, lightweight pipe made of BAKELITE Brand Polyethylene . . . of plastics for wall coverings, in thermal and electrical insulation, in furniture, in every nook and cranny of the modern house. Some uses are big, others small.

A general booklet, "BAKELITE Plastics in the Home Building Industry" is yours for the asking. It paints a broad picture of all the places plastics are used. For a copy, write today to Dept. SW-78.

 <p>Masonry coatings based on vinyl resins are tough and long-lived . . . come in a wide range of colors.</p>	 <p>Polyethylene pipe won't clog or lose flow from scale or rust. Saves labor, because of light weight and ease of installation.</p>	 <p>Wall coverings made of tough vinyl resins give heavy-duty service, with top resistance to soiling and abrasion.</p>
 <p>Tough weather stripping of vinyl stands extremes of heat and cold without cracking or loss of flexibility and seal.</p>	 <p>Kitchen counters covered with vinyl to match flooring resist food staining. Easy to wipe clean.</p>	 <p>Interior wall paints that dry in only 20 minutes are based on vinyl acetate. They spread fast, have superior hiding power.</p>

*Investigate
all the ways to
build better with*



See pages 175, 177, 179, 181, 183 and 185

Two-family houses, too . . .

**"ENGINEERED FOR YEAR-ROUND
AIR CONDITIONING"**



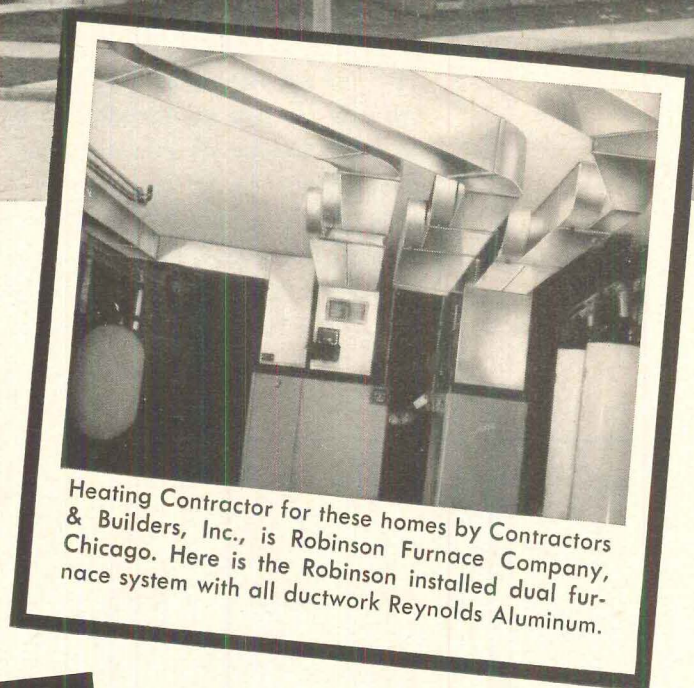
...with rustproof ducts of

REYNOLDS ALUMINUM

The Skokie Development by *Contractors & Builders, Inc.*, Chicago, features two-family houses simple in design but modern in layout and conveniences. And important in their sales points is an air-conditioned future... already engineered into the heating and duct system.

That means the ducts are aluminum—rustproof Reynolds Aluminum. When the time comes to put cooled air through these ducts, you know there's likely to be moisture condensation. But you know moisture can't hurt the ducts.

More and more builders are promoting this feature. And Reynolds backs the promotion with intensive advertising to homebuyers... national magazine ads and important TV advertising. Take advantage of it. Sell future air conditioning. And identify your ducts as aluminum—Reynolds Aluminum.



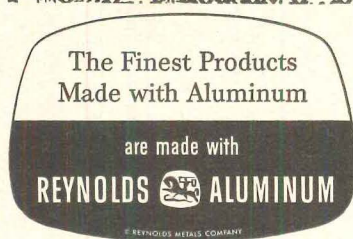
Heating Contractor for these homes by *Contractors & Builders, Inc.*, is *Robinson Furnace Company, Chicago*. Here is the Robinson installed dual furnace system with all ductwork Reynolds Aluminum.



Consumer Literature Available for Distribution. Also Emblems for Identification of Rustproof Ducts of Reynolds Aluminum. Write to



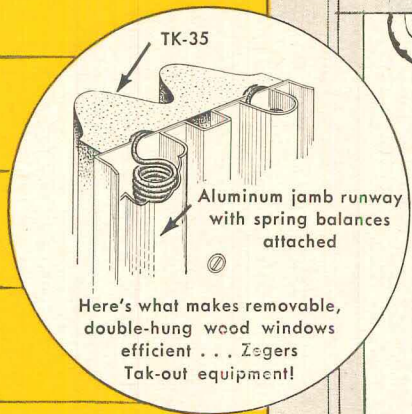
REYNOLDS METALS COMPANY
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REYNOLDS ALUMINUM

See "FRONTIER", Sundays, NBC-TV Network. Starting Sunday, Sept. 23, see Reynolds great new series "CIRCUS BOY"—same time and station.

New
ZEGERS
Tak-out



now

...a "tak-out" window that "keeps-out" weather!

At last . . . a removable, double-hung wood window that provides good weather protection. Zegers Tak-out window equipment makes this possible! Here's how Tak-out works and what it consists of:

1. Equipment for one side of the window is a specially designed jamb runway with spring balances attached. This runway is backed by a thick layer of TK-35, a new, pliable material that permits easy removal of the window yet has outstanding weatherstripping characteristics. TK-35 maintains a constant pressure, compresses easily, and retains these qualities for the lifetime of the window. TK-35 will not rot or be affected by water and will not become too stiff or too soft.

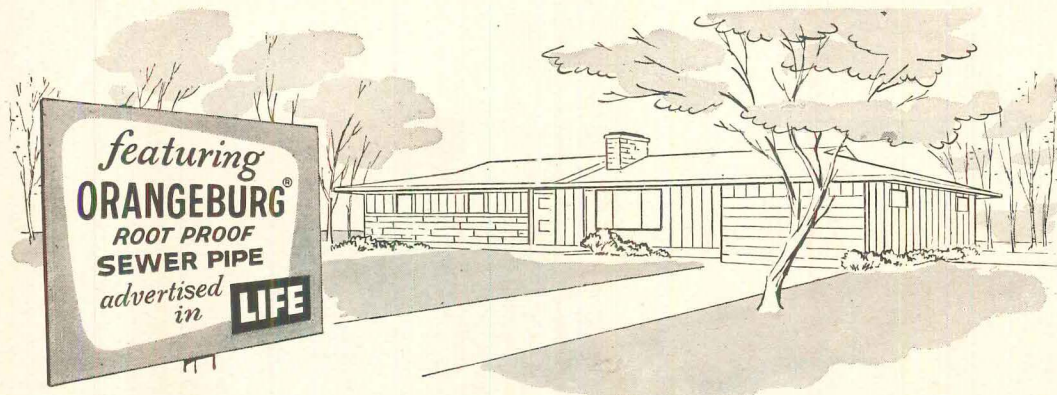
2. The equipment for the other side of the window is a specially designed aluminum jamb runway.

3. Horizontal aluminum weatherstrips for head, sill and check rail.

Look into Tak-out equipment now. Provide removable double-hung wood windows that keep out dirt, cold and drafts! Write today for complete information!



ZEGERS Incorporated, 8090 South Chicago Avenue, Chicago 17, Illinois
Manufacturers of Dura-seal, Simflex, Tak-out and Dura-glide Equipment for Wood Windows



model house. Trusted brand names are proof of high quality...create confidence...help close the sale. The sign out front "featuring Orangeburg Root-Proof Pipe advertised in Life" shows that this model house is modern underground as well as above ground. Orangeburg's national advertising is pre-selling your prospects. Tell them you use Genuine Orangeburg...It will create confidence... help sell the house. Write dept. **HH-96** for free display sign.

ORANGEBURG MANUFACTURING CO., INC.
ORANGEBURG, N. Y. • WEST COAST PLANT, NEWARK, CALIF.

Automatic washers are good for septic tank systems, say experts

Are automatic clothes washers to blame for more and more septic tank failures?

Not if the absorption field is made big enough to handle the extra load. The septic tank itself need be no bigger, and there is no need of wasting money for a second separate tank.

So says a special BRAB report* to FHA, flatly contradicting the many local health officials who insist on separate disposal systems for washers. In fact, it may be better to discharge laundry waste into the regular septic tank system because "laundry wastes may be treated advantageously by the buffering action, the lint removal, and the biochemical action that occurs in the septic tank."

BRAB adds nothing new to facts reported in the US Public Health Service's giant \$300,000 septic tank study (June '55, H&H). Chief importance of the new report is that it gives FHA a basis for bringing its MPR in line with the USPHS findings.

Even if new houses are sold without automatic washers, BRAB advises FHA to require septic systems big enough for washers. This advice is based on the ounce-of-prevention theory, since most buyers eventually buy automatic washers.

* "The Effect of Automatic Sequence Washing Machines on Individual Sewage Disposal Systems."

New advice on vapor barriers given FHA by top experts

"Every effort should be made to avoid puncturing of the barrier."

This is the main advice to builders given in BRAB's new vapor barrier report* to FHA which carefully specifies how barriers should be installed. In brief:

For slab-on-grade houses: The barrier should have a permeance (water-vapor transmission rate) of not more than 0.5 perms. Joints should be lapped, with the amount of lap and the need for sealing depending on the material used. With slab heating ducts, the barrier should be placed *under* the ducts.

For crawl spaces: The barrier should have a permeance of not more than 1.0 perm (which is a looser rule than for slabs because crawl spaces are a lesser problem). Best place for the barrier is on the ground, rather than under the floor. Joints should be lapped according to the maker's instructions, but should not be sealed.

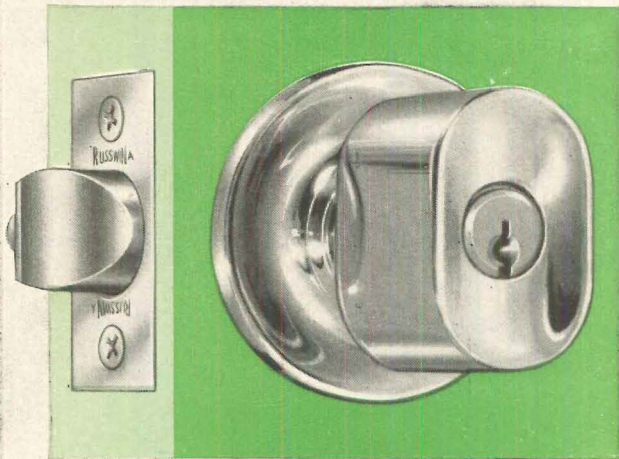
The new report also suggests that manufacturers' test requirements should be updated. All materials, for example, must now pass a 90-day soil test for FHA approval. A faster 28-day soil check has been found equally good and should be adopted.

In addition, FHA should standardize on a single set of test procedures for all materials, regardless of whether they are used in slab-on-grade or crawl-space houses. Split requirements are now the rule.

* "Vapor Barrier Materials for Use with Slab-on-ground Construction and as Ground Cover in Crawl Spaces."

New Russwin Designs

in doorware
fashioned to
fit the hand



THE ERA DESIGN . . .

an interesting departure from the conventional knob styling. The Era knob is not only pleasing to the eye and easy to grasp, but also unusually easy to turn.



Russwin Doorware in these new designs

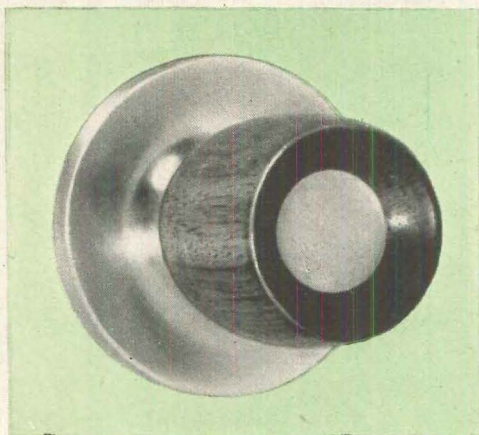
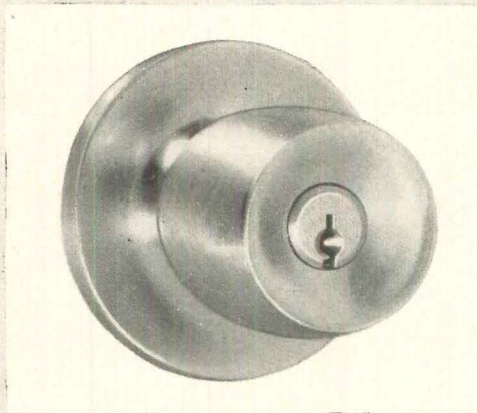
offers more than modern styling, security and service. It offers an unusual and outstanding selection of materials plus knobs designed purposely to fit the hand.

The new designs are available on Russwin Doorware that has been thoroughly tried and proven for its extra-sturdy construction, smooth operation and durable finishes. They are available in cast or wrought brass, bronze or aluminum, and in wood where indicated, also in all standard finishes and popular functions. Write for new descriptive brochure.

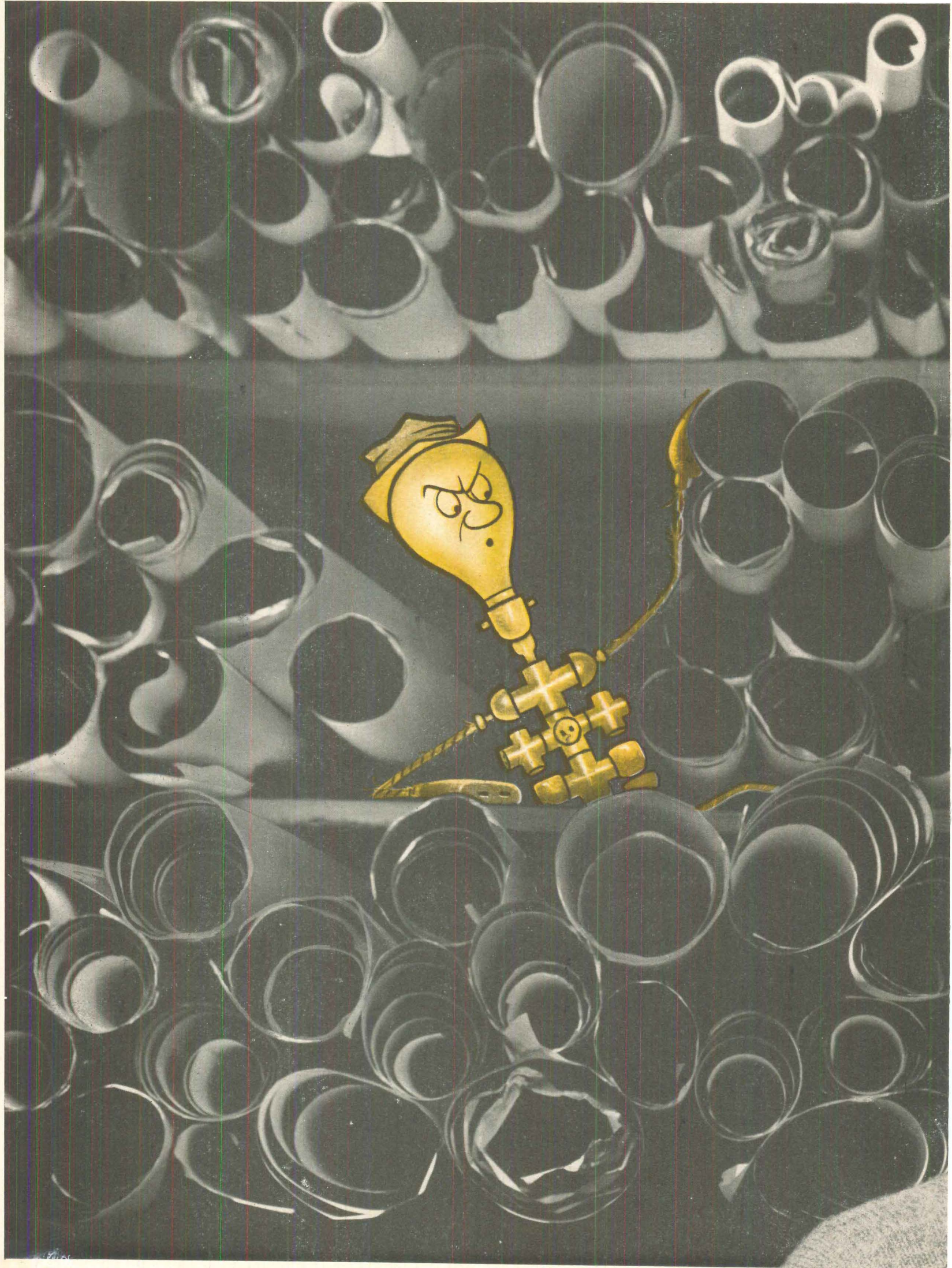
Russell & Erwin Division, The American Hardware Corporation, New Britain, Conn.

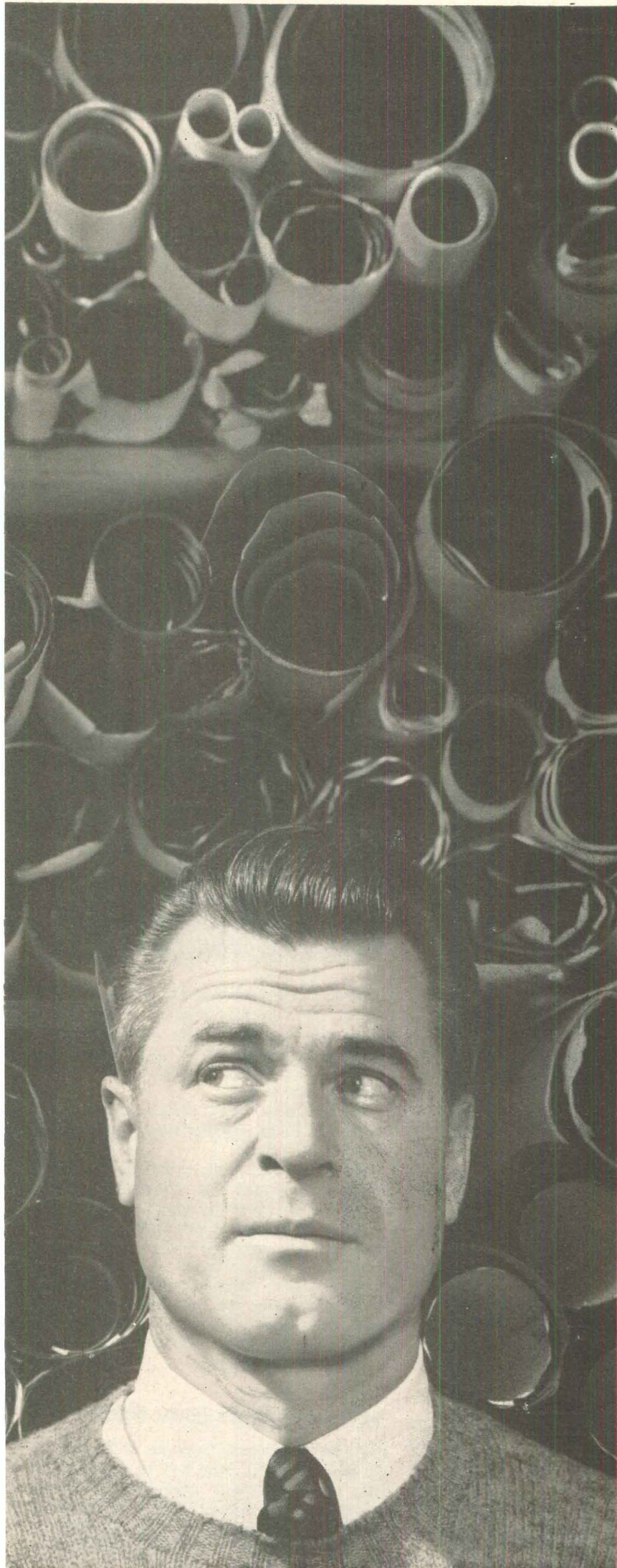
THE TEMPO DESIGN . . .

a delightful creation that form-fits the palm of the hand. This design is not only available with knobs and roses of beautifully-finished metals, but also in an exciting new combination of knobs in rare woods and ceramics with roses in metal.



RUSSWIN[®]
DISTINCTIVE DOORWARE





Be careful of this furtive character. He can really hurt your reputation. For if Skimpy Wiring has crept into your blueprints, homes you build from them won't be able to cope with the electrical demands of modern living.

*look
who may
be hiding
in your
blueprints*

It's surprising how Skimpy Wiring can get into the designs of even the most modern homes! He loves "minimum wiring" codes that neglect to provide for ever-increasing use of electrical appliances. Skimpy Wiring thrives on specifications that do not call for at least 100 Ampere service entrances... large enough copper wiring... plenty of circuits and outlets.

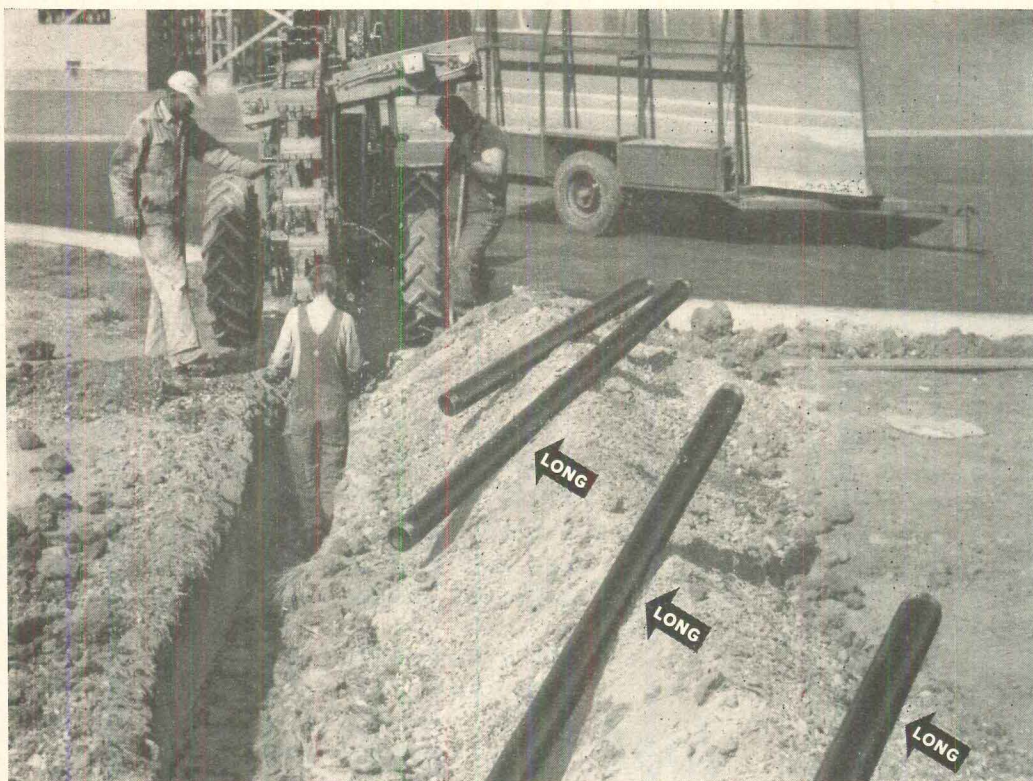
Full-powered copper wiring adds just a small percent to the overall costs of homes you build. But it's worth hundreds of times its initial expense in convenience and satisfaction to homeowners. Adds a big plus mark to your reputation for quality building, too!

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 electrical systems. Write Kennecott Copper Corporation, Dept. H96, 161 East 42nd St., New York 17, N.Y.



Kennecott
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Long lengths of Permaline pipe reduce the number of required joints—speed installation.

Long Lengths, Easy To Join . . .

L-M Permaline Fibre Pipe Is Profitable To Use

L-M Permaline fibre pipe cuts labor costs about 2/3 on the average house-to-street sewer job. This is because Permaline is so easy to handle, easy to install.

Permaline pipe comes in 5-, 8-, and 10-foot lengths. It's light, tough, strong, and it's *root-proof!* Joints are quickly and easily made by simply tapping the tapered coupling onto the tapered end of the pipe. No cement, no calking—just drive it!

Once you install Permaline pipe, it's in to stay. It can't rust, shatter, crack, or leak. Permaline pipe is not harmed by hot water, detergents, acids or alkalis.

Complete Line

Permaline is available in solid pipe, 2 to 8 inches diameter, for sewers and drains; perforated for field drainage, footings, and septic-tank beds. Full line of couplings, fittings, bends and adapters to connect to soil or sewer pipe. Over 150,000,000 feet of Permaline are in service.

Get complete information. Mail the coupon or ask your plumbing distributor to get in touch with us.

L-M PERMALINE
BITUMINOUS FIBRE PIPE
for better sewers and drains



Joints are quickly and easily made by simply tapping together—no cement, no calking.



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with complete information on
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HH 96

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Company _____
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Type of business, please _____

How to sell houses for \$49,000 on land costing \$1,000 an acre

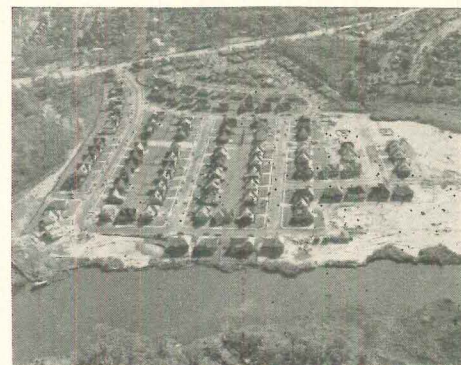
Long Island Builder **Sam Bernstein** has struck paydirt in the south shore swamplands.

While other builders are paying \$5,000 to \$6,000 an acre for easily-worked potato fields farther out, this 70-year-old veteran is paying \$1,000 for salt marshes his competitors passed by as unworkable. Then he spends \$2,000 per small lot (62' wide) to convert his low lying land into fine sewer-served homesites with the double sales appeal of a close-in location and near-the-waterfront breezes.



SWAMP FILLED WITH FILL . . .

FILL FILLED WITH HOUSES



Dredges suck sand from the bottom of the bay to raise the land level an average 6'. All houses rest on 20' deep concrete piles, sometimes driven down to solid bearing, sometimes on spread footings (driven piles cost 40¢ per cu. yd.).

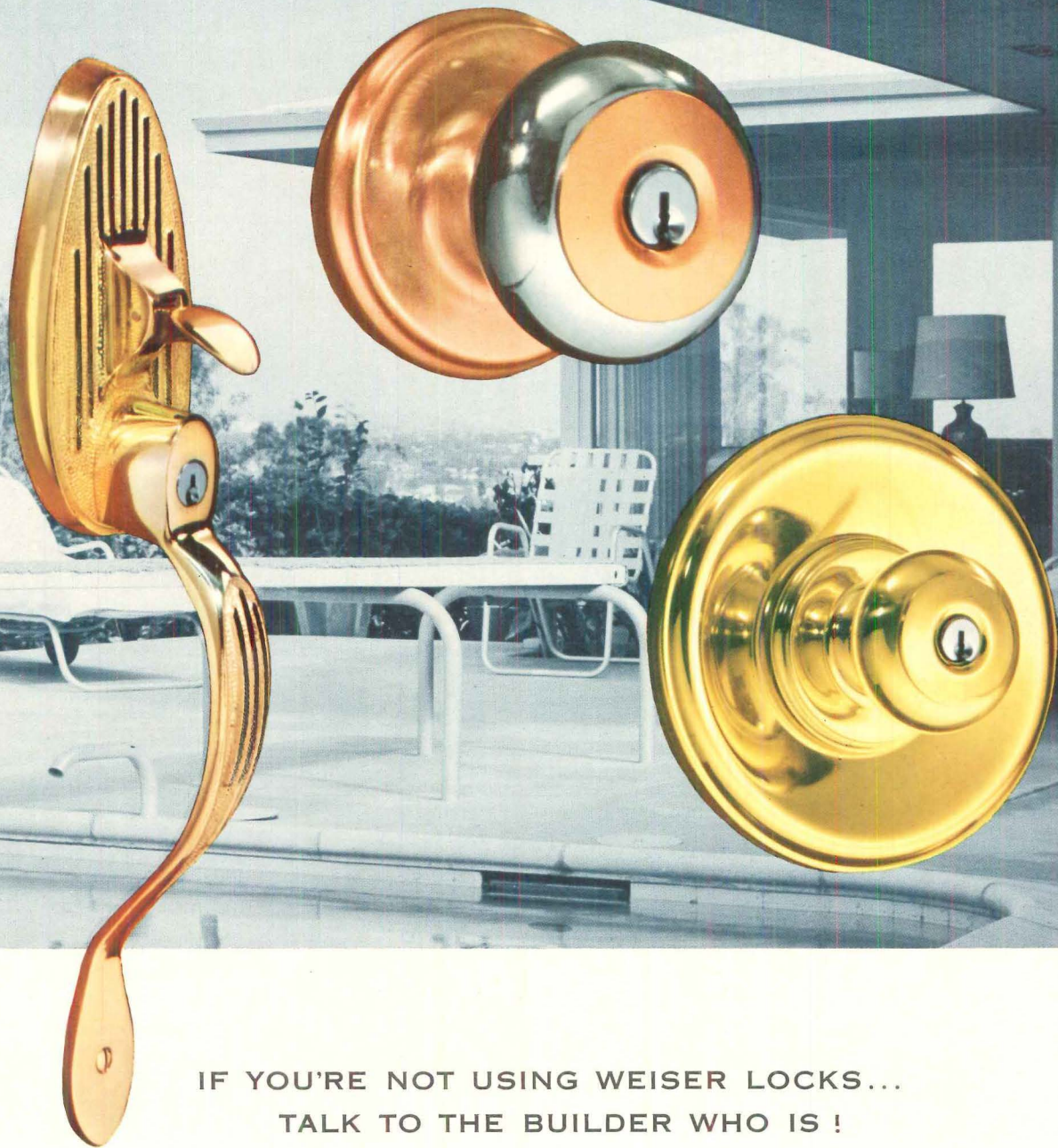
Says Bernstein: "You can't guess costs to the penny. If the inspector says 'more piles', you put them in."

Bernstein estimates the extra cost of careful reinforcing and pile driving at \$800-\$1,000 per site, plus two weeks extra building time. Overall, it costs \$3,000 more to build on this marginal land, but the low original cost makes this up.

In his present development, **Saddle Ridge Estates**, just over the New York city line, Bernstein's splits sell for \$29,000-\$49,000. Buyers can have larger lots if they want to pay 50¢ per sq. ft. more.

Sales managers go to school

First step in training salesmen is to train the men who teach them how to sell, so 27 sales managers (whose combined sales last year were 8,319 houses) took a four-week course this summer, sponsored by the **Associated Home Builders of Greater East Bay**. Teacher was Sales Consultant **Clyde S. Cook**.



**IF YOU'RE NOT USING WEISER LOCKS...
TALK TO THE BUILDER WHO IS !**

The best way to judge any product is to talk to someone who presently is using that product. Talk to any builder now using Weiser Locks. Ask him about the quality, the wide choice of finishes (all at the same price), the guarantee. Ask him if he has any trouble with Weiser Locks after

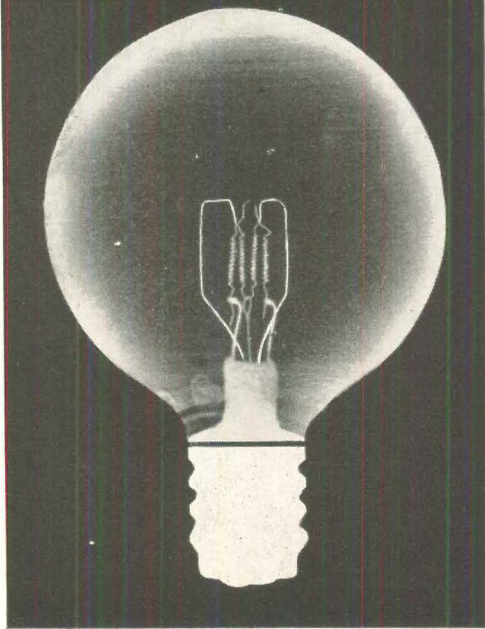
they are installed. Ask him any question that may occur to you. He will convince you that you should be using Weiser Locks.

Yes, if you're not using Weiser Locks — talk to the builder who is!

WEISER LOCKS

WEISER COMPANY • SOUTH GATE, CALIFORNIA





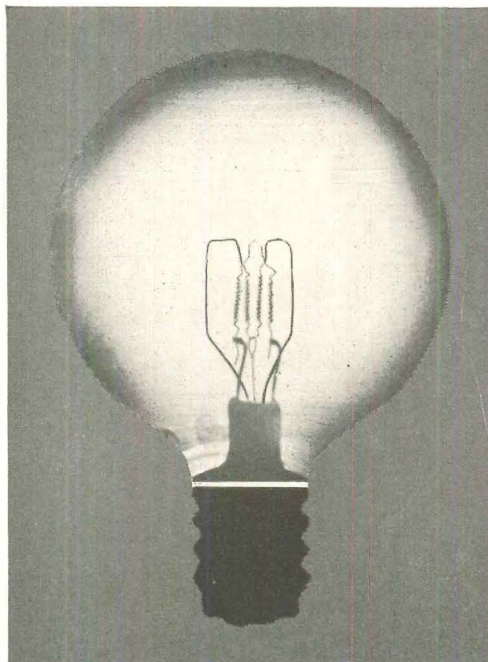
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IDEAS

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Sweltering days give you an extra selling advantage when you include a "cool" roof in your home renovation offers. That means a roof that keeps out heat as well as rain.



Sell comfort by remodeling with Barrett SNOW-WHITE Shingles

When you're selling remodeling jobs, you're selling new comfort and "looks" for old homes. A new light-colored Barrett Roof will give you a lot more of both in your remodeling packages.

It's a proven fact that Barrett SNOW-WHITE Asphalt Shingles can bounce off enough solar heat to lower inside temperatures up to 15%. This means you can offer your remodeling pros-

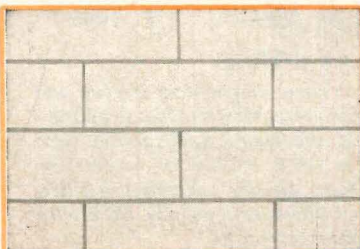
pects cooler summers along with the beauty and life-long weather protection of SNOW-WHITE or Barrett pastels of blue, green, red and gray. Make a new Barrett Roof part of your remodeling story. Any Barrett Roofer or Dealer will be glad to show you samples and help you put the famous Barrett name behind your new or remodeling projects.

BARRETT DIVISION, Allied Chemical & Dye Corporation, 40 Rector St., New York 6, N. Y., 205 W. Wacker Drive, Chicago 6, Ill., 36th & Grays Ferry Ave., Philadelphia 46, Pa., 1327 Erie St., Birmingham 3, Ala., Melrose Building, Houston 2, Tex.



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inside...outside...wherever siding is used—

Georgia-Pacific's **NEW LOW COST**

GPX YELLOW plastic surfaced plywood

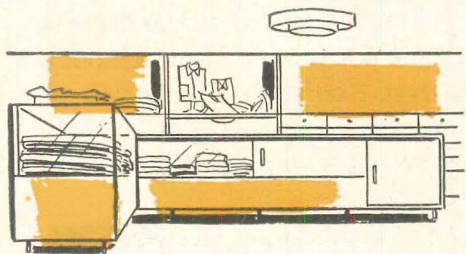
gives you better paint surface—better profit!

Georgia-Pacific Corporation's constant search for new, better solutions to builders' problems now brings you GPX YELLOW!

This is your answer to problems requiring a good, tough-finished siding, combining the flexibility and strength of plywood with the smooth paint surface of plastic.

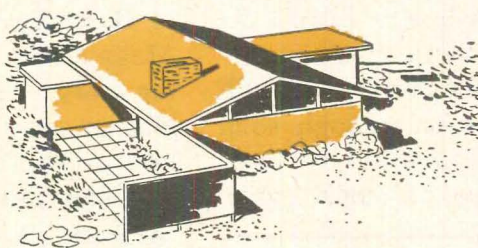
In addition to its durability and exceptionally fine paint surface, GPX YELLOW averages in cost about 15% less than most other plastic coated plywoods. For you, the builder, this amounts to a measurable profit. Use it inside or outside. Paints adhere permanently to its specially engineered surface without sanding or sealing. With a prime and finish coat an attractive and lasting surface is obtained.

- **GPX YELLOW** is produced in standard 4' x 8' panels in thicknesses ranging from 5/16" to 1 3/4".
- **GPX YELLOW** is manufactured by Georgia-Pacific's standard one-step, hot press method, time-tested and proved under every condition.
- **GPX YELLOW** is a solution for construction projects on stores, homes, farms and industry, offering a better job at lower cost.
- **GPX YELLOW** is a medium density plastic faced plywood suitable for all uses with minor edge filling. "B" Veneers are used under plastic overlay, all other veneers are "C" Grade.



STORE INTERIORS

Counters, fixtures, and store displays can be built more profitably with GPX Yellow. Easy workability makes it especially desirable for jig saw shaping.



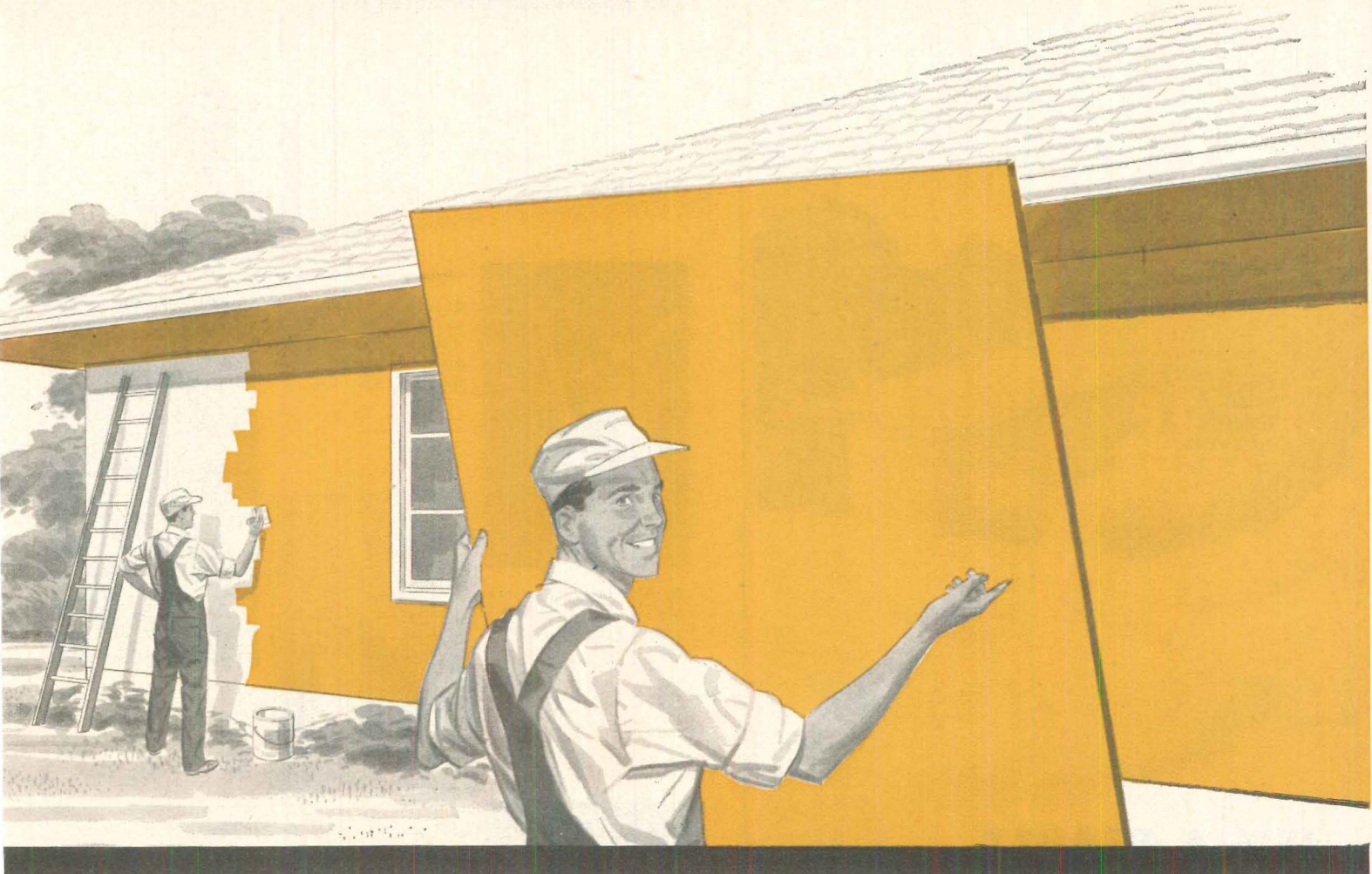
EXTERIOR SIDING

Panel or lapped gable ends, blinds, shutters and soffits all help you earn a better profit when you use GPX YELLOW. When painted, its complete weatherproofness and smooth paint surface add real homeowner value—at low cost.



DISPLAY ROOMS

Home shows, convention booths and structures requiring handsome appearance in minimum construction time can use GPX YELLOW to extreme advantage. Speedy operation is possible for builder and painter alike with excellent final results.



6 advantages offered by GPX YELLOW at less cost than most other comparable building materials.

WEATHERPROOF, WHEN PAINTED. GPX Yellow is manufactured by a process in which cellulose fibers and phenolic formaldehyde resin are combined before the overlay is formed, resulting in an intermolecular bond which will not check or crack.

STRONG. GPX Yellow has the strength of plywood plus the additional toughness of a plastic overlay. The combination is stronger than plywood and has the smoothness and paintability of plastic.

WORKABLE. GPX Yellow may be sawed, machined, drilled, patched, nailed, riveted, glued or edge-sanded with ease.

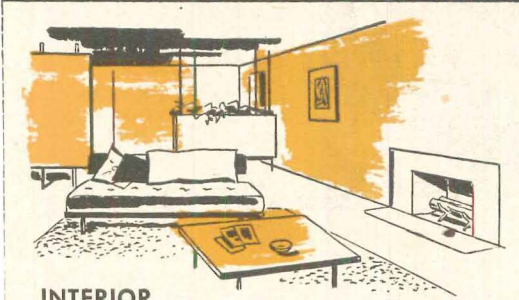
SMOOTHER. GPX Yellow is so smooth that sanding is never necessary before painting and its hard plastic surface requires less paint.

FLEXIBLE. GPX Yellow bends to the same short radius as regular plywood.

REDUCES GRAIN RAISE. No checking—no cracking. Hard surface reduces grain raise under all but the most extreme conditions. **FOR FAST, SMOOTH FINISHES... GPX YELLOW.**

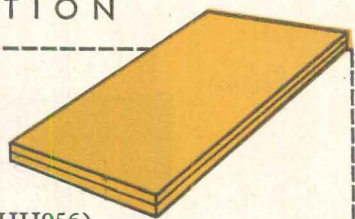


GEORGIA-PACIFIC
CORPORATION



INTERIOR WALL PANELING

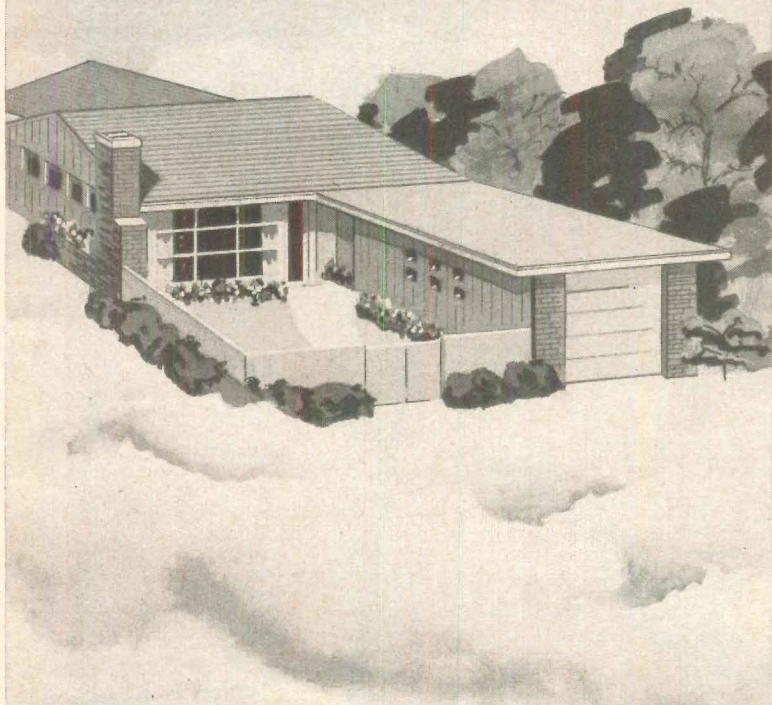
Compartmented walls, partitions, paneling and sliding doors can be constructed for long service at little cost with GPX YELLOW. Builders may use it in complete confidence that it will completely satisfy the homeowner for the lifetime of his house.



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Gentlemen: Please send me sample of your new GPX YELLOW

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**DELAY CONSTRUCTION
ENCUMBER THE SECURITY
BEHIND MORTGAGES
HOLD UP SALES
REDUCE THE SALEABILITY OF
MORTGAGES
CAUSE SEVERE FINANCIAL LOSS**

Title insurance is the firm title foundation most investors insist upon, and more and more investors in real estate and real estate securities are asking . . .

'Whose Title Insurance?'

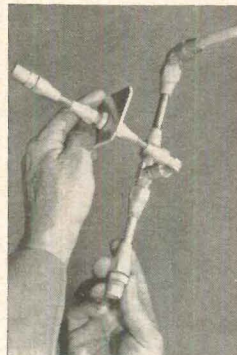
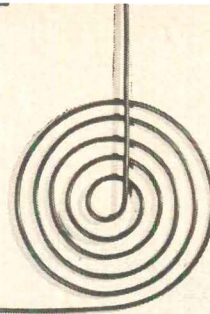
They know—THERE IS NO BETTER TITLE INSURANCE THAN A POLICY ISSUED BY

Lawyers Title Insurance Corporation

Home Office - Richmond, Virginia

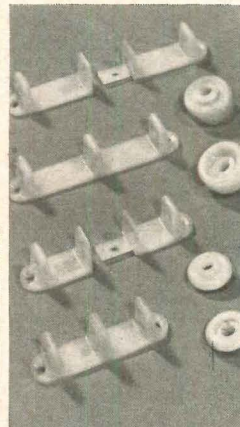
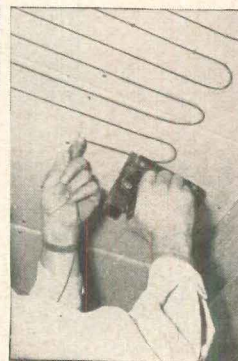
REPRESENTED BY LOCAL TITLE COMPANIES IN MORE THAN 200 OTHER CITIES

Plastics

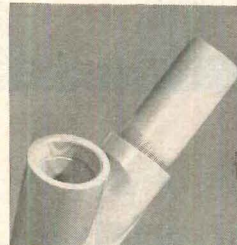


a. Line wire (above) is weatherproofed with a wrapping of Alathon polyethylene resin. General Cable Co.

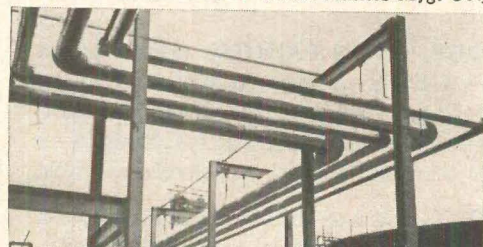
b. Fuel line and fittings are molded of Zytel nylon resin. Jaco Mfg. Co.



c. Floor guides and suspension rollers for sliding doors are of nylon resin. E-Z Roll Hardware Mfg. Co.



d. Radiant heating wire is coated with Geon vinyl. Electro-Mode Corp.

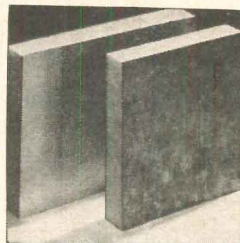


e. Vinyl standpipe (left) is approved for carrying drinking water. Colonial Plastics Mfg. Co.,

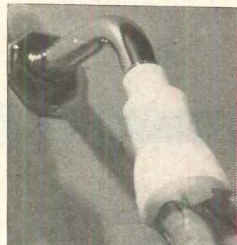


f. Wiring duct strip (above) is cased in vinyl. Bulldog Electric Products Co.

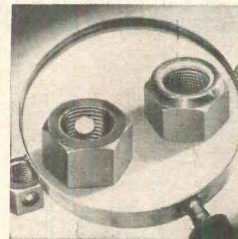
g. Aluminum insulation jacketing has a polyethylene resin moisture barrier. Aljon Mfg. Co.



h. Laminated sandwich panels of expanded and expandable polystyrene. United Cork Co.



