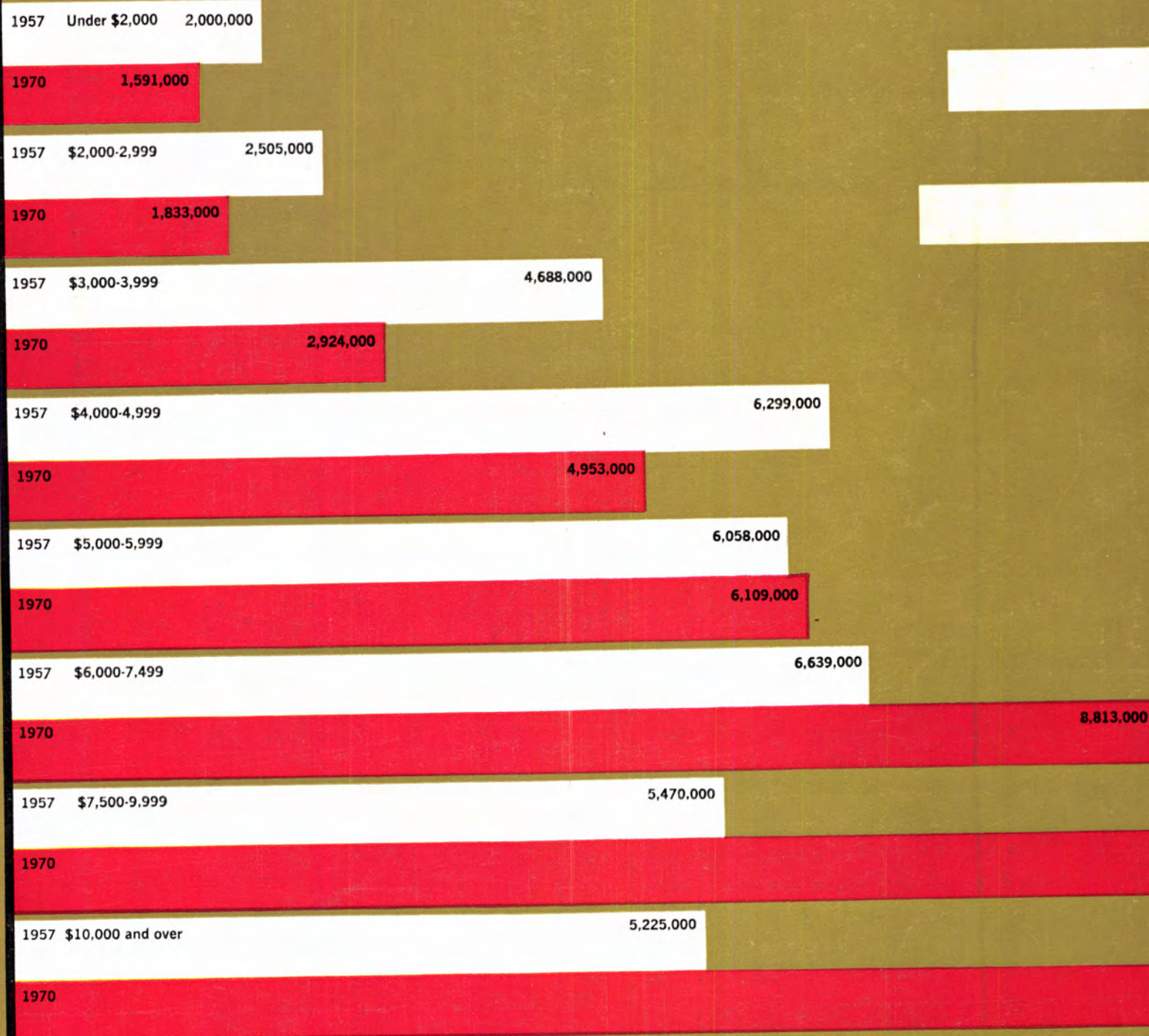


House & Home

JANUARY 1960 SIX DOLLARS A YEAR—ONE DOLLAR A COPY



Families in each income bracket (after taxes)



This is the market for the Golden Sixties...

Big changes the Sixties will bring
 Round Table: where will the money come from?
 How to make more sales in today's tough market
 New Ways and New Products to build better for less

NEWS BEGINS ON PAGE 55
 COMPLETE CONTENTS, PAGE 119

NEW

NUTONE "TRIPLE-AIRE"[®] KITCHEN VENTILATING SYSTEM ... NO DUCT-WORK NEEDED!

The TRIPLE-FILTER VENTILATING SYSTEM FOR APARTMENTS AND REMODELING

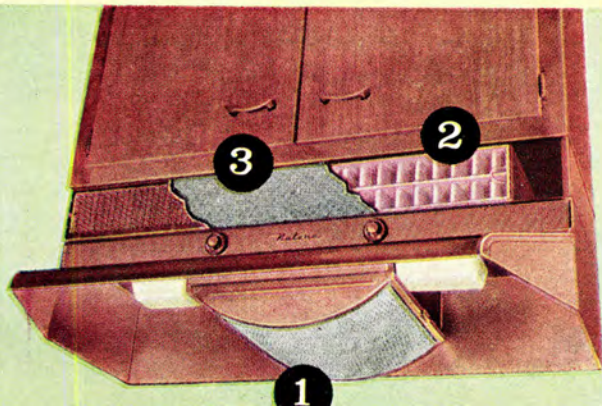


NuTone's Independent
Filter Attachment
Combines with
NuTone's 3000 Series
Range Hood-Fan