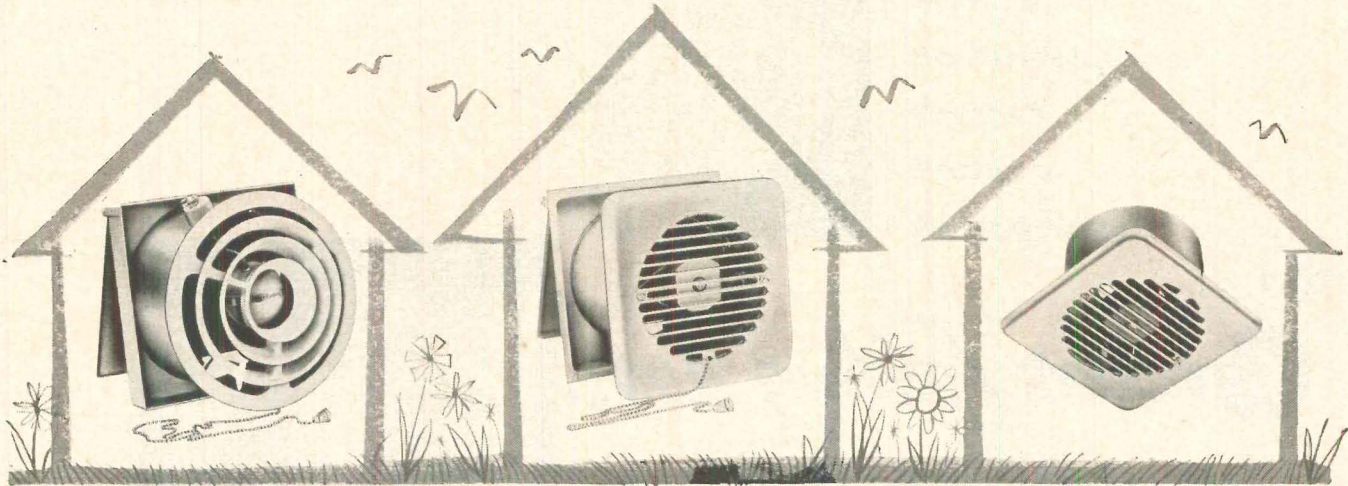
i. Shower head of nylon resin resists corrosion, liming. Warren-Magnuson, Inc.



j. Self-locking nuts have resilient nylon bonded within metal nut to grip threads of bolt so it cannot loosen. Elastic Stop-Nut Corp.

You can put a plastic product to work in almost any phase of home building. On other Product pages in this issue, you will see plastics for floors, ceilings, wall coverings, windows, screens. Plastics are the base of new paints, the covering for expansion joints, the weather-protector for workers and materials on the job. For more about these and other new products, please turn to p. 201.

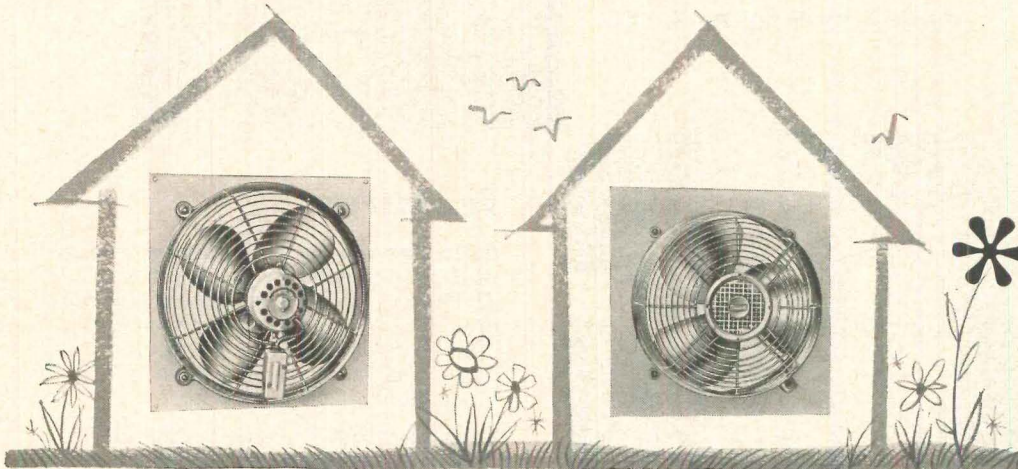
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WALL VENTILATOR WV-410
10" BLADES... 420 C.F.M. *

WALL VENTILATOR WV-311
8" BLADES... 300 C.F.M. *

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8" BLADES... 300 C.F.M. *



EXHAUST FAN EF-1310
16" BLADES... 1300 C.F.M. *

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20" BLADES... 2500 C.F.M. *



Cubic-feet-per-minute (C. F. M.) ratings represent actual performance—with blades inside not outside the housing. (In strict accordance with NEMA Standards).

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the name that means "best" to more home buyers!

For every house . . . throughout the house!

KITCHEN . . . of course!

BATH, LAUNDRY, BASEMENT . . . fight dampness, remove odors!

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Solve any ventilating problem with a Westinghouse ventilator or exhaust fan and you've built-in an *extra* sales-appeal that more than pays for itself! All Westinghouse fans and ventilators are guaranteed five years. "You can be SURE . . . if it's Westinghouse!"

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the newest
outstanding
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product
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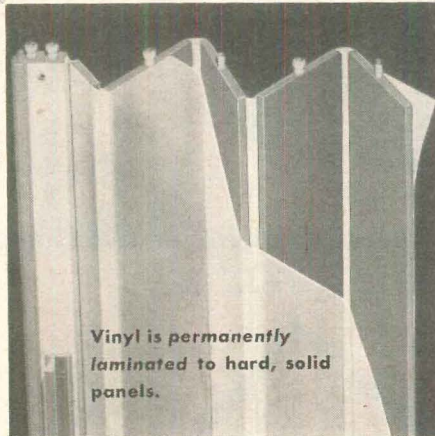


Textured,
scuff-proof,
tough,
vinyl fabric
surface

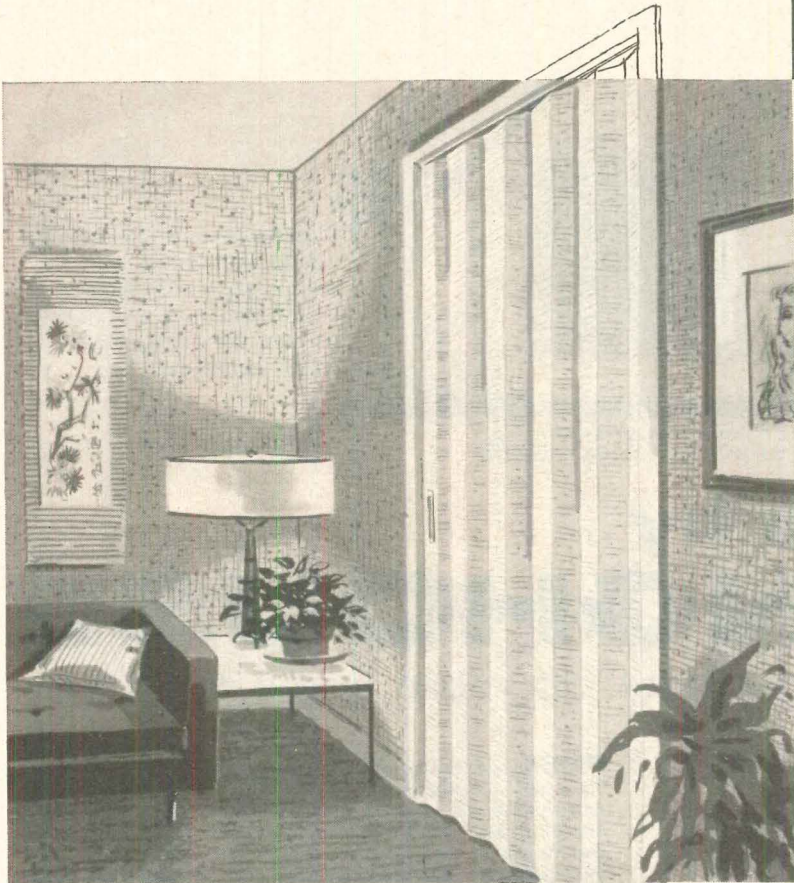
the
Grant *folding door*

A REAL DOOR THAT FOLDS!

styled by Paul McCobb



Vinyl is permanently
laminated to hard, solid
panels.



features

Solid Panels: The solid panel construction of this Grant door is a revolutionary development in a folding door at moderate price. The *Grant Folding Door* has crisp, clean lines, blocks sound, hangs rigid without billows or rustle. Knock on it. It sounds and feels like a door.

Space Saving: Frees an average of 14 square feet of floor space (19 square feet of wall space) for living space, better arrangement of furnishings.

Durable — Easy to Maintain: Vinyl surface can be wiped with a damp cloth—scrubbed if necessary. Tough and long-wearing, resists scuffing, color is permanent.

Easy Installation: Only a screwdriver is needed to install the *Grant Folding Door* in standard door openings in minutes. Readily adaptable to non-standard openings.

Decorative Flexibility: Color styled to harmonize with modern or traditional furnishings. Attractive design of handles, track and other details, also specially styled by famous Paul McCobb.

▶ Ask for your copy of fully descriptive specifications booklet, the swatch book showing the attractive colors available and texture of the non-scuffing vinyl finish.

the
Grant *folding door*

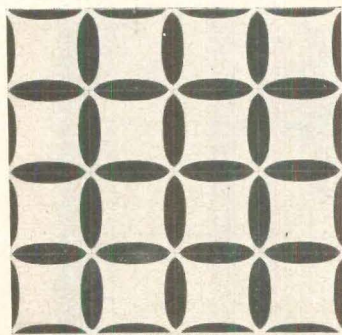
"A REAL DOOR THAT FOLDS"

Grant Pulley and Hardware Corporation
31-79 Whitestone Pkwy., Flushing 54, N. Y.
944 Long Beach Avenue, Los Angeles 31, Calif.

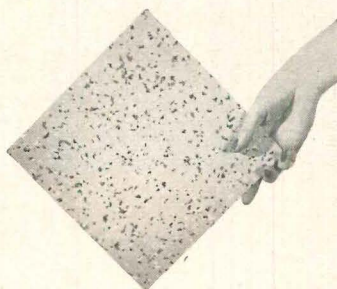
Other Grant Products:
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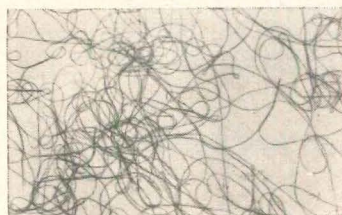
For further details check numbered coupon, p. 270



k. Amtico Customotifs vinyl tile is specially precut to get a lot of designs from the same basic tile. Each 9" x 9" square is cut into five separate pieces, can be varied to give different effects. Company has also recently brought out "Decorstrips" in five patterns—36" l., 3" w., 1/8" gauge—for borders and feature strips on walls and around floors. These new strips come in black and white with gold vinyl inserts. Both tiles are hard wearing, highly resistant to stains and scuffs. You can get special colors on special order for either. American Biltrite Rubber Co., Trenton, N.J.

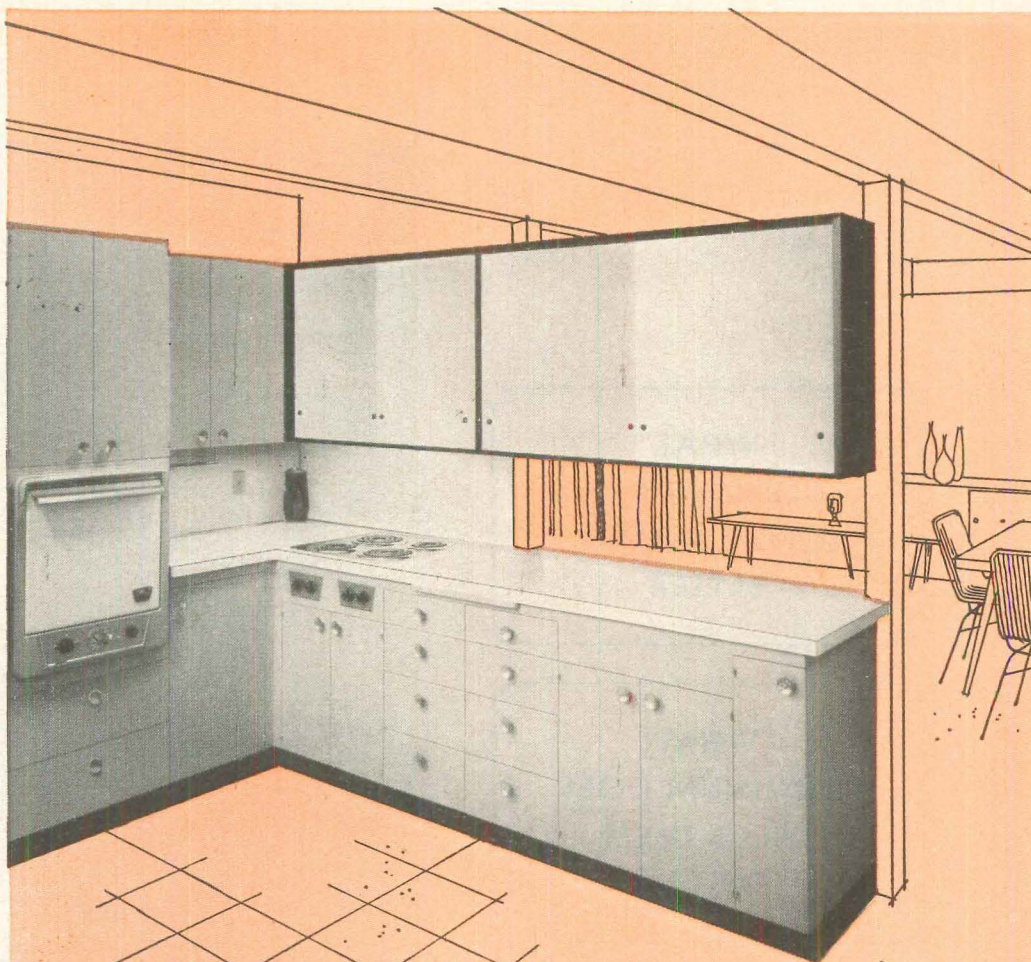


l. Terrazzo Bolta-Floor vinyl tile looks as if it might have come straight off a Venetian floor. The pattern is fashioned after true terrazzo floors, which incorporate large chips of highly polished varicolored stones in the design. Tile colors are bright, retain high gloss and luster with or without waxing, company says. You can also get Bolta-Floor in plain and marbled patterns in an impressive array of colors. About 60¢-65¢ per sq. ft. for plain, marbled tile; 70¢-75¢ psf for Terrazzo. The General Tire & Rubber Co., Flooring Div., Akron, Ohio.



m. Lam-O-Wall plastic wall covering incorporates designs between rigid vinyl sheets. This one is made by swirling yarns, allowed to fall in a free form pattern. Opaque Bakelite vinyl sheet is background for the material and an overlay of transparent vinyl preserves and protects it. You can get 8 background colors, 3 surface texture finishes. Standard thickness is .0175". Standard sheet size 42" x 62" trimmed to cover 18 sq. ft. An all-purpose adhesive is available from manufacturer to give a moisture-resistant bond. Laminated Plas-Tex Corp., Springfield, Ohio.

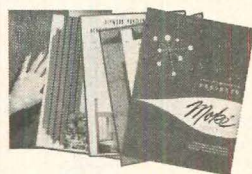
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HOW OFTEN IT'S TRUE—the sale is made or lost in the kitchen. That's why it pays to feature the warmth, charm and individuality of fir plywood kitchen cabinets and built-ins in all your homes. No limit to size, design, or color. No juggling of "stock" units—plywood fits your design requirements exactly. It's strong, split-proof, good looking. Easy to cut, fit, fasten and finish.



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Plywood of other western softwoods available; look for this DFPA grademark.

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MAKES HOMES
BETTER

WHAT
ALUMINUM DOES
SELLS THEM
FASTER



Build better...sell faster... with wall tile of Alcoa[®] Aluminum

For bath, for kitchen there's nothing more attractively beautiful and soundly practical than wall tile of Alcoa Aluminum. To you, the builder, it means substantial savings because of lower cost . . . far easier installation. It means a *quality* job at a budget price that you can stake your reputation on.

And when you are talking to prospective buyers, you have a selling point that's irresistible.

Wall tile of Alcoa Aluminum can't chip or crack. Water can't hurt it. Heat has no effect. Even scratches do little harm . . . for

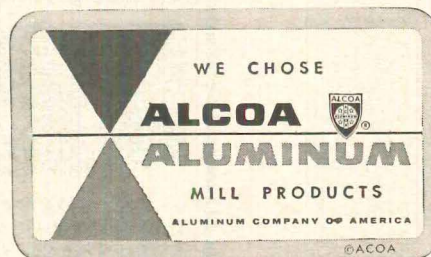
aluminum won't rust. The bright, beautiful colors are so easy to keep clean . . . for a lifetime.

Alcoa doesn't make wall tile. We make the better, longer lasting, stronger aluminum from which the tiles are formed. We'll gladly put you in touch with the tilemakers. Just write Aluminum Company of America, 1969-J Alcoa Building, Pittsburgh 19, Pa. Or call our nearest sales office.



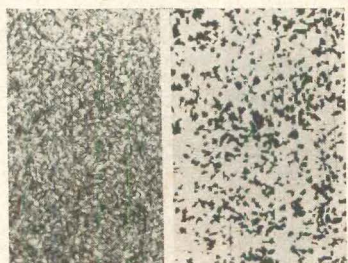
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n. Metaltone tiles use flakes of metallic color—burnished copper, gold and silver—for sparkling effect on floors. Manufacturer says these new vinyl tiles can be installed over practically any existing sub-floor without expensive preparation, since flooring conforms to uneven surfaces without cracking. Tiles are 9" sq., 1/8" thick, can also be ordered specially. Speckled pattern at left incorporates deep color all through the tile. On right, black or white background has a random sprinkling of metallic color. Company says both tile patterns will retain color, sparkle. From \$1-\$1.20 psf. Robbins Floor Products Inc., Tuscumbia, Ala.

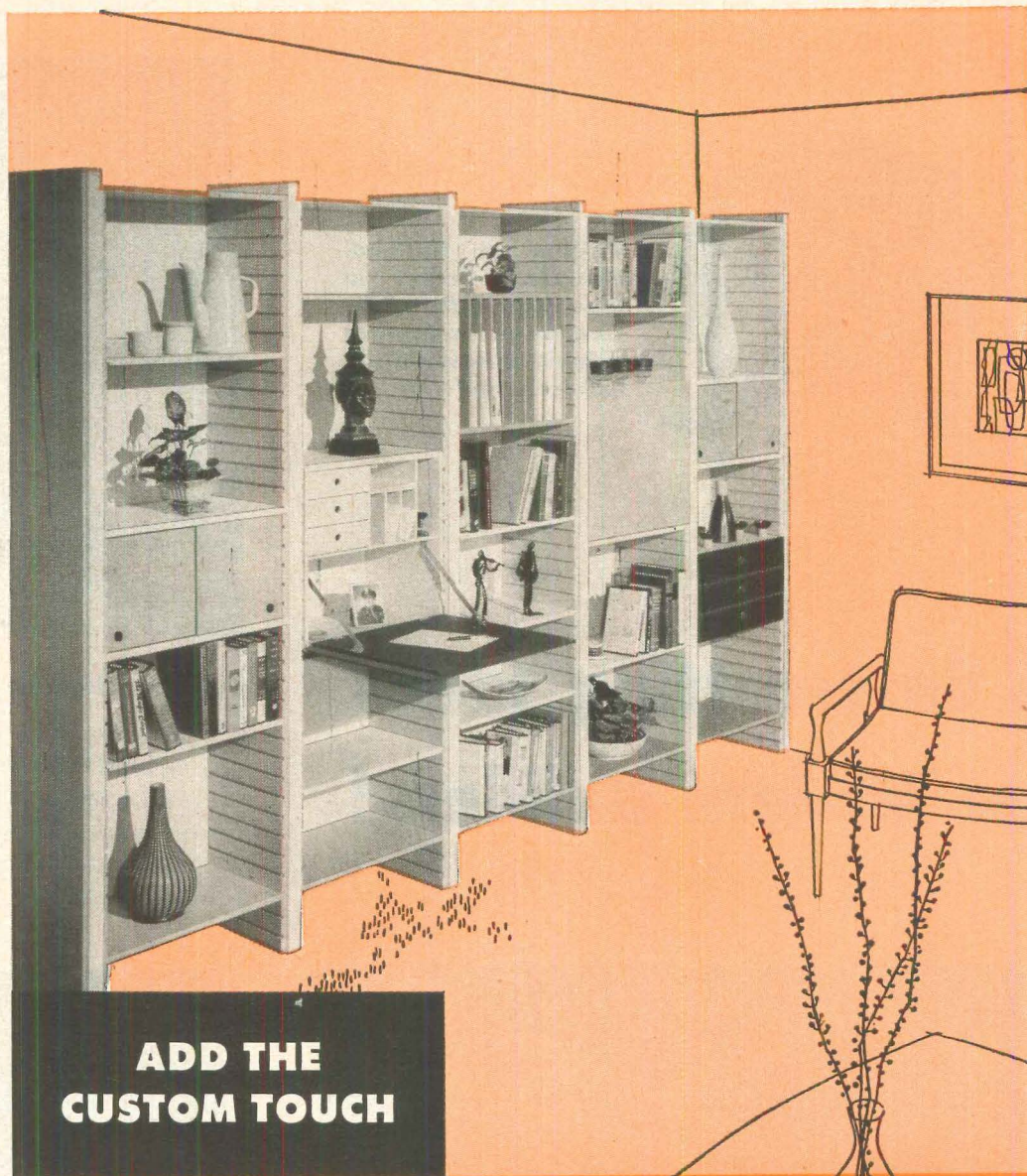


o. Plastic wall tile is flexible enough to cut with scissors and can be bent or curved around corners without cracking. Surface is textured to look like bamboo, or you can create a basketweave effect by alternating the surface grain. Company says tile is hard wearing in kitchens since it resists fats, oils and grease. 8" squares are easy to handle, easy to install. Colors are claimed to be fade-resistant; tile wipes clean with a damp cloth. Bolta Products Sales, Inc., Lawrence, Mass.



p. Brick patterned vinyl sheet is formed in new type three-dimensional panels for indoor applications. Real brick appearance is imitated as closely as possible since patterns are slightly irregular and three-dimensional design makes imitative bricks appear to stand out a full half inch with a half inch between each imitative mortar joint. Sheets are made in 3' x 5' panels, can be cut with a fine tooth saw, sharp knife or heavy shears. Put sheets over existing plaster, wallpaper or wallboard with waterproof cement or mastic and small finishing nails. Price is about \$12.75 per panel. Studio Brick, Inc., Hollywood 46, Calif.

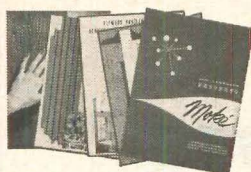
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IT'S EASY to add new convenience and distinction to your homes with fir plywood built-ins. Storage cabinets, wardrobe or built-in furniture—fir plywood is the logical material for *any* built-in. No other material is so adaptable to specific design and space requirements. Fir plywood is light, strong, good-looking. Takes any finish. Works quickly, easily, simplifies framing—for on-job construction or shop-fabricated units.



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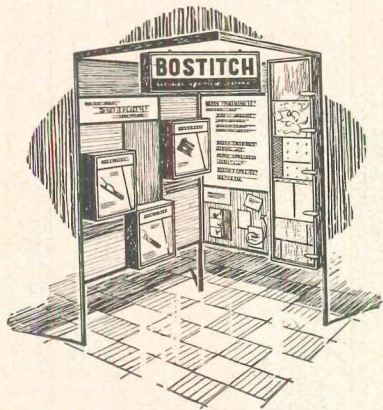


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Plywood of other western softwoods available; look for this DFPA grademark.



Visiting the National Housing Center in Washington, D. C.? Be sure to see the Bostitch exhibit of cost-cutting builder's tools.

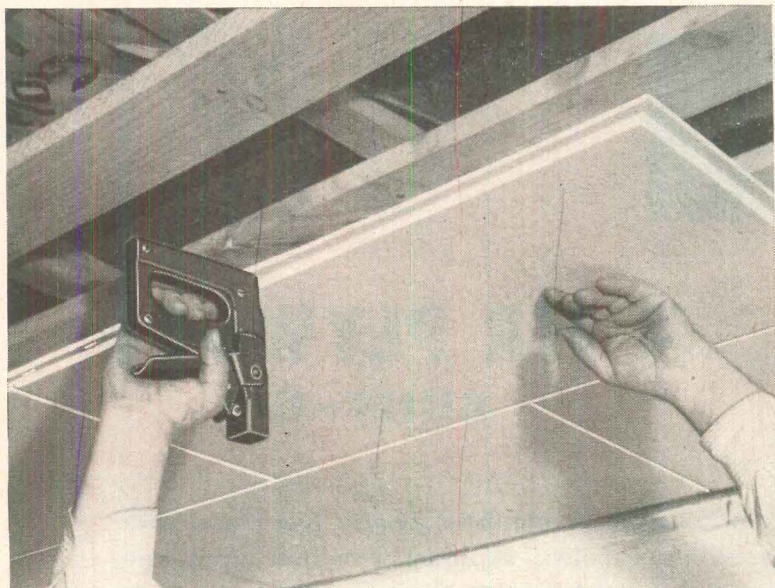


3 Cost-cutting Ideas for Modern Builders!

1. Lay shingles with Bostitch stapling hammer

Builders using the Bostitch H4 Stapling Hammer say they wouldn't be without it, claim they can halve the time required to lay asphalt shingles on new roofs.

One quick blow with the H4 hammer drives a 3/4" galvanized staple all the way home, spreads the staple legs for extra grip.



2. Use tacker to put up ceiling tile

Ceiling tile with stapling flanges goes up a lot faster when you use a Bostitch T5 Tacker. Neater, too, since the danger of hammer-marred edges is eliminated.

Gummed staples with 9/16" legs hold fast, don't pull through like nails under stress. T5 tacker also drives staples with 1/4", 3/8" and 1/2" leg lengths for other tacking jobs.



3. Save insulating time with H2B hammer

More than twice as fast as hammer and tacks and a good deal faster than a stapling tacker, the Bostitch H2B Stapling Hammer speeds the application of batt and reflective insulation.

H2B drives staples with 1/4" and 3/8" legs. H2B1/2 takes staples with 1/2" leg lengths. H2BR drives wide wire staples—ideal for felt and flashing papers.

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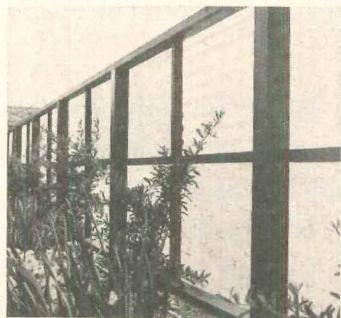
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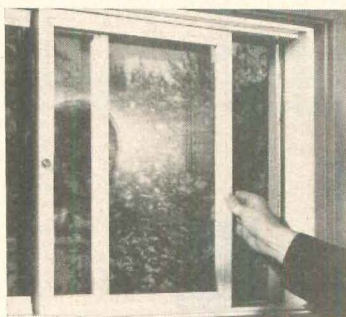
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q. Alsynite "Steplap" building panels have a clapboard profile. Unlike earlier plastic sheets with this profile, each step in this one has a narrow flat surface which makes it easier to nail directly to a joist. Here, "Steplap" panels are used to make a broad overhang for a patio. Horizontal lines allow installation on rafters with no need for purlins. "Steplap" comes in ten colors, 10'-4" l. and 3 1/2" or 4 1/2" w. Chemiglaze process on "Steplap" is said to protect it from exposure to all kinds of weather. Alsynite Co. of America, San Diego 8.



r. Rend-O-Lite—a translucent Fiberglass reinforced structural panel . . . screens a patio or garden with natural textured fabric patterns that almost blend into the landscape. Rend-O-Lite is heavily reinforced with fibrous glass in addition to the embedded fabrics to give it great strength. The fence shown here uses two patterns—a flat natural burlap and a bleached flat burlap. Both come in 8' and 10' lengths, 34" wide. Maker doesn't use dyes in the resins so light transmitted is natural, not reflected color as sometimes occurs with colored sheets. Both flat and corrugated patterns cost about \$1.25 psf. Commodore Ind., Redwood City, Calif.



s. Window sash of extruded rigid Geon was shown in the Geon house during the Plastics Exposition in New York in June. Advantages claimed include: no paint maintenance, no sticking caused by warping or swelling, no rotting due to water penetration. Company says double glazing will add only cost of glass and labor, since extrusion for two panes is no more expensive or complicated. Sash is colored to mix or match with other construction materials. Windows above were in the Geon house kitchen. B. F. Goodrich Chemical Co., Cleveland 15, Ohio.

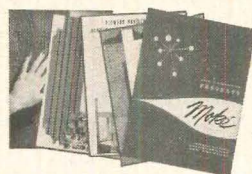
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LIFT YOUR HOMES out of the ordinary with exciting Texture One-Eleven fir plywood paneling. Deep parallel grooves and subtle surface texture combine to form a striking feature for any home. Use this new vertical shadow-line plywood for feature walls, ceilings or built-ins. Texture One-Eleven goes up quickly, easily; shiplap edges neatly conceal vertical joints. Grooves are full 1/4" deep, 3/8" wide . . . have sharp, clean-cut edges.



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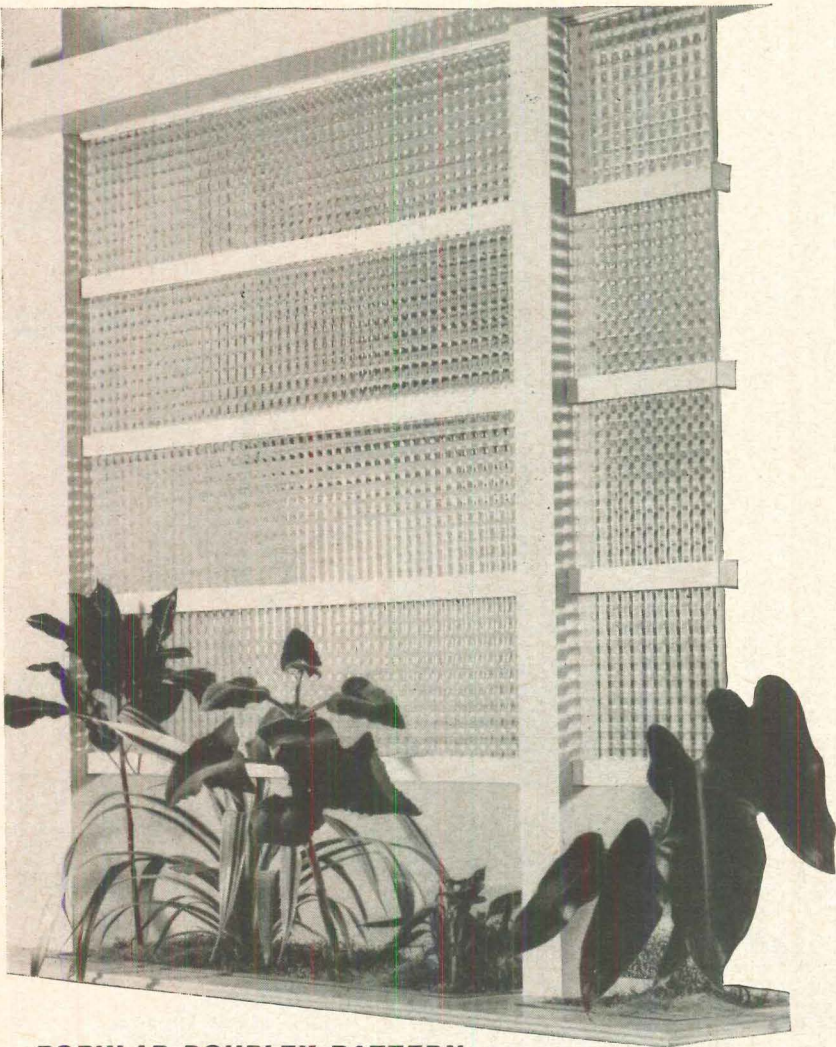


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Plywood of other western softwoods available; look for this DFPA grademark.



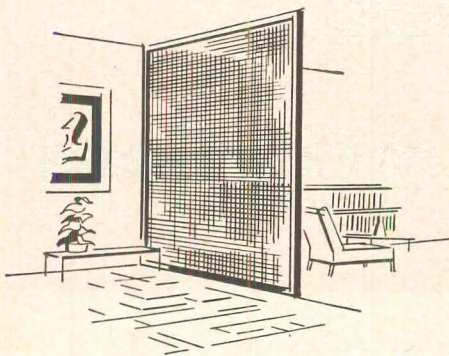
POPULAR DOUBLEX PATTERN

SO MANY WAYS TO ADD GLAMOUR WITH DECORATIVE GLASS

(REGARDLESS OF HOUSE PRICE RANGE)

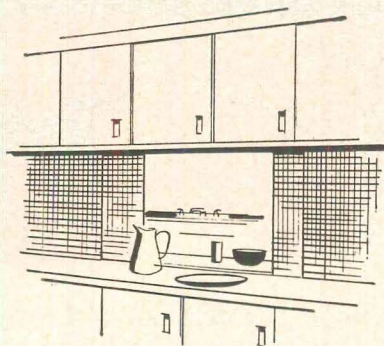
Looking for a house-selling feature that hasn't been exploited to death? Try Blue Ridge *Patterned Glass*! It's a low-cost way to add sparkle and "exciting newness" to houses in any price range. And, because there are so many beautiful patterns—and uses—it's easy to give each house in a project a distinctive touch of its own.

Patterned Glass by Blue Ridge is easily installed. Entire walls can be glazed as simply as windows. Most patterns are available in sizes up to 54" x 136" and some up to 60" x 136". See the beautiful patterns at your L·O·F Distributor or Dealer (listed under "Glass" in the phone book yellow pages) or send for free booklet offered below.



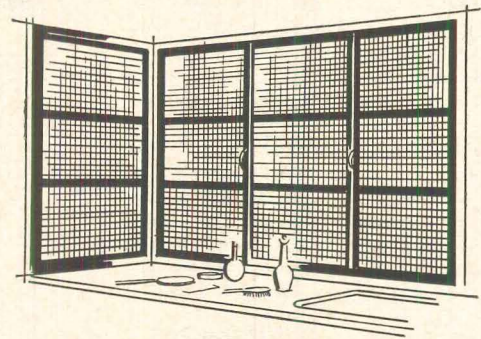
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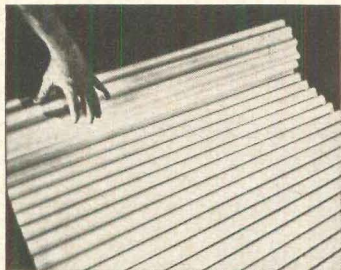
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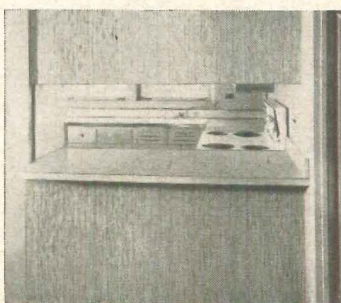
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t. **Plastic screen**, used here in a kitchen installation, has a 3" plastic square as its basic component. Squares are injection molded for uniformity from Tenite Butyrate and Lucite and hi-impact Styron to give maximum impact weather resistance plus high strength and opacity. When screen is assembled, component squares are vertically interlocked with spring steel rods. Nylon hinging mechanism is attached to provide folding action and screen is suspended from standard drapery track. Sizes from 18"-21' in vertical lengths and from 18"-16' in horizontal lengths. Universe Products, Los Angeles 6.



u. **Luminous plastic ceiling** of vinyl rigid sheet is compounded to give desired amount of light. This one is translucent. It is corrugated for rigidity and light diffusion and long strips are laid on I-shaped metal tracks running from wall to wall about 1½' below fluorescent lighting strips attached to a white-painted ceiling. Application is said to do away with glare and shadow. Acoustical fins suspended from I-tracks serve to reduce noise levels. Space between subceiling and actual ceiling can be used as duct for both air conditioning and heating. Luminous Ceilings, Inc., Chicago.



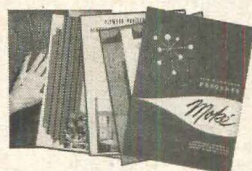
v. **Lamidall decorative plastic laminate**, seen here as facing on a kitchen pass-through, comes in a wide range of patterns, colors, marbles and wood grains. Tough, stainproof surface of decorated alpha paper impregnated with polyester resin is bonded to ½" thick structural tempered presdwood base. You can apply Lamidall to wall and counter surfaces. It comes in standard sizes up to 48" w. x 144" l.; moldings to match are available. Wood grain patterns are particularly handsome. Material costs 65¢ psf. Woodall Industries, Inc., Skokie, Ill.

continued on p. 212

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OFFER YOUR CUSTOMERS the rich good looks of real wood paneling with inexpensive "relief grain" plywood. The surface is textured (brushed, striated or embossed) to create a striking third dimensional effect that adds warmth and charm to any setting. Ideal for feature walls, ceilings or built-ins. Goes up quickly. Strong, won't crack or split. Takes any finish—including dramatic tone-on-tone effects.



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Plywood of other western softwoods available; look for this DFPA grademark.

It's easy to offer the "custom



It costs nothing extra to give your homes the added glamour of matching counter tops and floors. Here, a kitchen gets a distinctive "custom look" with an Armstrong Decoresq® Corlon floor and matching Armstrong Corlex plastic laminate counter tops—both in an attractive Homespun* pattern.

look”

with matching and harmonizing floors and counter tops

Although they won't admit it, most prospects are looking for two things in a house—a development price and a custom-built look. You can make a real impression on such prospects by showing them that it's not an impossible combination. Today, it's easy to give your homes the luxury of individuality—without increasing construction costs. You can do it by capitalizing on the trend to floors and counter tops that match or harmonize in design and color.

High-pressure plastic laminates now match resilient floors.

A new concept of coordinated floors and counter tops has been created with the introduction of Armstrong Corlex*. This is the only high-pressure plastic laminate surfacing material that offers patterns specially designed to match and harmonize with today's most popular resilient floors. Some of the exclusive Corlex patterns are miniature reproductions of best-selling designs in Armstrong plastic Corlon flooring. Others offer rich textured effects in modern colors. All provide a perfect complement to specific designs and colorings in Armstrong floors of every type and in every price range. During the past few months, home furnishings editors of leading magazines and newspapers have prominently featured interiors with coordinated Armstrong floors and Corlex counter tops and walls . . . popularizing this new decorating idea that gives your homes extra merchandising features at no extra cost.

Resilient plastic floors and counter tops in growing demand.

Many builders also have created handsome custom-styled interiors by installing the same pattern in Armstrong sheet form Corlon on both counter tops and floors. Beyond being

Matching floors and counter tops of Armstrong Terrazzo* Corlon and Corlex add distinctive beauty and practicality to the homes in Wooded Acres, Elkins Park, Pa. Builder A. Moore Lifter merchandises this feature to prospective home buyers in this outstanding development near Philadelphia.

an attractive durable floor, sheet Corlon is a popular counter-top material because it is greaseproof, splashproof, and stain resistant.

Another mix-match favorite—Armstrong Linoleum.

Home buyers have long favored Armstrong Linoleum for counter tops, both for serviceability and beauty. Now there's a broader-than-ever range of outstanding stylings for such use. This provides greater opportunity for custom effects in your homes with floors and counter tops that match or harmonize.

Special widths save waste, installation time.

Many of the stylings in 6-foot-wide Armstrong Linoleum and Corlon stylings are also available in 24-inch and 42-inch widths. These narrower widths cut down on material waste and save installation time when used for counter tops.

Free decorating and merchandising services.

The Armstrong Bureau of Interior Decoration will gladly send you a list of floors which harmonize with each exclusive Armstrong Corlex pattern. You may obtain this list without obligation—and if you wish, the Bureau will gladly help you or your color consultant create outstanding decorating schemes for your model homes based on these matching or harmonizing floors and counter tops.

Because of the general preference among homemakers for products they know and trust, it's a good idea to let your prospects know that you use Armstrong floors and counter tops by featuring them in your advertising and pointing them up in your model homes. Free sales aids are available to help you do this: identification signs for every room, literature imprinted with your name, model home floor policy, newspaper ad-mats and slugs, radio and TV commercials, and sales pointers for salesmen.

For any of these services—the list of matching and harmonizing floors and counter tops, decorating assistance, or special merchandising aids—get in touch with your flooring contractor or the Architectural-Builder Consultant in the Armstrong office nearest you or write direct to Armstrong Cork Company, 109 Sixth Street, Lancaster, Pennsylvania.

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Matching and harmonizing floors and counter tops . . . a merchandising idea from the Armstrong Architectural-Builder Service to help you sell houses faster and more profitably.

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THE MODERN FASHION IN
FLOORS

LINOLEUM • PLASTIC SHEET CORLON® • EXCELON® VINYL-ASBESTOS TILE
CUSTOM CORLON PLASTIC TILE • RUBBER TILE
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There's no doubt about the fact that *Electric Ranges* help sell houses. The proof is right here for you in this chart. There are *three times* as many *Electric Ranges* in American homes now as there were ten years ago. Every day, more than 4,000 of these ranges are being installed. These figures prove that home buyers *want* *Electric Ranges*—show that you should install them in the homes *you* build!

"We are both custom and operative builders, specializing in small houses," says Mr. Kenneth N. Plencner of Banker Builders, 7714 W. Touhy Ave., Chicago, Ill. "The homes we build vary in many details, but are alike in one respect—they all have *Electric Ranges*. The reason for this is that our customers want this kind of range, and we're in business to satisfy them." This 3-bedroom, 1½-bath house has large living-dining room, 2 fireplaces, and a finished basement. The kitchen is modern in every respect—including electric refrigerator, food waste disposer—and the range, of course, is **ELECTRIC!**



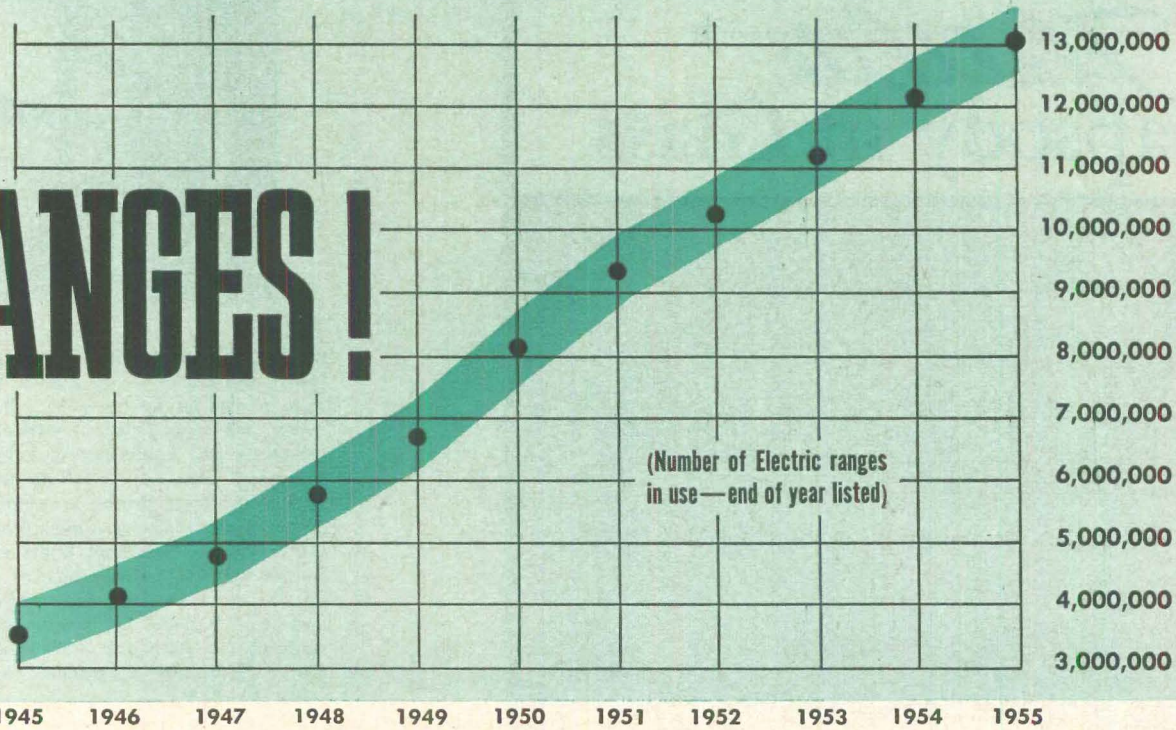
Today, successful builders are using foresight and imagination in planning the kitchen. Its equipment, its layout, have changed so radically that it *must* include the *Electric Range*. In the modern kitchen, cooking must come out of the "chore" class and become an automatic pleasure. That's

the kind of cooking the *Electric Range* provides. It's clean, saves time and effort, keeps the kitchen comfortably cool—and fits in with the modern idea of this room being a gathering place for the family. It's the range that can help sell *your* houses!

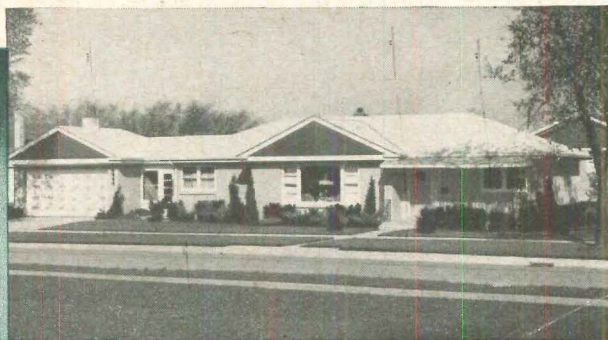
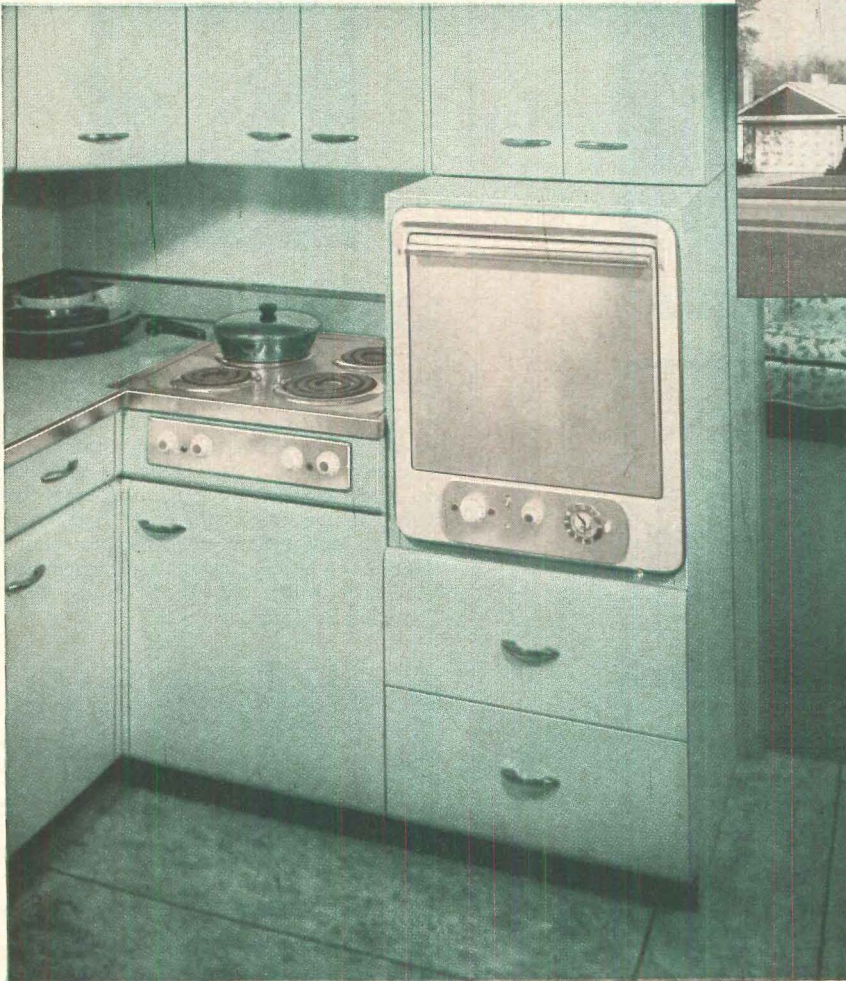
ELECTRIC RANGES help sell houses



RANGES!



Source: ELECTRICAL MERCHANDISING Annual Statistical and Marketing Issues



"In our territory," says Mr. Plencner, "Electric Ranges are a definite help in selling homes. People who buy the kind of homes we build are not content with anything but the most modern equipment." The home you see here is really planned for gracious living. It is of brick and redwood, with a white asphalt shingle roof. It contains 6 rooms and 3 baths, has a breezeway and fully paneled basement. The kitchen is in keeping with the rest of the house. It includes an electric refrigerator, food waste disposer, and built-in ELECTRIC Range.



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SLIDING DOORS



DOUBLE, DOUBLE HUNG WINDOWS



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Glass — bringing light, vision, beauty to our new construction is offered by Fleet in matching frames of extruded aluminum. Engineering has solved the problems of weathertightness and ease of ventilating. Good design has made it practical to mix different styles in the same building.

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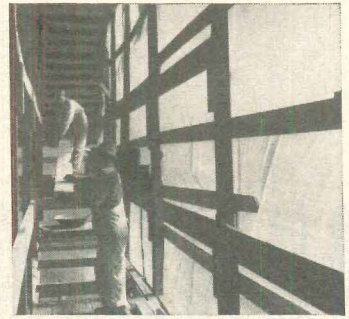
All Fleetlite products meet the needs of northern winters and western dust storms.

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w. Polyethylene film for construction trades comes in 2, 4, and 6 mil gauges and in widths up to 16½'. Its uses are many and varied. Here it protects workers, materials and equipment from the weather. Company also advocates its use to help cure cement or bricks in minimum time. Other home building applications include: under slab or basement floors and around foundation walls; as moisture and vapor barrier; between floor and subfloor; as air and dust barrier; on warm side of wall studding as moisture and vapor barrier. Olin Mathieson Chemical Corp., New York 22, N.Y.

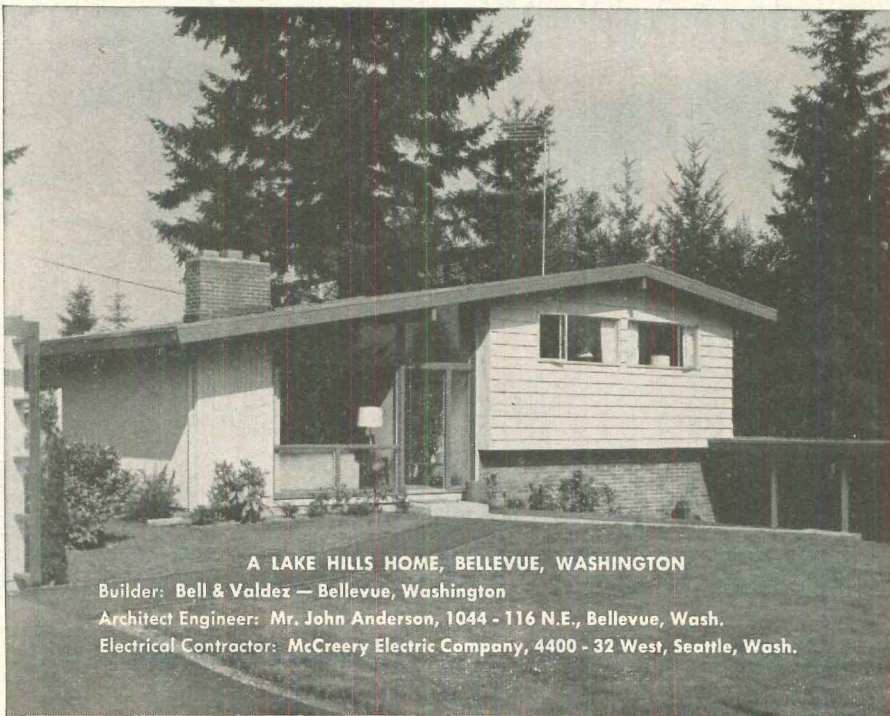


x. Bruce Vapo-Chek is made for use in surface dampproofing concrete floor slabs. A tough, transparent polyethylene film, it comes in packaged rolls 750 sq. ft. and 36" wide. You unroll it over the area to be protected which has been previously spread with a cold-type mastic. Block and strip flooring on screeds can be installed on concrete slabs previously dampproofed with the film. Two mil gauge is claimed to give long lasting moisture protection, requires no special installation techniques. \$7.25 per roll F.O.B. E. L. Bruce Co., Memphis 1, Tenn.



y. Sisalkraft Moistop is used as a permanent vapor barrier under concrete and as a ground cover in crawl spaces. Moistop is claimed to be the only reinforced paper-supported polyethylene product now marketed for the building industry. A companion product, Sisalkraft Vaporstop, is a fungicide-treated paper product. Principal use is under concrete slab. Both materials are available in widths up to 8', cost from 2-3¢ psf. American Sisalkraft Corp., Attleboro, Mass.

continued on p. 216



A LAKE HILLS HOME, BELLEVUE, WASHINGTON

Builder: Bell & Valdez — Bellevue, Washington

Architect Engineer: Mr. John Anderson, 1044 - 116 N.E., Bellevue, Wash.

Electrical Contractor: McCreery Electric Company, 4400 - 32 West, Seattle, Wash.



LIGHT SWITCHES

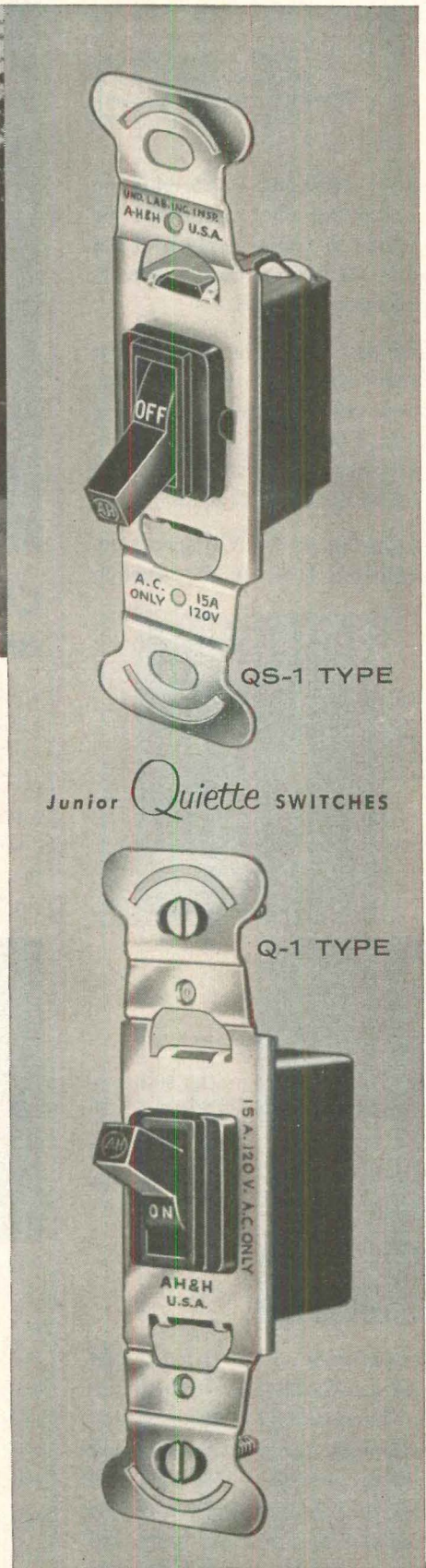
Help Sell 4,000 Homes!



"A good investment . . . the Arrow-Hart Quiette Switch is a quality feature that helps sell our homes," says George E. Bell, Bell & Valdez, Bellevue, Washington.

Each of the 4,000 homes — \$11,750 to \$15,700 — in the Lake Hills development, Bellevue, Washington, will have "silent salesmen" in every room — ARROW-HART Junior QUIETTE SWITCHES.

These smart builders realize that Arrow-Hart Quiette Switches offer prospects *tangible* evidence that these are *quality* homes.



Write for free folder
(Form No. A-198) describing
the complete Arrow-Hart
Quiette Switch line



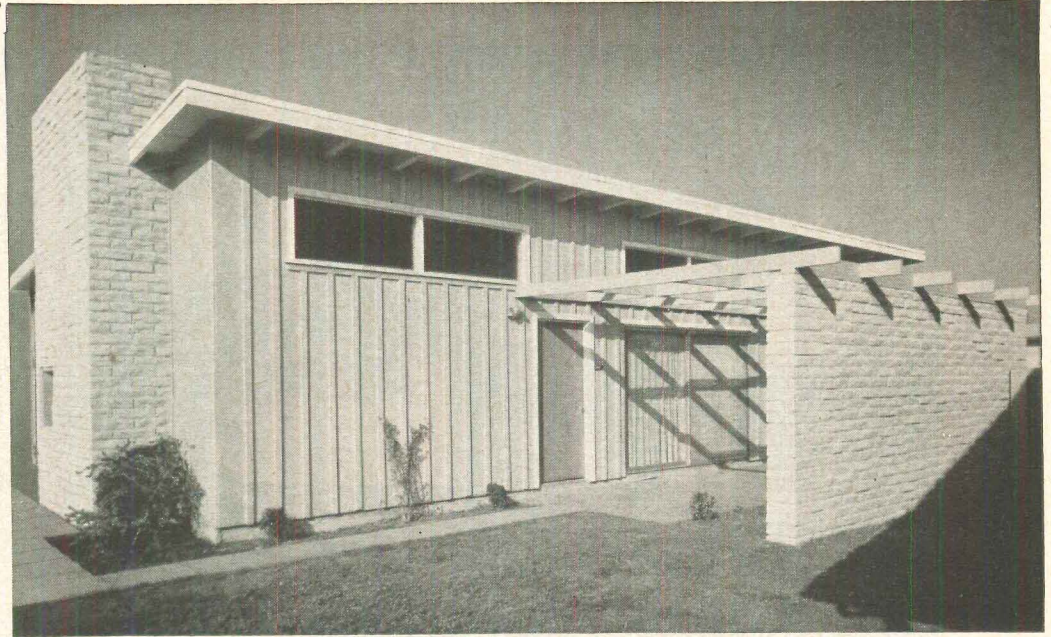
Wiring Device Division

THE ARROW-HART & HEGEMAN ELECTRIC CO.

103 Hawthorn Street, Hartford 6, Connecticut
Offices, Sales Engineers and Warehouses in Principal Cities

Quality WIRING DEVICES • MOTOR CONTROLS • ENCLOSED SWITCHES • APPLIANCE SWITCHES

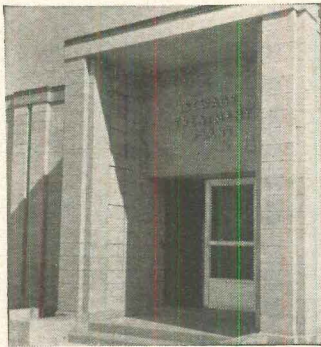
(right) Concrete masonry constructed model home in "Parade of Homes." Note slump structural wall units used.



From a relatively small part in the building industry to a starring role . . . that's the remarkable record of concrete block! Even more unusual is the brief period of time in which this progress was made.

It's not so long ago that concrete block was considered suitable principally for basements. Then its use was extended to small buildings such as garages. Expansion into new applications was slow because block-making itself was a slow and painstaking process.

With the introduction of the Vibrapac automatic block machine, however, the situation



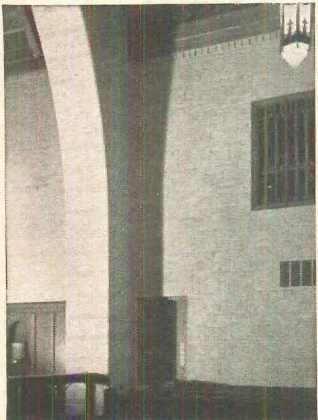
(right) Dense aggregate block in stacked bond used in construction of this Sewage Treatment Plant.

CONCRETE BLOCK . . . Now Recognized as a Complete Building Material

of concrete masonry were eye-opening. Because of the Vibrapac process, concrete block could be used effectively and economically in every phase of construction . . . for exterior walls, solid or veneer, interiors, partitions, floors, ceilings, corridors, entrances. In fact, the entire building from roof to basement could now be erected using one major mate-



(right) Frank Lloyd Wright designed this beautiful concrete masonry home, using standard 4" high block.



(left) Note the beauty of the exposed concrete block wall in this church interior. 4" and 8" units were used alternately.



Lightweight block were selected in the construction of the beautiful Ford Rotunda at Dearborn, Michigan.

rial only . . . Vibrapac block. Furthermore, the appearance, strength and longevity would be as good or better as with any other kind of building material. Concrete block, with the aid of the Vibrapac automatic method of block production, had "arrived"!

When the "building boom" developed, the true worth of concrete masonry was again

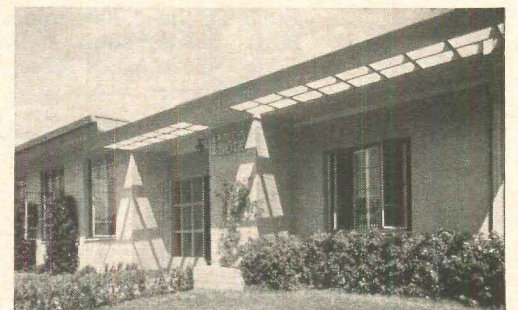


Concrete masonry constructed church school. Note the unusual effect created by alternately protruding block.



(left) Exposed concrete block in stacked bond adds charm to this residential fireplace.

demonstrated. In new homes especially, concrete block became adaptable to a wide range of artistic and practical effects which added



California police station built of concrete block for beauty, as well as for firesafety and earthquake protection.

to the spaciousness and comfort of modern living . . . without adding to the cost. Today, concrete block is recognized generally as the truly universal and complete building material. For information write Besser Company, Box 175, Alpena, Michigan, U.S.A.

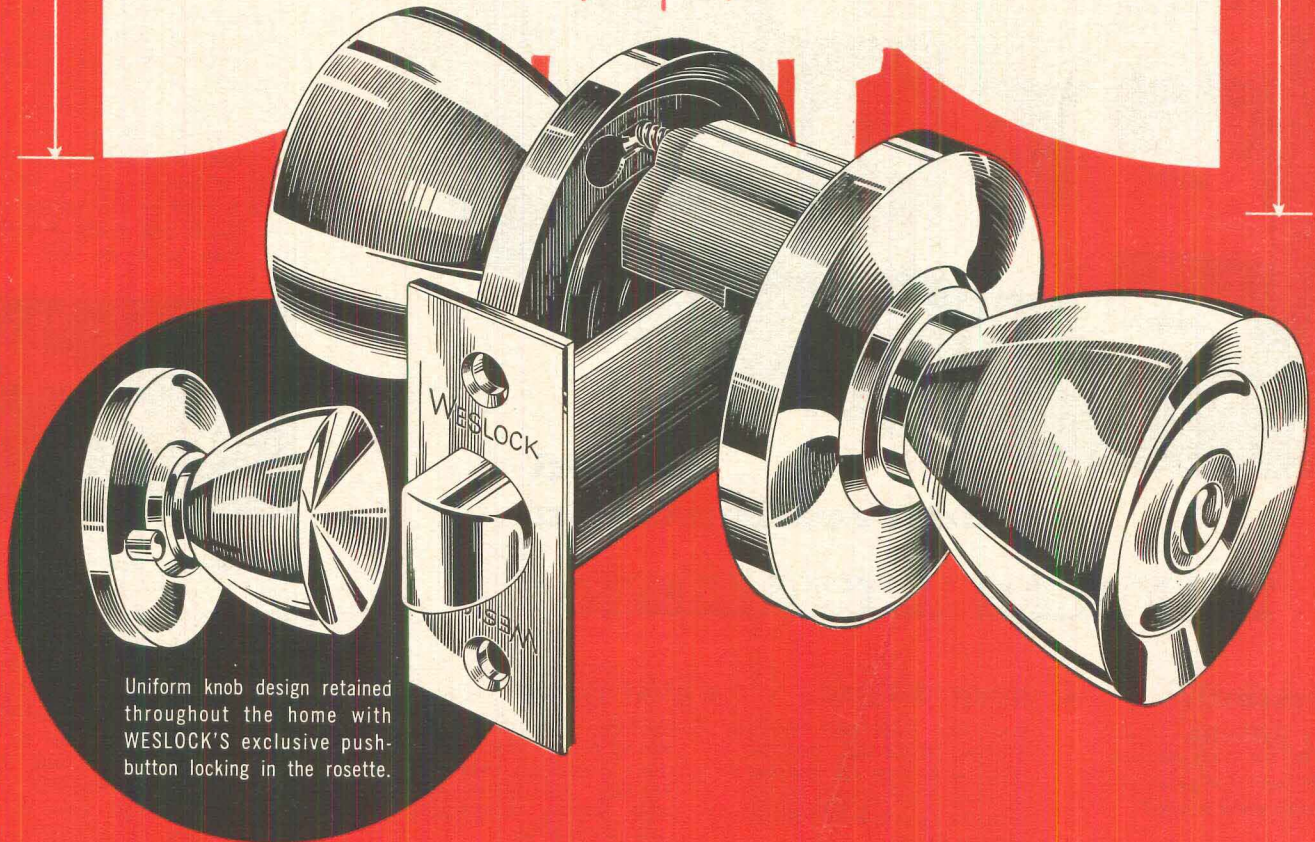
changed dramatically. Almost overnight Vibrapac block caught the fancy of the building industry. Its availability and economy, combined with high quality, revolutionized old-time building concepts. The ease and speed with which Vibrapac block could be laid, the development of modular units, and its dependable uniformity attracted attention everywhere. Builders who wanted to build faster, better and more profitably swung over to concrete masonry in ever increasing numbers. Architects, seeing the almost unlimited versatility of Vibrapac block, specified block for churches, schools, theatres, commercial, government and industrial buildings as well as for housing.

To prospective owners of homes and other buildings, the new beauty and adaptability



THE ALL NEW

Sunray De Luxe by WESLOCK

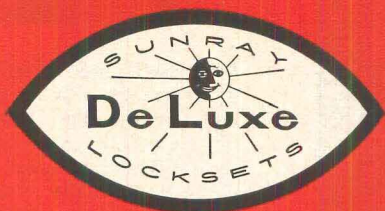


Uniform knob design retained throughout the home with WESLOCK'S exclusive push-button locking in the rosette.

Here is a brilliant interpretation of today's demand for more impressive residential locksets within a modest budget. The new Sunray De Luxe design is a masterpiece of contemporary beauty destined to become the standard of budget priced residential locksets among architects, builders and contractors everywhere.

There is a Sunray De Luxe lockset for every door in the home.

See the New Sunray De Luxe with matching cabinet hardware on display in our Booth 133, NBHA Exposition, Conrad Hilton Hotel, Chicago, Sept. 10-12, 1956.



WESTERN LOCK MFG. CO.

Manufacturers of Weslock Residential Locksets and Builders Hardware

GENERAL OFFICES: 211 NORTH MADISON AVENUE, LOS ANGELES 4, CALIFORNIA • FACTORY: HUNTINGTON PARK, CALIFORNIA



New!

**added
convenience in**

DWYER KITCHENS

★ **LARGE REFRIGERATORS**

—up to 7 cubic feet in the DWYER "69" with stainless steel freezer compartment and storage shelf in door.

★ **"LIFETIME" PORCELAIN**

—from top to bottom. Entire kitchen fronts and seamless range-sink tops are finished in gleaming vitreous porcelain that retains beauty under hardest usage.

★ **ROOMY STORAGE**

—includes upper cabinets protected by insulated porcelain heat deflector over range burners. Full depth under-sink cabinet. Roll-out pot and pan drawer.

★ **ROLL-OUT SHELVES**

—all storage space in new DWYER refrigerators is easily accessible. Shelves glide smoothly in and out on nylon rollers.

★ **FULL SIZE OVENS**

—separate bake and broil burners. Convenient high broiler on both gas and electric models.

★ **4 SIZES**

—from ultra compact models 39 inches wide to family size models 69 inches wide. Each of DWYER quality and convenience.

Modern kitchen convenience in compact space for the efficiency apartment, for hotels and motels. Facilities for easy hospitality and buffet meals on the living-porch, in the recreation room of the spacious home . . . in time-saving office installations. More than 50 thousand Dwyer Kitchens, installed over 10 years ago, are proving it in trouble-free performance today. Write for literature.

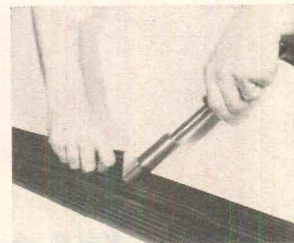
DWYER PRODUCTS CORPORATION
Dept. D96, Michigan City, Indiana

Dwyer Products Corporation—Dept. D96, Michigan City, Indiana
Please send literature and full information on Dwyer Kitchens.

Name.....
Address.....
Firm.....
Town..... State.....

**plus
THE
UNIQUE
DWYER "400"**

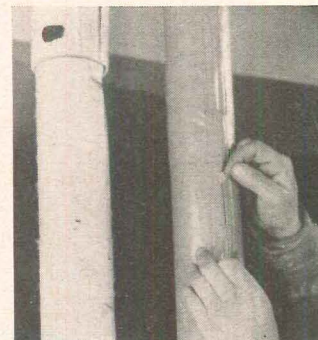
Handsome cabinet in blonde or mahogany color. Graces the room as a piece of fine furniture. Unlocks and opens to make a convenient buffet kitchen or bar.



z. Plasti-grip is a three-purpose joint of extruded plastic (polyvinylchloride) that you can use as an expansion joint, construction joint or waterstop. It comes in continuous strips 100' long and 5"-6" wide. Cut it with a knife, as in photo above, or splice it on the job if you need a T-joint or an X-shape. Deep grooves grip tightly into concrete, "U" shaped center pleat expands and contracts with the joint. Plasti-grip is claimed to resist water pressures up to 125' head, stays flexible even in low temperatures and resists alkalis and acids. Progress Unlimited Inc., New York 36, N.Y.



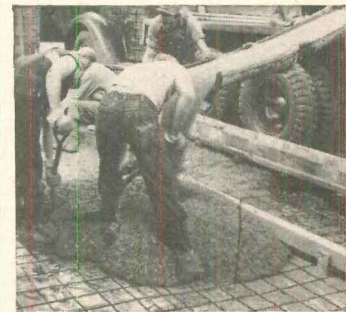
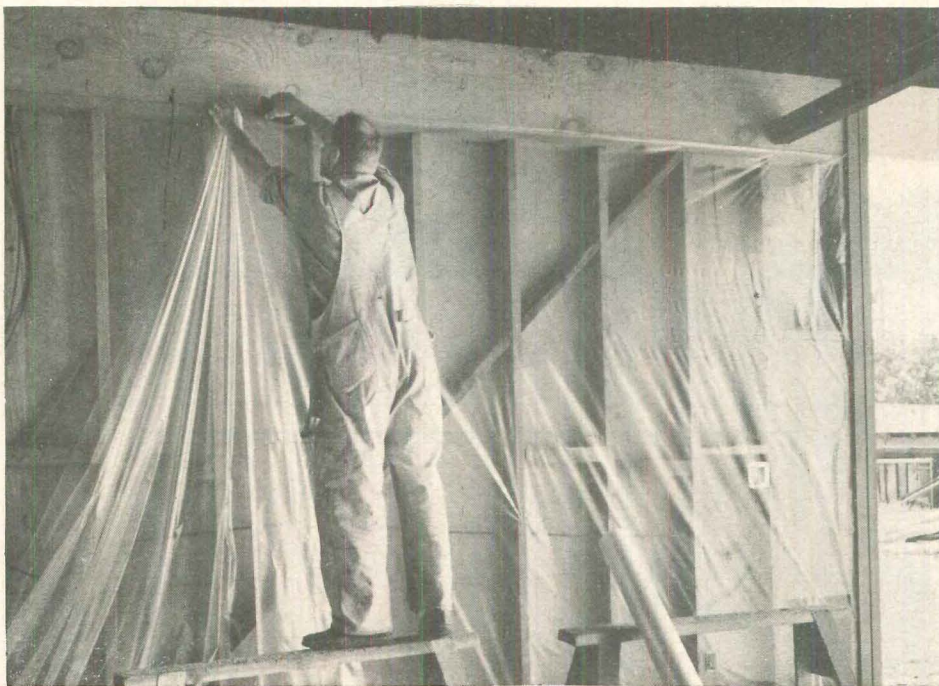
aa. Foamflex Doorstep for weatherstripping is made of closed-cell, water-resistant foam permanently bonded to the edge of a 1/4" x 5/8" beveled clear wood molding that becomes a part of any door frame. Doorstrip is packaged in one 3' length and two 7' lengths—more than enough to weatherstrip an average size door on both sides and top. Company says Doorstrip's flexibility under extreme temperature range, plus its wide contact area, assures an air-tight seal even on a badly warped door. Kit, as shown above, sells for \$2.29. (Three outside doors can be weatherstripped for about \$7). J. W. Mortell Co., Kankakee, Ill.



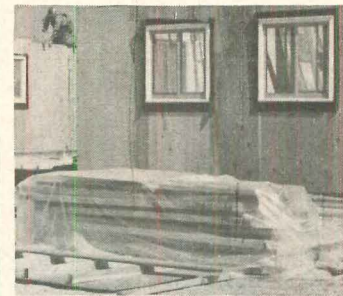
bb. Plastic pipe covering of Krene vinyl film protects insulation for pipes, ducts and cables. The new covering, called "Protektinsul" has a combination of features: flexibility, good moisture-vapor resistance, durability. A plastic slide fastener that works like a zipper, allows a worker to inspect the pipe at almost any point without damage to the cover. Jacket is made in colors so it can serve as the basis of an easy identification system, particularly good in large scale installations. Miracle Adhesives Corp., New York City.

continued on p. 220

Master merchandiser Joe Eichler features **Visqueen® film Moisture Barrier** in his California homes



VISQUEEN film is the best moisture barrier under concrete slabs or floors



VISQUEEN film protects lumber, finished mill work, fixtures—any material subject to water.



No water damage to equipment when you protect with VISQUEEN film.

Acknowledged leader in merchant building, now constructing more than 3,000 homes in 5 California cities, Joseph L. Eichler finds in VISQUEEN film another plus value that helps him sell better living to California home-seekers.

"Our customers never see the VISQUEEN film moisture barrier in our walls," he says, "but when we tell them how it will prevent decay within the studwall, cracking and peeling of paint and other moisture-generated ills, they know we are finding one more way to give more for their money."

important! VISQUEEN film is all polyethylene, but not all polyethylene is VISQUEEN. Only VISQUEEN, produced by process of U. S. Patents No. 2461975 and 2632206, has the benefit of research and resources of The VISKING Corporation.

look for this name on the selvage!

VisQueen®

For complete details, clip this coupon and attach to your letterhead.

VisQueen® film... a product of

THE VISKING CORPORATION, Box HH9-1410
 Plastics Division, Terre Haute, Indiana
 World's largest producers of polyethylene sheeting and tubing
In Canada: VISKING Limited • Lindsay, Ontario
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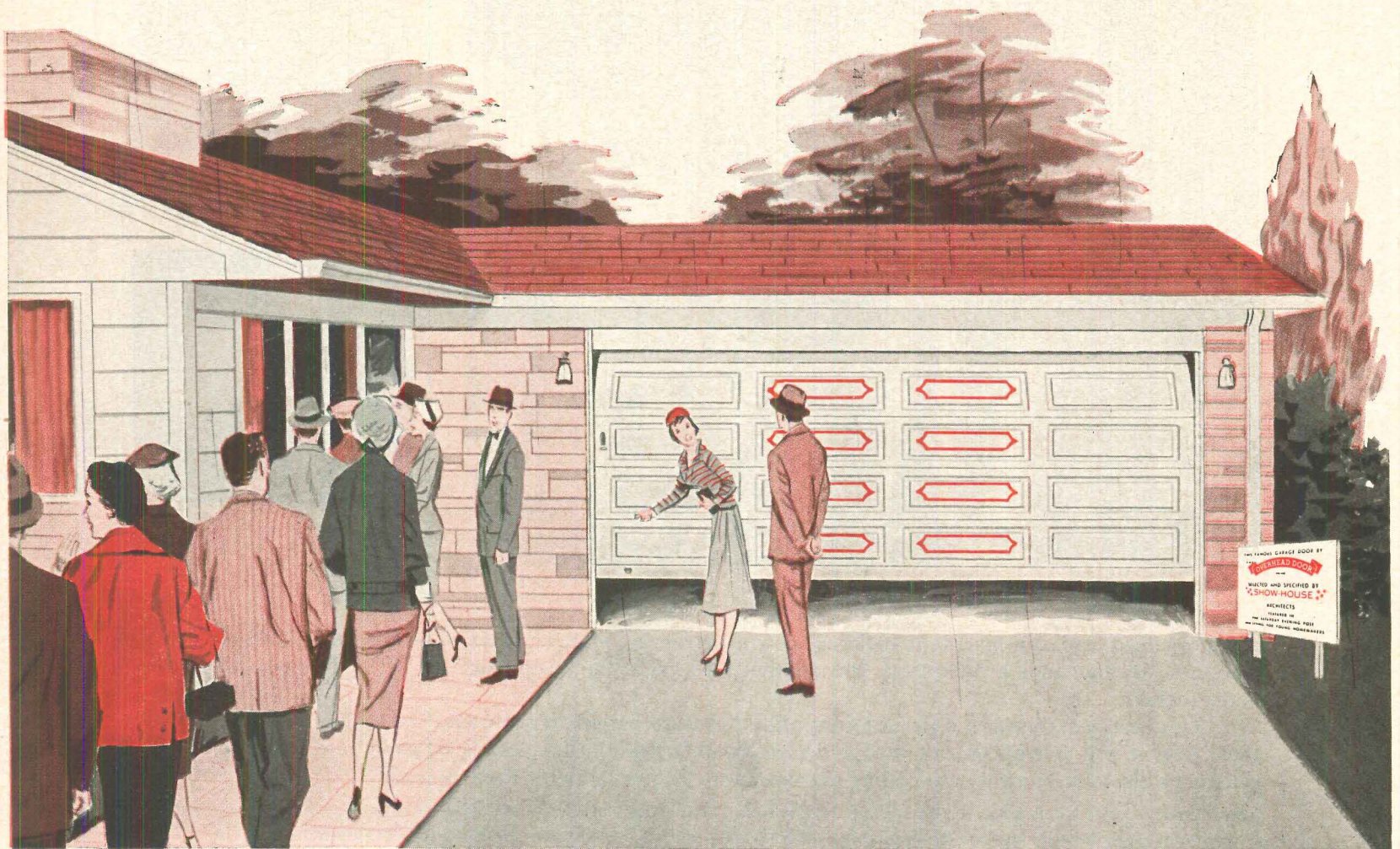
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Products _____

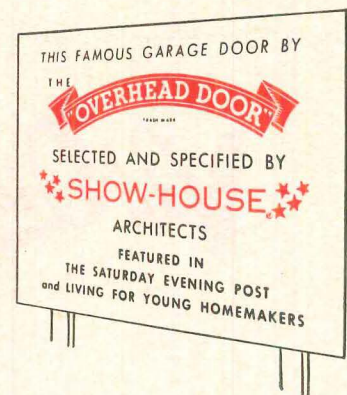
For 35 Years...

More people



The famous brand-name door that helps builders sell more homes!

- Feature The "OVERHEAD DOOR" in your Model Home to dramatize and demonstrate today's outstanding *living* convenience.
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- Use the modern magic of The "OVERHEAD DOOR" with Ultronic operator to draw more people to your Open House.
- Write for details concerning our cooperation in providing this push-button miracle with America's foremost garage door.



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"OVERHEAD DOOR"

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than any other brand!

**And, in 1956, more people
are buying The "OVERHEAD DOOR"
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Only The "OVERHEAD DOOR" offers builders so many advantages . . . so much service!

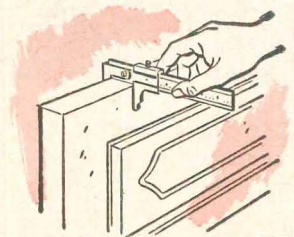
COMPLETE RESPONSIBILITY for the satisfactory performance of The "OVERHEAD DOOR," wherever installed, is assumed by Overhead Door Corporation and its distributors. Each installation is guaranteed for one year, service provided whenever needed, and parts available on 24-hour notice.

The "OVERHEAD DOOR" is advertised in full color in *Saturday Evening Post* and *Living*, and is the *only* garage door specified by SHOW-HOUSE architects in these publications.

A complete line of doors—
including Ultronic operation—in a
complete range of styles and prices.



Widest variety of styles—standard patterns, individualized designs—is offered by The "OVERHEAD DOOR."



Top quality materials, the most expert craftsmanship make The "OVERHEAD DOOR" America's finest garage door.



Fast delivery, installation of The "OVERHEAD DOOR" helps keep jobs on schedule . . . keeps customers satisfied.



Guaranteed against defective materials and workmanship for one year; expert service available any time, anywhere.

America's pioneer and leader in upward-acting garage doors

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"Our experience proves a quality kitchen sells a home faster . . .

that's why we feature . . .

GENEVA Kitchens™

says John Smith, partner, Consolidated Builders, Chicago Heights, Illinois.



"The GENEVA kitchen was a big influence on our selecting our home, and I have been delighted with it ever since," says Mrs. P. L. Benshoof, Jr.

Right—View of Consolidated Builders' 172 home project in Chicago Heights, Illinois.



Leading builders, contractors and architects, like Mr. Smith, have learned that a Geneva steel kitchen sells their homes *faster*. Offering the widest selection of cabinet sizes, Geneva saves man-hours on installation . . . permits tailoring a Geneva Kitchen to any kitchen floor plan. Cabinets available in six easy-to-live-with colors and standard white.

Geneva Kitchens meet every requirement of the up-to-date builder. See how Geneva Kitchens fit your plans—at a price to fit your budget.



GENEVA MODERN KITCHENS

Division of Acme Steel
GENEVA, ILLINOIS

Cabinets of steel for lasting appeal

GENEVA MODERN KITCHENS

(Division of Acme Steel)
Geneva, Illinois (Dept. HH-9-56)

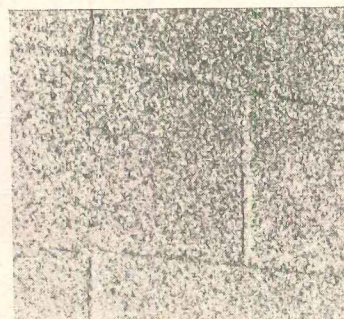
Please send details on GENEVA steel kitchens.

Name _____

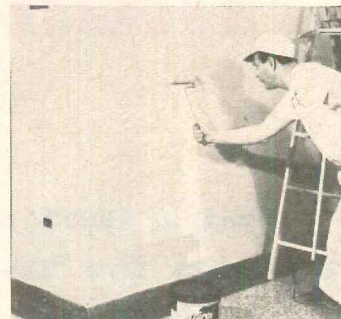
Address _____

City _____ State _____

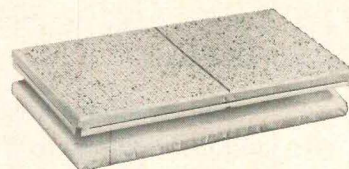
for further details check numbered coupon, p. 270



cc. **Vitricon spray-on block facing** is a cold-glazed cement mixture that, when applied, becomes an integral part of the concrete block without bonding or pressure casting. It can be either factory or site applied to block or walls. Vitricon looks a little like mottled tile. Company claims its hard, glossy surface is impervious to most chemicals. It is available in a range of colors to give an attractive finish to basements, halls and utility areas. Site-applied, Vitricon finish costs about 60¢ psf, including labor. The Concrete Corp., Long Island City, N.Y.



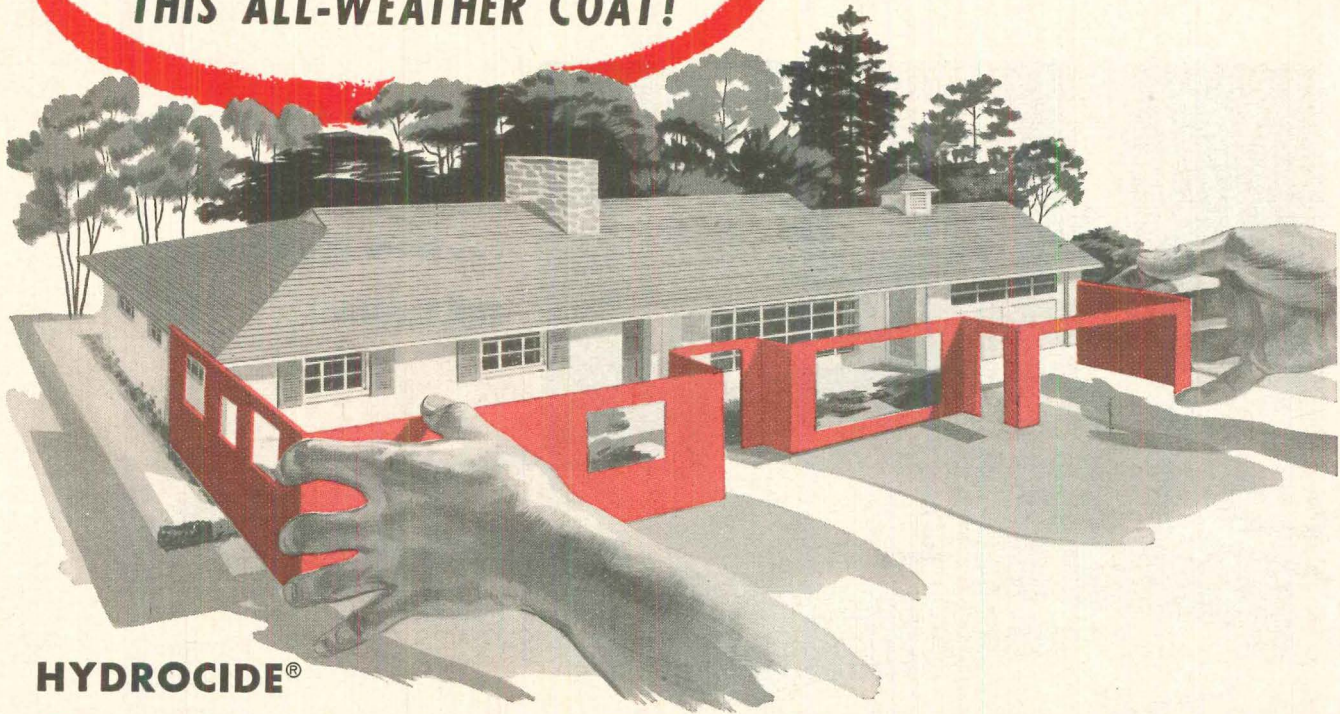
dd. **Styrox masonry coating** has a base of polystyrene latex. It is quick-drying, durable and easy to apply on plaster, brick or cinder-block surfaces. Here it's rolled on in a single coat which is enough to cover most surfaces. It adheres firmly to resist peeling, chipping or cracking on a properly cleaned surface. Maker feels it is particularly good for sealing fissures in concrete surfaces, since coating tends to reduce spalling and the tendency to surface disintegration caused by moisture. Nine colors, \$6.75 per gal. Protex-A-Cote Inc., Newark 5, N.J.



ee. **Spatterfect Acoustimetal** is a new predecorated metal acoustical unit. It masks the geometric pattern of its acoustical perforations with an attractive spatter of dark green paint on its standard white finish. Like standard 12" x 24" Gold Bond Acoustimetal units, Spatterfect has sound absorbing, incombustible acoustipads to give a noise reduction coefficient range of .80-.90. Design of the new unit harmonizes well with informal, casual design. Maker says after installation maintenance is easy—a damp cloth or sponge cleans surface. National Gypsum Co., Buffalo 2, N.Y.

continued on p. 224

**PROTECT BUILDINGS WITH
THIS ALL-WEATHER COAT!**



HYDROCIDE®

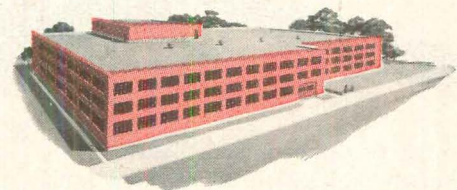
COLORCOAT Pat. pending

A ONE-COAT, WATER-REPELLENT MASONRY FINISH

Just one coat of this resin-base masonry finish decorates, protects and makes most exterior walls water repellent. The extra thickness of Colorcoat gives extra hiding power and extra weather resistance.

Colorcoat's decorative, textured finish increases the value of buildings old or new. Its toughness and long life cut maintenance costs. Colorcoat is applied by either brush or spray—to stucco, brick, concrete, block construction, and asbestos cement shingles.

- Contains Silicone to impart water-repellency
- Uniquely formulated* to eliminate chalking, flaking and peeling
- Bridges hairline cracks and pores
- Permits walls to "breathe"—reducing possible internal condensation
- Can be applied over surfaces previously painted with either oil or water-base coatings
- Bonds two ways—by adhesion of its resin base, and gripping action of reinforcing agents
- Gives lasting protection, plus a colorful, textured finish



IN 10 BEAUTIFUL COLORS! *Mint Green, Desert Tan, White, Concrete Gray, Slate Gray, Tile Red, Old Ivory, Ranch Rose, Cloud Gray, Canyon Tan.*

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Building Products Division—Dept. HH-9
404 Fourth Ave., New York 16, N. Y.

I would like full information on how Colorcoat saves maintenance costs on old or new buildings.

I would like your Building Construction and Maintenance Handbook with 125 pages of important information.

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Company Name.....

Address.....

City..... Zone.... State.....

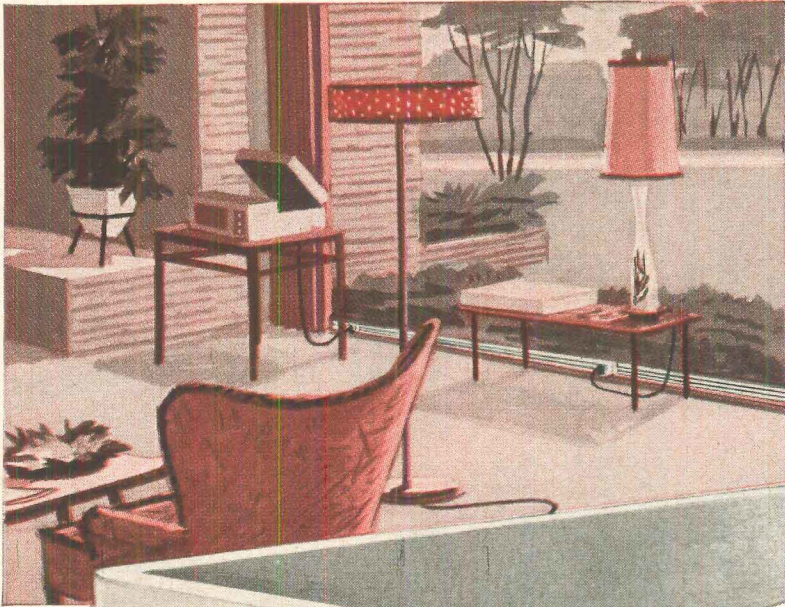
A Product of **Sonneborn** RESEARCH

Since 1903
manufacturers
of quality
building products.

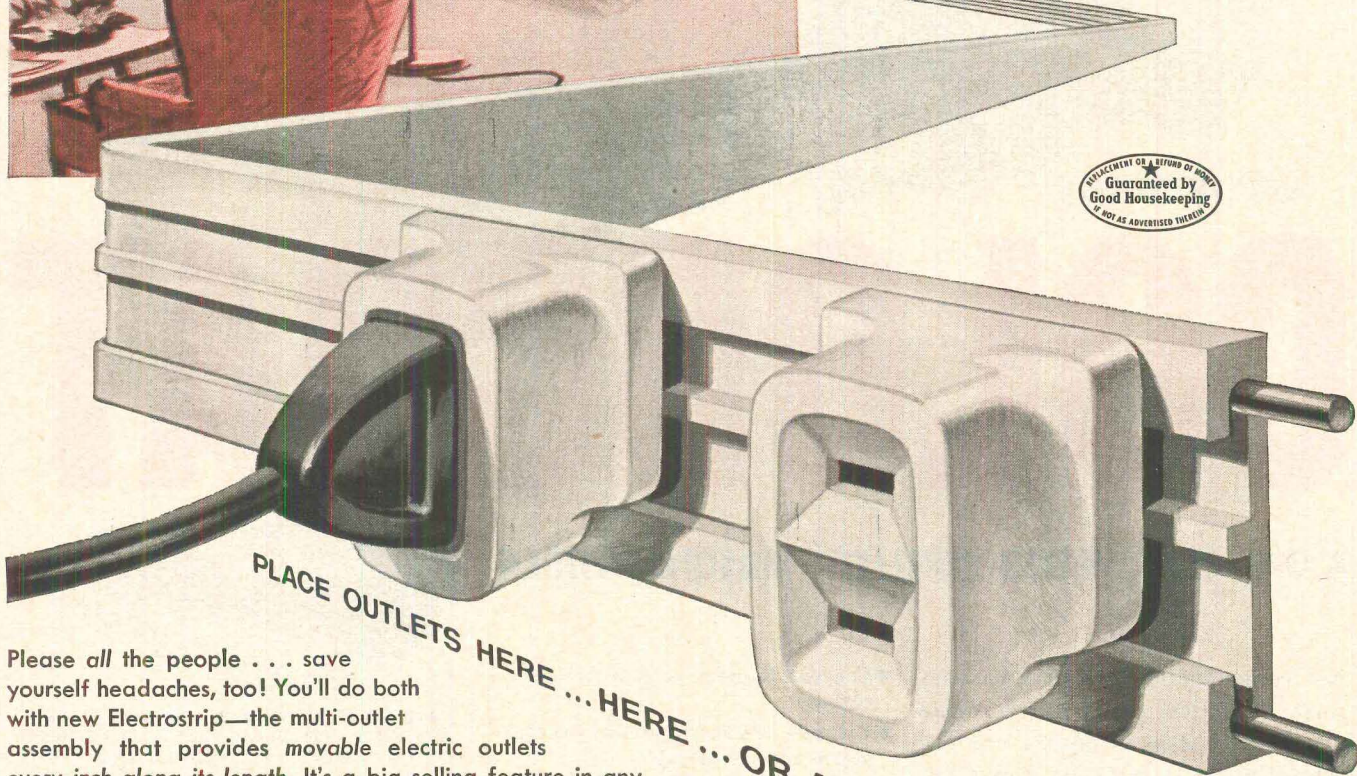
Makers of LAPIDOLITH CONCRETE HARDENER
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BULLDOG Electrostrip®

PATENTED



... brings new electrical
conveniences to your homes
... saves you time
and trouble!



PLACE OUTLETS HERE ... HERE ... OR ANYWHERE!

Please *all* the people ... save yourself headaches, too! You'll do both with new Electrostrip—the multi-outlet assembly that provides *movable* electric outlets every inch along its length. It's a big selling feature in any home—one that will really enthuse prospects. They can twist in outlets as they need them ... place and space them exactly where they want them.

Best of all, Electrostrip makes your job *easier*. Installation is a cinch. And you can forget about outlet planning. The strip mounts on any surface ... can be connected to any fixed outlet. It's neat and attractive ... perfect for every room in the house. Listed by U.L., rated at 20 amps, 125 volts A.C.

For details, see your electrical contractor, distributor, or Bulldog field engineer. Or write Bulldog Electric Products Company, Detroit 32, Mich.

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

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CALIFORNIA REDWOOD

Individual landscaping for tract homes

Home-buyers in Sacramento's Foothill Farms subdivision have the unusual opportunity of planning their landscaping with professional assistance. This free service consists of a 54-page How-to-get-started Guide, featuring many variations of redwood structures which are demonstrated in seven model outdoor garden rooms. All were designed by this well-known San Francisco landscape architect.



Douglas Baylis' interesting commission called for a variety of plans—complete with construction and planting information—which enable new owners to develop luxurious outdoor living space at moderate cost.



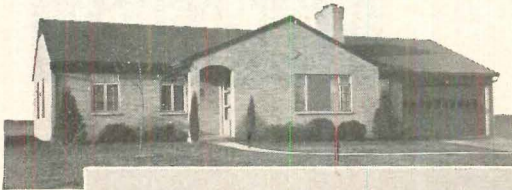
Besides wide experience in subdivision developments, his professional practice includes numerous private gardens, school grounds, parks, industrial plants, and designs for the San Mateo County Fair Garden Show.

Baylis has lectured at Stanford University, and the University of California, and is consultant to several national magazines. Recently he was appointed Supervising Landscape Architect to the University of California, Berkeley.

CRA

CALIFORNIA REDWOOD ASSOCIATION

576 Sacramento Street, San Francisco 11, California

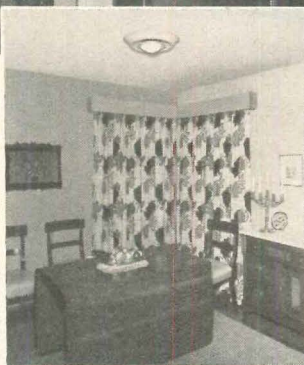


Residence of J. C. Davidson, Manager, Application Engineering Department, Airtemp Division, Chrysler Corporation, Dayton, Ohio. Completely air conditioned with Airtemp equipment and Kno-Draft Overhead Air Diffusers.



Living room has two Kno-Draft Diffusers. Air distribution system and fan-coil unit are located in attic. The condensing unit is at rear of house.

Why Air Diffusers are making grilles obsolete



In the dining room and kitchen, Kno-Draft Air Diffusers with integral lighting fixtures are used. These are available in a variety of styles, and may also be adapted for dropped lights.

Unlike grilles, which merely "dump" warm or cool air into a room, letting it mix *ad lib*, Kno-Draft Overhead Air Diffusers are true air mixing devices. They do their job thoroughly, within inches of the diffuser and well above the living level.