For the Triple-Aire
Non-Ducted Hood-Fan

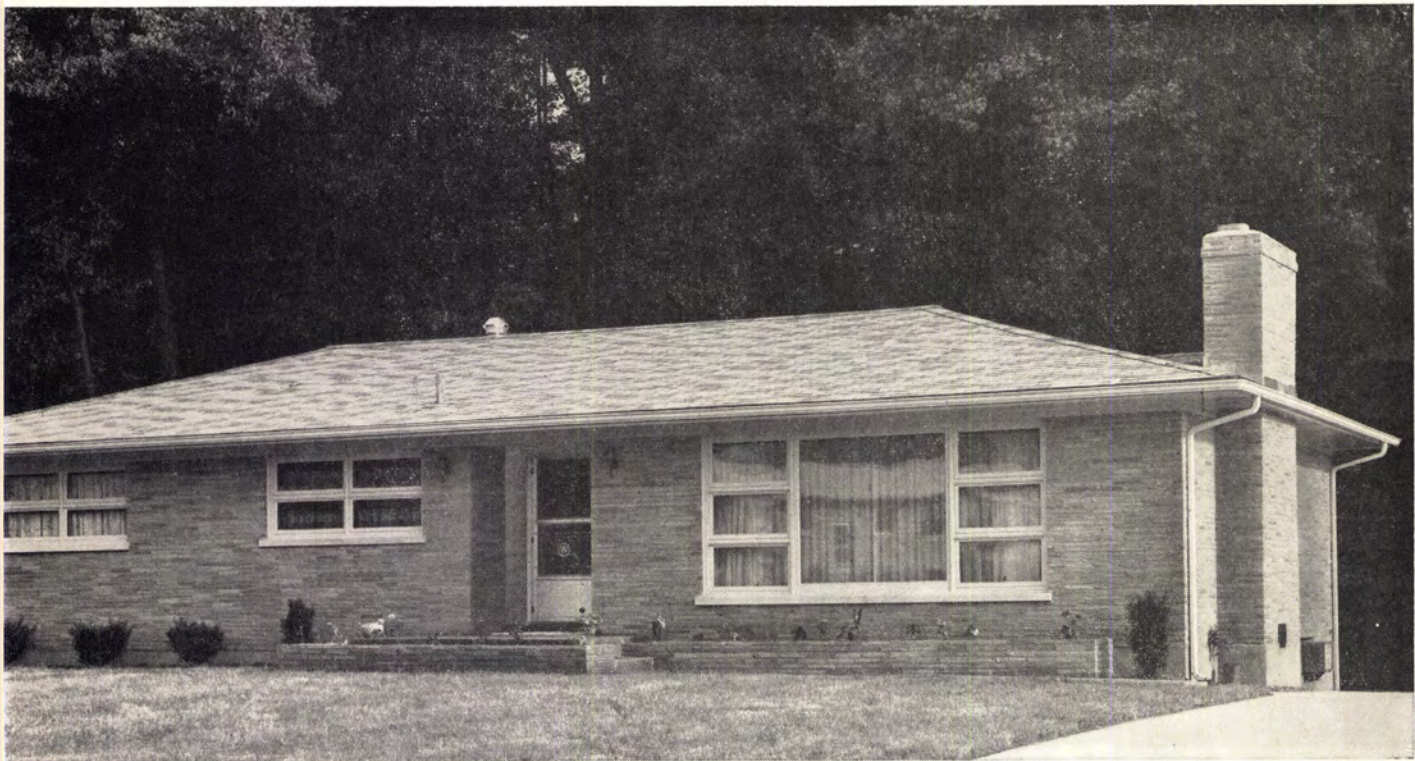
No other Non-Ducted Hood-Fan
compares to NuTone's Triple-Aire

- Only NuTone filters cooking smoke with Micro-Flo Filter
- NuTone avoids ozone danger to sensitive nose or throat
- The filter system is where it belongs—above the fan
- NuTone Charcoal Filter shielded from grease
- Hood reaches to front burners . . . to trap all fumes
- De Luxe Power Unit with dial—speeds to fit various needs
- NuTone offers greatest choice . . . color, sizes and finishes
- Beautiful . . . no ugly, hard-to-clean vents on hood surface
- Attaches to cabinet or wall shelf



ONLY NUTONE FILTERS ALL 3!

- 1 NuTone removes Cooking GREASE
with a washable Aluminum Filter
- 2 NuTone removes Cooking SMOKE
with a Micro-Flo Smoke Filter
- 3 NuTone removes Cooking ODORS
with an activated Charcoal Filter



T[®]WINDOW



Pittsburgh Plate Glass Company

Paints • Glass • Chemicals • Fiber Glass

In Canada: Canadian Pittsburgh Industries Limited



FOR
HOMES
THAT MAKE
PASSERS

BUY...

BUILDERS EVERYWHERE CHOOSE THE NATURAL LOOK
OF **Shakertown** EXTERIOR DECORATING MATERIALS!