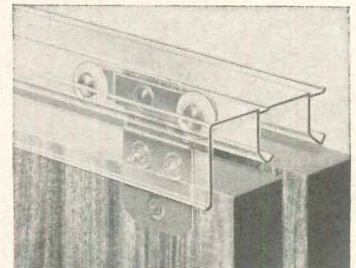
Thus, there is no feeling of air movement, no drafts, and temperature is equalized throughout the area. And home owners also appreciate the clean, anti-smudge operation of Kno-Draft Diffusers and the freedom in furniture placement they allow.

From the contractor's point of view, the superior advantages of Kno-Draft Air Diffusers mean added sales appeal and a chance to get away from straight price competition. And Kno-Draft jobs are easy to figure, easy to install.

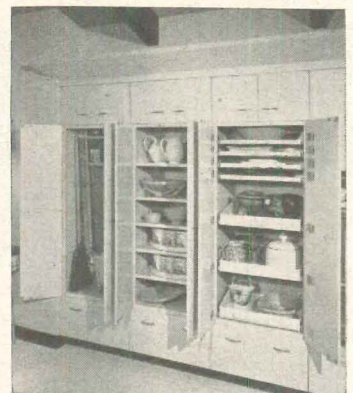
You'll be interested in our special bulletin describing Kno-Draft Residential Air Diffusers—their advantages, method of selection, system layouts, installation details. Send for your copy today. Connor Engineering Corporation, Dept. F-96, Danbury, Connecticut.



ff. Fire-Chex '400 is a giant shingle of mastic mat composed of interlaced asbestos fibers bonded with Carey Thermo-plastic asphalt—18 $\frac{7}{8}$ " x 24". Specially designed for low pitch roofs, it gives an unbroken color exposure 10 $\frac{1}{2}$ " x 18 $\frac{7}{8}$ ". Shingle is 400 lbs. per square as its name implies, is 50% thicker than usual shingles. Its strength and weight make for strong resistance to high wind. The 400 has a Class A fire-safety rating from UL plus approval down to roofs of 1" pitch. The Philip Carey Mfg. Co., Lockland, Cincinnati 15, Ohio.

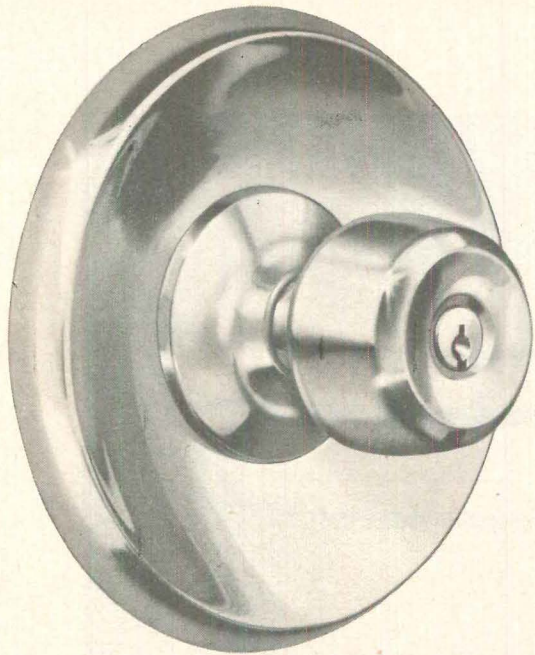


gg. Rocket 6000 sliding door hardware line is comprised of 15 complete sets, each specially made for a specific or dual function. Steel and aluminum tracks are available and single or double-wheel pivoting carriers can be supplied. Reversibility of the hardware makes it usable for either $\frac{3}{4}$ " doors or 1 $\frac{3}{8}$ " doors. Top and side mount adjustable hardware are available for single, biparting and by-passing installations. All double wheel carriers are constructed so that adjustments are made without the necessity of disturbing the screws set into the door. Side mount carrier aprons have only a 1 $\frac{1}{2}$ " drop from top of door to bottom of apron. Grant Pulley & Hardware Corp., Flushing 54, N.Y.



hh. Six feet of storage area stows equipment into deep sliding shelves, shallow sliding trays, revolving shelves, adjustable shelves. One unit is made for cleaning tools and supplies, has hooks and shelves to hang and store items. Company has other units—among them a mid-counter unit with drop shelf (24" w., 81" or 87" h., 12 $\frac{3}{4}$ " or 24 $\frac{3}{4}$ " d.) and storage above and below. You can get as many different combinations as you need including low flat drawers for trays and linens (unit is 33" w., 36" h., 24 $\frac{3}{4}$ " d.) St. Charles Kitchens, St. Charles Mfg. Co., St. Charles, Ill.

continued on p. 228



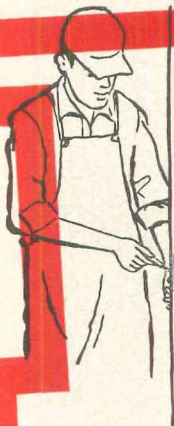
4 BIG REASONS

WHY

NATIONAL LOCKset

Patent Applied For

**IS AMERICA'S OUTSTANDING
LOCKSET VALUE**



1 QUICKLY INSTALLED

Only 7 simple steps are required. Slot-engagement of lock and latch . . . clamp plate assembly with key-slot design . . . snap-on rose . . . all are special features that save valuable installation time.

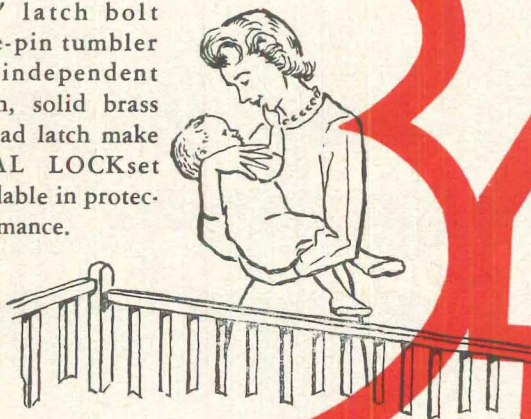


2 DISTINCTIVELY STYLED

Lockset trim, including different knob styles, decorative escutcheons and handles, blends with every type of architecture. Brass, Bronze, Chrome and Aluminum highlight the excellent array of lasting finishes.

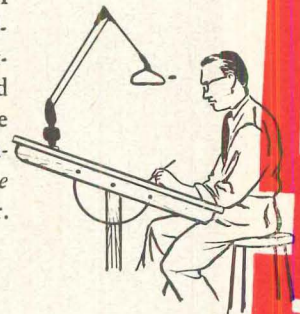
3 ASSURES POSITIVE SECURITY

Full 7/16" latch bolt throw, five-pin tumbler cylinder, independent knob action, solid brass bolt and dead latch make NATIONAL LOCKset ever dependable in protection performance.



4 PRECISION ENGINEERED

One-piece knob, full length cams, case hardened pusher plate, rust-proofed selected cold rolled steel lock case and mechanism are engineered to *reduce* wear and to *resist* wear.



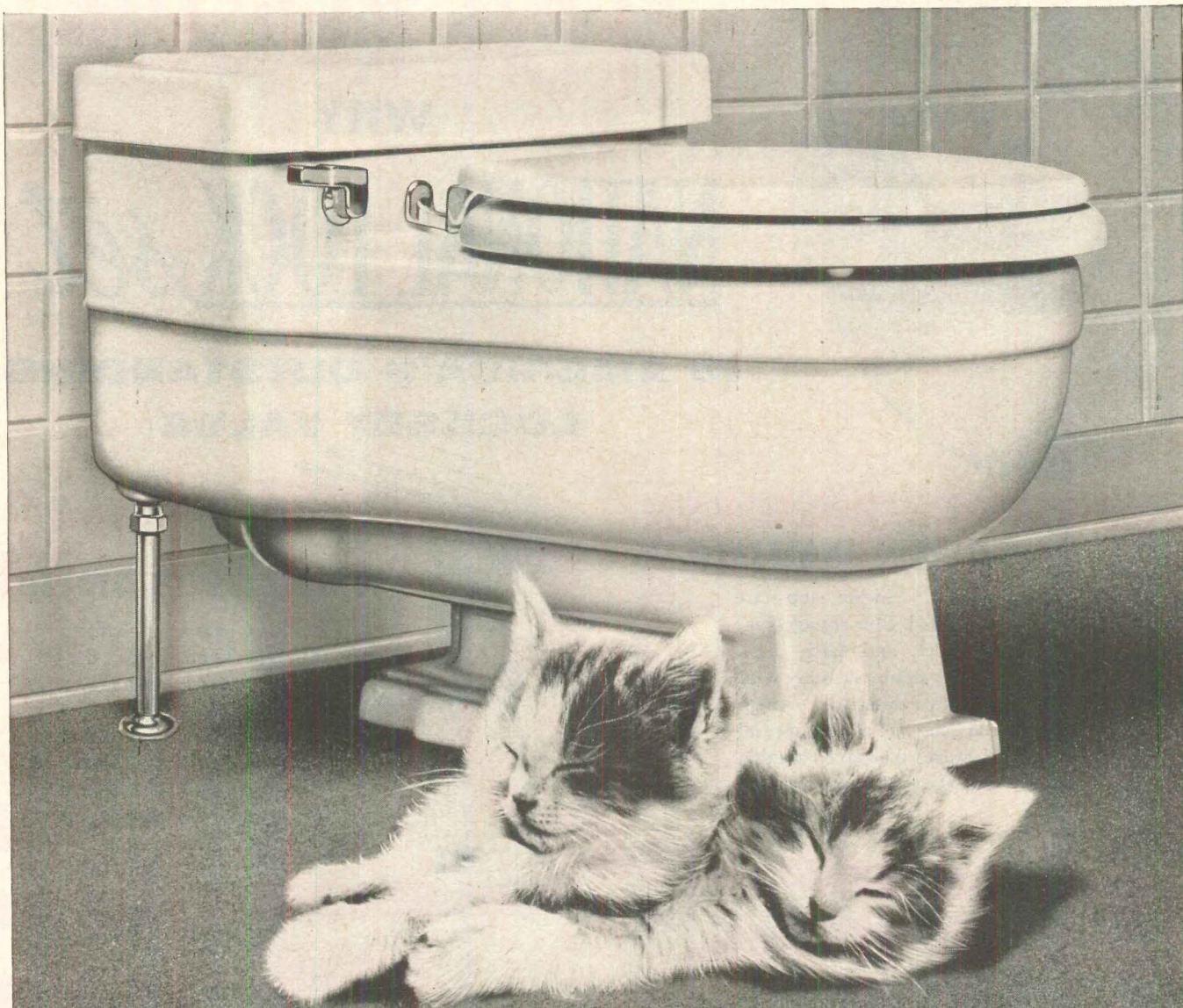
You put extra value into your homes . . . *at no extra cost* . . . when you choose NATIONAL LOCKset. Dependable security and service . . . complete owner satisfaction . . . bigger builder profits . . . these, and many more plus benefits, are yours by installing NATIONAL LOCKset exclusively. Ask your building material supplier for details. Write us for catalog No. 400 describing the complete line.



ORDER IT WITH CONFIDENCE • SPECIFY IT WITH PRIDE

NATIONAL LOCK COMPANY

ROCKFORD, ILLINOIS • MERCHANT SALES DIVISION



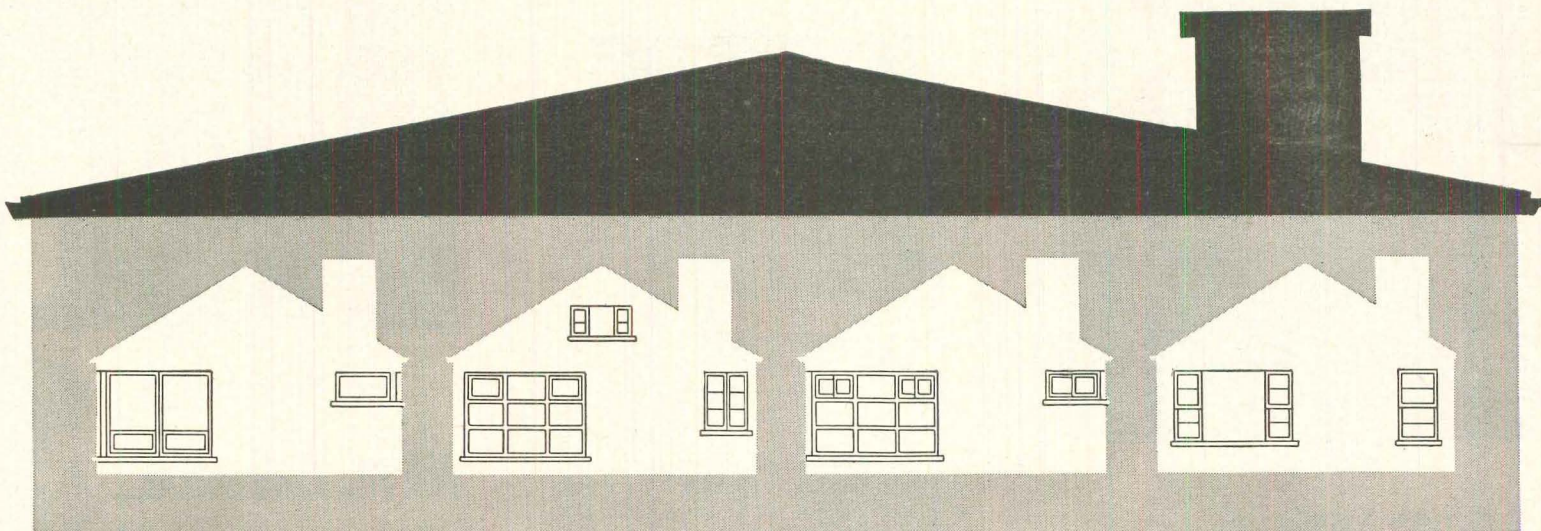
This water closet does not disturb your peace of mind

The famous Case time-tested Non-Overflow One-Piece water closet with the whispering flush...produced in 32 decorator colors and sparkling black and white. Ask your Case wholesaler or write:*

*PATENTED

CASE MANUFACTURING CORPORATION

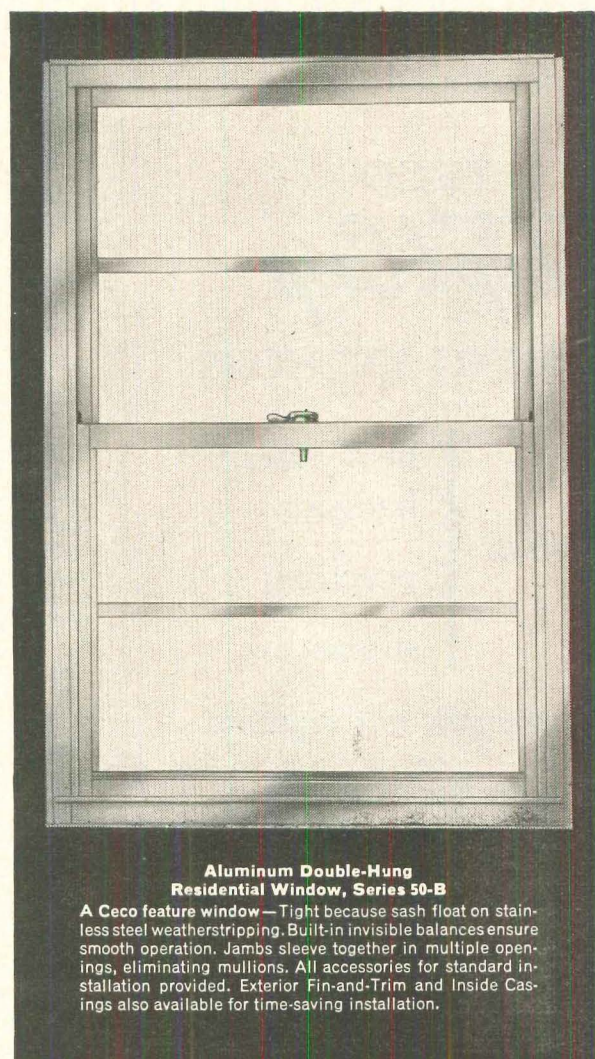
33 MAIN STREET, BUFFALO 3, NEW YORK



“ROW HOUSES?”

NO SUCH THING WITH A COMBINATION
OF **CECO WINDOWS**

Home after home with duplicated architectural design—but each has individual “personality.” That’s a promise when each is equipped with a combination of different types of Ceco Windows. Ceco offers you more variety in steel and aluminum windows than any other manufacturer. We keep a mighty close check on what “window-wise” home-buyers want. Ceco is ready to help you choose the right windows for different homes, whether they’re in a low-cost housing development—or whether they’re custom-built jobs. For better steel and aluminum windows, for better home building, better call your Ceco man today! You’ll be money ahead if you do.



Aluminum Double-Hung Residential Window, Series 50-B

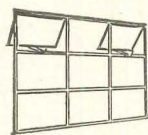
A Ceco feature window—Tight because sash float on stainless steel weatherstripping. Built-in invisible balances ensure smooth operation. Jamb sleeve together in multiple openings, eliminating mullions. All accessories for standard installation provided. Exterior Fin-and-Trim and Inside Casings also available for time-saving installation.

CECO STEEL

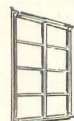
AMERICA'S WIDEST LINE OF STEEL AND ALUMINUM WINDOWS AND SCREENS

CECO STEEL PRODUCTS CORPORATION

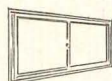
Offices, warehouses and fabricating plants in principal cities
General Offices: 5601 West 26th Street, Chicago 50, Illinois



Window-Walls



Casements



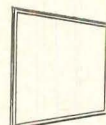
Sliding Windows



Basement Windows



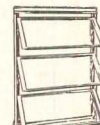
Double-Hung Windows



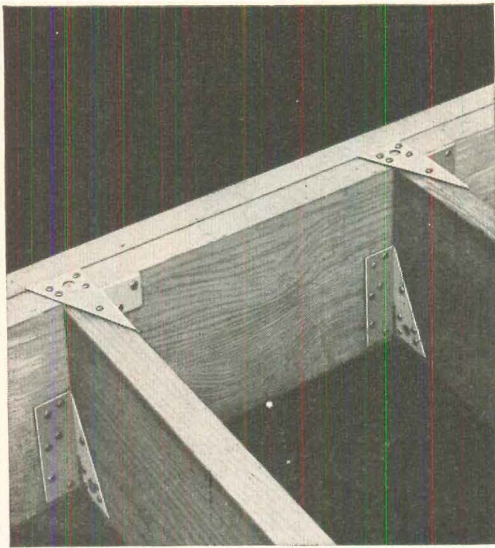
Picture Windows



Hopper-Vent Windows



Awning Windows



the most versatile,
practical and economical
JOIST HANGER
ever developed —

TECO
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Eliminate

heavy strap
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Add strength and rigidity.

One size fits joists from
2" x 4" to 2" x 12".

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WASHINGTON 6, D. C.

Please send FREE booklet, "Aids for Better Homes and Other Wood Construction," showing details on how and where to use Teco Trip-L-Grip Framing Anchors for stronger wood framing.

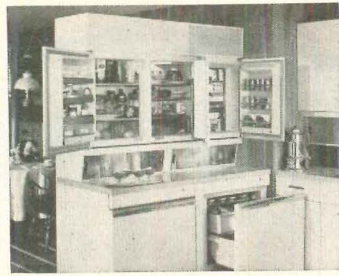
NAME

FIRM

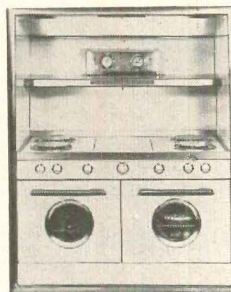
STREET

CITY, ZONE, STATE

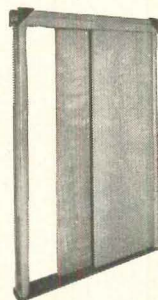
for further details check numbered coupon, p. 270



ii. GE refrigerator center is a free-standing unit with a built-in look. A new "K" frame steel support eliminates the need of a supporting wall, puts refrigerator, freezer and storage into one unit which can be used like a room divider, recessed in an alcove (without attaching it to a wall), or placed against an existing wall. Components that stack on the "K" frame include a wall refrigerator 64" w., 39½" h., 17½" d.; a roll-out freezer (its top serves as counter work surface) is 30½" w., 24¾" d., 34¾" h. and cabinettes which separate the two appliances and store small items. The "K" frame will sell for under \$50. General Electric, Major Appliance Div., Louisville, Ky.



jj. Kook-Center is a new built-in combination kitchen—all in one area. The package includes a Western-Holly range with barbecue-broil oven, four large simmer burners, two burners with automatic heat control, a vanishing grill, full width utility shelf, a built-in fluorescent light and ventilating fan. Unit is recessed with room for storage above and around it. Two sizes: 36" unit has finished chrome frame 40" w., 59" h.; 42" unit takes a frame 46" w., 59" h. Western-Holly Appliance Co., Culver City, Calif.



kk. Sliding door unit for wardrobes comes ready for installation in the rough opening with its two by-passing doors hung, like the company's Ready-Hung doors. In this unit however, header jamb needs four screws and a floor guide needs to be fastened to the finish floor. These 1¾" sliding doors come complete with hardware. Four sizes are available in Masonite, Philippine mahogany, Shina, ash or stain grade birch. From \$27.55 depending on size and wood specified. Ready Hung Door Mfg. Co., Burbank, Calif.

continued on p. 232

For Appearance
For Performance
For Profit

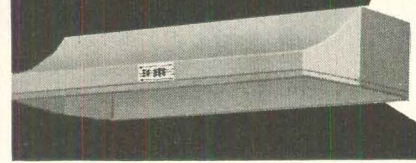
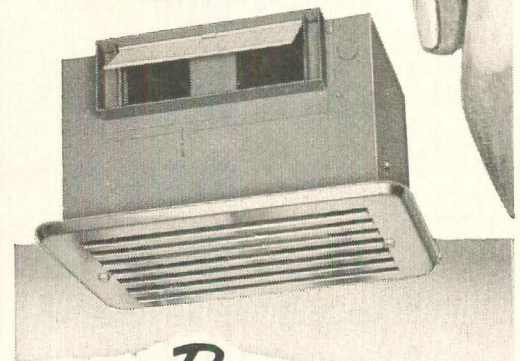


figure with a
NEW Broan
Range Hood*
and a



NEW Broan
Twin Blower Kitchen Fan

Of all the modern appliances built into the kitchen, none is more vital in its effects on cleanliness, comfort and gracious living than the air exhaust system. If you agree, then you have a sharp and professional interest in the outstanding Broan Range Hood and its companion accessory, the Broan Twin Blower Kitchen Fan that can be installed in the hood, or independently in a ceiling, cabinet or soffit. Together, or by themselves, these two units provide a positive vapor exhaust system for any and all types of kitchen layouts — the kind that really works to win and hold customer good will for you.

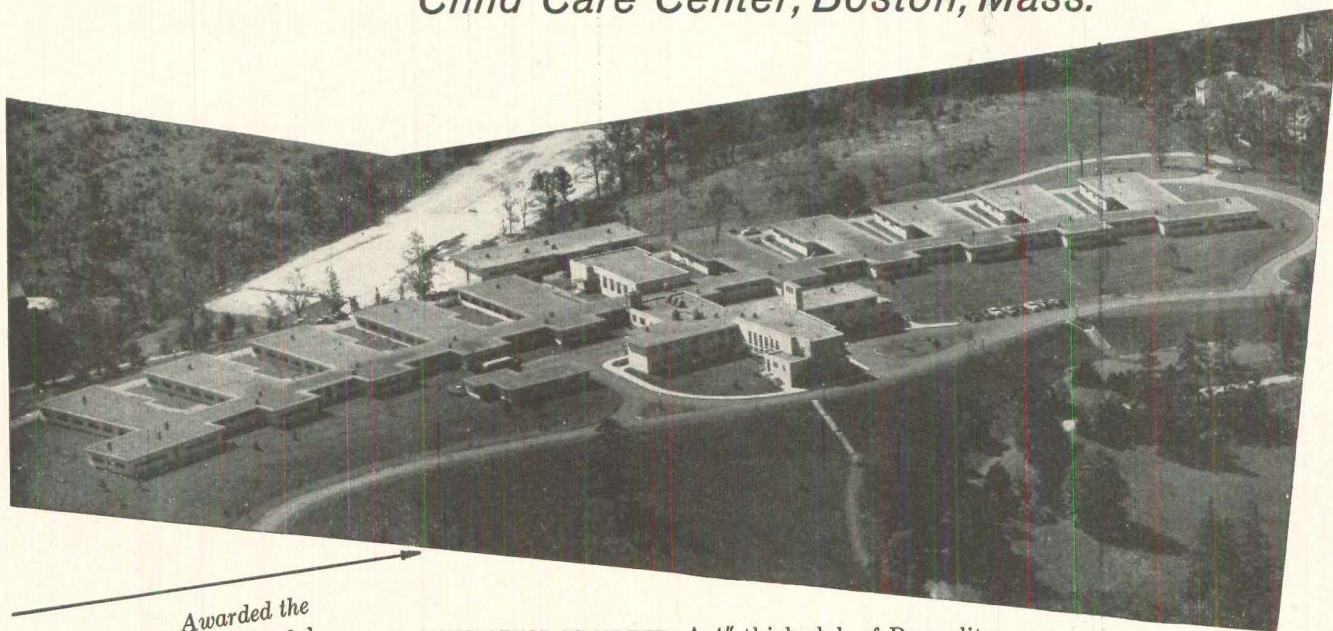
Write today for full details — including a series of typical types of air exhaust systems to fit all kitchen plans.

*This Broan hood comes in five sizes to meet any installation requirement. There are three preferred finishes — white enamel, coppertone, and stainless steel . . . as well as push-button controls, concealed flood lighting and matching splash plates.

Broan MFG. CO., INC.
Hartford, Wisconsin, near Milwaukee

PERMALITE helped **3** ways in building

NAZARETH
Child Care Center, Boston, Mass.

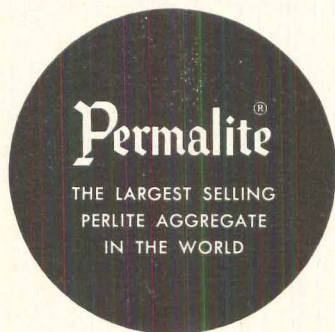


*Awarded the
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INSULATING CONCRETE: A 4" thick slab of Permalite insulating concrete (1:6 mix) underlies all of the 70,000 sq. ft. concrete slab on which the entire group of buildings rests, and prevents heat loss from the radiant heating coils in the slab.

INSULATING ROOF FILL: Permalite insulating roof fill in the chapel, convent, chaplains' quarters, kitchen, auditorium and gymnasium, clinic and school helps to keep these buildings warm in winter, cool in summer.

LIGHTWEIGHT PLASTER: Lightweight Permalite-aggregate plaster was used for the base coat in all the buildings because of its easier handling, better workability and added structural and insulating values.

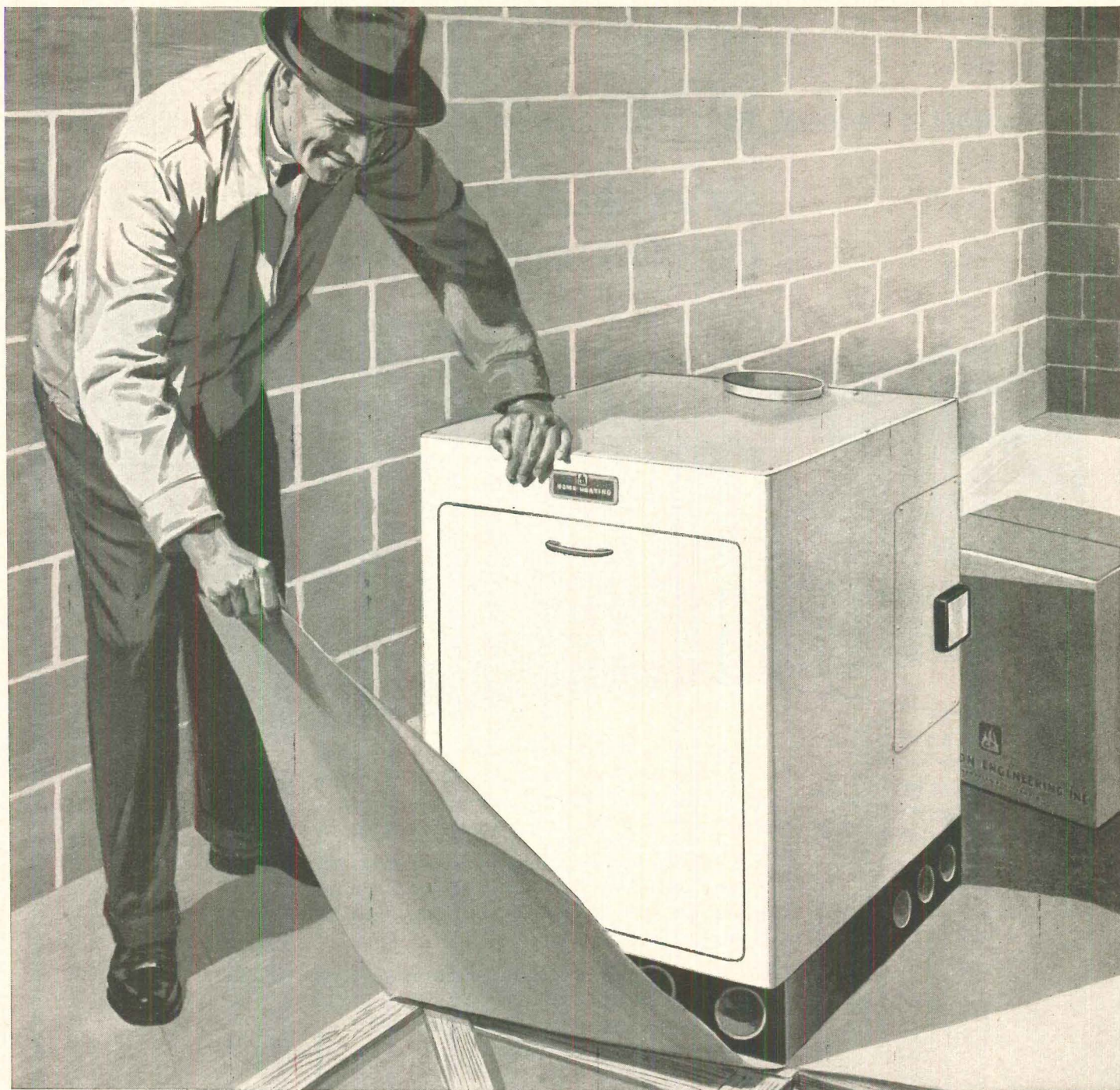


Nazareth Child Care Center, administered by the Archdiocese of Boston, is open to children in need without distinction as to race, color or creed, and provides residential care from infancy through the 8th grade, schooling and a child study clinic.

Architect: Maginnis & Walsh & Kenedy, Boston, Mass.
Building Contractor: Thomas O'Connor Co., Cambridge, Mass.
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Permalite Supplied by: The Whittemore Co., Roslindale, Mass.

Write for full information on the many uses of Permalite in modern construction

PERLITE DIVISION GREAT LAKES CARBON CORPORATION
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Ready for immediate installation

Packaged Heatmaster heating unit is easily the best way to winterize a home!

C-E has designed this small gas fired home heating unit for use with any type of hot water radiation. It is shipped as a *completely assembled* boiler—absolutely no on-the-job assembly is required! Occupies

only four square feet of space. Can be installed almost anywhere in the house. Approved for use on combustible flooring too!

Pre-engineered and packaged

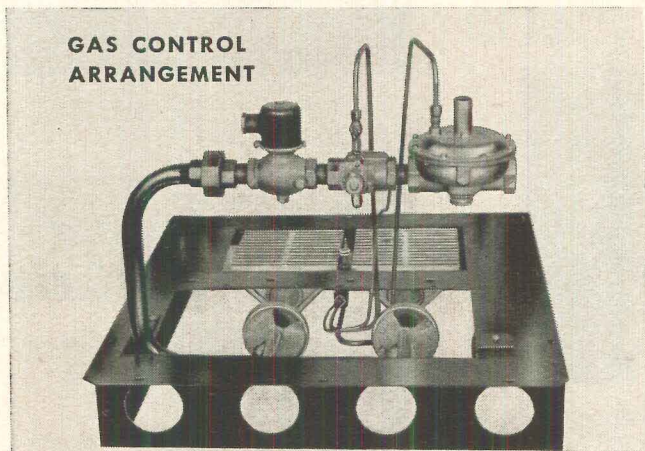
Simple gas and water connections to boiler are made external to the unit. No assembly or connections necessary to be made within the cabinet. All operating parts are in place for easy installation. Every C-E Home Heating unit is equipped with

these standard furnishings: Circulator, expansion tank, gas regulator, gas automatic pilot and safety valve, gas flue diverter (draft hood), control relay, gas control valve (solenoid), tube brush, temperature, pressure and altitude gauge, drain valve, manual air vent and complete internal wiring and piping ready for system hookup.

Patented features

C-E's patented aluminized steel burners are designed for use with all domestic gas fuels. The gas control arrangement, consisting of gas pressure regulator, automatic safety cut-off and solenoid is in place and is readily accessible for easy servicing.

The boiler heating surface consists of 92 feet of 1" steel tubing. Tubing is bent by C-E's exclusive process and welded in accordance with ASME code.

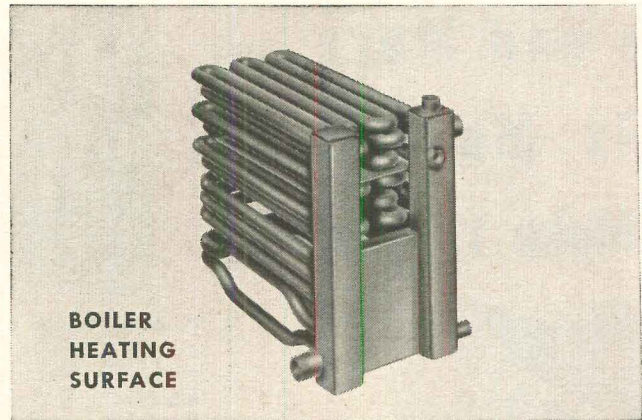


**GAS CONTROL
ARRANGEMENT**

Small radius bends and compact tube arrangement make for maximum transfer of heat to water. Small water volume of the C-E boiler (approximately 3 gallons) provides efficient utilization of fuel and practically instantaneous response to heating demands.

Add air conditioning

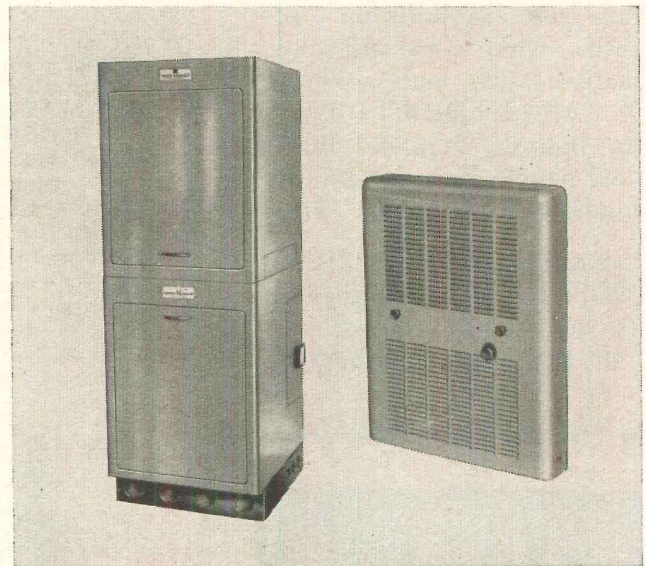
Homeowners desiring the comfort of air conditioning can add a chiller unit to the system at a later date. The boiler is specifically designed for this addition. If C-E room convectors are used and piping properly insulated with original heating installation, the summer air conditioning can be accomplished by simple interconnections between boiler and chiller units.



**BOILER
HEATING
SURFACE**

About C-E

The C-E domestic home heating unit is built by Combustion Engineering, one of the world's largest manufacturers of steam generating equipment, with 70 years experience and "know how." Combustion Engineering is currently designing a steam generator for the Philadelphia Electric Company power station which will be the most efficient station in the world. This C-E steam generating equipment is being designed for 6000 psi to produce steam at 1200°F. This will be the highest pressure and temperature ever projected for utility stations. This is an example of the kind of work that typifies the company behind the C-E home heating unit.



Take advantage of the many benefits C-E Heatmaster Home Heating and Air Conditioning offers by sending for more information now.

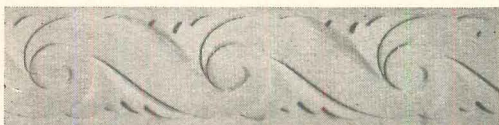


HEATMASTER

The easiest way to winterize a home

COMBUSTION ENGINEERING INC., Home Equipment Division, 911 West Main Street, Chattanooga 1, Tennessee

More and More... Bendix Mouldings Help Make the Sale!



The house you are building will sell quicker, when you add that extra quality touch with genuine BENDIX CARVED MOULDINGS on closet shelves, mantels, flush doors, wall panels, cornices or for crown mouldings and chair rails.

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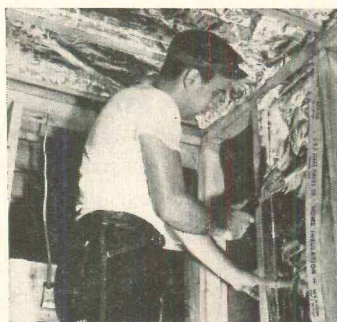
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City Zone..... State.....

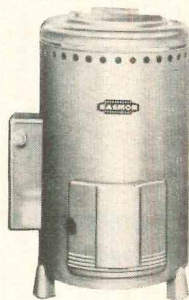
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ll. With Proctor wall jack, two workmen can lift 2,000 lb. walls to perpendicular with little effort. Jack has a safety stop attachment that keeps the upright wall firmly in place for nailing, moving or bracing. Compans says that heavy plasterboard walls can be raised without danger of pulling nails or marring construction. The jack is easily portable—it weighs about 30 lbs.—and is made of lightweight tubular steel. A pair cost \$149 F.O.B. Proctor Products Co., Seattle 55.



mm. L-O-F home insulation is made of light density, fine glass fibers with aluminum reflective vapor barrier on one side. Tabs extend beyond the edges of the insulation for nailing or stapling to framing members. Insulation is made in three thicknesses: standard (1½" thick) costs about 6¢-8¢ psf.; medium (about 2" thick) is 7¢-9¢ psf.; full thick (about 3⅝" thick) costs from 10¢-12¢ psf. Insulation is made in widths to fit between framing members, studs and joists, spaced 16" o.c. It is packaged 4 rolls to a bag for easy handling and application, and is light—from 1-2 oz. per running foot. L-O-F Glass Fibers Co., Toledo 1, Ohio.



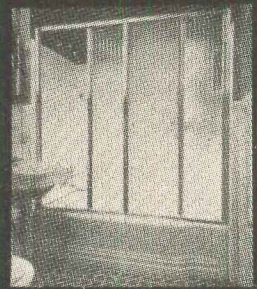
nn. Basmor gas-fired incinerator disposes of wet or dry combustibles. A dual purpose pilot takes care of small charges deposited during the day and no timer setting or main burner operation is necessary. Unit can take charges up to 2 bushels and when larger charges are deposited and full power of main burner is needed, an automatic timing control is set. The timer automatically shuts off main burner when waste is disposed of (about 48 hours later). Maximum hourly input rating is 12,000 BTU. About \$135. Manufactured by Bastian-Morley Co., Inc., La Porte, Ind.

continued on p. 238

America's Pioneer...

Tub enclosures

- ★ Custom or stock
- ★ 7/32" - 1/4" glass
- ★ Drop-in header bar locks panel in place
- ★ Wall jambs self-adjust to out-of-plumb wall conditions up to 9/16"

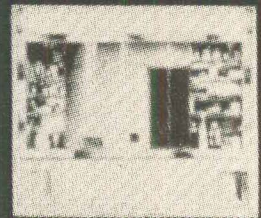


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Medicine cabinets

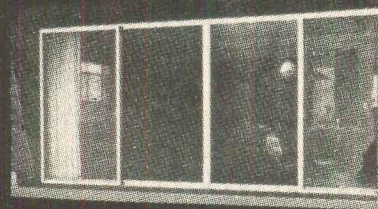
- ★ Mr. & Mrs. king size
- ★ Sliding mirror doors of 1/4" electrolytic plated mirrors
- ★ Chromyte finish frames



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Sliding glass walls



- ★ Sold K.D. or fully glazed with 1/4" plate
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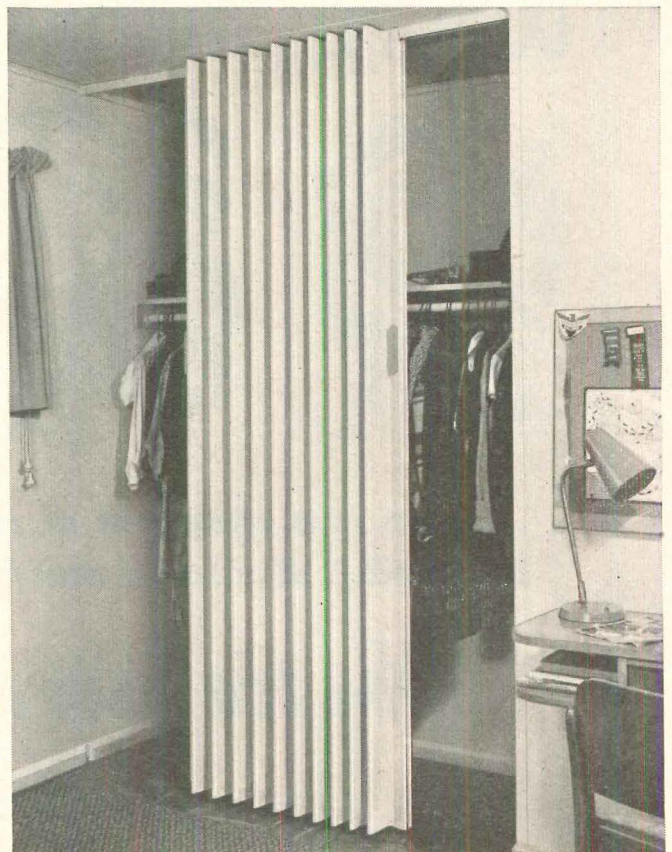
You know it's a woman who decides on the house. These completely accessible, roomy MODERNFOLD closets offer luxury she wants and can brag about! That's merchandising you can't afford to miss. And it's a fact you spend no more—could be less. Figure it for yourself. Count costs of hardware, time and installation labor on conventional sliding doors. You get MODERNFOLD closures *complete*, in decorator colors or even wood-grain finishes—ready for easy, quick installation. Lifetime quality. They can't warp, crack or jam...so you *save* the cost of servicing. You owe it to yourself to get all the facts. Call a MODERNFOLD Distributor, or send the coupon—today.

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MODERNFOLD dividing wall provides separate rooms for children.

For MODERNFOLD "Custom" closures of any size, look in city classified directory under "Doors." Our standard closures are available at your building supply dealer.

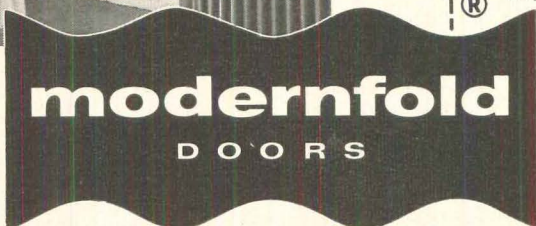


This complete access to closets with floor-to-ceiling MODERNFOLD Doors instantly catches a woman's eye...their sound, trouble-free construction pleases the men.

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 Please send complete information on MODERNFOLD Doors.

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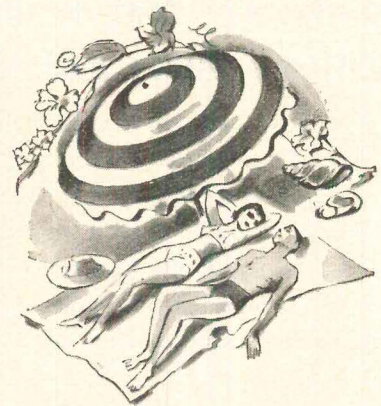
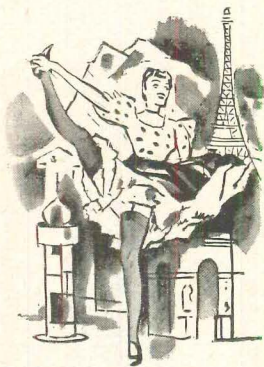
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*You too have an excellent chance
of winning one of these
wonderful trips*-----

Send in a picture of your BILT-WELL application right away! Contest entries must be in by midnight, November 30th, 1956.

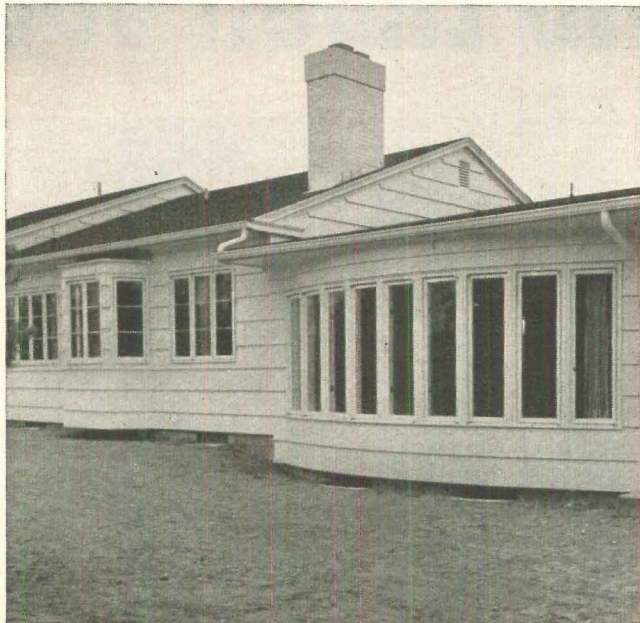
For complete information on products in the BILT-WELL line of woodwork, ask your nearest BILT-WELL dealer or mail coupon at right.



Manufactured by **CARR, ADAMS & COLLIER COMPANY**

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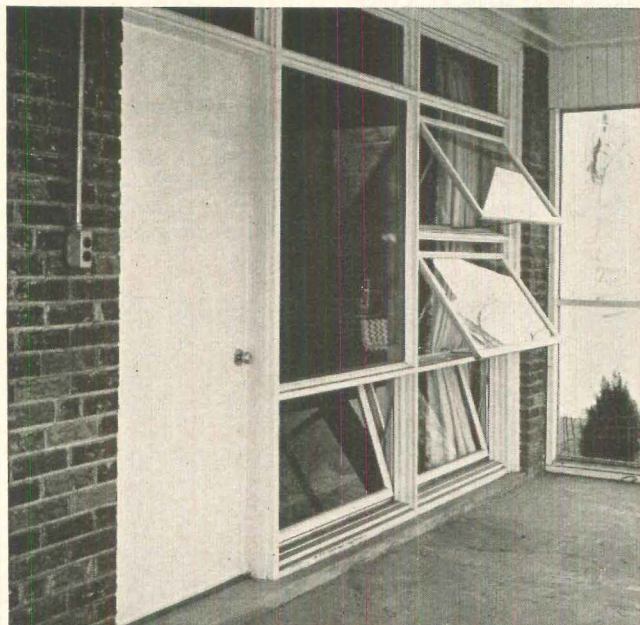
Here are a few typical entries which won prizes in last year's contest:



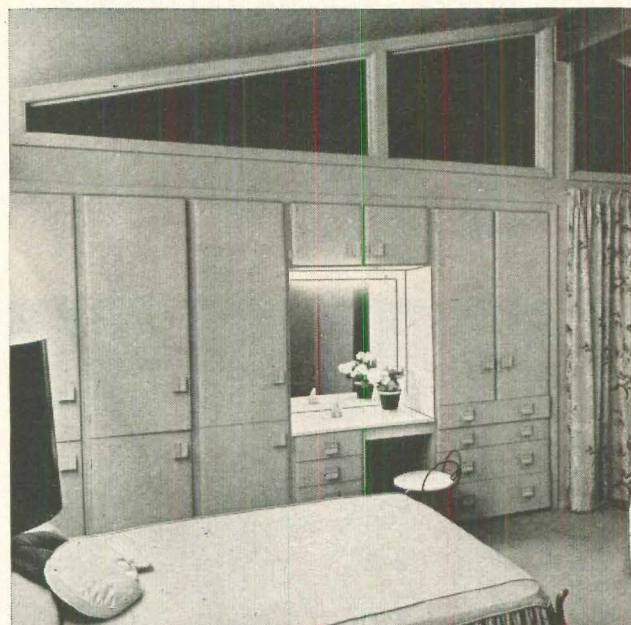
Striking application of BILT-WELL Casement Windows. Beautiful, full ventilation, BILT-WELL Casements add a note of distinctive charm to any home, new or old.



BILT-WELL Kitchen Cabinets provide all the warmth, beauty and efficiency of the most expensive custom-built wood cabinet installation, at just a fraction of the cost, in this contemporary, open-planned kitchen.



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Versatile BILT-WELL Cabinets, used as a complete storage wall, add an important, but economical, selling feature to this modern home.

The BILT-WELL Line—**WINDOW UNITS**, Double-Hung, Awning, Casements, Basement, Storm and Screen. **CABINETS**, Kitchen, Multiple-use, Wardrobes, Storage, Vanity-Lavatory and Vinyl Countertops. **DOORS**, Exterior, Interior, Screens and Combination.

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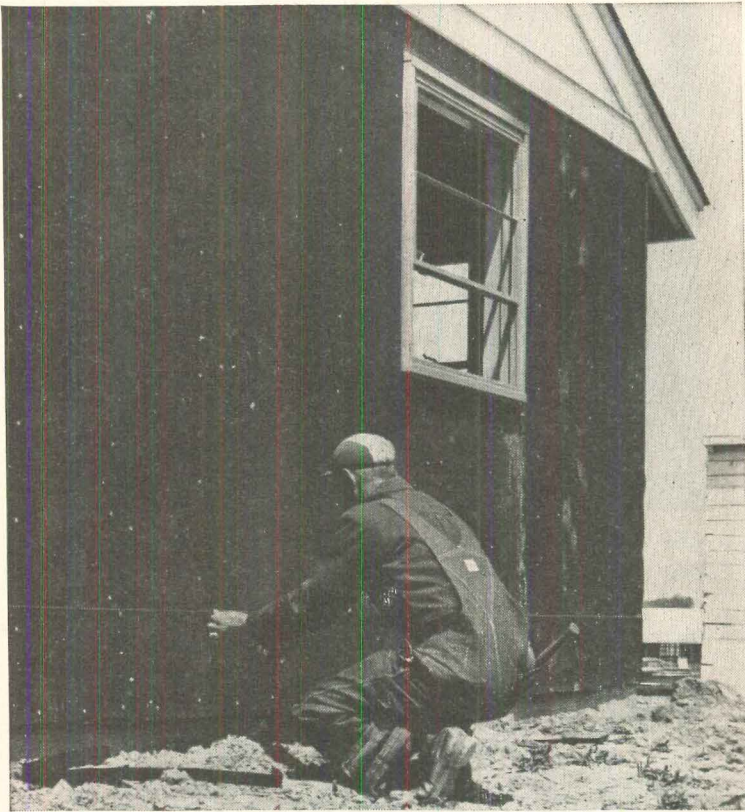
Name.....

Address.....

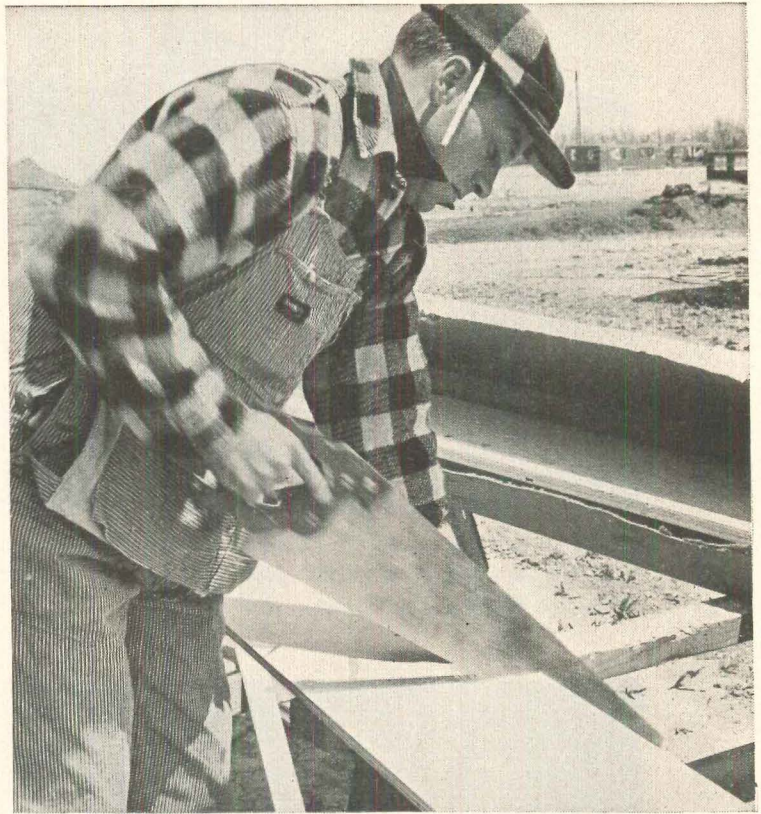
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Step-by-step photos show how you

SAVE MATERIAL AND LABOR COSTS



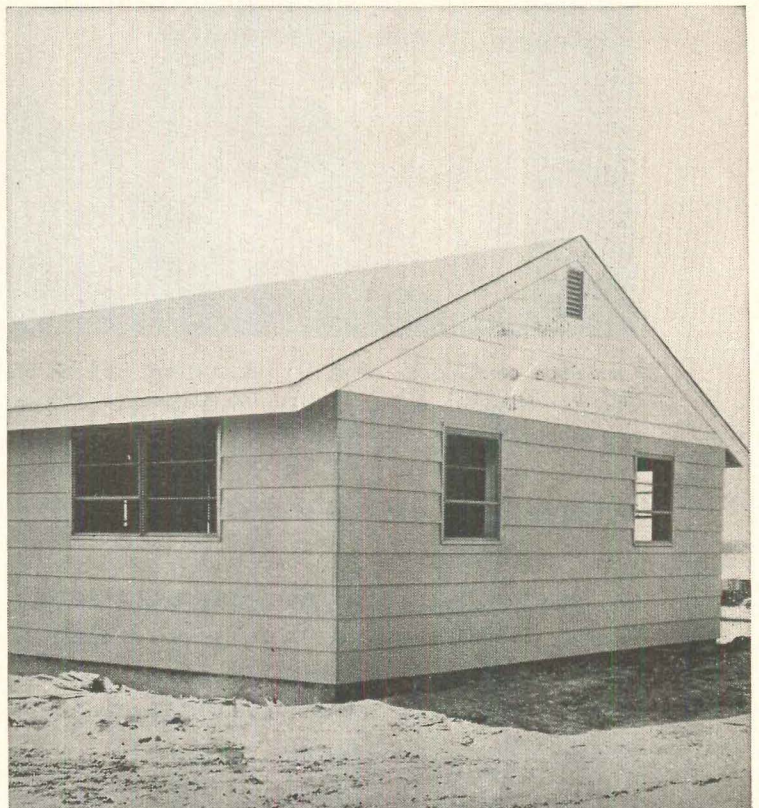
1 Workman checks level before installing first course. Duraply is exterior grade Weldwood Plywood with a permanent "CreZon" overlay bonded to its surface. "CreZon" (phenolic resins and cellulose fibers) is tough, weatherproof, supersmooth.



2 Duraply is easy to work . . . can be sawed with any hand or power saw used to cut plywood. Special tough overlay holds wood fibers tight—reduces edge-splintering. Ten pieces of Duraply—pre-cut for lap siding—come in each carton (in back of workman) . . . make stocking easy.

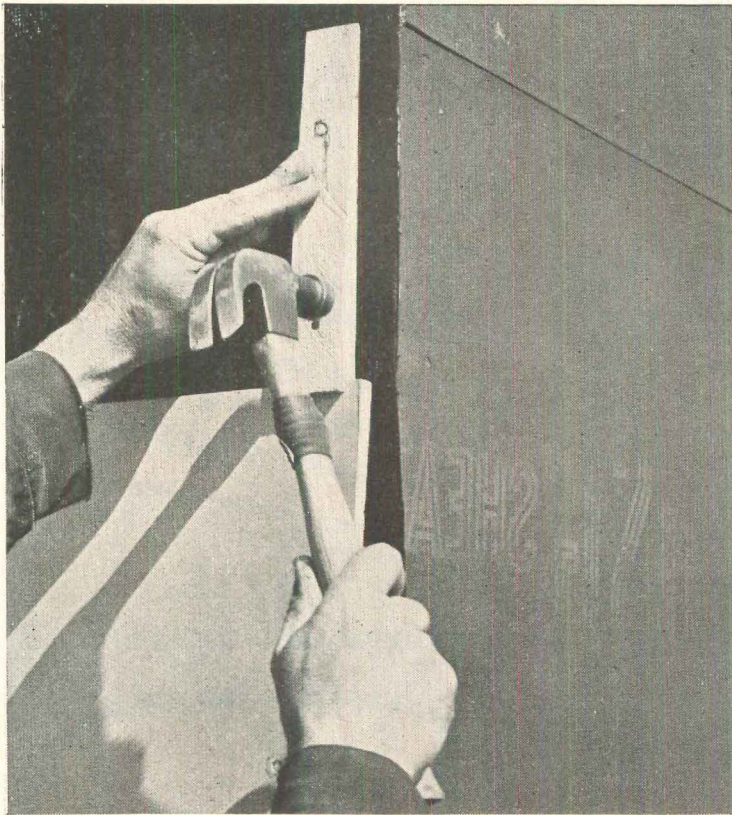


5 Neat, trouble-free corner construction is easy with Duraply lap siding. Special aluminum corners are a snap to install quickly, correctly . . . cost only pennies extra. Duraply superiority is seen in the number of "repeat" orders builders have made.

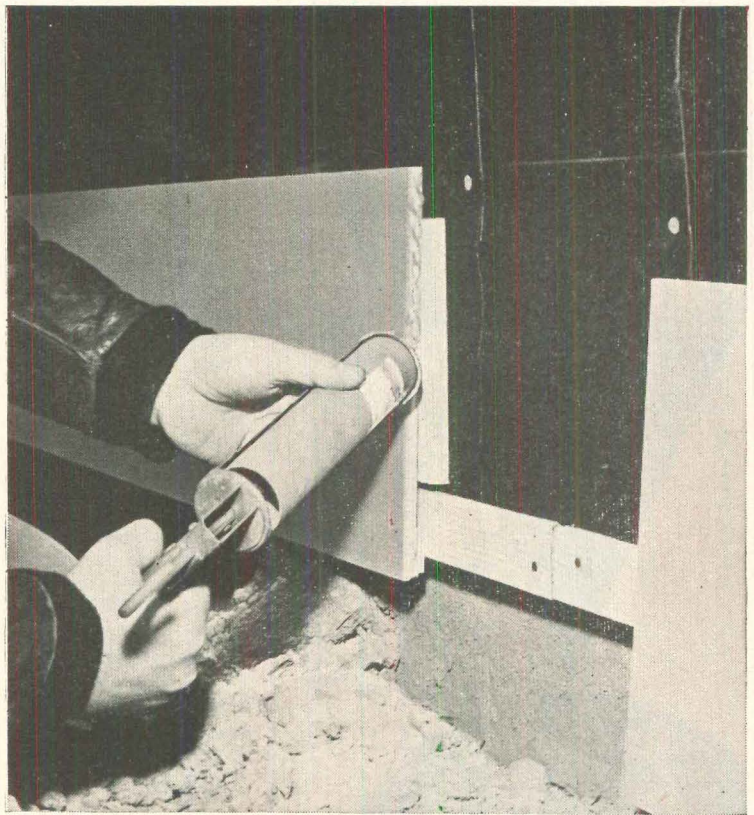


6 Another Duraply home finished! Savings on material and labor costs—as well as savings on painting costs and time—have given this builder an extra profit margin. Plain-panel Duraply is also finding wide use for soffits and gable ends.

WITH NEW LAP SIDING DURAPLY



3. Back-up wedge is installed to give the deep, shadow-line effect. Back-up wedges are included in each Duraply carton. Duraply lap siding sizes are $11\frac{7}{8}$ " x 96" and $15\frac{7}{8}$ " x 96". Furring strips come pre-attached to bottom edge.



4. Duraply is caulked at each seam to give a tight weatherproof seal. Duraply itself is completely weatherproof — has undergone rigid "torture tests" to prove that it's unaffected by wetting, boiling, steaming or freezing — will stand up to most adverse weather.

New overlaid plywood cuts painting costs too; also available in large panels.

If you think Duraply is remarkable because of the way it saves material and labor costs, wait till the time to paint comes! For Duraply slashes painting time and costs, too. Its supersmooth surface takes paint better . . . and even ends the need for a primer coat. And two coats of paint on Duraply offer the same protective cover as three coats on ordinary plywood. Furthermore, tests indicate that oil paint will not blister on Duraply no matter how severe the weather conditions.

Because Duraply lap siding comes in 12- and 16-inch widths you can cover a wall faster than with conventional siding, and with less waste. This is still another saving in labor and material.

Besides lap siding, Duraply is also available in 4' x 8' and 4' x 10' panels with special overlay on one or both sides. In many localities, building codes permit use of these large panels of $\frac{3}{8}$ " thickness directly over studs; saving labor and material costs of installing sheathing.

Find out more about Duraply by sending the coupon for information and a free sample. Or see Duraply at your lumber dealer's or any of our 87 offices in major cities. In Canada: Weldwood Plywood, Ltd.



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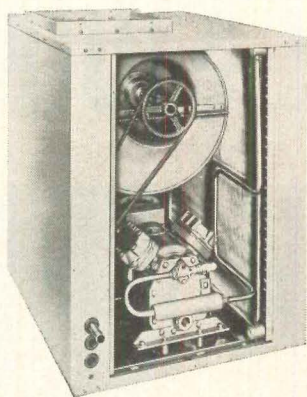
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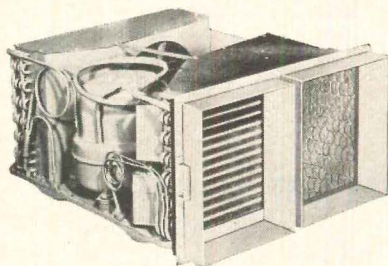
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CITY _____ STATE _____

for further details check numbered coupon, p. 270



oo. Westinghouse air-cooled air conditioner like some other air-cooled units previously introduced is especially designed for areas where water may be in short supply. Heart of the new unit, condenser-compressor cabinet, is shown above. A 3-ton model costs about \$900 plus installation, the 2-ton model is \$600. Because a larger horsepower compressor is usually needed in all air-cooled units to deliver same cooling capacity as water-cooled models, Westinghouses uses a 4 hp compressor in the 3-ton waterless unit to deliver three tons of cooling. Condenser cabinet is 37 $\frac{7}{8}$ " h., 36" w., 29" d. in 3-ton model. One of this unit's features is a vertical air discharge which is claimed to avoid local air currents and air noise problems that might occur with horizontal discharge units installed close to adjoining buildings. Westinghouse Electric Corp., Pittsburgh 30, Pa.



pp. New air-cooled air conditioner, Mitchell's "QR-200", is a low cost, self-contained packaged unit for residential use—completely assembled, prewired and sound-conditioned. Two hp model will retail for \$445 plus installation, comes with flanges attached for connection to duct work. Chassis holds evaporator, condenser, compressor, fans and fan motor, measures 16 $\frac{1}{4}$ " x 31 $\frac{1}{2}$ " x 16 $\frac{1}{4}$ ". Unit is primarily a window conditioner, but it can also be installed through-the-wall or in an attic, crawl space or basement. It needs 17" headroom. Cooling capacity is 20,000 BTU/hr. based on an outside temperature of 95°. If total heat load of spaces to be cooled is in excess of 20,000 BTU/hr. dampers might be installed to cool a kitchen and living room during day, sleeping areas at night. Additional features are: copper tubing coils with aluminum fins and oversized evaporator and condenser coils which maker claims results in maximum cooling efficiency. Unit operates on 230 volt, single phase alternating current with a power factor of 90% and is UL approved. Mitchell Mfg. Co., Div. of Cory Corp., Chicago 14, Ill.

continued on p. 244

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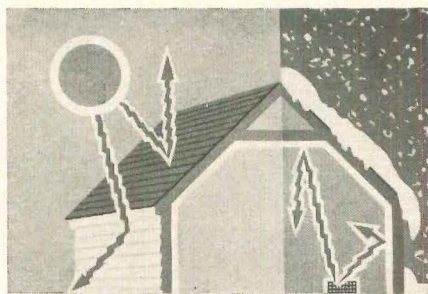
NAME _____

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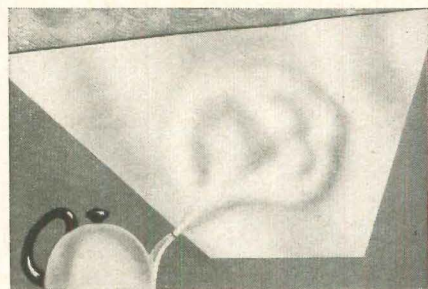
CITY _____ ZONE _____

STATE _____

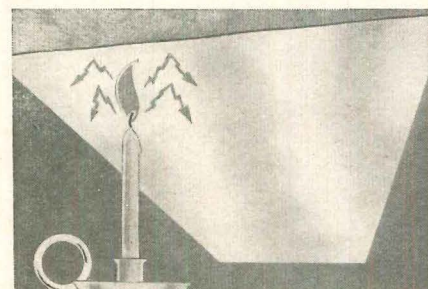
Choose a Famous-Brand Insulation with the TRIPLE PLUS* of Reynolds Aluminum Foil!



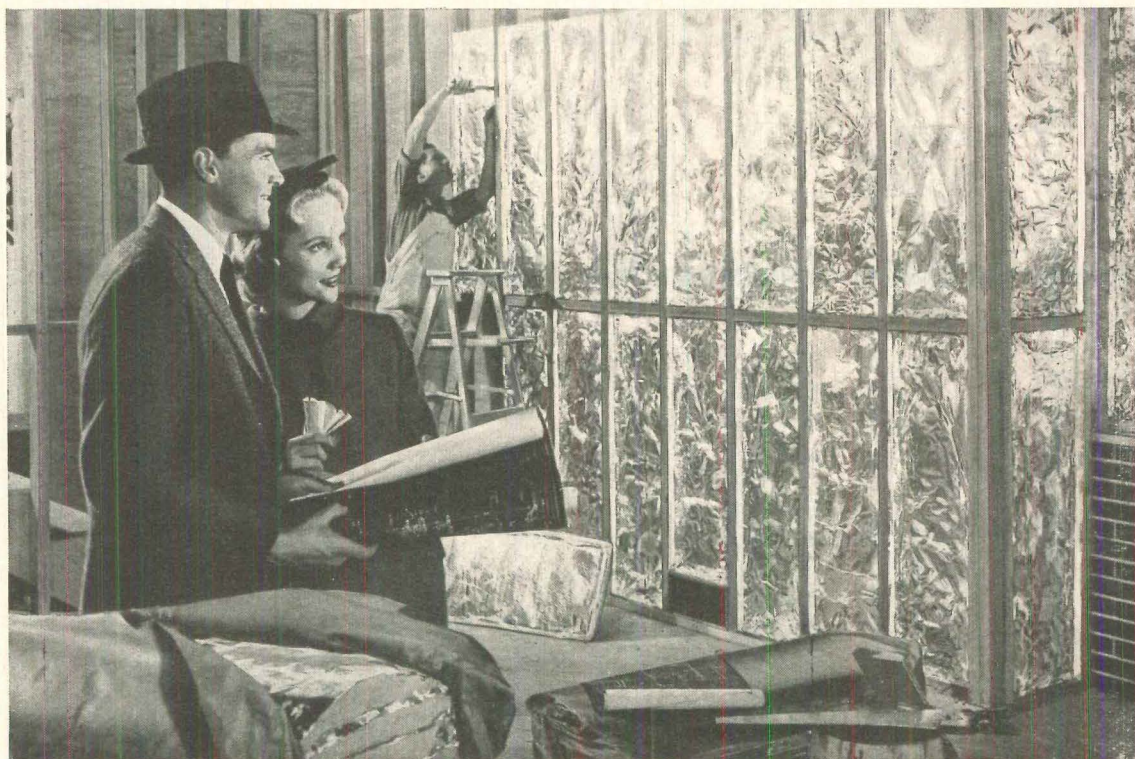
PLUS #1 Up to 95% Radiant Heat Reflectivity! Reynolds Aluminum Foil bounces off the sun's heat in summer — interiors up to 15° cooler. Keeps heat inside in winter.



PLUS #2 Best Moisture Vapor Barrier! Reynolds Aluminum Foil itself is absolutely moisture-proof. Effectively controls vapor passage; makes a home a better buy for you.



PLUS #3 Added Flame Resistance! As enclosures or backing for batts and blankets, Reynolds Aluminum Foil provides a good surface resistance to spread of flame.



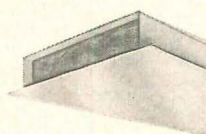
More and more prospective homebuyers know the importance of the TRIPLE PLUS for greater year-round comfort and a better protected home...as Reynolds continues the powerful consumer advertising that began with a double-page spread on foil in May BH&G. New full-color page in this month's BH&G! Make a sales feature of the TRIPLE PLUS in your home-building...nothing else gives you such a big extra value at so small a plus in cost! Choose your insulation from the famous brands listed below. Reynolds Metals Company, General Sales Office, Louisville 1, Kentucky.

LOOK FOR THIS EXTRA IDENTIFICATION ON THE INSULATION YOU BUY!

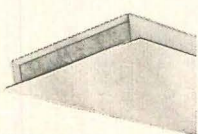
SEE "FRONTIER", Sundays, NBC-TV Network. Starting Sept. 23, see Reynolds great new series "CIRCUS BOY"—same time and station.



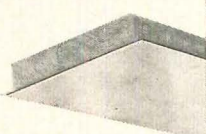
These are the different ways the TRIPLE PLUS is used... in each of these famous-brand insulations:



TYPE A
This insulation uses the TRIPLE PLUS all around: Reynolds Aluminum Foil completely encasing the batt on all four sides, giving the full advantage of reflective foil.



TYPE B
This insulation features the TRIPLE PLUS in another form: Reynolds Aluminum Foil one side; the other side a polished aluminum pigmented coating on kraft paper.



TYPE C
This type of insulation gives you the advantages of the TRIPLE PLUS in still another way... with a layer of Reynolds Aluminum Foil on one side of the batt.

<p>RED TOP INSULATING BLANKET</p> <p>WITH THE <u>TRIPLE PLUS</u> OF REYNOLDS ALUMINUM</p> <p>RED TOP uses Type 'A' <u>TRIPLE PLUS</u></p>	<p>LOF GLASS FIBERS HOME INSULATION</p> <p>WITH THE <u>TRIPLE PLUS</u> OF REYNOLDS ALUMINUM</p> <p>LOF uses Type 'C' <u>TRIPLE PLUS</u></p>	<p>JM Spintex INSULATION</p> <p>WITH THE <u>TRIPLE PLUS</u> OF REYNOLDS ALUMINUM</p> <p>SPINTEX uses Type 'B' <u>TRIPLE PLUS</u></p>
<p>SEALFOAM GLASS FIBRE INSULATION WOOL</p> <p>WITH THE <u>TRIPLE PLUS</u> OF REYNOLDS ALUMINUM</p> <p>SEALFOAM uses Type 'B' <u>TRIPLE PLUS</u></p>	<p>CELOTEX INSULATING BLANKETS</p> <p>WITH THE <u>TRIPLE PLUS</u> OF REYNOLDS ALUMINUM</p> <p>CELOTEX: Types 'A' & 'B' <u>TRIPLE PLUS</u></p>	

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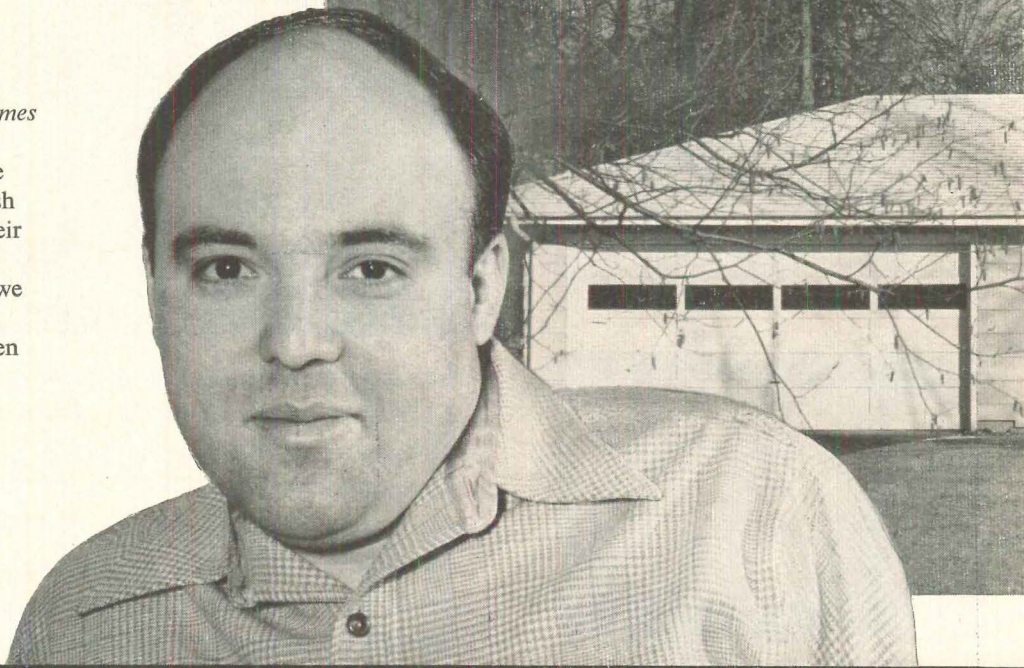
BY THE MAKERS OF REYNOLDS WRAP

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Guido Antonelli, President, Guy Antonelli, Inc., Detroit, Mich., says, "*The Andersen name helps sell our homes. Quality Andersen features such as insulating glass, fitted screens, weatherstripping are important parts of our sales story. Another important feature is the ease and speed of installation. And we have learned from experience that Andersen Windows are going to give a lifetime of reliable service to our customers.*"



Saul Fox, Fox Brothers, Englewood, N. J., says, "*'Homes by Fox' have used Andersen Flexivents® since 1953. We like them because they help establish ours as quality homes—and their horizontal lines blend with the 'long, low look' of the houses we build. We have found that our customers know about Andersen Windows—and recognize the Andersen name as a mark of superior quality.*"

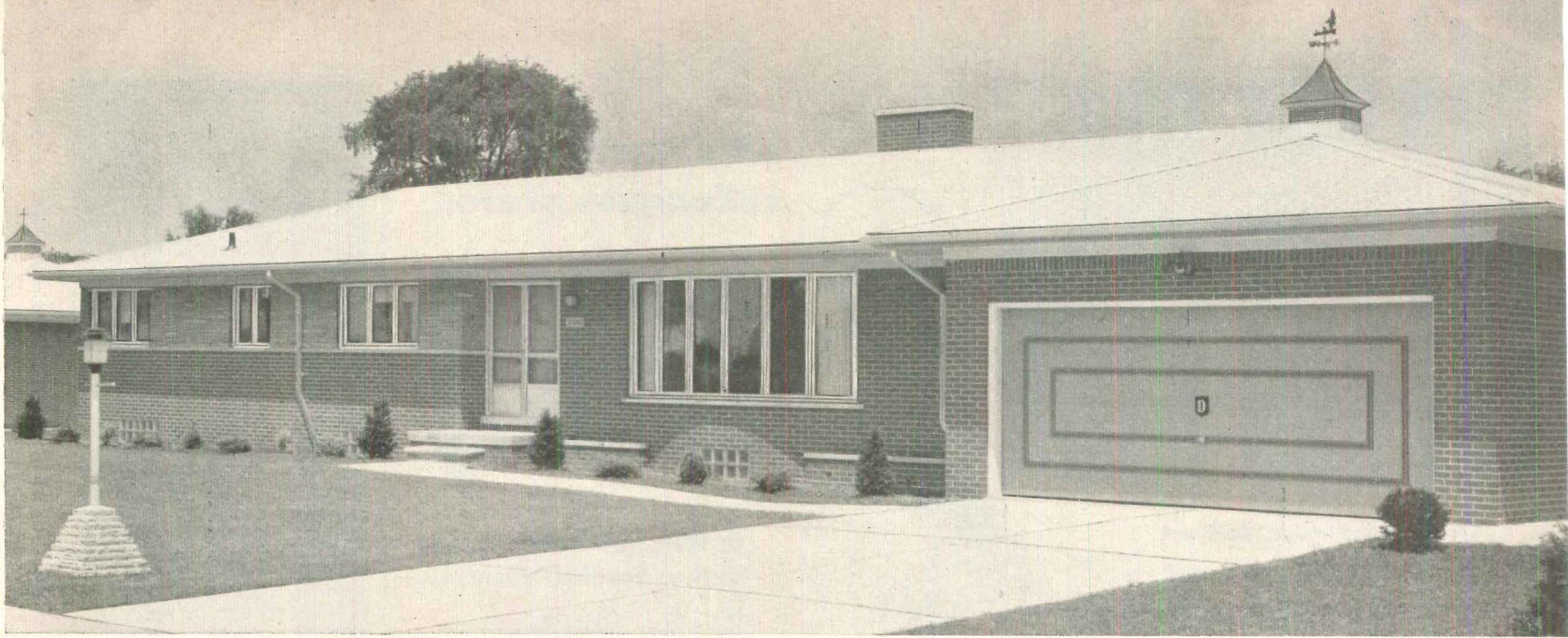


In Michigan and New Jersey, buyers of upper bracket homes tell builders...

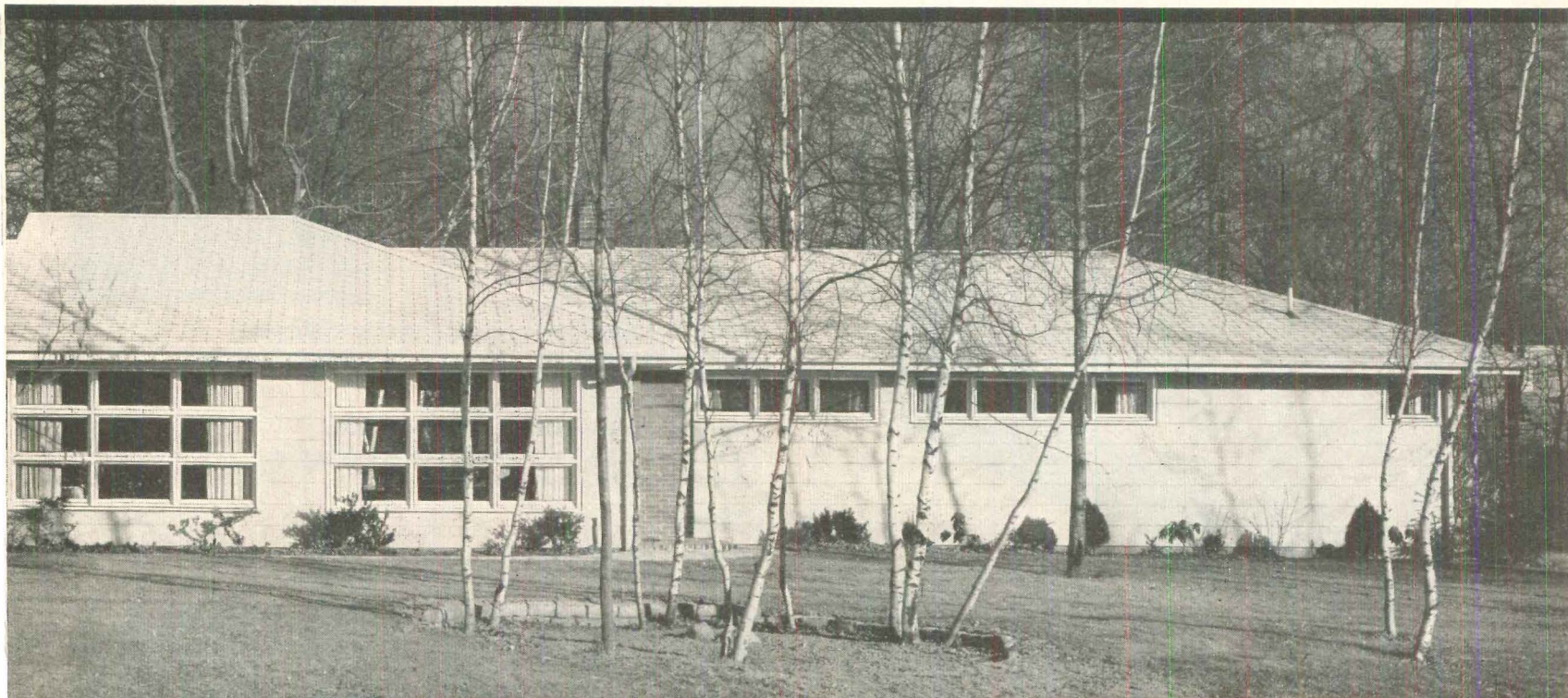
Andersen Windows

These two successful builders of quality homes are using Andersen WINDOWALLS to help close sales! Their discriminating customers are quick to recognize the window beauty, the convenience, the year-round protection that only *windows of wood* can offer. Everywhere, men who plan or build fine homes for sale are turning to Andersen WINDOWALLS for their versatility, low cost, precision manufacture—and most of all,

for their powerful sales appeal to customers who recognize the very best! For the next project you plan or build, look into the sales-closing advantages of Andersen WINDOWALLS. For full specification data, see Sweet's Files or write Andersen for Detail Catalog and Tracing Detail Files. WINDOWALLS are sold exclusively by mill-work dealers throughout the country, including the Pacific Coast.



Andersen Casement Units in \$43,000 to \$48,000 suburban Detroit homes. Eugene Anderson, designer.



Flexivents featured in \$27,500 Mountain Lakes, N. J. homes. Martin, Gebhardt & DiPaola, architects.

say "quality homes"

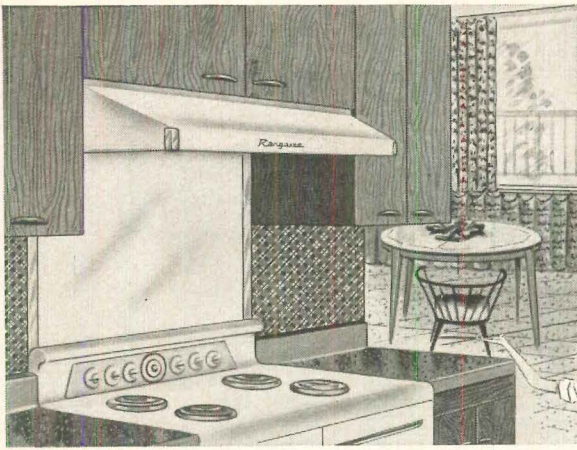
Andersen *Windowalls*

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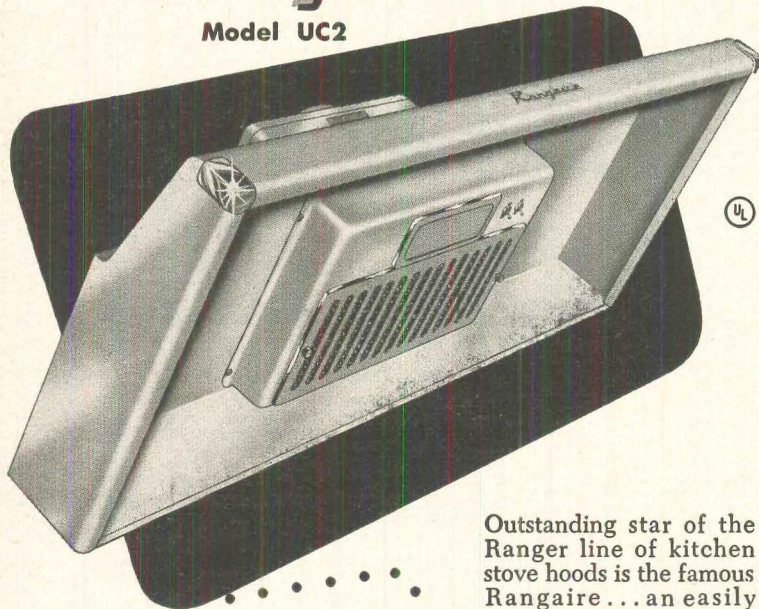


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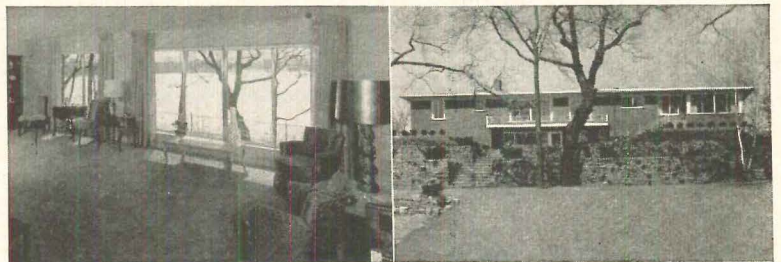
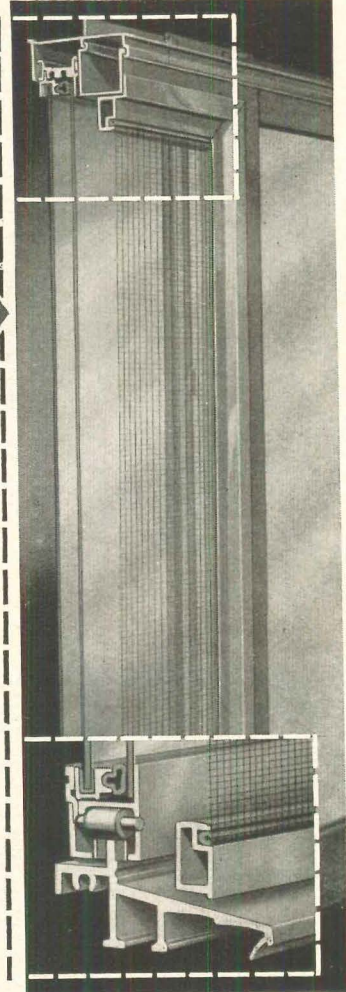
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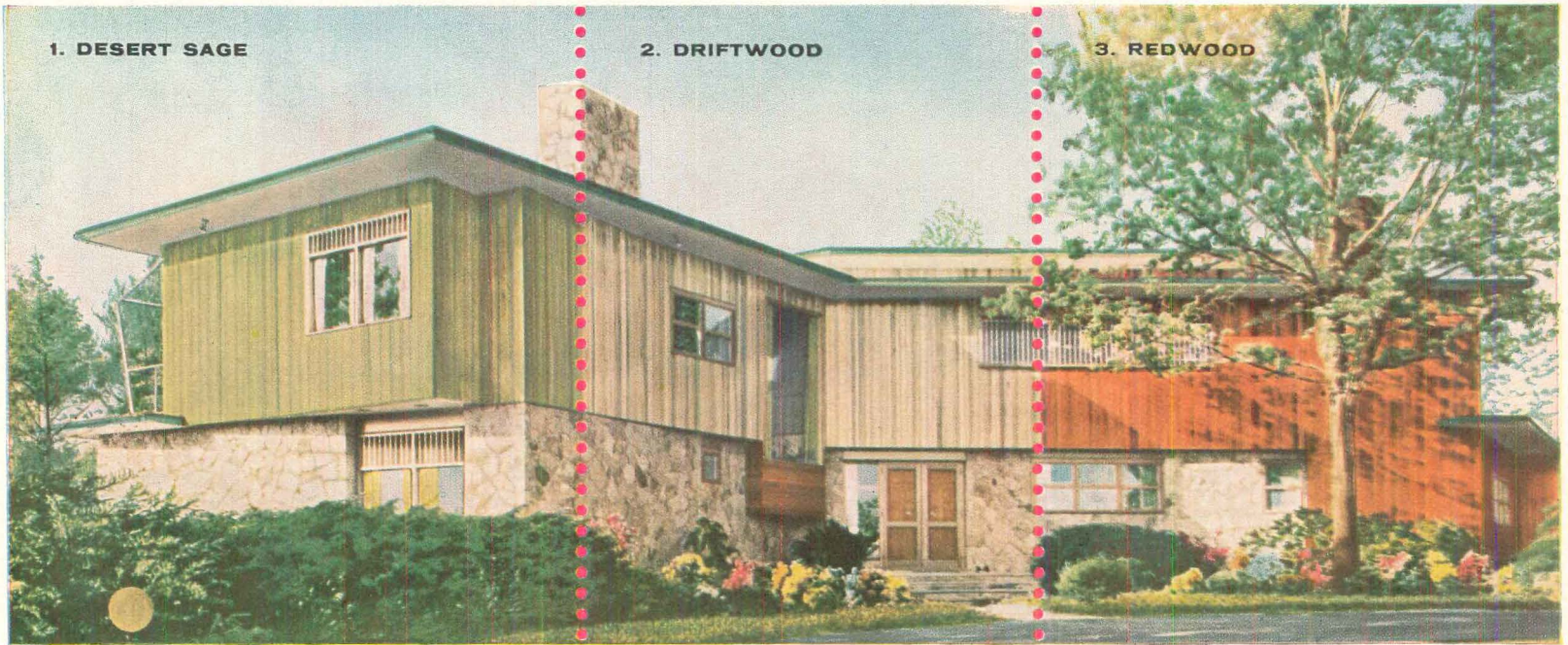
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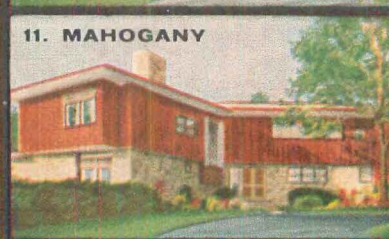
8. FIR GREEN



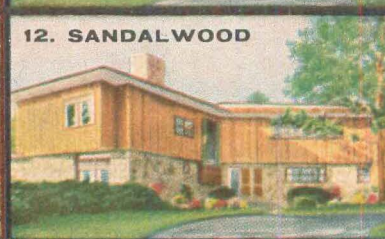
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We finished a contemporary home 13 different ways to show how easily you can create *custom effects* for clients using the 13 Rez fashion Color Tones.

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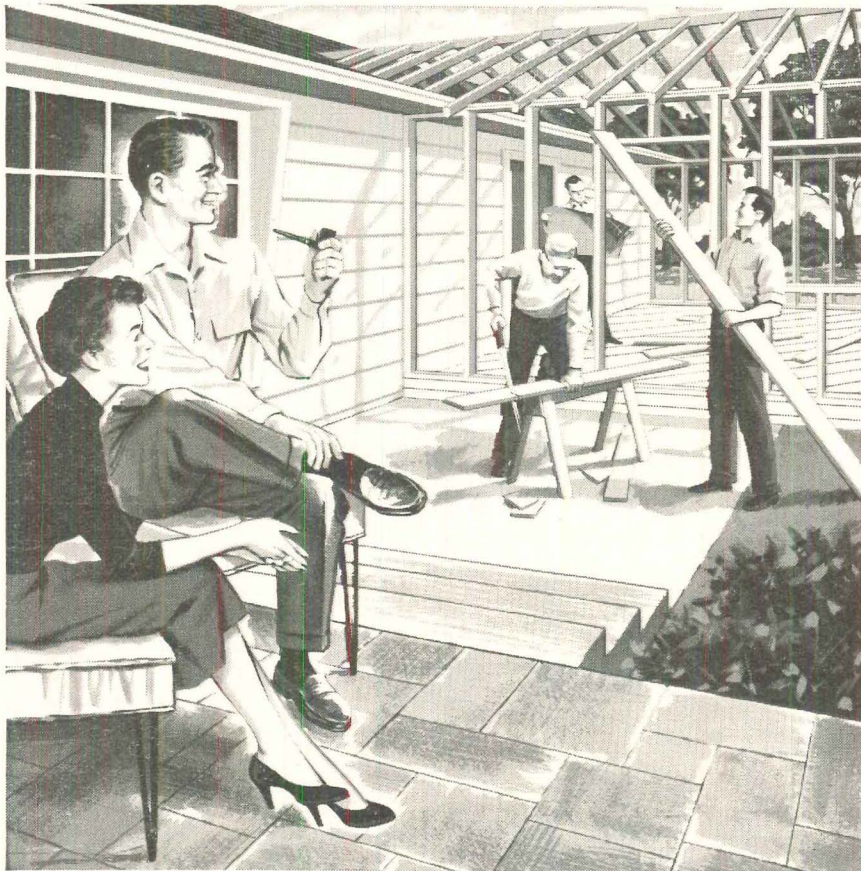


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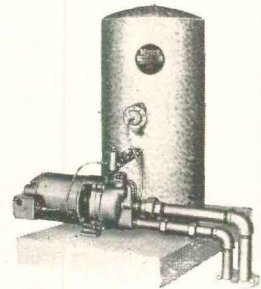
7770 Thomas Boulevard, Pittsburgh 8, Pa.



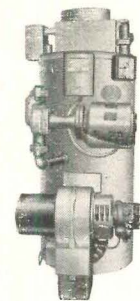
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qq. Federal packaged boiler-burner is a new gas fired unit that arrives completely prepped, prewired and preassembled. VGF-A has a burner of the single port, inshot type and features a newly designed flame spreader guaranteed to give uniform flame distribution. For domestic hot water supply, 240 gal. per hour tankless coils are provided as standard equipment. Boiler is equipped with controls and hot water heating specialties. Four sizes range in price from \$447.50 to \$542.50. Federal Boiler Co., Inc., Midland Park, N. J.



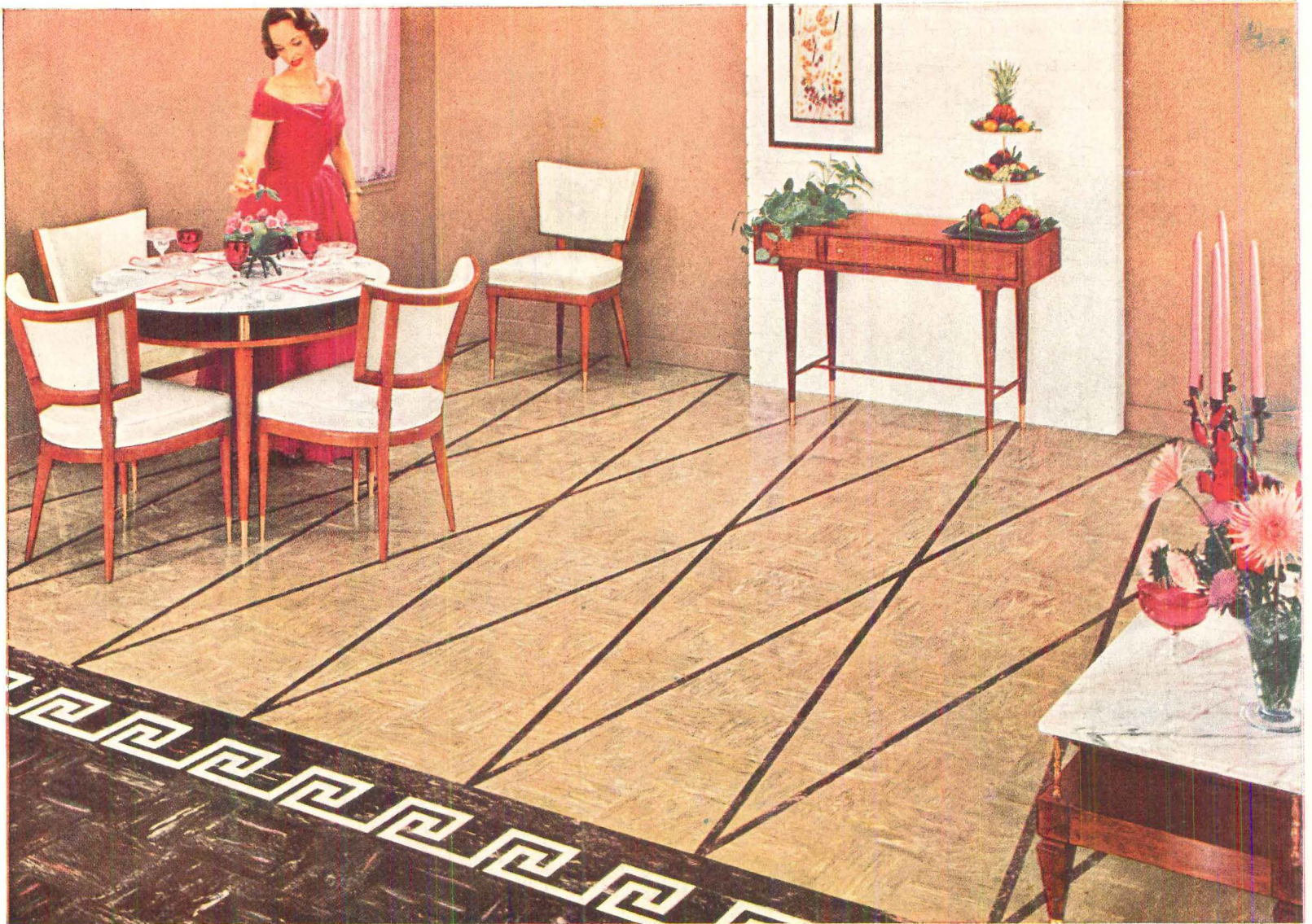
rr. HK Ejecto jet-type pump is a complete water system for shallow or deep well units. In shallow well pump, high performance characteristics are said to be reached by means of a reverse ejector procedure. New pump is available as a water system with a 4, 11, 21 or 42-gal. pressure tank. New materials and new design give higher corrosion- and wear-resistance, faster priming and lighter weight, maker says. Pump and motor assembly without tank, cost about \$79. Pump in 1/3 and 1/2 hp used as a complete water system will cost about \$91.50. F. E. Myers & Bro. Co., Ashland, Ohio.



ss. Prepackaged boiler-burner for forced hot water is delivered complete—factory wired, piped and tested, ready for installation. Company says about all you need to do is hook-up. Small, compact size, light-weight controls eliminate planning and layout on the job. Unit fits through 28" openings, weighs 390 lbs. crated with all controls. In operation, extended flat steel surfaces supply consistent concentrated heat conduction through heat transfer fingers, permitting steady flow of BTU into boiler water to give faster heating. Price is about \$400. Portmar Boiler Co., Brooklyn 15, N. Y.