... it's a fact! Resourceful builders are creating distinctive exteriors ... and adding extra sales appeal to their homes ... with genuine Cedar Shake Glumac Units*, Silvara Natural Stone and luxurious Handsplit Roof Shakes by Shakertown. Now you can replace that "look alike" appearance with a customized exterior that appeals to home buyers everywhere! Glumac Units offer the lowest applied cost of any siding material ... while Silvara Natural Stone can be applied at half the cost of heavier stone. Get all the facts before your next start!



Shakertown®
CORPORATION

*Glumac Units are made from genuine Red Cedar Shakes electronically bonded to heavy insulation backerboard ... factory pre-stained in 14 contemporary colors.

*SEND
TODAY!*

SHAKERTOWN CORPORATION Dept. HH-10
20310 Kinsman Road • Cleveland 22, Ohio

Please send me complete information about Red Cedar Glumac Units and other Shakertown Exterior Decorating Materials.

NAME _____

COMPANY _____

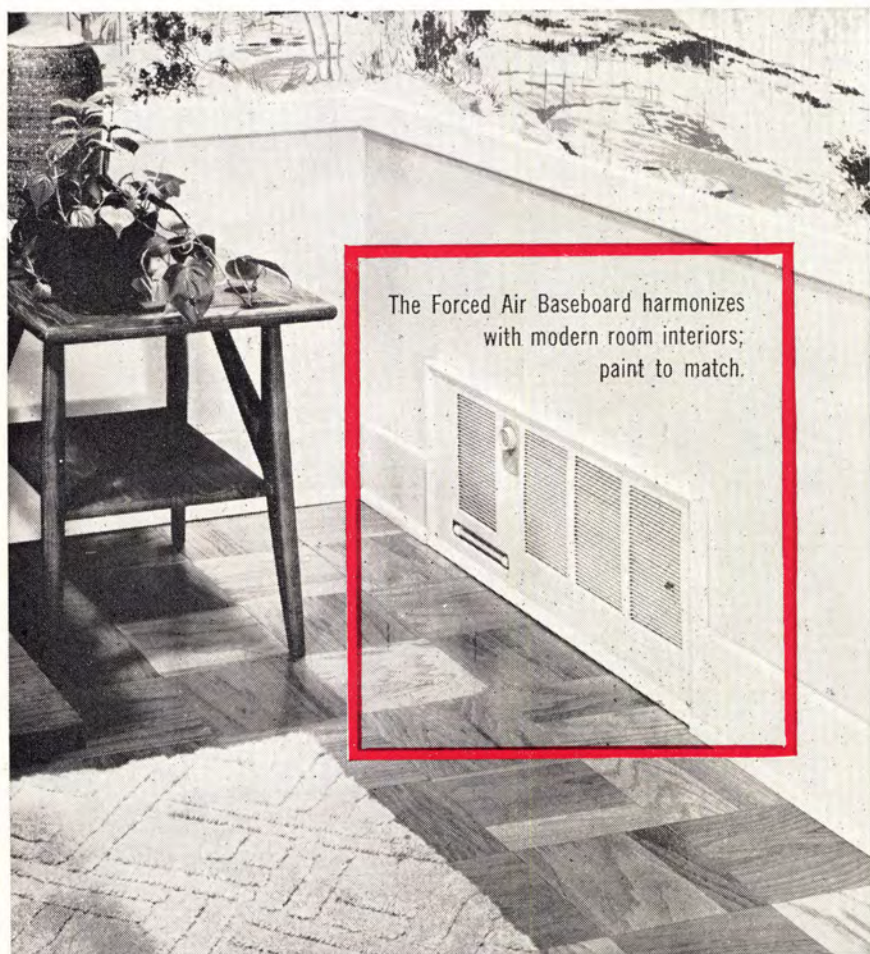
STREET _____

CITY _____ ZONE _____ STATE _____

8804-ST

ELECTRIC HEAT NEWS from R&M-Hunter

BASEBOARD + FORCED AIR gives ideal heating at low cost



Costs less—easier to install

The new R&M-Hunter FORCED AIR BASEBOARD costs much less than convection baseboard, and is easier to install.

Engineered for compactness—Dimensions are: 33" long, 13" high, 3 7/8" deep. When recessed, unit extends only 1 3/8" from wall.

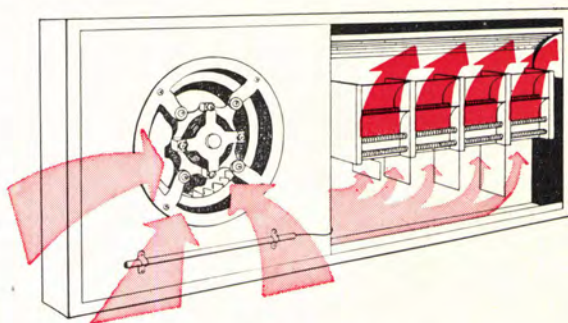
1000 to 4000 watt capacities—1000, 1500 and 2000 watt models with or without thermostats. Thermostats control two or more units in a room. 2500, 3000 and commercial 4000 watt models have individual thermostats. Listed by Underwriters' Laboratories.

R&M-Hunter FORCED AIR BASEBOARD ELECTRIC HEAT



It's Matchless!