Technical Publications p. 252

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- M-1406 Chocolate with white
- M-1409 Light gray with black and white
- M-1411 Mocha with brown and white
- M-1412 Sand with white
- M-1413 Black with white
- M-1415 Yellow with brown
- M-1416 Light gray with white
- M-1417 Red with white
- M-1418 Dark green with white
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ENGINEERED INSTALLATION — QUIET, DEPENDABLE OPERATION



TWO BOLT PRINCIPAL—There is no need for extra floor screws. The precision positioning of the two bolts assures rigid anchorage of the closet—saves time and labor.



THE CARLTON—available in either elongated or round-front designs with siphon-jet bowls. These deluxe models are ideal for quality home installation.



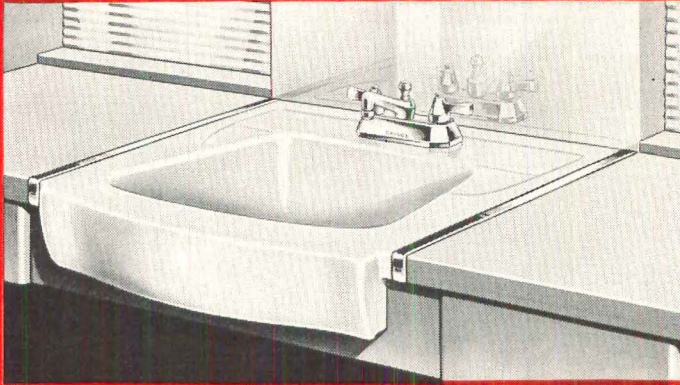
THE PRINCE—a close-coupled design with reverse-trap bowl. One of the industry's most popular closets with both home builder and home owner.

BRIGGS ^{*}Beautyware

BRIGGS MANUFACTURING CO., 300 Buhl Building • Detroit 26, Michigan

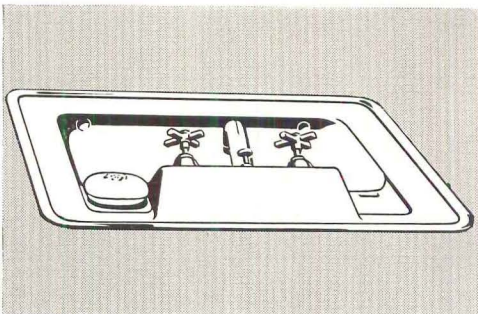
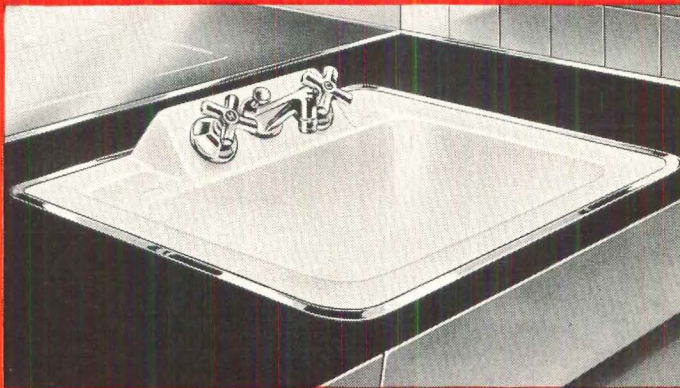
MODERN STYLING

WITH REAL SALES APPEAL



▲ The Lindsay open front model—permitting installation in narrow 16-inch counter tops—is the newest and most practical thing in built-in lavatory design. Stainless steel union strips.

The Deluxe Lowell lavatory is the finest of flat rim models which are so popular for single or twin counter-top installation. Preformed, stainless-steel mouldings assure tight, leak-proof fit. ▼



Convenience Features such as soap-space, concealed overflows and anti-splash rim contribute greatly to the value of Beautyware lavatories.

Modern living calls for smartly styled, functionally designed lavatories — and **PLENTY OF THEM** for family needs.

Here are three Beautyware models which can improve your bathroom installations. All three offer superior quality, durability and color processing.

Scientific design and manufacture of all Beautyware lavatories assure accurate and simplified installation — trouble-free, long-life operation. Gleaming, easy-to-clean finishes — precision brass fittings — and choice of five distinctive nature colors — are all strong selling features.

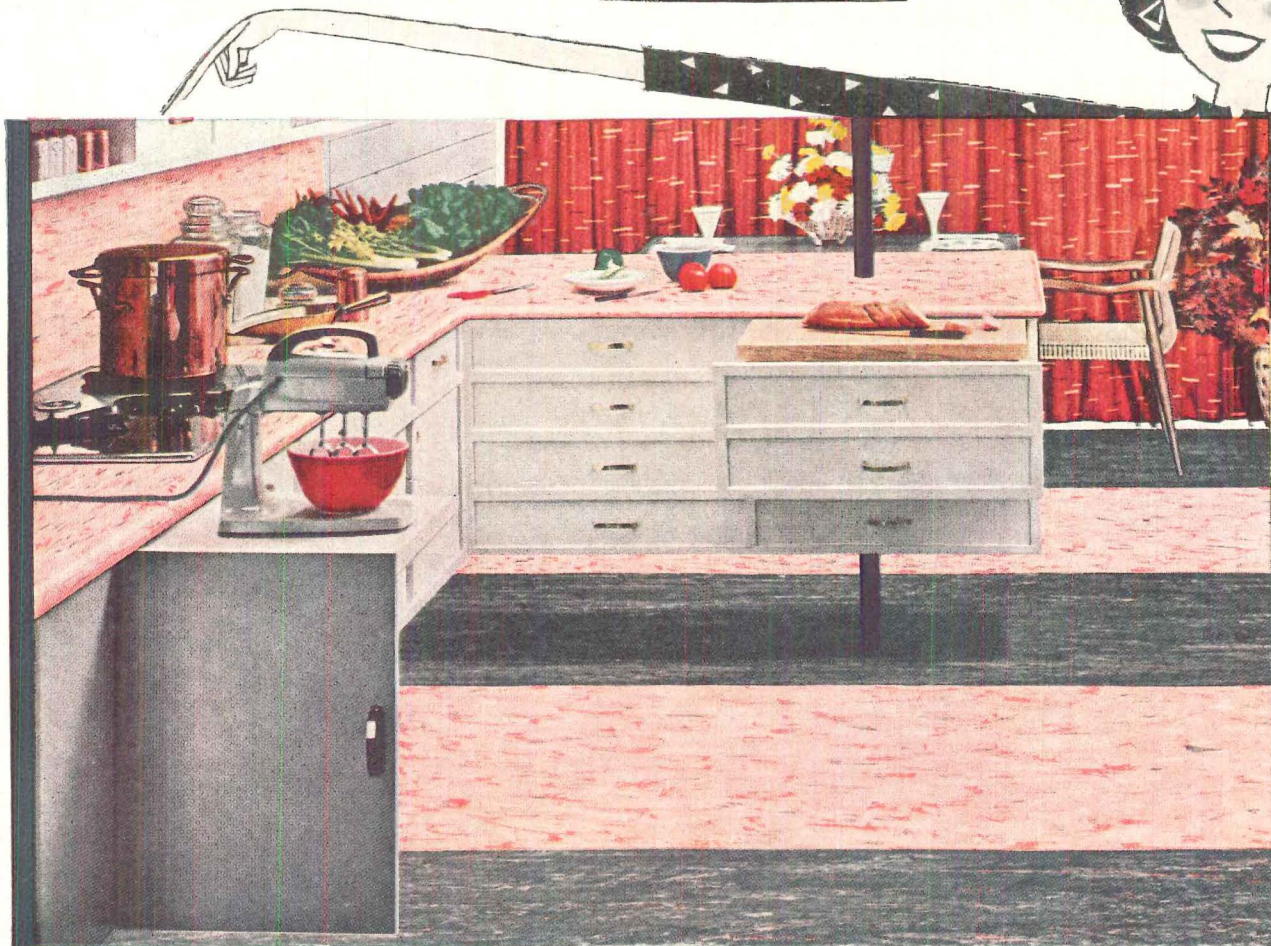


The Whittier is typical of the many Beautyware wall-mounted models available in shelf-back, ledge-back or slant-back design. Optional legs and towel bars require no special wall attachments—are simply installed.

BRIGGS ^{*}Beautyware

BRIGGS MANUFACTURING CO., 300 Buhl Building • Detroit 26, Michigan

Match plastic counter to plastic floor—
to Sell More!



Gold Seal NAIRON* "CORRELATED COLORS" STANDARD

Sell the kitchen that sells the home!

Homemakers can't resist the beautiful harmony of NAIRON Standard plastic color-keyed floors and countertops. Especially when you point out the almost unlimited possibilities for custom design . . . the outstanding wear . . . the easy care!

Gold Seal NAIRON Standard for floors and walls, and Nairontop* for countertops make a time-saving, work-saving team! Their satin-smooth surfaces seal out dirt . . . make cleaning so easy. Grease, grime and spills wipe up with a damp cloth. Household acids and solvents won't harm them! Floors are quiet and comfortable, countertops muffle the clatter of kitchenware. Decoration goes through to the backing.

Color correlated Gold Seal NAIRON Standard Plastics have been seen by millions of readers of these outstanding magazines—"Better Homes and Gardens," "House Beautiful," "Living For Young Homemakers," "Life," and "Look." Cash in on your share of these pre-sold customers!

SPECIFICATIONS

For Floors: Install Nairon Standard 6-ft. wide yard goods over suspended concrete and wood under-floors. Install Nairon Standard 9" x 9" tile goods over on-grade concrete or over suspended concrete or wood under-floors.

For Walls: Install Nairon Standard yard goods and tile over smooth walls.

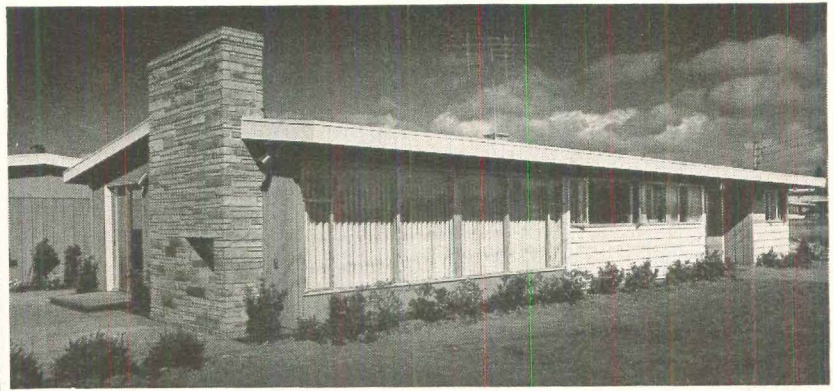
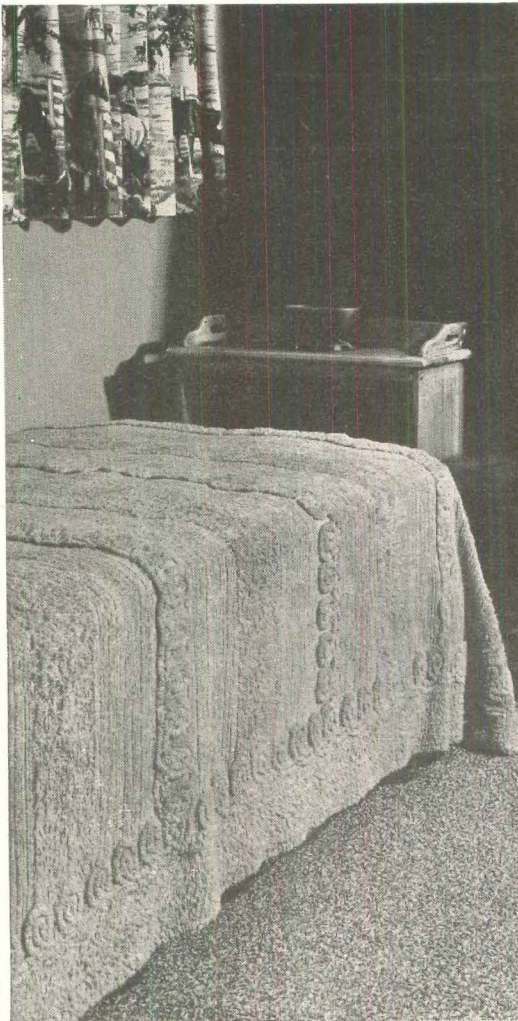
For Countertops: Install Nairontop over smooth surface working areas. Nairon Standard is available in 20 marbled tile and yard goods, 11 "Bermuda Hues" tile, and Nairontop 30", 36", 42" widths in 7" "Marble" and 8 "Bermuda Hues."

SEE YOUR GOLD SEAL DEALER TODAY!

FOR HOME OR BUSINESS:
INLAID BY THE YARD—Linoleum • Nairon* Standard • Nairontop*
RESILIENT TILES—Rubber • Cork • Nairon Custom • Nairon Standard
Vinylbest • Linoleum • Ranchtile® Linoleum • Asphalt
PRINTED FLOOR AND WALL COVERINGS—Congoleum® and Congowall®
RUGS AND BROADLOOM—Loomweve®

© 1956 CONGOLEUM-NAIRN INC., KEARNY, N. J.





Builders throughout the country report Carpet Sells Homes Faster

Builders throughout the country are moving homes faster by including carpet in the package price. By eliminating the cost of finished floors and installing wall-to-wall carpet directly over sub-flooring, builders can offer their prospects an opportunity they can't refuse.

Women want carpet. Surveys prove they prefer it 13-1. But when a family's buying, their cash and credit are tied up — they feel they can't afford the floor they want. But when you offer carpet to them in a new home, they buy the home faster.

Discuss this with your local carpet retailer. He can

offer two extremely valuable services: 1. A broad selection of merchandise, with the showroom facilities and knowledge to service your buyers. 2. Skilled carpet layers to install wall-to-wall carpet.

Your local lending organizations will be able to work out, with you and your carpet retailer, the most satisfactory financing plans for you.

Find out how you, like hundreds of other successful builders, can use carpet as an effective selling tool. See your local carpet retailer today, or write the Carpet Institute, 350 Fifth Avenue, New York, N. Y.

Home means more with carpet on the floor — more comfort • quiet • safety • beauty • easier care

Buy carpets designed and made for the American way of life by these American manufacturers:

Artloom • Beattie • Bigelow • Cabin Crafts-Needleluff • Downs • Firth • Gulistan • Hardwick & Magee • Hightstown • Holmes Karastan • Lees • Magee • Masland • Mohawk • Nye-Wait • Philadelphia Carpet • Roxbury • Sanford • Alexander Smith

CARPET INSTITUTE, INC., 350 Fifth Avenue, New York 1, N. Y.

Dramatize your houses

General Electric



Kitchens That Sell Houses! This glamorous array of General Electric Kitchen-Laundry appliances includes Space-maker Range, Base Cabinet, Disposall® Sink, Under-counter Dishwasher, 11-foot Revolving-Shelf Refrigerator.

All General Electric Kitchen-Laundries are available in Mix-or-Match decorator colors—Canary Yellow, Petal Pink, Turquoise Green, Cadet Blue, Woodtone Brown and Satin White. Your G-E distributor has the whole line in stock.

G.E. and only G.E. offers you so much help from blueprint to house sale!



1. Kitchen Layout Planning. General Electric's Custom Kitchen-Laundry Design Service will help you in designing kitchens and improving layouts.



2. Color Styling Assistance. A General Electric distributor builder specialist works with you on appliance deliveries and installation—even on decoration.



3. Model Home Program. General Electric gives you advertising, publicity and merchandising assistance based on hundreds of success stories.



4. On-Site Selling Aids. You get on-the-spot demonstrations of your General Electric kitchens by experts—everything you need for action at the point of sale!

with the exciting new Kitchen-Laundry

Be the first to capitalize on it in your area

Let G-E products and service help you sell your homes fast—whether they are priced at \$9,600 or \$96,000.

Dramatic New General Electric Kitchen-Laundries are available NOW—right now.

No question about it! A house is *easier* to sell when it's equipped with a General Electric Kitchen-Laundry.

When a prospect is enthusiastic about your kitchen, she's usually enthusiastic about your house. And we don't have to tell you how excited women can get about General Electric Appliances.

Dozens of Styles Available in Five Mix-or-Match Colors Plus White

General Electric modular kitchens, free-standing and built-in appliances—the whole exciting General Electric line in all colors—is available through your General Electric distributor.

These new, magnificent appliances are ready to be shipped to your building site *now—right now!*

No one else helps you as much as this

Your General Electric distributor will work hand in hand with you, even before your house plans are drawn up. And he will continue to work with you clear through kitchen layout, appliance installation and final decoration—right down to helping you select your paints.

Get all this assistance from General Electric for your

houses. Be the first builder in your area with the new, dramatic General Electric Kitchen-Laundries. Contact your General Electric distributor *now*. He will help design and plan your kitchen and provide merchandising assistance. Or write direct to General Electric Company, Home Bureau, Appliance Park, Louisville 1, Kentucky.

As little as \$4.00 or \$5.00 a Month Extra*

Your customers *can* afford General Electric Kitchen Equipment. When included in a long-term mortgage, the cost is usually within the range of an average monthly phone bill.

New, big advertising campaign!

Prospects for houses will see the new, exciting General Electric Kitchen-Laundry in colorful spreads in forthcoming issues of *Life*, *Better Homes and Gardens* and other magazines. To *sell your houses faster*, tie in with this powerful promotion in *your* home town!

Progress Is Our Most Important Product

GENERAL  ELECTRIC

**SEND FOR
THIS NOW!**

General Electric Company, Home Bureau
Appliance Park, Louisville 1, Kentucky

Yes! Send me by return mail General Electric's free builder handbook that will answer my questions about Mix-or-Match Modular Kitchens.

NAME _____
(please print)

STREET ADDRESS _____

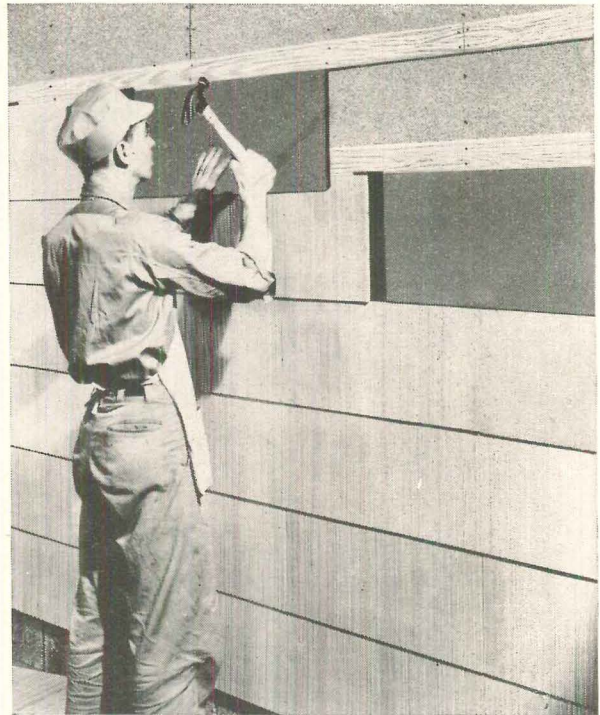
CITY _____ STATE _____

PUB. NO. B24-0386 HH2

*Installation and accessories additional. Price subject to local variation.



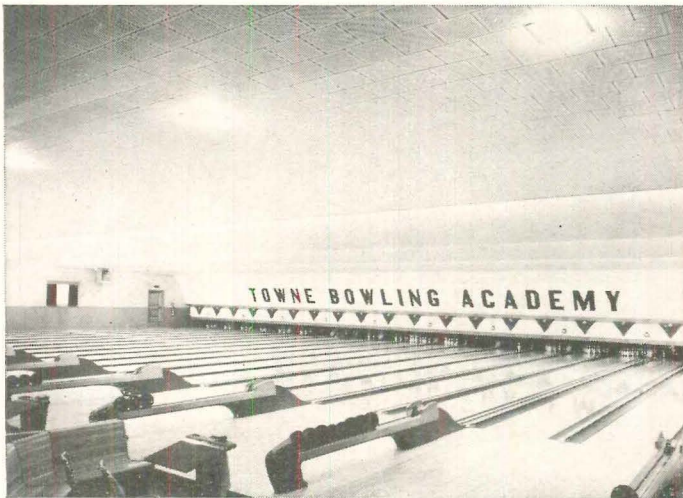
INSULATION SHEATHING...NOW there are more of these big cost-cutting panels for you — Asphalt Impregnated or Asphalt Coated and Impregnated; 2' x 8' or 4' x 8'. Goes up faster than wood with one-fifth the waste! No corner bracing needed with the 4' x 8' x $2\frac{5}{16}$ " size — save \$25 a house.



SHINGLE BACKER...NOW there's more Shingle Backer to add sales appeal to asbestos or wood shingle houses. More sidewall beauty and insulation value for every home you build... offer more house per dollar... speed up sales and investment turnover.

AND NOW...THERE'S MORE WHERE THIS

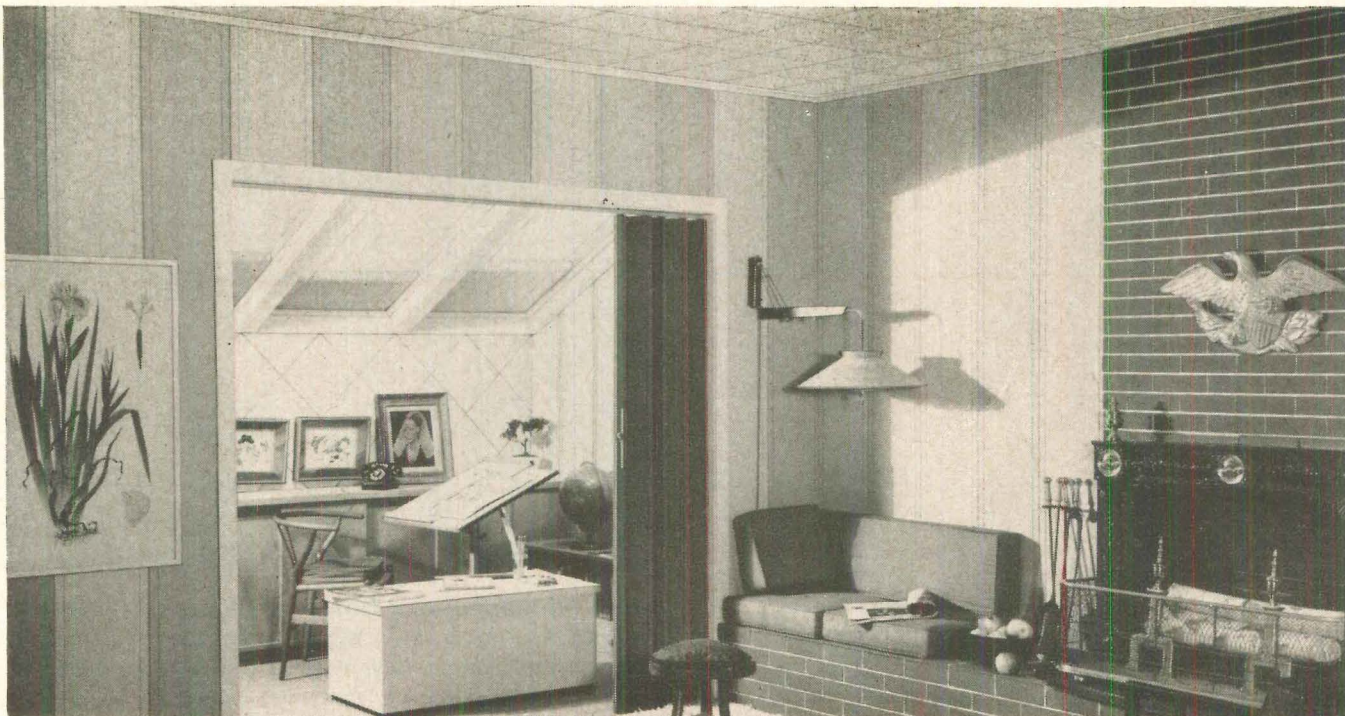
Gold Bond's big new Insulation Board Expansion means more material for your building and remodeling jobs!



ACOUSTAMATIC TILE... NOW you can hush noise in more bowling alleys, restaurants, offices, roller rinks, schools and gamerooms. Hundreds of sound-muffling holes in each 12" x 12" or 12" x 24" tile. Easy to handle — nail or staple. Flame-resistant, light-reflective Ivory finish — can be repainted.



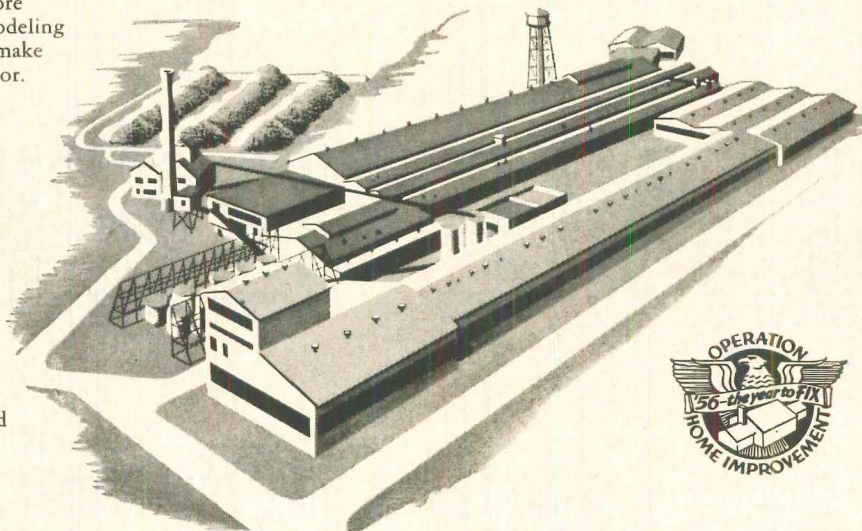
INSULATION BOARD PANELS...NOW sell more fast, low-cost remodeling jobs with Gold Bond Insulation Panels. Flame-resistant Ivory coating saves painting. Fast handling; easy to cut. Bevel or cover joints with moulding.



INSULATION PLANK AND TILE... NOW there's more from Gold Bond to help you sell handsome remodeling jobs like this. Variegated Planks and Ivory Tiles make these rooms harmonies of surface pattern and color.

COMES FROM

Here's where National Gypsum has just about doubled its Insulation Board output ...here's one of the most modern building products plants in America—the Gold Bond factory at Mobile, Ala.



WE'VE EXPANDED to help ease the shortage of insulation board products—to help you operate more profitably. Now there's more of the whole family of quality Gold Bond Insulation Board—Sheathing, both Asphalt Impregnated and Asphalt Coated and Impregnated; Shingle Backer; decorative Planks, Panels, Tiles; Acoustamatic Tiles—all headed your way from Mobile.

Increased Gold Bond production makes these products more available—skilled and unceasing Gold Bond research keeps their quality high. Build

with highest possible profit...let Gold Bond Insulation Board Products help you do it.

Here's extra service, too! You can order Gold Bond Hardboard for shipment *in the same car* with your other Gold Bond Insulation Board products. Lighter and stronger than lumber, you can use these panels for eave and stair soffits, wainscoting, interior trim and many other purposes.

Call your Gold Bond representative, or write to National Gypsum Company, Dept. HH-96, Buffalo 2, New York.

INSULATION BOARD PRODUCTS

NATIONAL GYPSUM COMPANY

Gold Bond®
BUILDING PRODUCTS



Wall refrigerator and freezer is a feature of Linda Lyle Homes that women rave about. Mrs. Rigsby shows how this new wall arrangement puts all the food on view at hand and at the same time, allows added counter space—more under-counter cabinets.

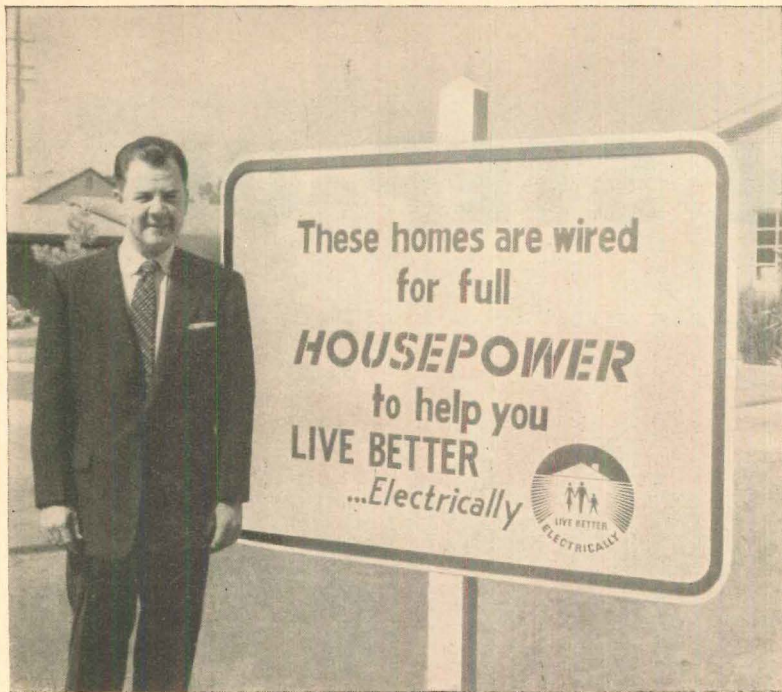
How

LIVE BETTER...

helps sell California's Linda Lyle

"Everywhere you look you see indications that families today want better living built right into their new home. That's why we're making Linda Lyle Estates an all-electric community," says Mr. James F. Rigsby, builder of one of California's newest developments in Fullerton, near Los Angeles.

There will be four hundred Linda Lyle Homes when the community is completed, and they'll have an all-electric heat pump for year-round heating and air conditioning, electric kitchens, remote-control lighting... every convenience and comfort electricity can offer.



Attractive site sign arouses interest with the familiar words and symbols for HOUSEPOWER and LIVE BETTER . . . *Electrically*. Visitors are influenced by the tie-in with both these nationwide promotions, offering the promise of better living.



Everything's electric! This typical Linda Lyle kitchen boasts an electric range, electric wall oven, dishwasher, garbage disposer and washer-dryer . . . *and electric water heater*—all included as *standard equipment*. Less work and more efficiency are built into this new kitchen.

Electrically



Homes in the city of Fullerton

In promoting his new project, Mr. Rigsby is using the theme of the two national movements, HOUSEPOWER and LIVE BETTER . . . *Electrically*, to help him sell. Both of these consumer advertising programs tell prospective home buyers about electrical living . . . explain the unique advantages of an all-electric home. So far, visitors show by their enthusiasm that Mr. Rigsby is definitely on the right track.

Ask your local electric utility for advice and help on how you can benefit in your area from the national Live Better . . . *Electrically* program.

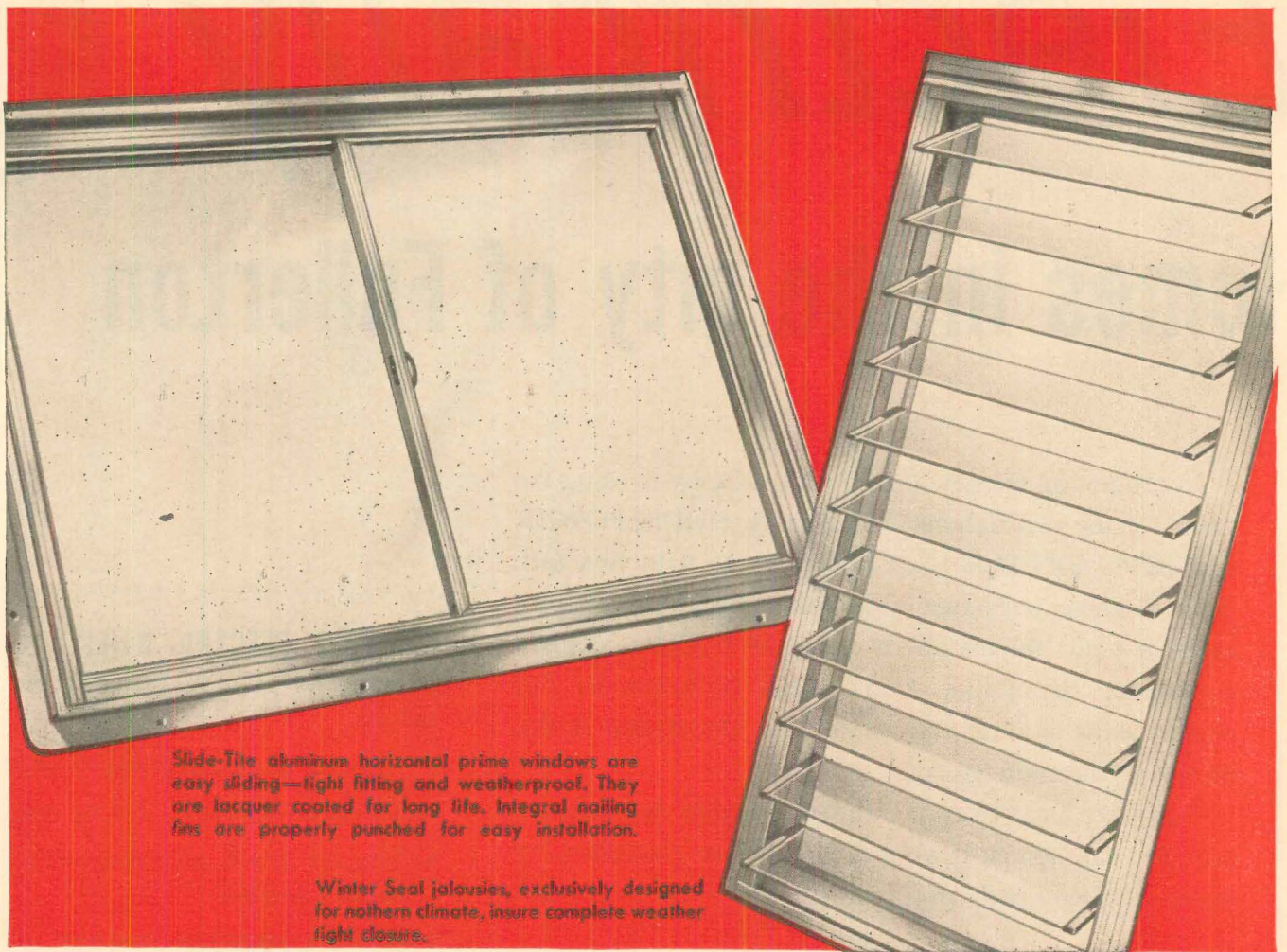
SEE YOUR ELECTRIC UTILITY for these useful Live Better . . . *Electrically* merchandising helps:

- 72-page illustrated idea book (LBE-4)
- 64-page residential wiring book (LBE-5)
- Site sign black and gold 14½" x 22" for builder imprint
- Banners, streamers, posters
- Ad mats and advertising suggestions
- Full-color movie, "Meet Mrs. Swenson"

YOU CAN STEP-UP WINTER SEAL

ALUMINUM

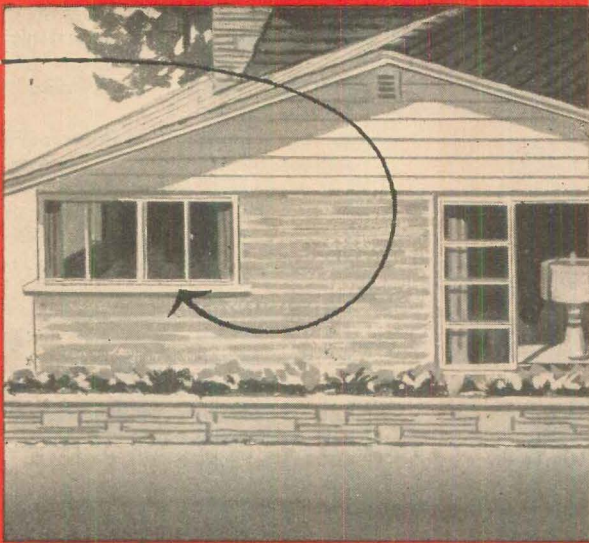
PRIME SLIDING WINDOWS AND JALOUSIES



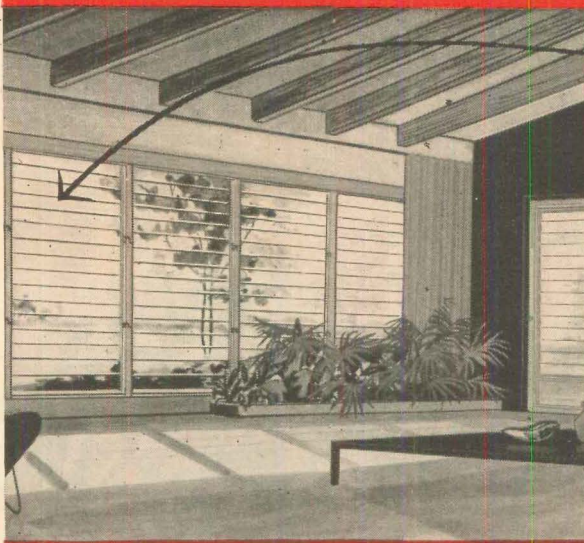
Slide-Tite aluminum horizontal prime windows are easy sliding—tight fitting and weatherproof. They are lacquer coated for long life. Integral nailing fins are properly punched for easy installation.

Winter Seal jalousies, exclusively designed for northern climate, insure complete weather tight closure.

SALES APPEAL WITH



Slide-Tite Horizontal prime windows are beautifully styled in satin smooth aluminum.



Winter Seal Jalousies are outstanding for life-long ruggedness, smart design and smooth operation.

Homes with *sales appeal* move fast. Those without this "precious ingredient" just sit—waiting for a buyer.

Winter Seal aluminum sliding windows and jalousies give homes the extra appeal that closes the deal. They are made of heavy-duty extruded aluminum, satin-finished to look better and last longer. Winter Seal products are designed for maximum efficiency of operation to provide perfect weather control. The brand name *Winter Seal* is your guarantee of top quality and exclusive features at a fair price. Winter Seal products are sold and serviced nationally by a large network of reliable dealers.



WINTER SEAL CORP.
14575 Meyers Road • Detroit, Michigan



WINTER SEAL CORPORATION
14575 Meyers Road
Detroit, Michigan

Please send me your FREE brochures on sliding windows and jalousies.

Name _____

Business _____

Street and Number _____

City _____ State _____

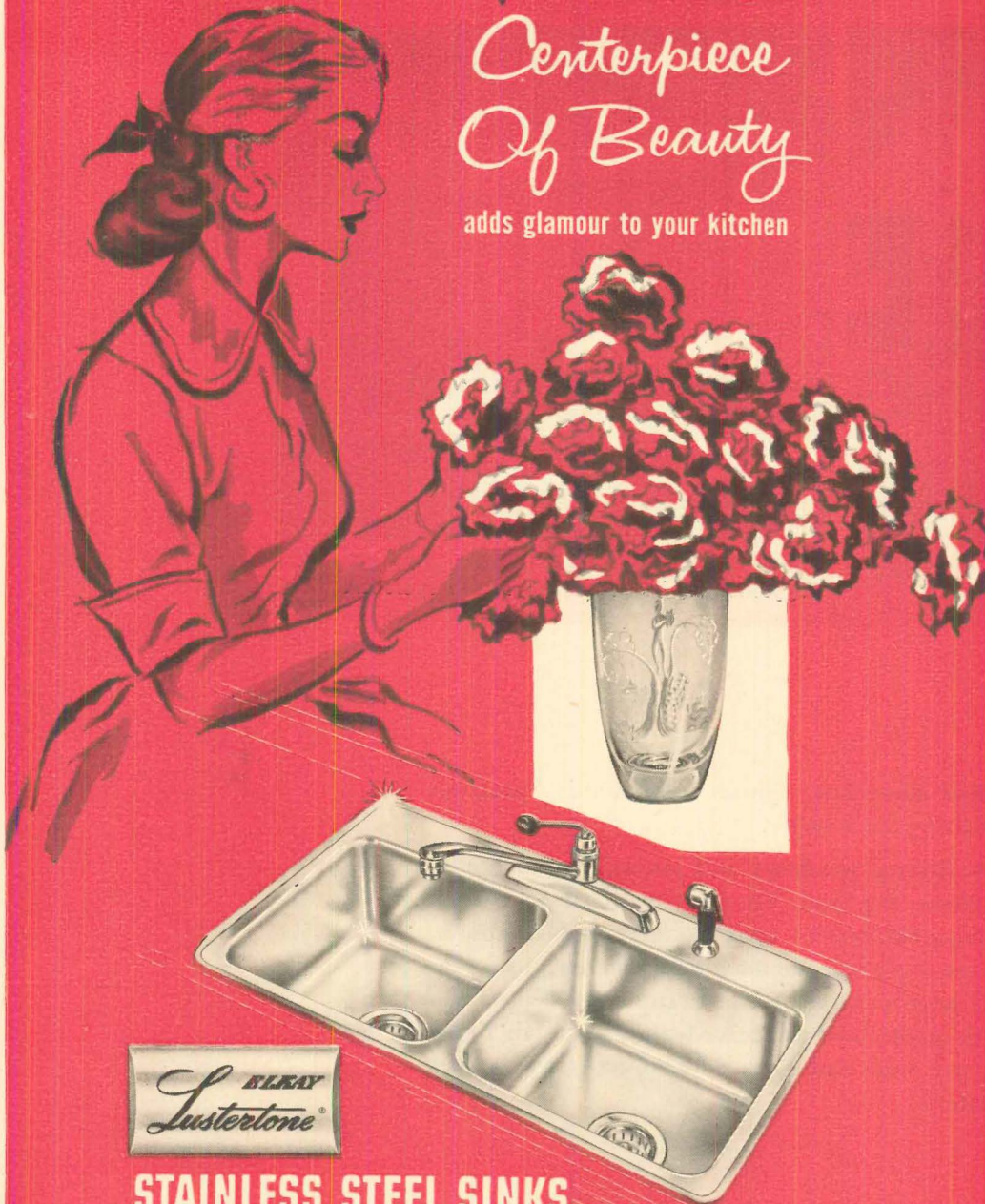
HAVE YOU SEEN

STARLITE

It's the new brighter-than-bright finish for stainless steel sink bowls exclusive with ELKAY. And what's more, it carries a new, lower than ever price. Here, too, is another arresting ELKAY consumer ad working for you.

*Centerpiece
Of Beauty*

adds glamour to your kitchen



STAINLESS STEEL SINKS

All eyes turn immediately to the lustrous beauty of your ELKAY Lustertone Sink . . . you are deemed a hostess of charm as well as a practical homemaker. The bright cleanliness of this stainless steel sink tells all that your home is spic and span . . . lets you enjoy the luxury of living without tiresome scrubbing and bleaching. You can have all the benefits of a Lustertone sink for no more than the cost of an ordinary sink. And, because it's guaranteed for life, you have lifetime loveliness that softly reflects any change in kitchen color combinations. *Write for literature and prices today!*

ELKAY MANUFACTURING COMPANY

1874 SOUTH 54TH AVENUE, CHICAGO 50, ILLINOIS

The World's Oldest and Largest Manufacturer of Stainless Steel Sinks . . . Since 1920

for further details check numbered coupon, p. 270

525. Bolta-Wall. Bolta Products, Dept. HH, Lawrence, Mass. 4 pp. Bolta-Wall vinyl wall covering, its application, how to create special effects.

526. Plastics in the home building industry. Bakelite Co., Dept. HH, 300 Madison Ave., New York City. 16 pp.

How many ways can you use plastics? This book shows dozens of ideas with sketches of materials in use. Sections on foundations, framing, finishing, built-in equipment, mechanical equipment cover a multitude of plastics uses and ideas.

527. The ABC's of Modern Plastics. Bakelite. 48 pp.

In this book plastics information begins with historical data, ranges on to present day application techniques. Exploration of plastics' Big Four—phenolic, vinyl, polystyrene and polyethylene—delves into their qualities, uses, origins and resins.

528. Alsynite fiberglass panels. Alsynite Co. of America, Dept. HH, 4654 DeSoto St., San Diego 9, Calif. 4 pp.

Close in a shower, roof over a patio, partition a room, put up a breezeway or carport with these handsome building panels in 23 new colors.

529. Polyglas Reinforced Plastics for Industry. Modular Plastic Corp., Dept. HH, 1635 Westminster, Detroit 11, Mich. 4 pp. Brochure includes drawings and photos of exhaust hoods, special duct assemblies of sections and tanks that the company custom-builds to your specifications for any application.

530. The House of Today. B. F. Goodrich Chemical Co., Dept. HH, 3135 Euclid Ave., Cleveland 15, Ohio. 8 pp.

Here's the brochure about the Geon House shown at the Plastics Exposition in New York in June. Centerfold section diagrams the many uses of plastics found in the house, elaborates them with diagrams, descriptions.

531. Idea File. Lynch Asbestos Co., Dept. HH, 2939 S. Sunol Drive, Los Angeles 23. 3 sheets.

Suggested ways to use Lascolite panels to delineate a patio, divide a room, create a carport, stretch out garage space, etc.

532. Olin Polyethylene. Olin Film Div., Olin Mathieson Chemical Corp., Dept. HH, 655 Madison Ave., New York 21.

The versatile plastic film you use as a vapor barrier—as a protective sheet for materials and construction, as a moisture barrier and thermal insulator in sidewalls, as a blanket to facilitate curing concrete.

533. Weldwood Kalistron. U.S. Plywood Corp., Flexible Materials Div., Dept. HH, 2921 S. Floyd St., Louisville 13, Ky. 4 pp.

This handsome vinyl wall material is tough wearing, resistant to scuffing and scratching, doesn't chip or peel. The big folder presents 29 swatches in the company's color line, plus a collection of weaves and patterns.

534. Zonolite Insulating Plastic. Zonolite Co., Dept. HH, 135 S. LaSalle St., Chicago, Ill. 4 pp.

Booklet outlines uses for lightweight, fire-continued on p. 258



Wall-to-wall wardrobe in Elmhurst, Ill. By Surety Builders.

you can **BUILD** and
SELL more house
 . . . at lower cost with

■ With home buyer's increasing demands for major features, like ample storage space—and the design and cost problems of supplying them . . . architects and builders are doing some careful figuring.

Specifically, lets consider *more, easy-to-use storage space*, and how to create it with GLIDE-ALL Sliding Doors . . . easily, quickly and economically:

GLIDE-ALL Doors make floor-to-ceiling, wall-to-wall expansive wardrobes, huge closets in corners of small rooms, full-length, full-height hallway storage space, entrance-way guest closets, and in many other waste-space areas. GLIDE-ALL Doors save construction time and dollars . . . they're installed quickly, adjusted easily to fit the opening, decorate with the wall, and give a life-time of trouble-free performance. They are available in standard 8' and 6'8" heights, flush or recessed panel models . . . and in special sizes for unusual jobs. That's why we say: "you can build and sell more house at lower cost with GLIDE-ALL Sliding Doors." See Sweets or write for complete details, specifications and prices.

GLIDE-ALL[®]
Sliding Doors

GLIDE-ALL Doors are available from distributors throughout the United States and Canada. For information write Plant nearest you.

GLIDE-ALL DOORS ARE A PRODUCT OF
WOODALL INDUSTRIES INC.

DETROIT 34, MICHIGAN

CHICAGO, 3500 Oakton St., Skokie, Ill.

EL MONTE, Calif., 801 W. Valley Blvd.

FRANKLIN, Ohio, P. O. Box 290

LAUREL, Mississippi, P. O. Box 673

NEW YORK, Glen Cove Rd., Mineola, N. Y.

SAN FRANCISCO, 1970 Carroll Ave.



**Finish
ONE**

**in half
the
time**

or

**TWICE AS MANY
in a day**

**Sta-Dri acrylicote
PLASTIC PAINT**

Speed of application and perfect performance account for the success of the new Sta-Dri Acrylicote plastic paint. Acrylicote dries in about 30 minutes to a velvet, washable finish, uniform in color and sheen. This all purpose paint may be applied to interior and exterior surfaces. On many surfaces, its superior hiding power makes only one coat with brush, sprayer or roller necessary. Even two coats can be completed in one day and, on large buildings, with a single scaffold setting. Painting equipment may be cleaned with soap and water, eliminating the extra cost of solvents and cleaners. Because it is a tough, tight bonding surface paint, coverage is greater than old fashioned, deep penetrating finishes. Besides primed wood, plaster, paper and masonry, hard-to-paint surfaces such as weathered asbestos shingles, hardboard, acoustical tile, fabric, green stucco and damp concrete may be easily painted with Acrylicote.

Modern, technically improved Acrylicote is available in 18 basic colors from which innumerable intermixes can be quickly made. Because it is odorless and non-toxic, Acrylicote is safe to use in close quarters. For redecorating the home, painting can be completed between meals with no offensive smell or interruption to family routine. In large commercial establishments such as hotels, motels and restaurants, Acrylicote makes possible continued, maximum use of facilities. Because it resists abrasion, alkalies, acids and water and because touch-ups to hide skips, scuffs and soil do not show tell-tale laps and brush marks, the beautiful finish lasts longer and can be economically maintained. Because it is non-fading, Acrylicote color stays bright, clean-looking and fresh. Write for the new booklet, "A is for Acrylicote," or ask your dealer for the Acrylicote "Color-caster" showing basic colors with directions for intermixes.

American Sta-Dri Co., Brentwood, Maryland



Easy-to-handle long lengths!

SONOAIRDUCT®



Can be sawed on the job!

SONOAIRDUCT®



Installs and levels quickly!

SONOAIRDUCT®

FIBRE DUCT

Economical and time-saving — that's SONOAIRDUCT — the fibre duct made especially for gas and oil fired loop and radial slab-floor perimeter heating systems. SONOAIRDUCT Fibre Duct comes in lightweight lengths up to 50' long and in 23 sizes, 2" to 36" I.D. Aluminum foil lined for low coefficient of air friction and wrapped with asphalt duplex kraft. Made to comply with F.H.A. Minimum Property Requirements. Widely used and approved by architects, builders and contractors everywhere. FREE Installation Manual sent on request!

Write today for complete information!



**SONOCO
PRODUCTS COMPANY**

CONSTRUCTION PRODUCTS DIVISION

HARTSVILLE, S. C.

LOS ANGELES, CAL.

5955 SOUTH WESTERN AVE.

MONTCLAIR, N. J.

14 SOUTH PARK STREET

AKRON, IND. • LONGVIEW, TEXAS • BRANTFORD, ONT. • MEXICO, D. F.

**HOUSE & HOME
THIRD ANNUAL DIRECTORY
OF PREFABRICATION**

Prefabrication—
hottest business
within the huge home building industry
is the fastest-growing market
for volume sales.

Every professional,
whether in it already or not,
has an eye on prefabrication . . .
weighing its competitive advantages
in today's competitive market.

Over 100,000 of them
will surely take
a long, hard look
at prefabrication
in its most complete and authoritative
directory . . .

HOUSE & HOME's December issue.

If you can't afford to miss
10% of the market in sales,
and 100% of the market in interest
don't miss

HOUSE & HOME's

Third Annual Directory
of Prefabrication

December, 1956.

**HOUSE & HOME
DECEMBER ISSUE
1956**

Comfort is a Special Sales Feature...

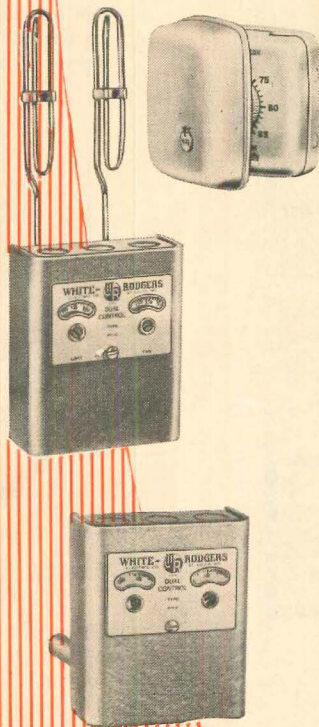
When your homes have

WHITE-RODGERS

Hydraulic-Action[®]

CONTROLS

for Heating and
Air Conditioning



You can really sell the comfort of a home equipped with White-Rodgers Hydraulic-Action controls. Here is the most sensitive and accurate response to temperature change . . . easy to set and trouble-free for years to come. More than 7,000,000 Hydraulic-Action controls have been built by White-Rodgers. They are doing such a fine job that you may be offered imitations . . . but insist on the original.

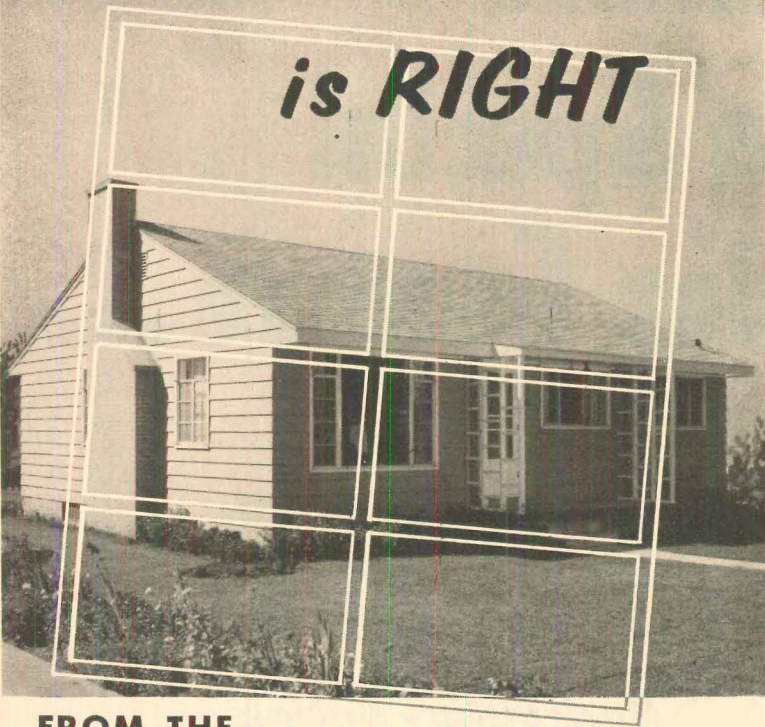


WHITE-RODGERS *Controls*
FOR MODERN COMFORT
HEATING • REFRIGERATION • AIR CONDITIONING

St. Louis 6, Missouri • Toronto 8, Ontario

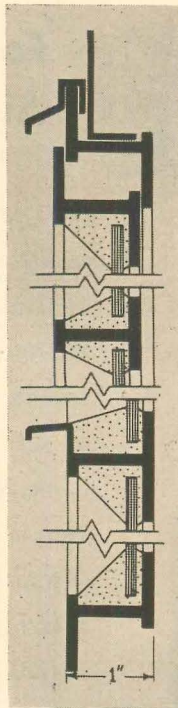
VAMPCO

is **RIGHT**



FROM THE BUILDERS' VIEWPOINT...

All-aluminum windows are a big selling point on modern homes . . . their extra beauty and long life *without maintenance expense* are features that really help sell the house. Can't rust, rot or warp. VAMPCO's precision fabrication means big savings in time and money. VAMPCO windows fit standard openings perfectly . . . come to you pre-assembled, and are ready to drop in place. To keep costs low . . . make sales easier . . . always install Life-Long VAMPCO Windows.



and FROM THE HOME OWNER'S VIEWPOINT

Modern windows of gleaming aluminum. No repainting or repainting every year. No sticking due to warping or swelling. No unsightly rust streaks or disintegration due to weather. VAMPCO windows give life-long convenience and beauty.

and FROM THE ARCHITECTS' VIEWPOINT . . .

When you plan with VAMPCO, lighting and ventilating problems are easier to solve . . . building costs go down . . . window maintenance problems are eliminated . . . your designs are more appealing. Specify VAMPCO standard units or find out about specialized designs for unusual applications.

VAMPCO

A NAME THAT MEANS THE VERY FINEST IN LIFE-LONG ALUMINUM WINDOWS

See OUR COMPLETE LISTING IN SWEET'S 1955 ARCHITECTURAL FILE

VALLEY METAL PRODUCTS COMPANY* DEPT. HH-115, PLAINWELL, MICHIGAN
*SUBSIDIARY OF MUELLER BRASS CO. • PORT HURON, MICH.

Please send me your complete catalog of "Aluminum Windows For Light Construction".

NAME.....

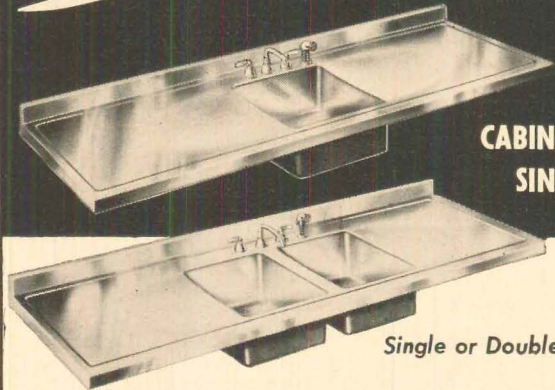
ADDRESS.....

CITY.....ZONE.....STATE.....

Just Stainless

STEEL SINKS and SINK BOWLS

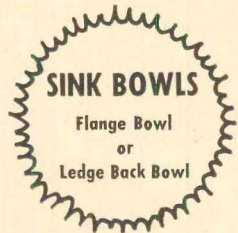
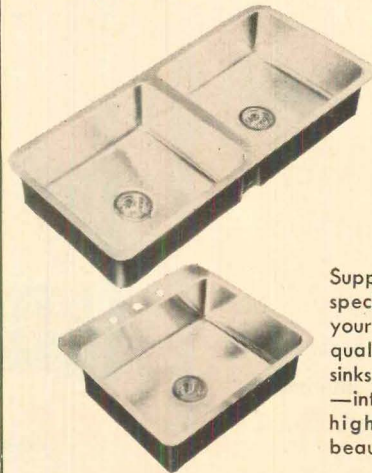
NOW at new popular prices!



CABINETEER SINKS

Single or Double Bowl

The new JUST LINE Cabineteer Sink Tops offer such exclusive features as the Anti-splash rim and concave pitched drain-board on fifteen popular standard sizes. The Cabineteer line offers substantial savings in price without deviations in JUST'S quality standards. Fully welded, one piece construction with beautifully polished surfaces make Cabineteer sinks an outstanding value, with the added advantage of immediate delivery from stock.



Supplied in either standard or special sizes and depths to meet your specific requirements. Top quality, seamless construction—sinks are formed and welded—interior corners rounded—highly polished for lasting beauty.

BUILT-TO-ORDER EQUIPMENT

Built to your exact requirements, affording unlimited freedom in planning. To insure perfect installations, detailed drawings are submitted for approval before fabrication. JUST production schedules assure prompt delivery.



Factory trained Representatives in all principal cities.

SEND FOR BULLETIN J-113



Just Manufacturing Company

9233 KING AVENUE • FRANKLIN PARK, ILLINOIS



"It's Mrs. Jones. . . . Loose tile in her bath-room again! Maybe we saved a few pennies a gallon on that last batch of adhesive, but repair calls left us in the hole on almost every job where we used it. No more of that cheap stuff for me!"

"There's another wall tile job sold for us by a satisfied customer. I can't remember a single repair job we've had to do since we started using Roltite Wall Tile Adhesive. That's why so many happy customers are telling their friends about us."



QUALITY COSTS LESS IN THE LONG RUN

Roltite Wall Tile Adhesive offers everything you've been looking for in an adhesive for installing plastic and metal wall tile. Superior adhesion to almost any clean, dry surface. Remains permanently plastic . . . never dries hard or cracks. Non-staining. Low shrinkage. Exceptional resistance to heat and moisture. And you can count on absolute uniformity—batch to batch and can to can.

This adhesive meets or surpasses all the requirements of the Industries Commercial Standards (CS-168-50). And we didn't take our own lab's word for it. It's conformance to standards has been confirmed by one of the country's largest independent testing laboratories . . . extract of lab report sent on request.

Don't gamble pennies against dollars on cheap adhesives which can cause you all sorts of grief. Standardize on Roltite Wall Tile Adhesive and be sure of top quality. For the complete story, see your Roltite distributor or mail the coupon below.

**Midcontinent Adhesive Company
155 Sunshine Drive, Grove City, Ohio**

Please send me specification sheet, instruction folder and other information on Roltite Wall Tile Adhesive.

Name _____

Company _____

Street _____

City _____ State _____



MIDCONTINENT

Adhesive **COMPANY**

ADHESIVES SINCE 1928

SEALTIGHT *Premoulded Membrane*

TRADE MARK

the industry's only **TRUE** VAPOR SEAL



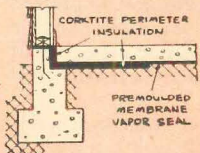
The only sure way to "eliminate" the ravages of destructive moisture is with the installation of "Premoulded Membrane" during the original construction... all other methods are merely temporary "stop-gaps." When specifying or installing a vapor seal, be sure it meets these Sealtight standards of quality: permeance rating of only 0066 grains per square foot... resistant to rot, mold and termites... expandable... quickly, easily and permanently installed... ONLY "Premoulded Membrane" meets them all.

Eliminates

- EXCESSIVE WINDOW CONDENSATION
- EXCESSIVE BASEMENT DAMPNESS—RUSTING OF TOOLS
- BLISTERING OF EXTERIOR PAINT
- DETERIORATION OF INSULATION VALUES
- DETERIORATION BY MILDEW OF RUGS, FURNISHINGS, SHOES AND CLOTHING

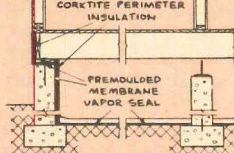
IDEAL FOR ALL TYPES OF CONSTRUCTION

SLAB-ON-GRADE



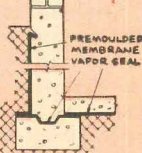
This illustration shows how the installation of Premoulded Membrane and Corkite completely isolates the slab and superstructure from soil moisture.

CRAWL SPACE



The proper installation of Premoulded Membrane and Corkite removes all danger of condensation and oxidation of metal installations in the crawl space area... eliminates the need for ventilation.

BASEMENT



The proper installation of Premoulded Membrane to the exterior of the basement walls as well as beneath the floor slab insures a permanently warm and dry basement.

ARCHITECTS, BUILDERS, DEALERS . . .

WRITE TODAY for complete information that tells you where, why and how to use Sealtight Premoulded Membrane, the only true vapor seal and Corkite, the resilient, impermeable perimeter insulation.

"Guardian of the Home"



W. R. MEADOWS, INC.

10 KIMBALL ST.

ELGIN, ILLINOIS

proof insulating plastic, describes its advantages.

535. Hasko-Struct Structural Insulation. Haskelite Mfg. Corp., Dept. HH, Grand Rapids 2, Mich. 4 pp.

Hasko-Struct panels are engineered, structurally designed, laminated sandwich panels for many applications in the building industry. They are said to be moisture and vermin proof, rot resistant, non-warping and non-corrosive.

536. Corrugulux Translucent Structural Panels. L-O-F Glass Fibers Co., Dept. HH, P.O. Box 20026, Houston 25, Texas. 4 pp. Design unlimited is possible when you put ideas to work. These corrugated plastic panels can be used in skylights, ceilings, partitions, patios, doors, canopies and awnings, storm shutters, showers, etc.

537. Modular Reinforced Fiberglass Panels. Modular Plastic Co., Dept. HH, 1635 Westminster St., Detroit 26, Mich. 1 sheet. These panels are reinforced with an inner web of metal. Almost any design in the form of the metal web can be molded into the panel to new sizes, new patterns, new textures, new colors. Panels are weatherproof and fadeproof, can be made fire resistant.

538. Wascoseal Flashing. Wasco Products, Inc., Dept. HH, Bay State Road, Cambridge 38, Mass. 1 sheet.

A new plastic barrier gives buildings permanent, low-cost protection. Company says material is ideal for concealed flashing purposes—at spandrel beams, window heads and sills, under copings, at foundation cut-offs and other through-the-wall conditions.

539. Plastimode Interlocking Strips. Plastic Process Co., Dept. HH, 662 N. Robertson Blvd., Los Angeles 46, Calif. 1 sheet.

The strips come in bright colors for enclosing cabinets with a minimum of space requirements. In the kitchen you might install roll-a-way interlocking doors, or use them to section off a storage space.

540. Plexiglas. AIA File 31-F. Rohm & Haas Co., Dept. HH, Washington Square, Philadelphia 5, Pa. 8 pp.

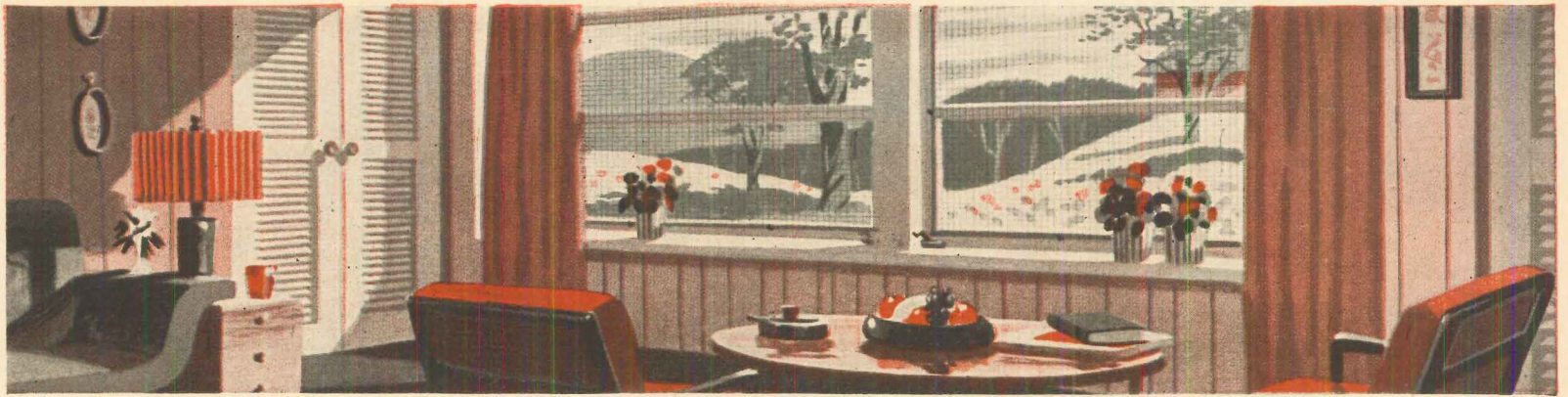
Architectural lighting in a variety of sizes and shapes. Plexiglas is used as a white translucent formed panel or flat sheet which transmits diffused light to give maximum light transmission. Applications in the book show squares, rectangles, circles, ovals of light. Modular designs include surface-mounted panels, semi-recessed, domes, multiple pyramids, etc.

541. Marvinol Vinyls. Naugatuck Chemical, Div. of US Rubber Co., Dept. HH, Naugatuck, Conn. 12 pp.

Marvibond process bonds Marvinol vinyl film and sheeting to metal. Most structural forms and shapes can be obtained after vinyl and metal have been bonded. Book shows some examples, lists advantages, test data.

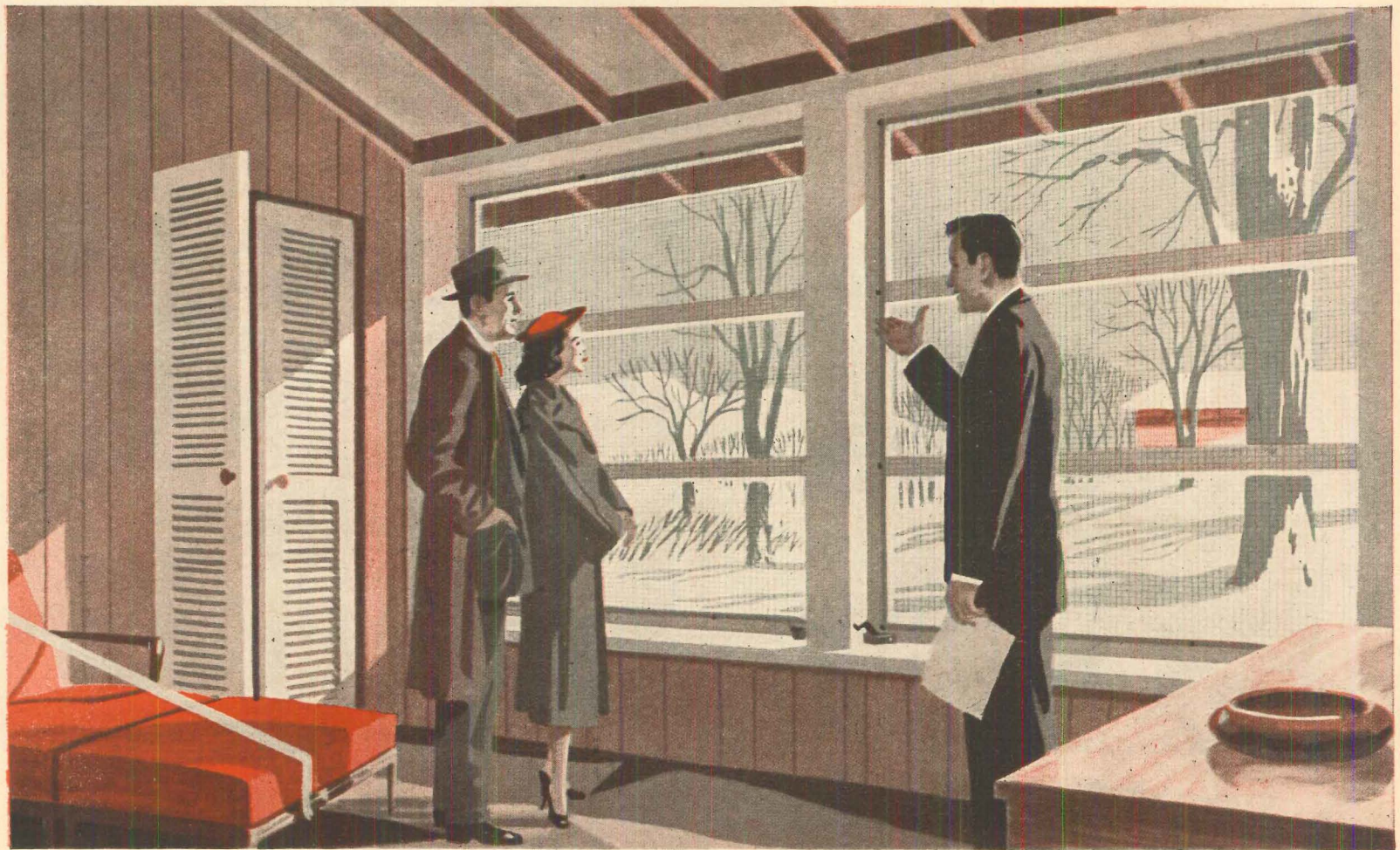
542. Color-Craft Plastic Panels. Color-Craft Products, Inc., Dept. HH, 5035 Bellevue Ave., Detroit 11, Mich. Folder. These striated plastic panels are made of

continued on p. 264



Because people like screens they can put up and forget, they'll want

FIBERGLAS SCREENING



**...strongest screening ever made!
 shock-proof! rust-proof! fire-safe!
 won't stain! never needs painting!**

YOUR prospects look for names they know —and everyone knows the familiar red Fiberglas* label on screening . . . building and slab insulation . . . air conditioning and furnace filters and ducts . . . pipe insulation . . . elec-

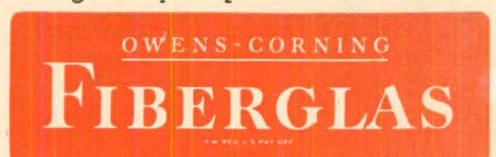
trical wiring and appliances. It's a tip-off to customers that top-quality Fiberglas materials have been used throughout your house.

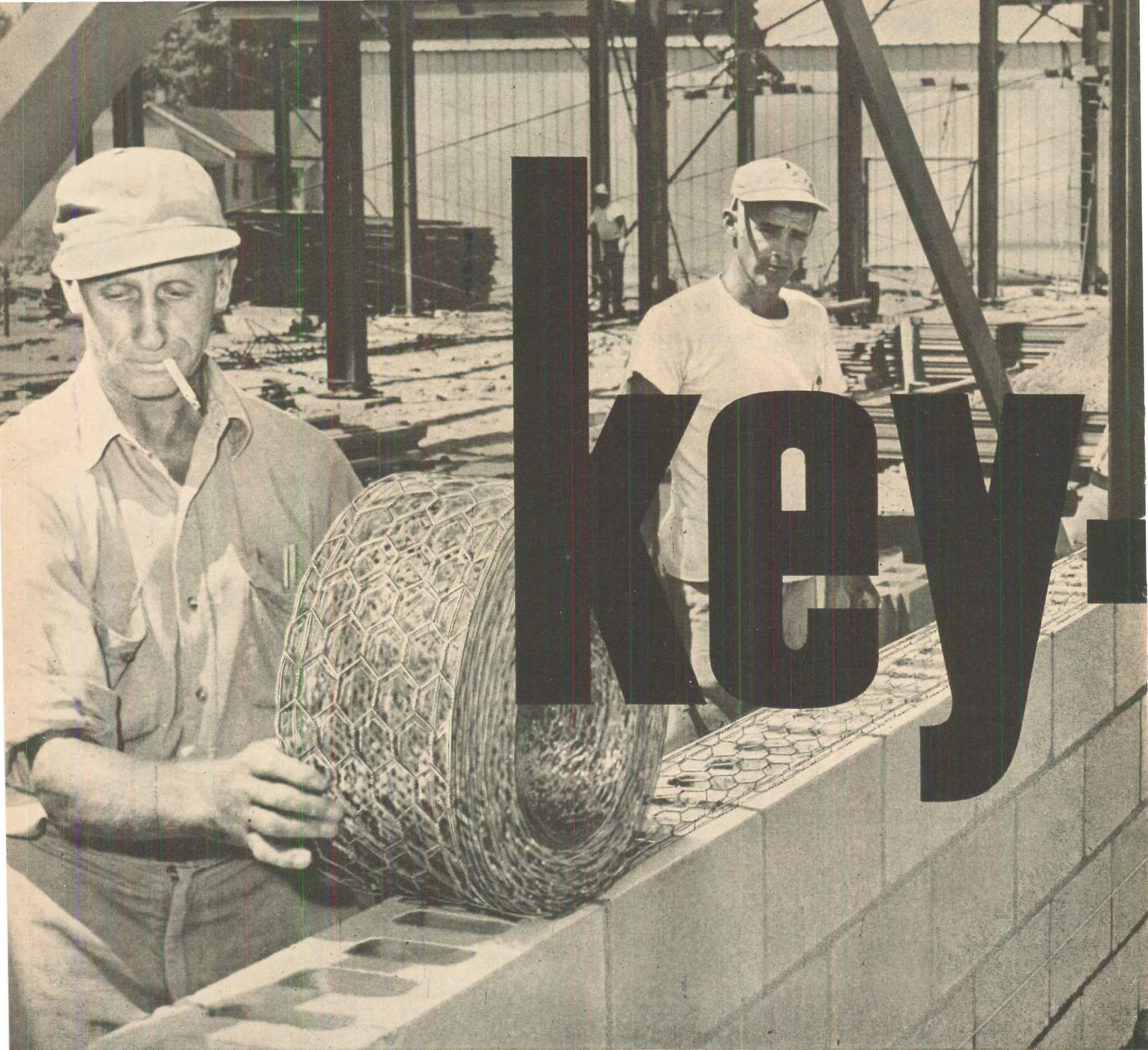
Take a tip from millions of homeowners who have switched to the protection of "year-round" Fiberglas Screening—fastest-growing screening material in America! Plan now to include Fiberglas-screened prime or combination windows in your "home package," and

let the Fiberglas label make an extra selling impression for you in today's highly competitive "home merchandising" market!

Fiberglas Screening—also available in rolls—is only *one* of the promotable, profitable Fiberglas products that *pre-sell* today's feature-minded home buyer. So be sure your architect specifies *Fiberglas!* Owens-Corning Fiberglas Corp., Dept. 67-I, Toledo 1, Ohio.

the label that helps clinch the sale . . .





Facts You Should Know About Masonry Reinforcement

By Edwin L. Saxer: Professor and Chairman, Civil Engineering Department, University of Toledo



For some time, there has been a growing tendency to rely on steel reinforcing in mortar joints to improve the capacity of masonry walls to resist the stresses which develop.

The usage of joint reinforcement has often proven unsuccessful in the past. The chief reason for this has been the failure to use reinforcement in more than every third or fourth joint—a practice which provides little or no benefit to the intermediate joints.

A contributing factor in many cases has been the inability of some forms of reinforcing to develop adequate bond strength.

As a result of research at the University

of Toledo, and at other laboratories, the principles of effective joint reinforcement are now well understood. All indications point to the fact that reinforcement should be used in every joint, or at least in every other joint, to insure reasonable effectiveness.

Our research on the effectiveness of Key-Wall leads us to the following conclusions: (1) The design of Key-Wall results in a highly efficient distribution of steel. (2) The use of Key-Wall can reduce significantly the cracks resulting from shrinkage of the masonry; and (3) Key-Wall is effective in improving the lateral strength characteristics of masonry walls.

why it pays to use

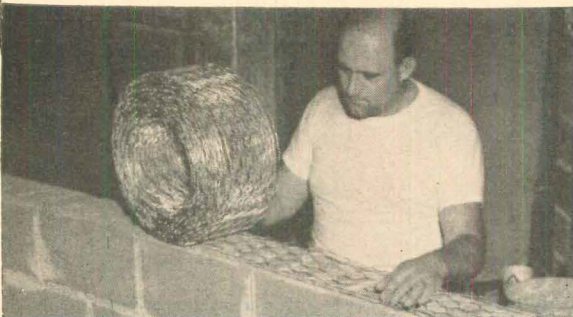
Key-Wall

the new type of masonry reinforcement that gives greater value at lower cost

The effectiveness of Key-Wall has been clearly demonstrated by tests at the Research Foundation, University of Toledo.

It's being specified and used by leading architects and builders today. It will offer you advantages on any jobs you build.

Key-Wall is made for the following wall thicknesses: 4", 6", 8", 10" and 12".



- Reduces shrinkage cracks
- Adds effective lateral strength
- It's galvanized to prevent rusting . . . assures maximum bond
- Lap joints give continuous reinforcement
- Does not interfere with bedding of units
- Improves mortar joint because multi-directional reinforcement holds mortar in place; gives better bond
- Masons welcome it, because it's easy to handle; easy to cut and fit; doesn't interfere with joint thickness
- You save on material cost, as well as labor cost



FREE—SAMPLE AND TEST REPORT

KEYSTONE STEEL & WIRE COMPANY
PEORIA 7, ILL.

Please send me free sample and copy of Key-Wall masonry report made by the Research Foundation, University of Toledo.

Name _____

Firm _____

Street _____

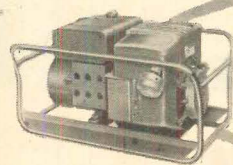
What sizes of ONAN Portable Electric Plants are best for your jobs?



10 KW ONAN
provides power for
5 H. P. saw or
several crews



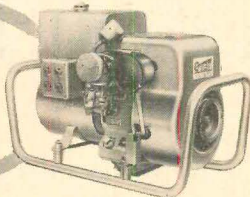
Powered by two-cylinder, air-cooled gasoline engine. Available housed and with trailer as shown. Similar model in 7½ KW capacity.



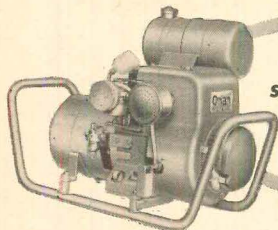
5 KW ONAN
for crews on
3 or 4 homes

Two-cylinder, air-cooled, gasoline engine. 4 plug-in receptacles. With carrying frame, on dolly, or with plain base. Also in 3,500 watts A.C.

2 or 2½ KW
ONAN powers
electric tools
for 2 crews



One-cylinder, gasoline engine. 4 plug-in receptacles. With carrying frame, dolly-mounted or plain base. 2,500-watt unit weighs only 139 pounds.



1 or 1½ KW
supplies power
for single
crew

Compact, lightweight. One-cylinder, gasoline engine. With carrying frame, rubber-tired dolly or plain base. Also 500 and 750-watt models.

Onan portable electric plants combine 4-cycle quick-starting and long life with compactness and lightweight. Completely Onan-built, with Onan short-stroke engines and Onan generators. Other models to 50,000 watts.

Write for portable plant folder or see your Onan distributor.



D. W. ONAN & SONS INC.

3208 Univ. Ave. S. E., Minneapolis 14, Minn.

for further details check numbered coupon, p. 270

styrene. Booklet gives colors, shows application as wall surfacing, describes properties.

543. Dow Plastics. The Dow Chemical Co., Plastics Dept., Dept. HH, Midland, Mich. 20 pp.

This informative book names the Dow plastics, tells about their applications and about the Dow technical service that helps designers to find the right plastic for every application. Properties of the plastics are charted, photos of applications show uses.

544. Luminous Ceilings. General Plastics Corp., Dept. HH, Marion, Ind. 4 pp. Vista-Glo ceilings are basically a system of diffusing panels mounted end to end with an acoustical tile border. Properties of the ceiling, panel sizes and installation data are given.

545. Kelsunite Translucent Building Panels. Wallace Mfg. Co., Dept. HH, 10th & Fayette, North Kansas City, Mo. 4 pp.

Booklet describes the advantages of Kelsunite, has an idea file which shows you how many applications are possible for a variety of structures. Technical data is included.

546. Polyplastex. Kerber Co., Dept. HH, 151 Spring St., New York 12. Folder.

These decorative plastic sheets come in a variety of designs to be used as screens and enclosures almost anywhere in the house. Fabrication data is given, as is a guide to selection of gauges.

547. Vicrtex Fabrics. Vicrtex Sales Corp., Dept. HH, 49 E. 53rd St., New York 22. 12 pp.

For "Walls of Fame," the company has a galaxy of handsome tri-dimensional patterns. Applications are shown, plus close-ups of some of the patterns and specifications for use.

548. Jaylis Folding Decorator Screens. Universe Products Co., Dept. HH, 2923 West Olympic Blvd., Los Angeles 6, Calif. 4 pp.

New weather resistant plastic screens cover window areas, take the place of doors and divide rooms. Diagrams, descriptions.

549. Insul-Pipe Research, Development and Application Report. The Coleman Co., Wichita, Kansas.

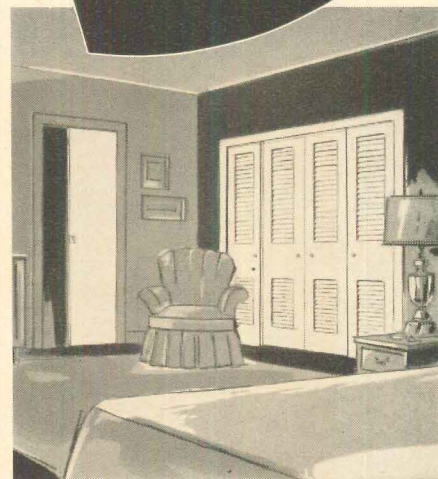
A series of findings based on a research program begun as a cooperative effort between The Coleman Co. and the Gustin-Bacon Mfg. Co., 210 W. 10th St., Kansas City, Mo. to develop a prefabricated, pre-insulated pipe to improve and standardize the performance of attic air ducts. Report describes technical performance of glass fibers which make up Insul-Pipe, the vinyl film used for insulation. Problems, development, performance and application are all explained and illustrated. Photos included.

550. Neoprene Notebook No. 69. E. I. du Pont de Nemours & Co., Elastomers Div., Dept. HH, Wilmington 98, Del.

This issue contains a story on sliding windows with neoprene frames cut and mited

continued on p. 270

**More Usable Space
in the Very
Same Place!**



with

Kennatrack®
SLIDING DOOR HARDWARE

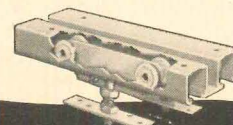
**SLIDING DOOR
HARDWARE**

Plan more room in every room the Kennatrack way. Kitchen, bedroom, bath — all through the house Kennatrack's complete line answers every need.



Take the guesswork out of Sliding Door Installations

Select the right hardware for every interior use from Kennatrack's easy-to-use Buyer's Guide. Write for your free copy.



Kennatrack®
CORPORATION

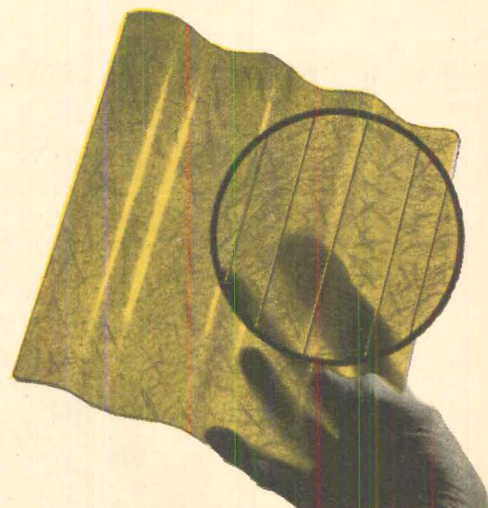
ELKHART, INDIANA

In Canada: Toronto, Ontario

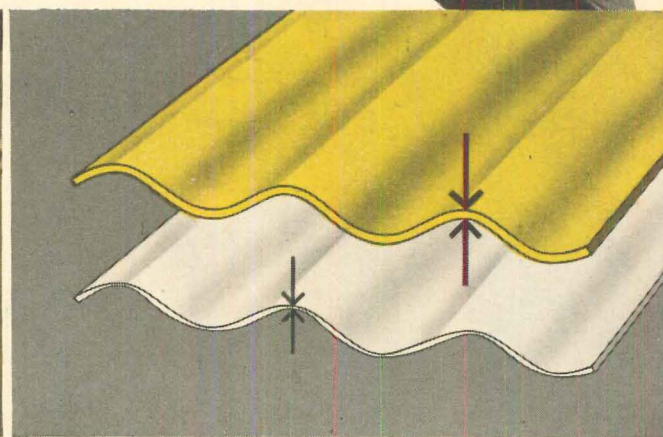
UNIFORMITY

makes a big difference in
Fiberglas-Plastic Panels

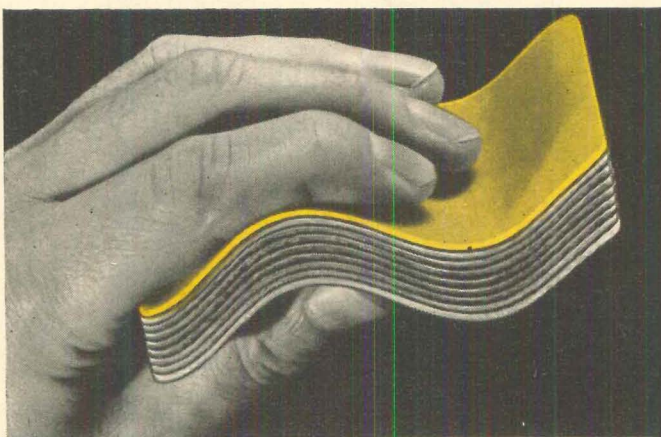
FILON PANELS ARE BY FAR THE MOST UNIFORM ... WITH GREATER STRENGTH AND DURABILITY. The parallel nylon strands (as shown in the magnified circle) are an exclusive FILON feature to control a uniform dispersion of Fiberglas and to add considerably to the strength and rigidity of FILON panels.



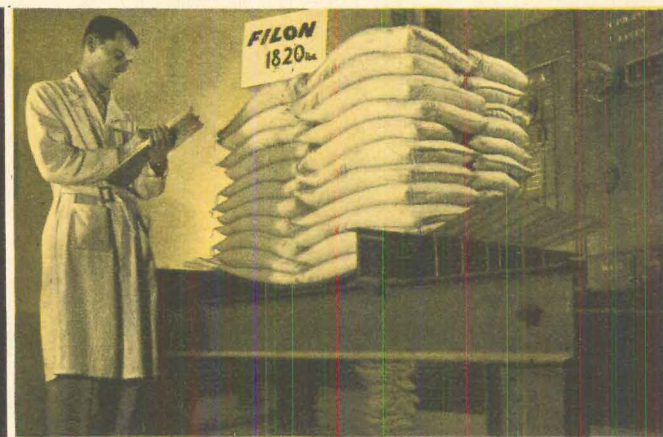
FILON'S UNIQUE MANUFACTURING PROCESS. High standards of quality are the result of extensive research for better raw materials and methods of production. FILON is produced in continuous lengths by a fully automatic electronically controlled system in the world's largest plant devoted exclusively to the manufacture of Fiberglas-Plastic panels.



UNIFORM THICKNESS FOR MAXIMUM DURABILITY. FILON'S uniform thickness prevents premature failures at fastening points. Moreover, the uniform density in color will create the most even lighting effects. FILON'S uniformity of thickness and color dispersion assures greater durability and better diffusion of light.



UNIFORM CORRUGATIONS FOR BETTER FIT. A good nesting overlap is obviously essential for a tight, waterproof fit. Rigid standards of corrugation tolerances for FILON panels give maximum assurance of satisfactory nesting and overlaps.



FILON HAS MUCH HIGHER LOAD CAPACITY THAN REQUIRED BY STANDARDS OF THE INDUSTRY. Shown above is a 26" wide FILON type 250 panel over a 4' span supporting a static load of 1820 lbs.—equivalent to 210 lbs. per sq. ft. Compare this with the 100 lbs. per sq. ft. required by industry standards.

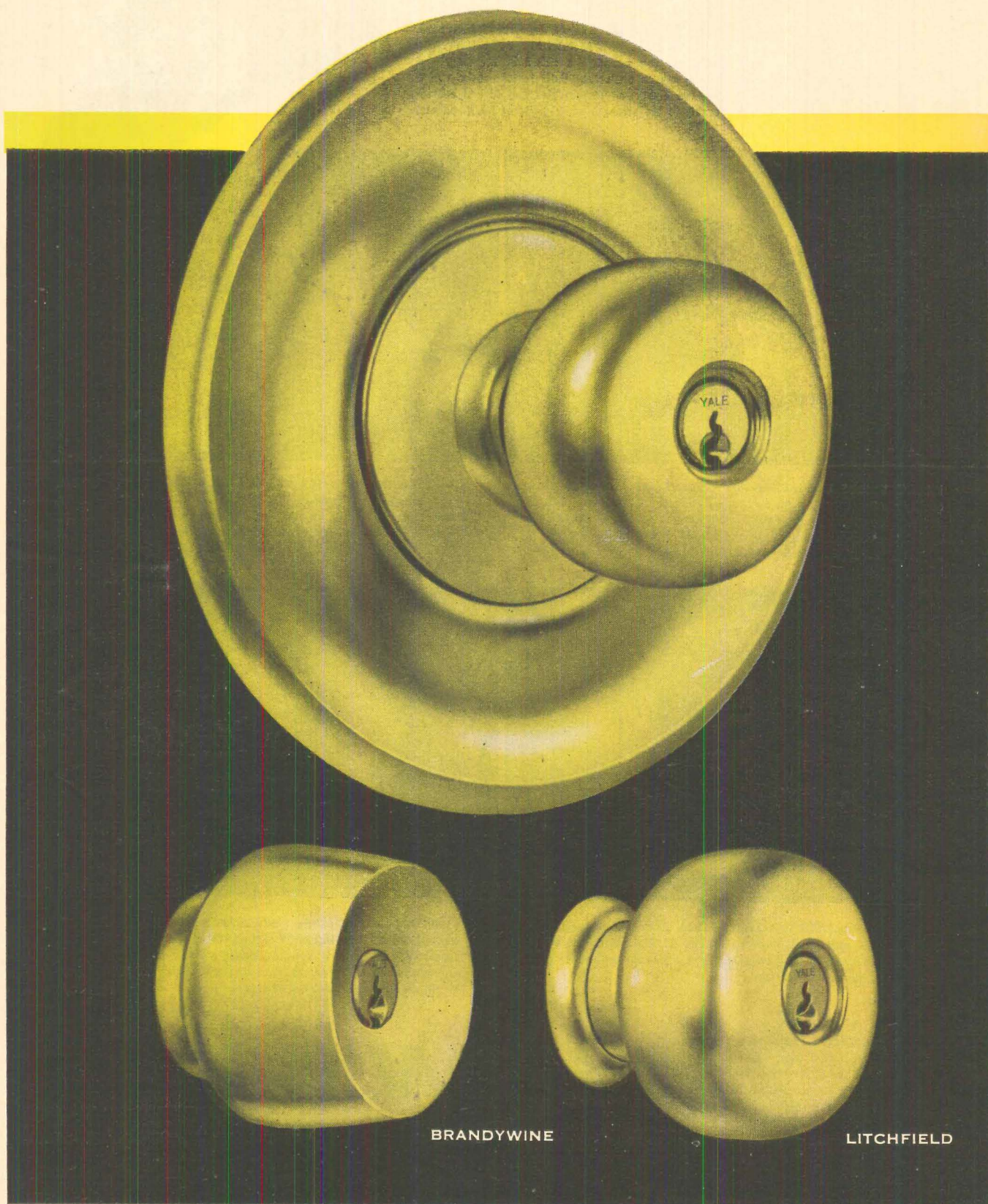
FOR FREE ILLUSTRATED BROCHURES containing all technical data, ideas and detailed drawings, write to Architectural Dept. of our Regional Sales Offices or consult the "Yellow Pages" under the heading "Plastic Materials" for nearest Distributor.

FILON[®]
PLASTICS CORPORATION

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270 Park Avenue, New York 17, New York
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55 Marietta Street, N.W., Atlanta 3, Georgia

DISTRIBUTORS AND DEALERS WITH WAREHOUSE STOCKS COAST TO COAST, CANADA AND MANY OTHER FOREIGN COUNTRIES

Only Yale* offers a fine
pin tumbler lockset with
the price and features of...



BRANDYWINE

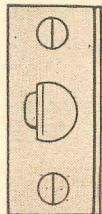
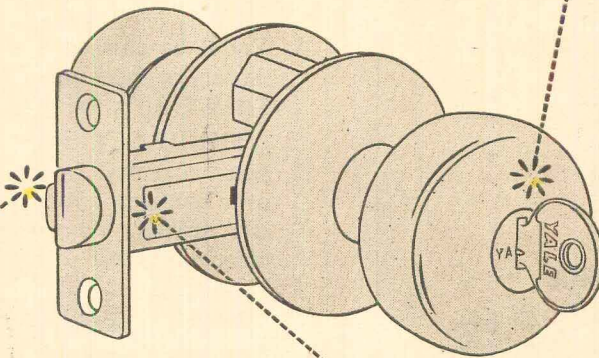
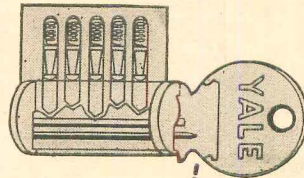
LITCHFIELD

Yale 5200

KEY-IN-KNOB LOCKS

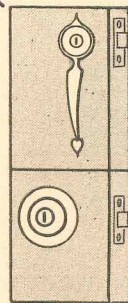
Only Yale gives pin tumbler security

in its price class. And along with this security, offers newly styled knobs. The Yale 5200 may be had in two smart new designs, Litchfield or Brandywine—for contemporary or traditional architecture.



Only Yale gives a deadlocking latch bolt

in its price class. Only Yale 5200 provides an automatic deadlocking latchbolt—for entrance doors with unusual turn and push button locking...another measure of the unusual value this new Yale 5200 lockset offers.



Only Yale gives unlimited backset

in its price class. Only Yale 5200 offers a wide range of backset extensions, 5-8-10-18 inches. Backset lengths are easy to achieve—just join an extension link of desired length to standard lock unit. Yale 5200 is singularly easy and economical to install.



WILLIAMSBURG



NEWPORT



MADISON



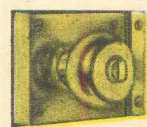
SAVOY



DALLAS



NORFOLK



WILLIAMSBURG

choice of Yale distinctive trim styles

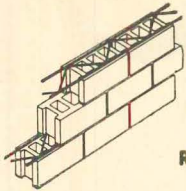
Yale 5200 offers a particularly attractive choice of knob designs with many harmonious escutcheon trims to lend hardware beauty to homes you build.

YALE & TOWNE

THE YALE & TOWNE MANUFACTURING CO.,
LOCK & HARDWARE DIV., WHITE PLAINS, N. Y.
*YALE REG. U. S. PAT. OFF.

DUR-O-WAL

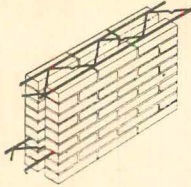
**Backbone of Steel
for EVERY Masonry Wall**



**RUNNING
BOND**

BEAUTY

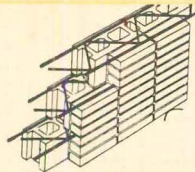
Dur-O-wal prevents the development of cracks, assures years-ahead beauty for any masonry structure you build



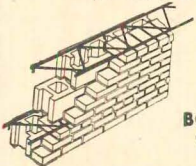
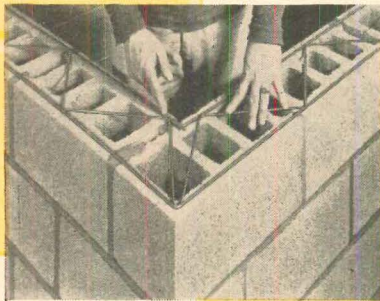
**CAVITY
WALL**

ECONOMY

Investing a few pennies in Dur-O-wal now can save hundreds of dollars later on . . . by eliminating high labor and materials costs on call-backs for crack-repair and patchwork.