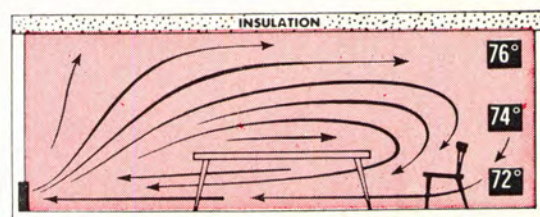
Backed by R&M-Hunter's 80-year experience in electrical equipment



R&M-HUNTER FORCED AIR BASEBOARD

This entirely new type of electric heating system gives even floor-to-ceiling temperature. A quiet low-speed centrifugal blower pulls in cool floor level air and moves it over a series of heating elements before sending it back into the room at the selected temperature. Floor level thermostat (optional) and return air inlet maintain ideal comfort conditions, with minimum heat loss. The R&M-Hunter FORCED AIR BASEBOARD gives safe, clean, quiet, automatic heat. No cold drafts or hot blasts. No ducts, no heater closet.

Mail the coupon below for complete information on "the best buy in electric heat."



EVEN FLOOR-TO-CEILING TEMPERATURE



HUNTER DIVISION—
ROBBINS & MYERS, INC.
Memphis, Tennessee

MAIL NOW FOR DATA

Hunter Division—Robbins & Myers, Inc.
2450 Frisco Ave., Memphis 14, Tenn.

Send complete data on your new FORCED AIR BASEBOARD to:

Name

Address



Offset units of standard block form an eye-catching wall to complement the natural wood of the balcony.



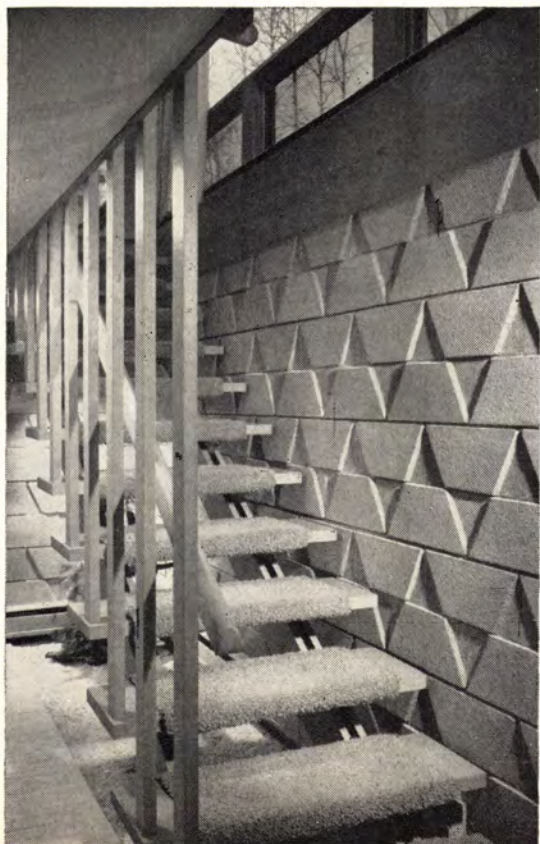
Natural block makes the hearth go modern. James Conn, A.I.A., Southfield, Michigan, designer.



A screen of grille block for either a room divider inside the home or a wall for a patio. Hellmuth, Obata & Kassabaum, St. Louis, designer.

Homes to go with bright young imaginations:

*from the wonderful new
world of Block!*



MODERN concrete block is the low cost way to give new home owners the versatility and the personality they want in a new home. We show here, just four of the many thousands of new wall fashions possible with block. And look what else block delivers: proof against fire and vermin; low first cost and maintenance costs; built in insulation and sound conditioning. Your local NCMA member can keep you up to date on the many new developments in the wonderful world of block.



NATIONAL CONCRETE MASONRY ASSOCIATION • 1015 WISCONSIN AVENUE, N.W. WASHINGTON 7, D.C.

Basement walls are never dull with the built-in distinction of smart Shadowal block. Tannebaum & Koehnen, A.I.A. Milwaukee, designers.

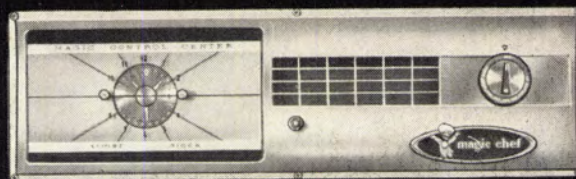


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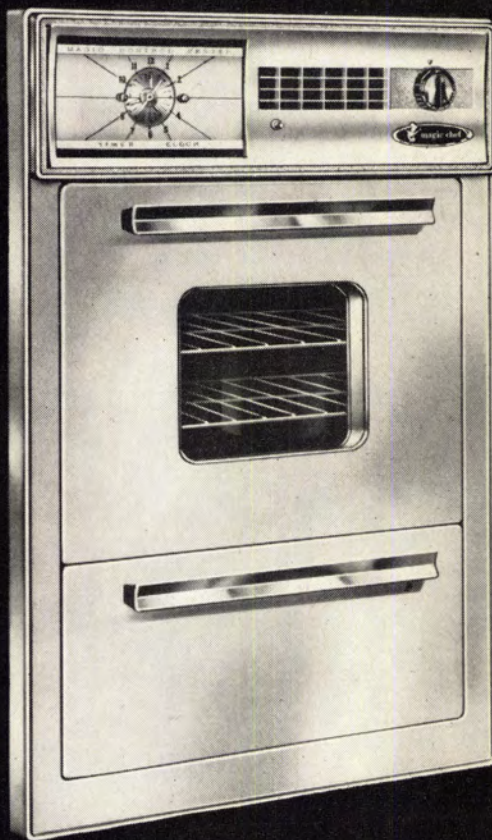
a Touch of

Magic in your life

with the new MAGIC CHEF built-in ranges



The new Magic Control Center with clock-controlled oven starts and stops the Magic Chef Oven automatically; cooks an entire meal while the housewife is away from home.



New MAGIC CHEF Built-in gas ranges put a Touch of Magic in the homes you build... with new, automatic features, new installation economy and outstanding consumer acceptance.

Today, more than ever, the consumer acceptance of MAGIC CHEF is an invaluable sales asset to you. As an extensive national advertising campaign further expands MAGIC CHEF'S outstanding consumer recognition, today, MAGIC CHEF is the name the modern homemaker knows... the range that puts a Touch of Magic in your sales.

See the MAGIC CHEF Built-in line
SPACE 750-751—Chicago Coliseum
NAHB CONVENTION



New Magic Chef Countermasters with recessed controls in the counter top reduce carpentry to a single rectangular cut.

Magic Chef
CLEVELAND, TENNESSEE

CRA

CALIFORNIA REDWOOD'S

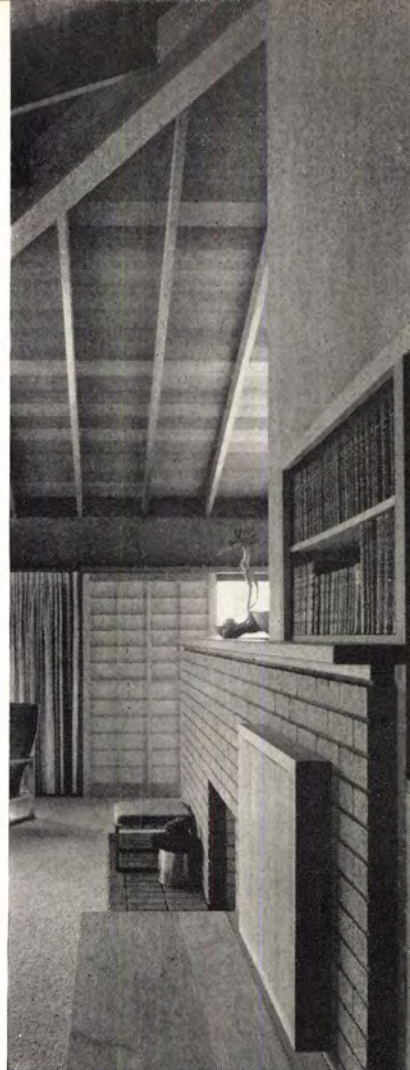
rich, natural beauty creates a feeling of warmth
and serenity . . . is in perfect harmony
with other compatible building materials.



Architect: Edward Page, A. I. A.



The saw-textured board and batten siding, of Certified Kiln Dried redwood, is treated only with a water repellent and will weather naturally and beautifully. Redwood is one of the very few woods that defies the elements, year after year, even when left without a protective finish.



Because redwood provides a high degree of insulation, the ceiling in this handsome room also serves as sub-roofing. Note how the color variations in the boards add visual interest.

This unusual treatment of the overhang, using redwood 2x2's, is not only an interesting decorative element but also avoids the possibility of the roofing nails breaking through.



The redwood carport is in perfect harmony with nearby foliage and planting... helps to relate house and garden. Incidentally, the use of aluminum, stainless or hot-dipped nails is recommended for all exterior applications of redwood.



All the wonderful warmth of wood is best expressed in redwood.

To the architect, Certified Kiln Dried redwood's natural charm, adaptability to almost every use and fascinating variety of grain patterns and color tones offer a challenge to his imagination and inspire his best work. To the owner, redwood's beauty is a continuing source of pride and satisfaction and its durability and ease of maintenance are a reflection of his good judgement.



This is National Homes' 1960 "Lorraine" model...

Designed for easier living...with telephone planning!



National Homes' Regency Line will feature provisions for as many as *eight* telephone outlets per home—permitting extension phones in all key working, playing and sleeping areas. Above are the bedroom and kitchen-dining telephone locations in the "Lorraine" model.

The nation's largest builder of homes—National Homes Corporation—is adding *telephone convenience* to the many modern features it will offer buyers this year.

National Homes' entire Regency Line, including the "Lorraine" model shown here, will contain provisions for multiple built-in telephone outlets.

As homeowners require new extension phones, they can have quick, trouble-free installations with wiring neatly hidden inside walls. Such telephone planning preserves the beauty of room interiors and offers the ultimate in telephone-service flexibility and convenience.

Are you telephone planning *your* homes? Builders everywhere are finding it gives them a real sales advantage. Consult your local Telephone Business Office for complete details. Also, see Sweet's Light Construction File, 11c/Be.

BELL TELEPHONE SYSTEM

Visit booths 15 and 16, Conrad Hilton, Chicago, NAHB Convention, January 17-21, 1960—for real money-making telephone tips.