**TIED
WALL**



**BONDED
WALL**

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Customer . . . Builder . . . Architect satisfaction from coast to coast. Dur-O-wal stands the test of time in America's finest masonry architecture.

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Dur-O-wal Div., Cedar Rapids Block Co., CEDAR RAPIDS, IA. Dur-O-wal Prod., Inc., Box 628, SYRACUSE, N.Y. Dur-O-wal of Ill., 119 N. River St., AURORA, ILL. Dur-O-wal Prod. of Ala., Inc., Box 5446, BIRMINGHAM, ALA. Dur-O-wal Prod., Inc., 4500 E. Lombard St., BALTIMORE, MD. Dur-O-wal Div., Frontier Mfg. Co., Box 49, PHOENIX, ARIZ. Dur-O-wal, Inc., 165 Utah St., TOLEDO, OHIO

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drives like a nail...
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you can use.



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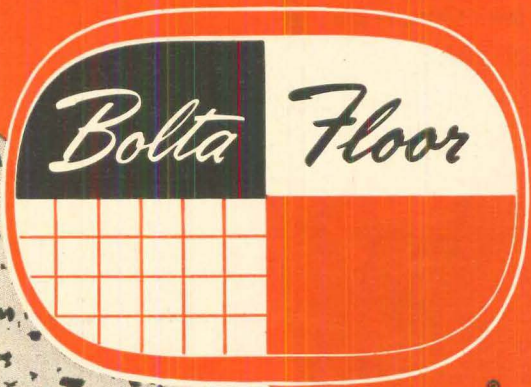
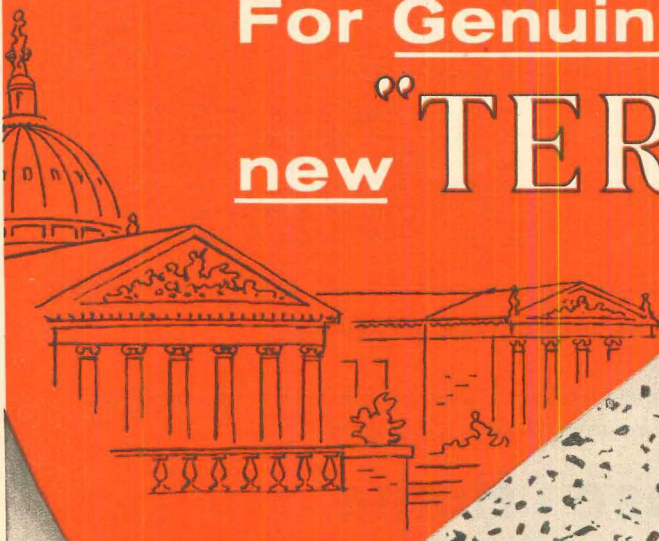
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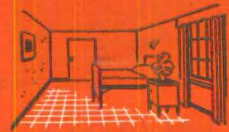
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in every tile
of *Bolta Floor*...
stays beautiful longer
...with or without wax!

Also available in
22 marbled
and solid colors!

Here is the rich, authentic beauty of old-world terrazzo—in wonderful, modern, "soft-to-the-step" Bolta-Floor vinyl tile! Bolta-Floor is a high-content, *homogeneous* vinyl floor tile that assures longest wear and lowest possible maintenance costs. Bolta-Floor will keep its gleaming beauty through years of hard use!

"Terrazzo" Bolta-Floor is produced in 15 beautiful decorator colors—and in 6 x 6, 9 x 9, 12 x 12 and 18 x 18 tile sizes ($\frac{1}{8}$ " or .080" gauge).

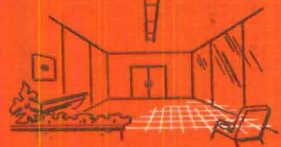
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to fit any size and shape. Easily installed, windows are said to last the life of the house and don't require maintenance. Industrial floor mats of lightweight sponge neoprene are described in another report about comfort and safety underfoot.

551. Airline Home Heating and Conditioning Equipment. Ingersoll Conditioned Air Div., Borg-Warner Corp., Dept. HH, 760 E. Vine St., Kalamazoo, Mich. 30 pp. A redesigned line of heating, cooling equipment in a complete catalogue file.

New line features coal, oil and gas furnaces in a wide variety of capacities and styles. Air-cooled and water-cooled air conditioners are new. There are also conversion burners, incinerators, gas and electric hot-water heaters.

552. Corbin Locksets. P. & F. Corbin Div., American Hardware Corp., Dept. HH, New Britain, Conn. 4 pp. Cylindrical lock sets in wrought brass, bronze or aluminum with design details, sketches, descriptions, specifications.

PRODUCTS AND PUBLICATIONS COUPON

For more information on new products and publications in this September issue check key numbers below and mail to:

House & Home

9 Rockefeller Plaza, New York 20, N.Y.

NEW PRODUCTS

- a. General Cable Co. line wire.....
- b. Jaco fuel line and fittings.....
- c. E-Z Roll hardware.....
- d. Electro-Mode heating wire.....
- e. Colonial Plastics standpipe.....
- f. Bulldog Electric Prod. wiring duct strip.....
- g. Aljon insulation jacketing.....
- h. United Cork laminated sandwich panels.....
- i. Warren-Magnuson shower head.....
- j. Elastic Stop-Nuts.....
- k. Amtico vinyl tile.....
- l. General Tire & Rubber Co. vinyl tile.....
- m. Lam-O-Wall covering.....
- n. Robbins metaltone tiles.....
- o. Bolta wall tile.....
- p. Studio Brick vinyl sheet.....
- q. Alsynite "Steplap".....
- r. Commodore Industries Rend-O-Lite.....
- s. Goodrich window sash.....
- t. Universe Products plastic screen.....
- u. Luminous ceilings.....
- v. Woodall plastic laminate.....
- w. Olin Mathieson polyethylene film.....
- x. Bruce Vapo-Chek.....
- y. Sisalkraft Moistop.....
- z. Progress Unlimited Plasti-grip.....
- aa. Foamflex Doorstrip.....
- bb. Miracle Adhesives "Protektinsul".....
- cc. Concrete Vitricon finish.....
- dd. Styrox masonry coating.....
- ee. Nat'l. Gypsum Acoustimetal.....
- ff. Carey Fire-Chex '400.....
- gg. Grant Pulley & Hardware Rocket 6000.....
- hh. St. Charles storage wall.....
- ii. GE "K" frame center.....
- jj. Western-Holly Kook-Center.....
- kk. Ready Hung sliding door unit.....
- ll. Proctor wall jack.....
- mm. L-O-F home insulation.....
- nn. Basmor gas-fired incinerator.....
- oo. Westinghouse air conditioner.....
- pp. Mitchell air conditioner.....
- qq. Federal packaged boiler.....
- rr. Myers Ejecto pump.....
- ss. Portmar prepackaged boiler-burner.....

TECHNICAL PUBLICATIONS

- 525. Bolta-Wall.....
- 526. Bakelite plastics.....
- 527. Bakelite ABC's of plastics.....
- 528. Alsynite fiberglass panels.....
- 529. Modular Plastics.....
- 530. Goodrich House of Today.....
- 531. Lynch idea file.....
- 532. Olin polyethylene.....
- 533. Weldwood Kalistron.....
- 534. Zonolite insulating plastic.....
- 535. Haskelite insulation.....
- 536. L-O-F Corrugulux panels.....
- 537. Modular Fiberglass panels.....
- 538. Wascoseal flashing.....
- 539. Plastimode interlocking strips.....
- 540. Rohm & Haas plexiglas.....
- 541. Marvinol vinyls.....
- 542. Colorcraft plastic panels.....
- 543. Dox plastics.....
- 544. General Plastics Vista-Glo ceilings.....
- 545. Kelsunite panels.....
- 546. Kerber polyplastex.....
- 547. Viertex fabrics.....
- 548. Jaylis screens.....
- 549. Insul-pipe.....
- 550. Neoprene notebook.....
- 551. Ingersoll heating equipment.....
- 552. Corbin locksets.....

* For information about unlisted Technical Publications see below.

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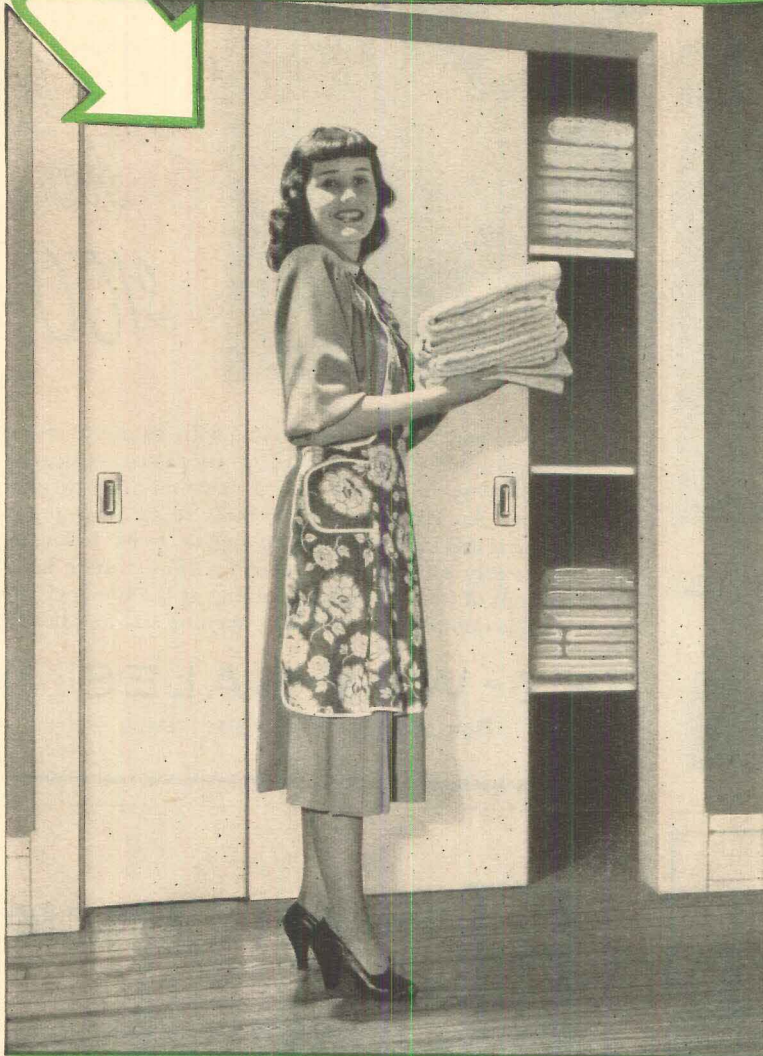
National

SLIDING DOOR HARDWARE

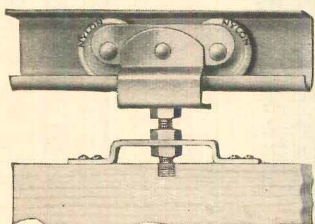
*Designed exclusively for
smart interiors!*

Saves valuable floor space with by-passing doors or doors sliding into their own recessed pockets. More artistic placement of furniture and wall decorations are possible too with this streamlined, modern method of door manipulation for connecting rooms, wardrobes and closets.

Architects, builders and home owners alike are most enthusiastic about the NATIONAL Sliding Door Hardware because both hangers and track serve every thickness of door. Special floor guides, bumpers and pulls have been designed to serve these new type sliding doors.

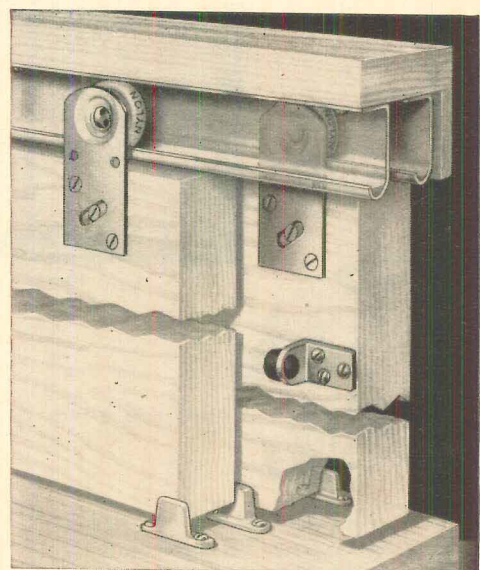


Made in two styles, either with a single large Nylon wheel $1\frac{3}{8}$ inches in diameter or the tandem style with its exclusive adjustable feature. Wheels glide freely and silently without the need of lubrication.



No. 185 Sliding Door Hanger
Adjustable

Track is made of heavy 16 gauge Steel, Hot Galvanized and is furnished in lengths of 44, 56, 60, 68 and 92 inches.



View showing complete assembly of No. 182

National

MANUFACTURING COMPANY

Sterling,
Illinois

The pump for suburban builders

McDonald's Adapto-Jet

- * Helps you sell more houses
- * Helps your reputation
- * Helps you hold to estimates

If water level drops in a well, the home owner converts the McDonald Adapto-Jet from shallow to deep well use with one simple change — nothing extra to buy.

Home buyers appreciate this convenience. Use it as a selling point. And you get no complaints about a poor water system if the well level drops . . . protects your valuable reputation.

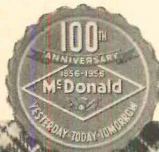
The Adapto-Jet helps you hold to estimates, too. You don't have to add to pump cost if you estimate a shallow well and later find you have to drill below 25 feet to hit water. The pump works equally well with deep or shallow wells.



McDonald's Adapto-Jet is available in 1/3 and 1/2 HP sizes. Complete water systems furnished with 6 gal. (illustrated), 10, 25 gal. and larger pressure tanks.



Send a post card to the address below for complete information on McDonald's Adapto-Jet pump.



1956 is McDonald's 100th year of business—your assurance of quality and dependability.

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Pumps • Brass Goods • Oil Equipment



How to Enlarge Your House

for less than

\$100.00



Now you can convert that wasted attic to useful storage space for as little as \$50. No ceiling alterations are necessary with the new EZ-Way folding stairways—custom-made to your specifications. An EZ-Way can be built to fit your present attic opening if it is 22 3/8" to 36" wide and 45" to 62" in length. Eliminates costly alterations to opening. The sturdy EZ-Way retracts out of the way into the ceiling at the touch of your hand. For price quotation send ceiling opening size and height to:

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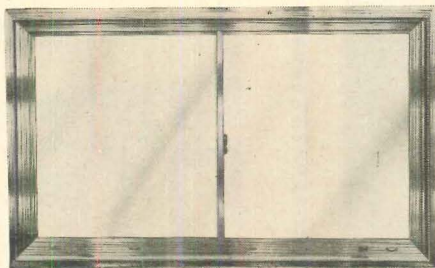
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PRIME ALUMINUM HORIZONTAL SLIDING,
PICTURE AND DOUBLE HUNG WINDOWS



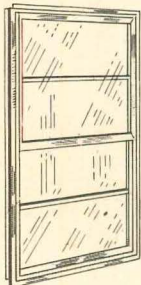
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FOR WOOD-BUCK
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All priced right . . . and each with exclusive features that will sell your homes like magic!

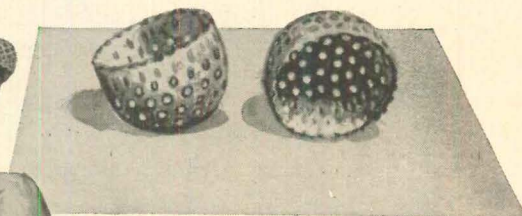
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Product . . . Catalogues . . . Specifications and Cost Information . . . and name of your nearest distributor TODAY

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A New Kind of Louver

. . . the Midget Thimble lets air into places no other louver can reach, protects paint, wood and metal from excess heat and moisture.

Thimble Louvers are always used with regular Midget Louvers, feature same easy push-in installation, hold securely without nails or screws. Perforated design is insectproof, won't clog when painted.

Midget Louver's standard line now offers chrome, anodized, copper, and aluminum in 1, 1 1/2, 2, 2 1/2, 3, 4, and 6 inch sizes.

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6 WALL STREET • NORWALK, CONNECTICUT

designed for builders



Whirlpool

NEW...ALL NEW GAS AND ELECTRIC BUILT-IN RANGES

New RCA WHIRLPOOL built-in gas and electric ranges give your homes the "distinctive difference" that clinches sales much faster. Here is the more convenient cooking . . . the eye-catching beauty . . . women demand in their new homes. For everything is placed at easy "stand-up" work level. Even the cooking areas, using either 2-burner or 4-burner units, can be located *exactly* where used most to save steps. And the smart styling — in copper-tone, stainless steel or white porcelain finishes — blends with every decorating style.

New RCA WHIRLPOOL built-in ranges were designed to your requirements . . . to provide the automatic cooking performance, and modern look that help sell your homes.



Whirlpool

NEW...ALL NEW FULLY-AUTOMATIC WASHER and DRYER

Now . . . the most famous name in home laundering gives you a new sales plus for your new homes. RCA WHIRLPOOL Custom "24" washer and dryer (gas or electric) are designed, styled and engineered *exclusively for builders*.

They are big, family-size units that fit *every* size home. Both washer and dryer require a space less than 49" wide. For really limited space, they can even be made portable. And, you have the outstanding quality laundering features women want . . . Suds-Miser®, Seven Rinses, 2-Temp water selection, safe all-fabric washing and drying.


These new RCA WHIRLPOOL Custom "24" washers and dryers provide the extra margin of value that makes "For Sale" become "Sold" easier and quicker.

NEW BUILDER PURCHASING PLAN

Whirlpool-Seeger makes it economical and easy to add the sales power of RCA WHIRLPOOL home appliances to *all* your new homes. Contact your RCA WHIRLPOOL distributor now for complete details.



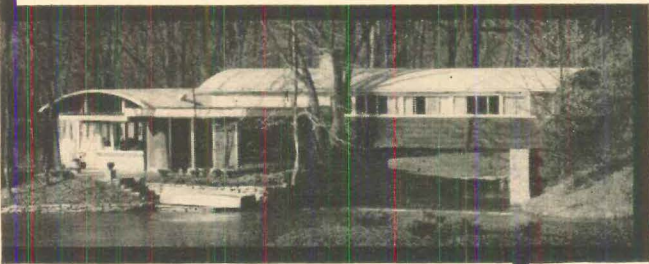
RCA WHIRLPOOL HOME APPLIANCES are products of
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WASHERS, DRYERS, IRONERS, FREEZERS, RANGES,
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It's easier to sell homes equipped with RCA WHIRLPOOL Appliances

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Architects: Robert A. Little & Assoc. Photo by R. Marvin Wilson

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Qualified architects have long recognized how effectively the flush, trim lines of **PETERSON WINDOWS** carry from drawing board to actual job site. Engineered for lifetime durability and designed for carefree, maintenance-free use, **PETERSON** quality windows represent a modest cost for a lifetime investment.

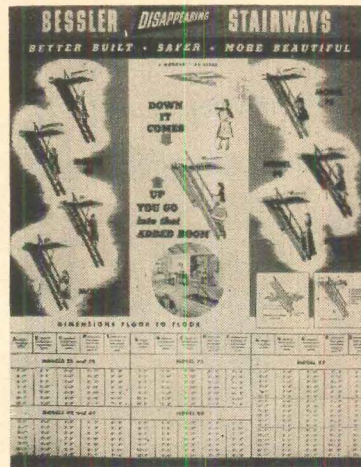
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Here's a real 24-hour-a-day salesman for the famous line of Bessler Disappearing Stairways. Hang it anywhere in plain sight, for ready reference by you and prospects. Seven Bessler models to meet any home building or remodeling need.

Millions of Bessler units now in use. Millions of homes, outbuildings, offices, commercial establishments need this efficient stairway. There's a big market for you in your community! Popular prices!

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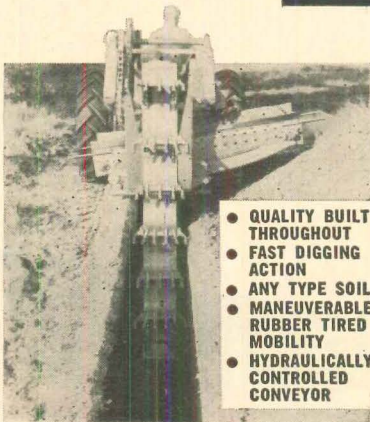
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Here's real trench sense! . . . the answer to hundreds of building requests for a tractor-driven trencher that will do a big digging job at a sensible price. It's the compact, rugged, and versatile Everett Model 60 Trencher that operates from the power takeoff of the tractor—raised and lowered by built-in hydraulic system. It has the smooth operation of the wheel type trencher and the vertical advantages of the ladder type—digging close to buildings, curbs, pipes—ideal for pipeline inspection.



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- HYDRAULICALLY CONTROLLED CONVEYOR

Write today about another proven



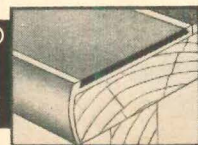
The Everett Trencher Model S Series EQUALS THE WORK OF 25 PICK AND SHOVEL MEN.

EARTH EQUIPMENT CORPORATION
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- Please send full information on new Model 60 Everett Trencher
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Wherever there are stairs . . . you can eliminate slipping hazards and preserve architectural beauty with TUFF-TRED Safety Stair Nosings. Constructed of polished extruded aluminum with an anti-slip replaceable filler, TUFF-TRED (3" wide x 1 3/16" high) can be used in conjunction with resilient floor covering of 3/32", 1/8" and 3/16" thickness. Colors—tile red, green, silver and black. Write for free literature. Goodloe E. Moore, Incorporated, Danville 34, Illinois.



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simple addition for air conditioning profits

**Utility
Weatheramic
remote
air cooled
systems**

Every home with any make of forced air furnace is a prospect for Utility's remote air cooled air conditioning units. They're easy to sell because they're economical and easy to install because they come with $\frac{3}{8}$ " pre-charged lines and tubing in 20 to 50-foot lengths.

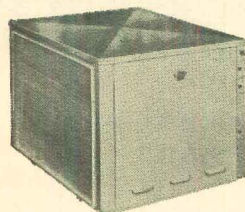
Featuring extra-large blowers for greater cooling capacity, the condensing units come in Economy 2-ton, 2-ton, 3-ton and 5-ton sizes.

The evaporator units in 2, 3 and 5-ton sizes contain double (A-type) oversize evaporation coils adaptable to upflow and counterflow type furnaces.

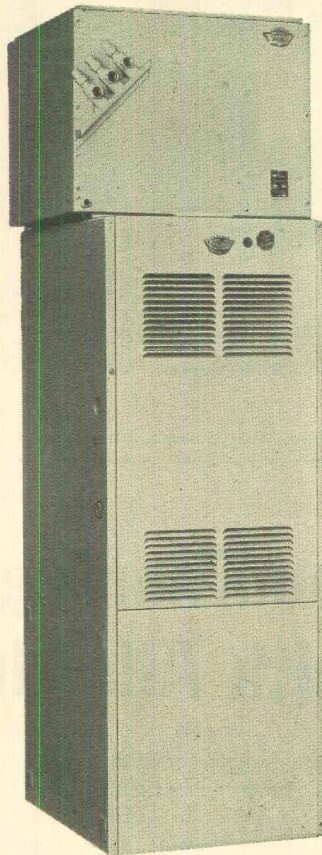
Single coils for horizontal application in attic, basement or crawl space are also available.

Utility remote air cooled units are adaptable to all upright, horizontal and counterflow forced air furnaces. With factory prewiring and other simplified installation features, you can add greater air conditioning profits by using Utility Weatheramic units.

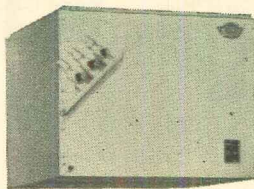
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**REFRIGERATION
(condensing) UNIT**
INSTALLS OUTSIDE HOUSE



**AN UPRIGHT FURNACE WITH
EVAPORATOR ON TOP**



**COOLING
(evaporator) COIL**
INSTALLS ON TOP OF FURNACE

Weatheramic LINE

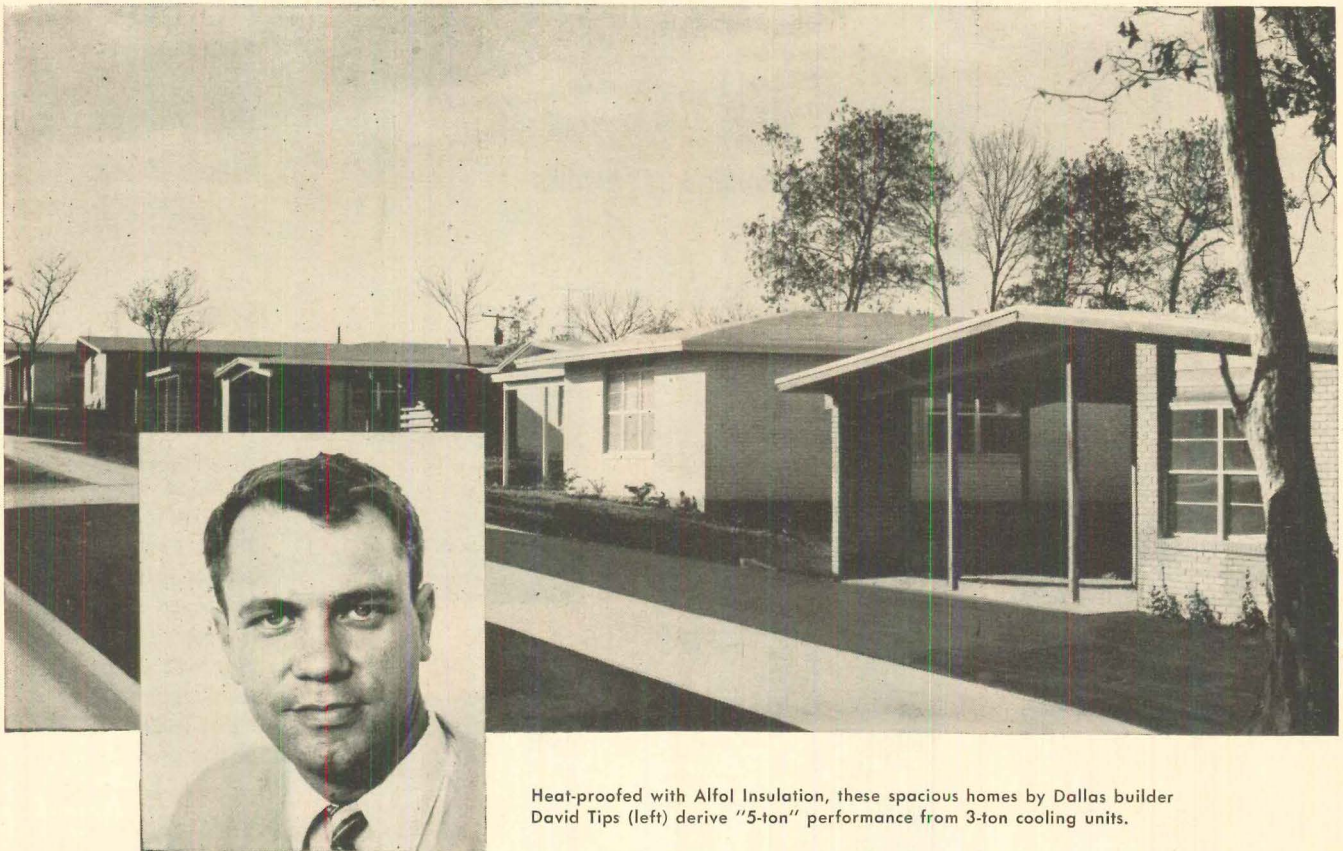


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Heat-proofed with Alfol Insulation, these spacious homes by Dallas builder David Tips (left) derive "5-ton" performance from 3-ton cooling units.

Reduces air conditioning costs \$400 per home with Alfol Insulation!

By boosting air conditioning efficiency with Alfol Aluminum Foil Insulation, Dallas builder David Tips gives his customers year-round comfort in a home they can afford.

Cooling load cut

"Our homes," writes builder Tips, "are big even for Texas. But with Alfol Insulation in walls and ceiling, our needs are met (with capacity to spare) by a 3-ton cooling unit. Having priced 5-ton jobs, we figure Alfol saves us roughly \$400 per house!"

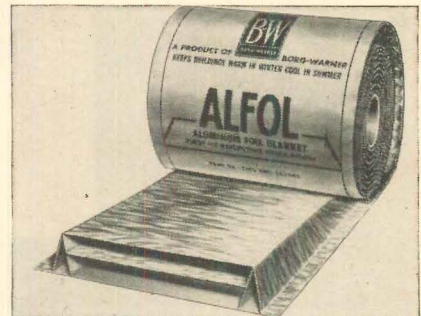
A designer as well as builder, Mr. Tips knows that Alfol is better for him, better for the customer. Its superior year-round efficiency, along

with its protection against condensation, makes for better construction all around.

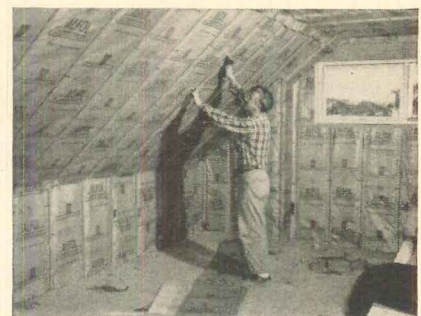
Used with air conditioning, Alfol often cuts tonnage requirements . . . insures low cost operation. Used independently, it makes a difference your prospects can feel . . . provides summer comfort second only to mechanical cooling itself!

Free data book

Why not investigate Alfol for your next job. For comprehensive information as to efficiency, application, availability and cost, send for your free copy of the new 24-page Alfol data book. No cost or obligation.



The Alfol blanket. Self-spacing aluminum foil sheets combine reflectivity and "dead air" to afford finest heat-barrier known.



Installation of Alfol is rapid, positive, almost foolproof. Staple both flanges and blanket expands automatically!

ALFOL

ALUMINUM FOIL INSULATION

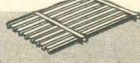
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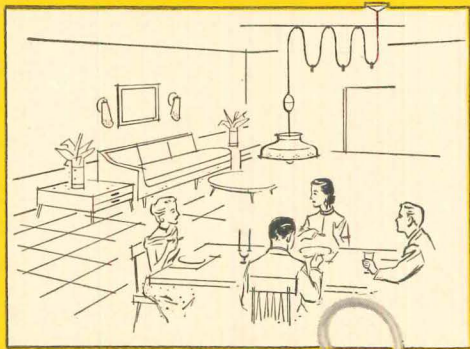
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NEW!

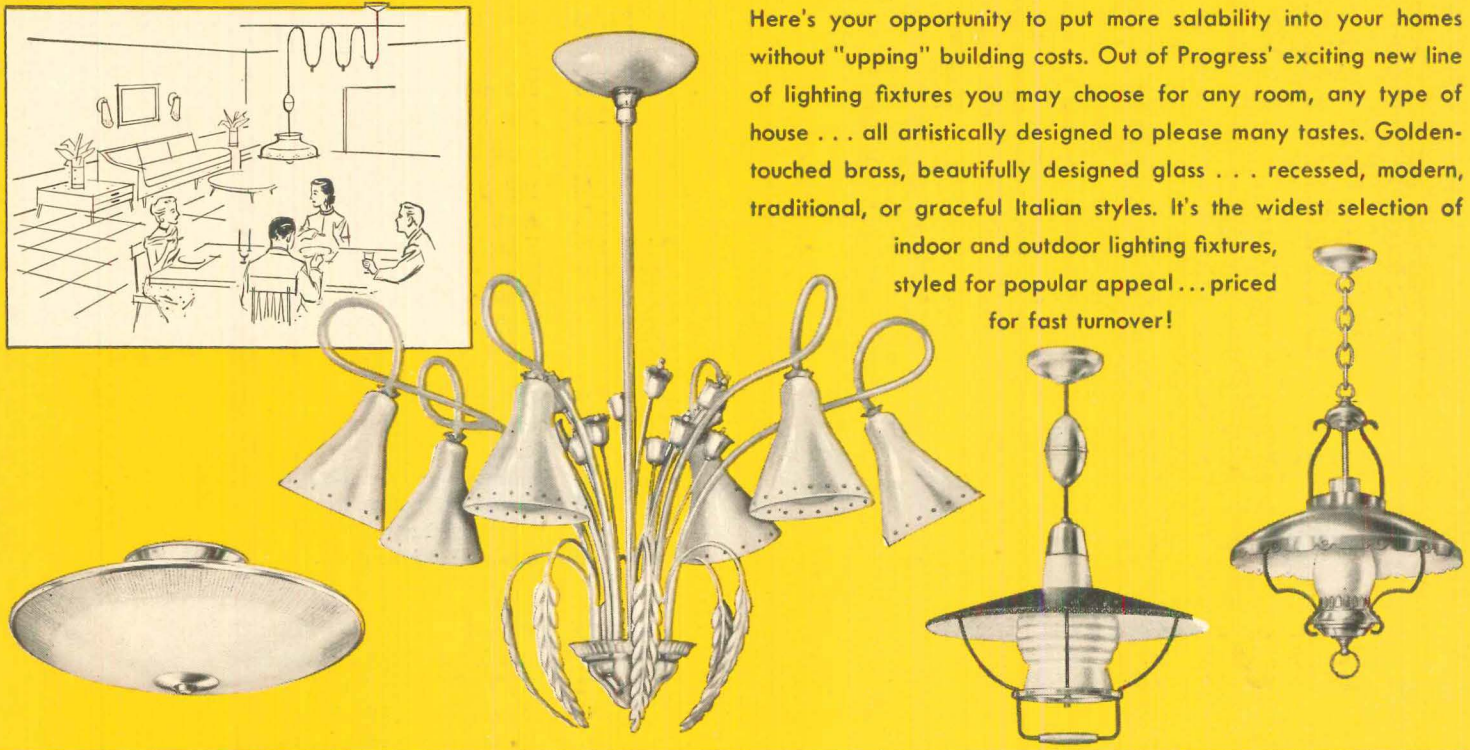
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BUILD MORE HOME SALES**

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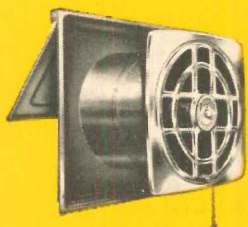


NEW!

Power Vent Ventilating Fans and Range Hoods

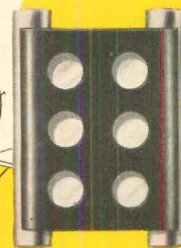


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NEW!

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Handsomely styled, they include Hi Fidelity chimes in bone white or brass, as well as recessed electric clock chimes. Also repeating chimes in wood, copper, brass and other special finishes. Feature them—for a real sales-plus!

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PHILADELPHIA 34, PA.**

PROGRESS MANUFACTURING CO.
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- Lighting Fixtures
- POWER VENT Ventilating Fans and Range Hoods
- Door Chimes



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Advertisers index:

Page:		Page:	
96, 97	Ador Sales, Inc.	58	Goodrich Company, B. F. (<i>Flooring Division</i>)
195	Allied Chemical & Dye Corp. (<i>The Barrett Division</i>)	200	Grant Pulley & Hardware Co.
202	Aluminum Co. of America	229	Great Lakes Carbon Corp. (<i>Perlite Division</i>)
13	American Brass Co.		
191	American Hardware Corp. (<i>Russell & Erwin Division</i>)	20	Hall-Mack Co.
113, 114, 115, 116	American Home Magazine Corp.	16, 17	Harbor Plywood Corporation
263	American Kitchens Div. Avco Mfg. Corp.	22	Harnischfeger Homes, Inc.
254	American Sta-Dri Company	55	Harris Mfg. Co.
102, 103	American-Standard Corporation (<i>Plumbing & Heating Division</i>)	194B, 255, 274	House & Home
226A, B, C, D	American Steel & Wire Division (<i>United States Steel Corp.</i>)	270	H-P Products, Inc.
36A	American Telephone & Telegraph Co.	26, 27	H. C. Huber Construction Co., Inc.
80, 81, 240, 241	Andersen Corp.	92, 93	Insulite Division (<i>Minnesota & Ontario Paper Co.</i>)
98	Arco Company, The		
104, 105, 208, 209	Armstrong Cork Co.	39	Johns-Manville
213	Arrow-Hart & Hegeman Electric Co., The	256	Just Mfg. Co.
175, 177, 179, 181, 183, 185, 187	Bakelite Co. (<i>Division of Union Carbide & Carbon</i>)		
195	Barrett Division, The (<i>Allied Chemical & Dye Corp.</i>)	40	Kelvinator Div. American Motor Corp.
232	Bendix Moldings, Inc.	264	Kennatrack Corp.
214	Besser Company	192, 193	Kennecott Copper Corp.
274	Bessler Disappearing Stairway Co.	88, 194B	Kentile, Inc.
206	Blue Ridge Glass Corp.	260, 261	Keystone Steel & Wire Co.
204	Bostitch, Inc.	5	Kwikset Sales & Service Co.
36	Brammer Manufacturing Co.		
244B, 244C	Briggs Mfg. Co.	198	Lawyers Title Insurance Corporation
228	Broan Manufacturing Co., Inc.	37	Libbey Owens Ford Glass Co.
238	Brown & Co., Inc., George C.	110	Life
74A	Bruce Co., E. L.	194	Line Material Co. Division of McGraw Electric Co.
18	Bryant Division (<i>Carrier Corporation</i>)	106B	Living for Young Homemakers
222	Bull Dog Electric Products Co.	48	Long-Bell Lumber Company
		19	Louisville Cement Co.
223	California Redwood Association		
52	Caloric Appliance Corp.	89	Masonite Corp.
245	Carpet Institute, Inc.	244A	Mastic Tile Corp. of America
234, 235	Carr, Adams & Collier	272	McDonald Mfg. Co., A. Y.
32, 33	Carrier Corp.	258	Meadows, Inc., W. R.
226	Case & Son Mfg. Co., W. A.	257	Midcontinent Adhesive Company
227	Ceco Steel Products Corp.	272	Midget Louver Co.
8, 9	Chase Brass & Copper Co.	112	Minneapolis-Honeywell Regulator Co.
230, 231	Combustion Engineering, Inc. (<i>Home Equipment Div.</i>)	35, 243	Monsanto Chemical Co.
224	Connor Engineering Corp.	274	Moore, Inc., Goodloe E.
60, 61	Crane Co.	12	Mosaic Tile Co., The
56, 57	Curtis Companies Service Bureau		
		6	National Concrete Masonry Assn.
2	Douglas Aircraft Co., Inc.	67, 210, 211	National Electrical Mfrs. Assn.
201, 203, 205, 207	Douglas Fir Plywood Assoc.	74B, 248, 248A	National Gypsum Co.
50, 51	Dow Chemical Co., The	Cover IV	National Homes Corp.
268	Dur-O-Wal	225	National Lock Company
216	Dwyer Products Corp.	271	National Mfg. Co.
		10, 11	National-U. S. Radiator Corporation
274	Earth Equipment Corporation	233	New Castle Products, Inc.
Cover III	Eljer Co.	3	Nudor Mfg. Corp.
252	Elkay Mfg. Co.	Cover II, 1	Nutone, Inc.
272	Ez-Way Sales Inc.		
		264	Onan & Sons, Inc., D. W.
277	Filon Plastics Corporation	190	Orangeburg Mfg. Co., Inc.
212	Fleet of America, Inc.	218, 219	Overhead Door Corp.
78	Flintkote Co., The	259	Owens Corning Fiberglas Corp.
66	W. P. Fuller & Co.		
		36B	Parkay Division (<i>Wood Mosaic Co.</i>)
31, 99,		14	Pease Woodwork Company (<i>Pease Homes Division</i>)
246, 247	General Electric Co.	229	Perlite Division (<i>Great Lakes Carbon Corp.</i>)
238	General Tire & Rubber Co., The (<i>Jeannette Division</i>)	274	Peterson Window Corp.
269	General Tire & Rubber Co., The (<i>Bolta-Floor Division</i>)	68, 69	Pittsburgh Plate Glass Co.
220	Geneva Modern Kitchens	90	Plyco Corporation
196, 197	Georgia-Pacific Plywood Company	106A	Pomona Tile Mfg. Co.
232	Glass Shower Door Co., Inc.	95	Portland Cement Association
244D	Gold Seal Division (<i>Congoleum-Nairn, Inc.</i>)	265	Progress Manufacturing Company
		173	Pyramid Instrument Corp. (<i>Remcon a Division of</i>)

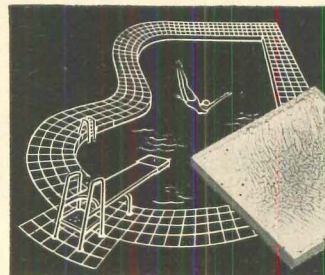
Page:	
268	Ramset Fastening System (<i>Shure-Set</i>)
62	Ready Hung Door Corp.
4	Red Cedar Shingle Bureau
276	Reflectal Corp. (<i>A Subsidiary of Borg-Warner Corp.</i>)
173	Remcon Division (<i>Pyramid Instrument Corp.</i>)
94	Remington Arms Co., Inc.
100, 101	Republic Steel Corp.
262	Revco, Inc.
42, 43	Revere Copper & Brass, Inc.
86, 87, 188, 239	Reynolds Metals Co.
15	Rheem Mfg. Co.
76, 77	Richmond Radiator Co.
30	Rilco Laminated Products, Inc.
242	Roberts Mfg. Co.
24, 25	Rolscreen Co., The
7	R.O.W. Sales Co.
21	Ruberoid Co., The
191	Russell & Erwin Div. (<i>The American Hardware Corp.</i>)
73	St. Charles Manufacturing Company
280	Samuel Stamping & Enameling Co.
28, 29	Sargent & Co.
23	Schlage Lock Co.
262	Schlegel Manufacturing Company
242	Shure-Set (<i>Ramset Fastening System</i>)
91	Smith Corp., A. O.
221	L. Sonneborn Sons, Inc.
254	Sonoco Products Co.
279	Summitville Tiles, Inc.
46, 47	Tappan Stove Co., The
82	Temco, Inc.
228	Timber Engineering Co.
75	Trimview Metal Products Co.
175, 177, 179, 181, 183, 185, 187	Union Carbide & Carbon Corp. (<i>Bakelite Corp., Div.</i>)
107, 108, 109	Unique Balance Company, Inc.
84, 85	United States Gypsum Co.
236, 237	United States Plywood Corp.
226A, 226B, 226C, 226D	United States Steel Corp. (<i>American Steel & Wire; Division of</i>)
90A, B, C, D	United States Steel Homes, Inc.
111	Upson Co., The
275	Utility Appliance Corp.
256	Valley Metal Products Co.
106	Van-Packer Corp.
90	Ventaire Company
217	Visking Corp., The
83	Wasco Products, Inc.
70	Washington Steel Products, Inc.
74	Weatherstrip Research Institute
272	Weather Wizard Aluminum Mfg. Corp.
215	Western Lock Mfg. Co.
194A	Weiser Co.
54	Welbilt Corporation
38, 199	Westinghouse Electric Corp.
34	Weyerhaeuser Sales Co.
273	Whirlpool-Seeger Corporation
255	White-Rodgers Electric Company
242	Whizzer Industries, Inc. (<i>Glidemaster Div.</i>)
244	Wiegand Co., Edwin L.
250, 251	Winter Seal Corporation
253	Woodall Industries, Inc.
64, 65	Wood Conversion Co.
36B	Wood Mosaic Co. (<i>Parkay Division</i>)
72	Worthington Corporation
266, 267	Yale & Towne Mfg. Co., The
189	Zegers, Inc.

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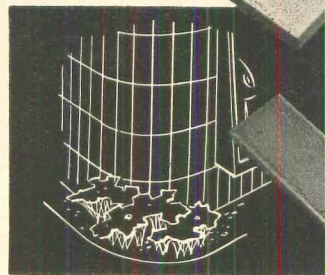
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pools



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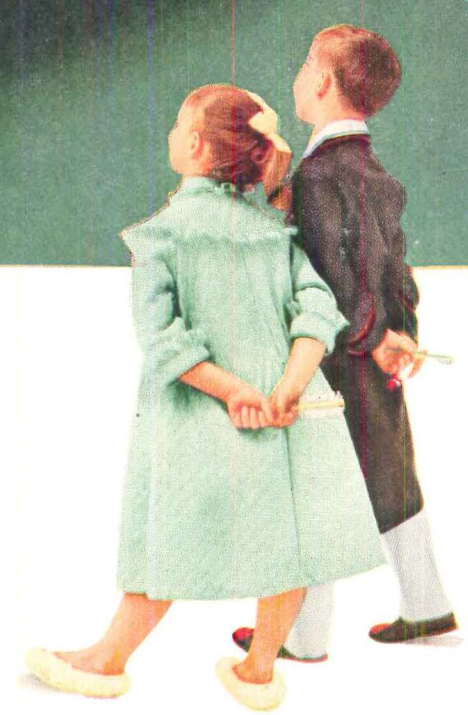
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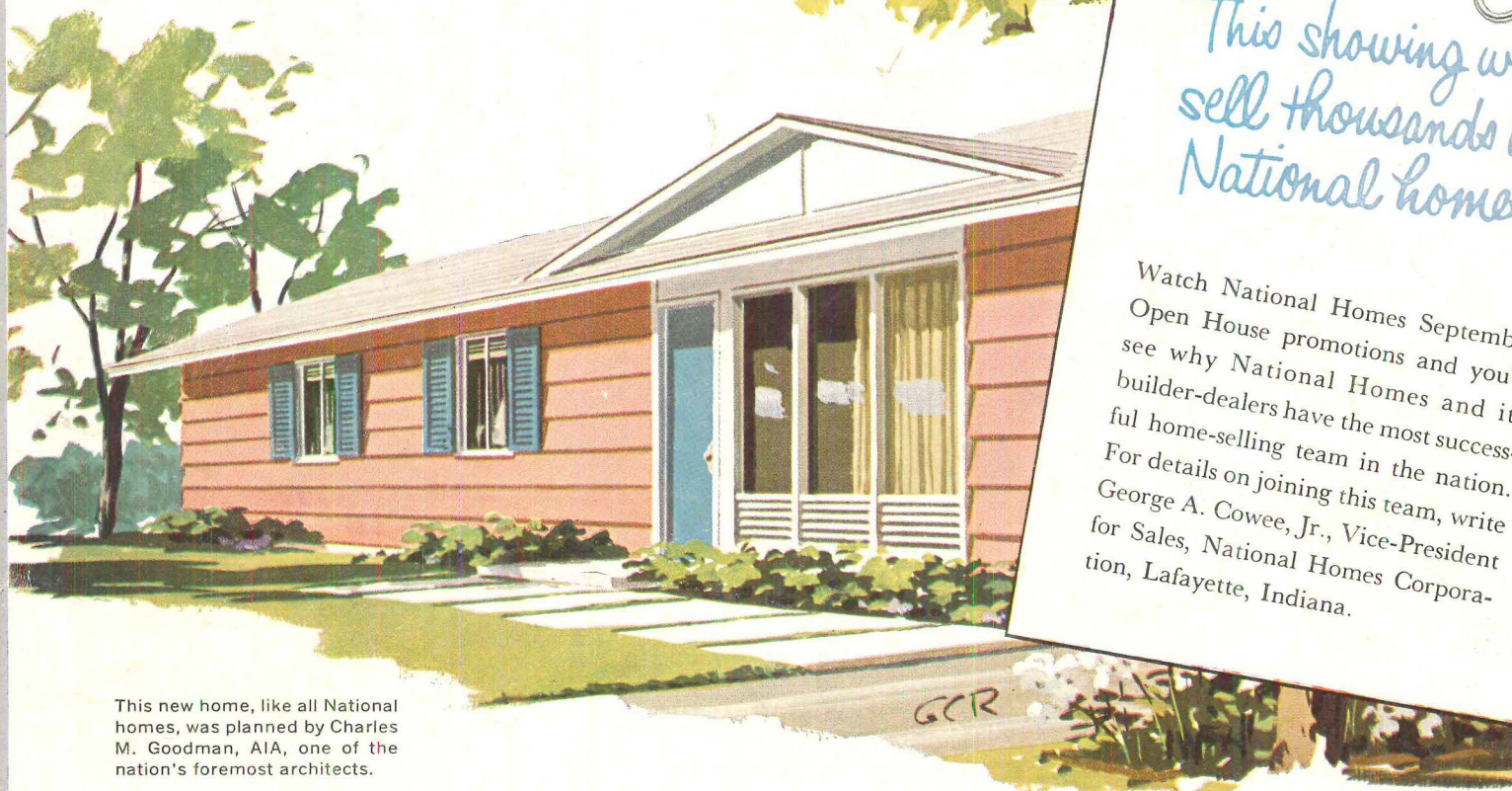


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*This showing will
sell thousands of
National homes!*

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Come see the
Added Living and Dining Space now featured

... by National Homes Builder-Dealers at Open House showings beginning September 8. These are preview celebrations of the 100,000th National home, an achievement never before attained in the building industry. Watch your local newspaper for time and location of the Open House nearest you.

* Elmo Roper, the nationally known public opinion analyst, reported in a recent survey: "In our experience, no product has had a higher percentage of customer approval than National homes." In October, the 100,000th family will occupy their new National home.



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