NEAL O. REYBURN, PRESIDENT
HOME BUILDING CORPORATION

If you are a businessman builder

BE MY GUEST

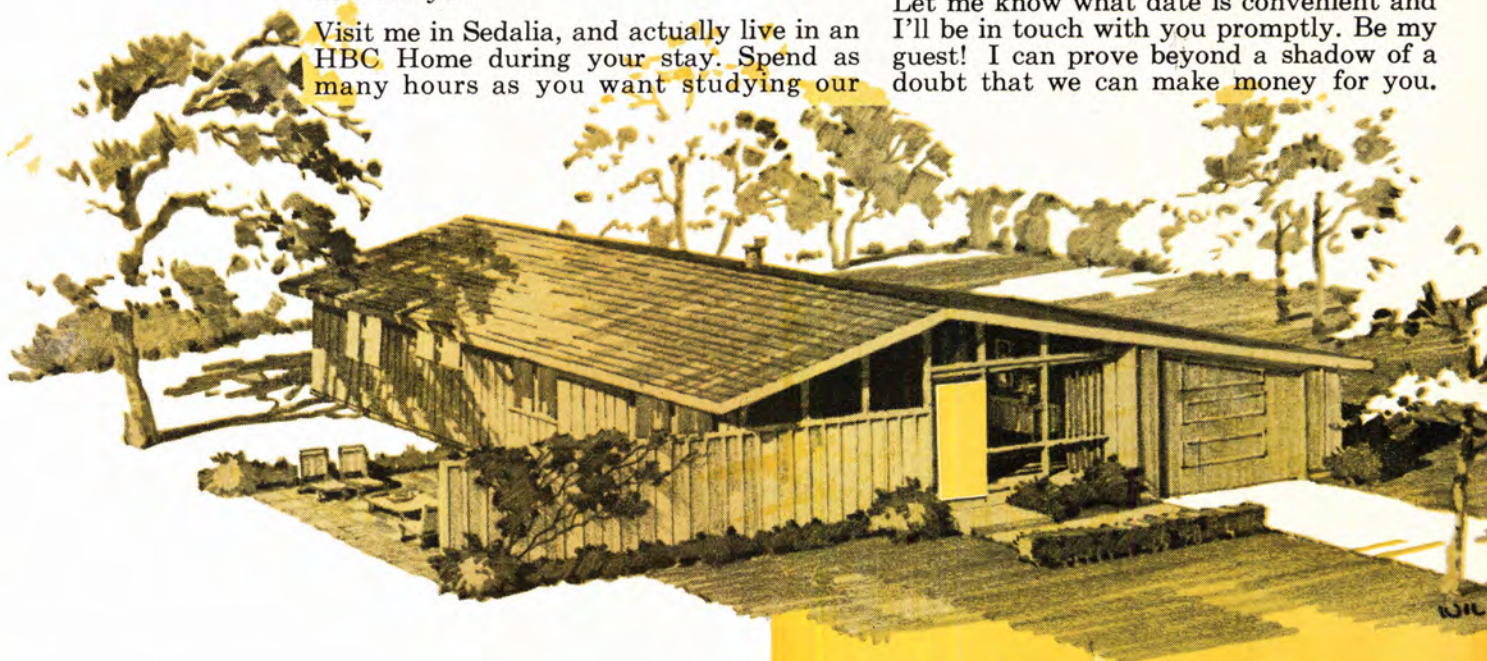
and I'll prove that you can have a better, faster, more profitable building job with HBC Homes

If you're a businessman builder, with land, financing and a real desire to sell houses at a better-than-average profit, I've got a deal for you.

Visit me in Sedalia, and actually live in an HBC Home during your stay. Spend as many hours as you want studying our

product, talking with our people, learning the ins and outs of these years-ahead homes directly from us.

Let me know what date is convenient and I'll be in touch with you promptly. Be my guest! I can prove beyond a shadow of a doubt that we can make money for you.



Fill in the coupon below, or write today on your company letterhead

NEAL O. REYBURN, PRESIDENT
HOME BUILDING CORPORATION
SEDALIA, MISSOURI

I'D LIKE TO VISIT WITH YOU AND TAKE A CLOSE LOOK AT HBC'S HOMES. THE TIME MOST CONVENIENT FOR ME IS _____

I WILL BE ACCOMPANIED BY _____ (ONE OTHER)

NAME _____

TITLE _____

COMPANY _____

STREET ADDRESS _____

TOWN _____ ZONE _____ STATE _____

HBC WILL BUILD THIS HOUSE FOR \$500 LESS THAN YOU CAN

We will guarantee a firm price that you can't match by \$500 on a two-, three- or four-bedroom house, completely finished on your foundation. You choose the arrangement and style best suited to your area, and we guarantee a quality house, erected complete, at a price you can't come close to.



If you operate within 500 highway miles of Sedalia, we can save money and make profits for you.

**THE
NEW**

Carlrim DISPOSER BOWL WITH RECESSED OUTLET!



No. 832 LDB

(Disposer Bowl at left)

Made with disposer bowl at left or right of finest 20 gauge type 302 (18-8) nickel bearing stainless steel.



No. DS 832 LDB

(Disposer Bowl at left)

Every Carlrim Sink is made of the finest 20 gauge type 302 (18-8) nickel bearing stainless steel.

POPULAR DOUBLE COMPARTMENT SINK WITH DISPOSER BOWL

Notice how the drain outlets have been moved to the rear to permit more space for food preparation in the bowl itself. See how the area around the disposer outlet has been recessed to receive waste. No. 832 LDB (illustrated here) has twin 14 by 16 inch bowls each a roomy 7 inches deep, allowing for greater water capacity. An important feature is the heavy rubberized undercoating that reduces sink clatter and disposer vibration.

**Specially designed for more
efficient sink service
with any garbage disposer!**

NEW VEGI-PREP MODEL WITH DISPOSER BOWL

The sink that takes the backache out of sink chores. Disposer and drain outlets at the rear permit comfortable knee space when seated. The shallow bowl (available at right or left) acts as a preparation unit for preparing fruits, vegetables, meats. Bowls are each 14 by 16 inches, but the depth of the shallow bowl is only half the depth of the regular bowl (7 inches). Each Carlrim Sink is faster and easier to install, since no extra sink frame is required.

Write for Carlrim Catalog No. 860 which provides complete blueprint specifications of all models to Sink Division, Carrollton Manufacturing Company, Carrollton, Ohio.

*You just can't buy
better-when you buy...*

**CARLTON
STAINLESS STEEL
SINKS**

Across The Land... America's Most Admired, Most Desired Home Appliance!



*No Ordinary Refrigerator
Helps Sell Homes Like ...*

Fabulous Foodarama by **Kelvinator**

All across America . . . builders are reporting exciting sales results with Fabulous Foodarama!

And no wonder . . . there's nothing else like it anywhere! In just one compact cabinet, Foodarama offers home buyers a 12 cu. ft. deluxe refrigerator and a 6 cu. ft. *upright* freezer. It's like putting a super-market at their fingertips!

And for 1960, Foodarama has been made more desirable than ever . . . there's never any defrosting with Kelvinator's simpler, more economical "No-Frost" system . . . new magnetic door gaskets assure a perfect seal . . . a marvelous new Automatic Ice Dispenser

makes a plentiful supply of dry ice cubes always available . . . and there are new conveniences throughout!

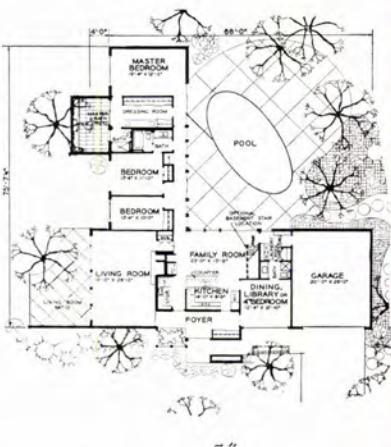
You can't offer a more admired, more desired home appliance than Foodarama . . . yet its cost compares to that of ordinary refrigerator-freezer combinations. And it builds in easily without built-in costs. Only 41" wide, 63" high and 25" deep, it has flush-opening doors and flat back and sides.

Increase your sales in 1960 with the glamorous, exciting Fabulous Foodarama . . . write or wire today for the special Foodarama Builder Plan to Kelvinator Division, American Motors Corp., Detroit 32, Michigan.

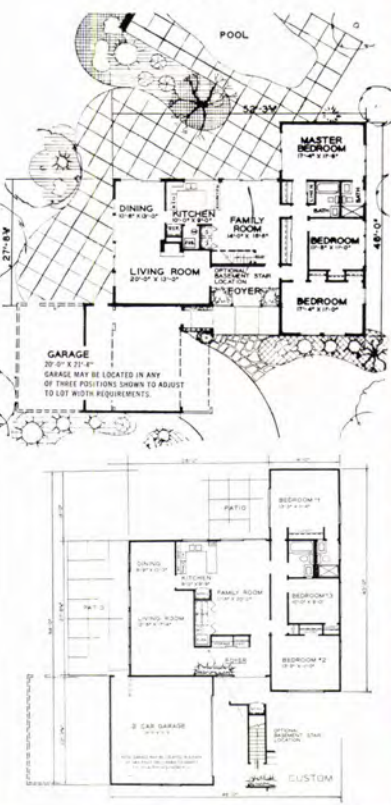
THE SCHOLZ MARK '60

"HOUSE OF THE YEAR"

House & Garden MARK '60



LIVING FOR YOUNG HOMEMAKERS MARK '60



Designed to generate interest and stimulate sales in your operation . . . you can draw on the tremendous impact of this program by building a Mark '60 in your community.

The most outstanding homes Don Scholz has ever designed . . . available in three models ranging from \$20,000 to \$60,000 including land . . . to be featured in both House and Garden and Living magazines . . . coupled with a million dollar advertising fund . . . part of which will be spent locally on your model.

Your model will be listed in the magazine stories, featured in national advertising, share in many effective promotional programs and you will participate in direct advertising assistance.

Most of all . . . you will share in the reputation-flattering glory of the outstanding glamour house of the post war era.

The Mark '60 "House of the Year" program is for builders everywhere. The promotion begins in June . . . time is of the essence . . . call or write today.

SCHOLZ HOMES, INC. • 2001 N. Westwood • Toledo 7, Ohio • Phone: JE 1-1601

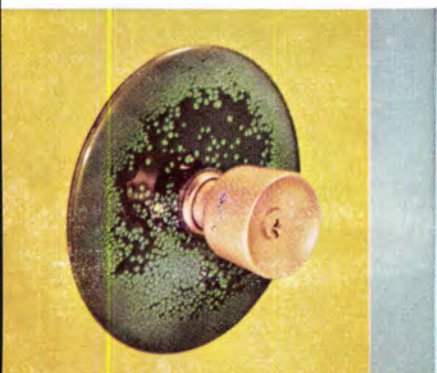
PLANTS: Toledo, Ohio • Wilmington, Del. • Durham, N. C. • Palm Beach, Fla. • Kansas City, Kans. • Greely, Col. • Houston, Texas • Long Beach, Calif.



THE SCHOLZ **MARK '60** "HOUSE OF THE YEAR" features . . .



The flavor of the Orient combines with contemporary elegance in this door hardware design.



Styled to richly accent every door, the Sargent SentryLock is truly the sign of a well-built house. Known the world over, Sargent has been the respected leader in fine lock-making since 1869. Built with "T-Zone" toughness, the trouble-free security and convenience of Sargent residential locksets continue to testify to the quality of the building and the reputation of its builder long after the house has been sold.

Featured in the Mark '60 is this striking Darien design. The front doors will display either an attractive Oriental motif escutcheon or the new and tastefully sophisticated Jade rose. (see inset)



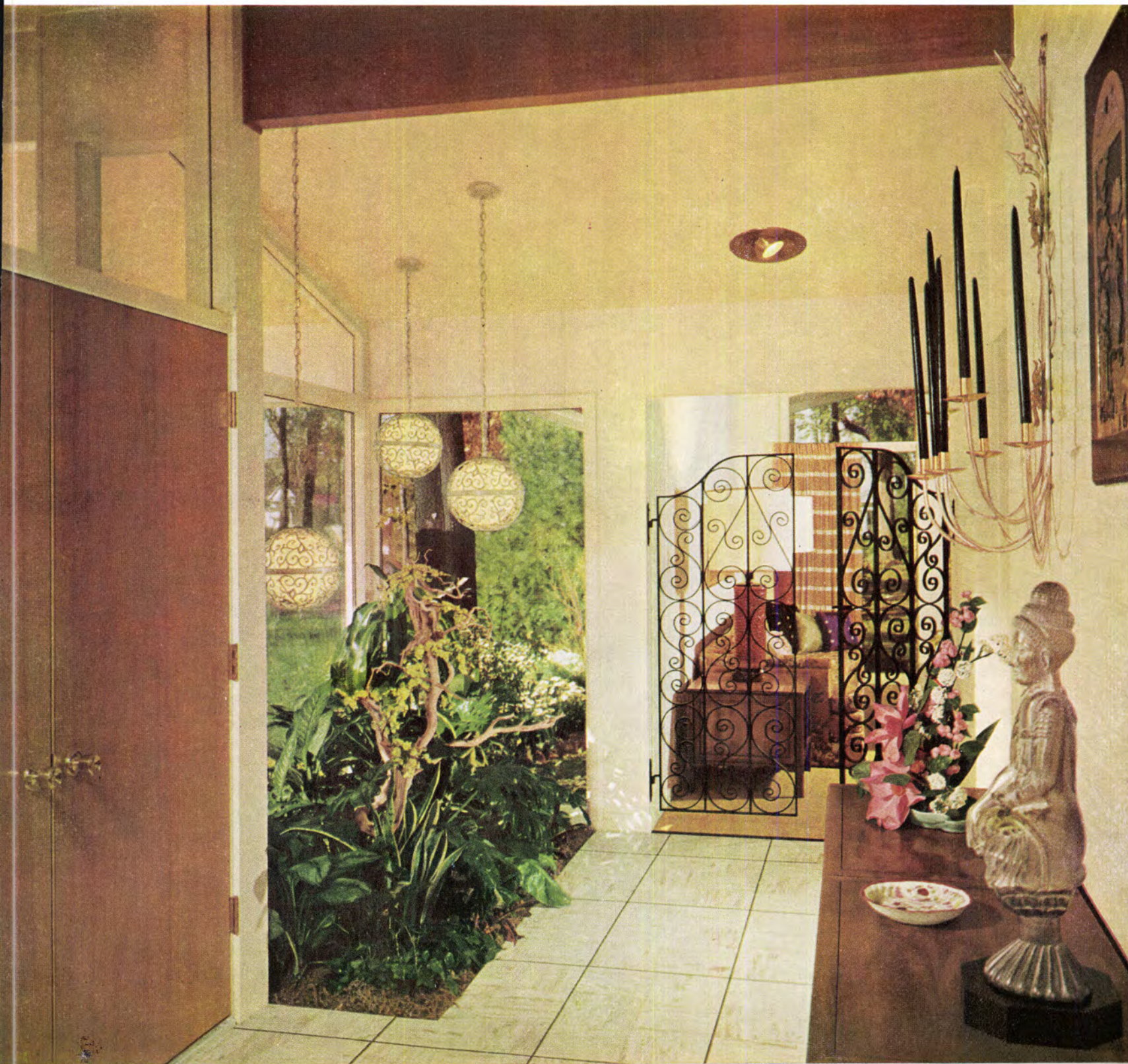
SARGENT

"First in Fashion . . . Finest in Function"

NEW HAVEN 9, CONNECTICUT

New Jade rose of fired copper
illustrated here with the Saybrook knob.

THE SCHOLZ MARK '60 "HOUSE OF THE YEAR" features . . .



Interior Decorator—Duane Bondy • Photos—Jim Strong

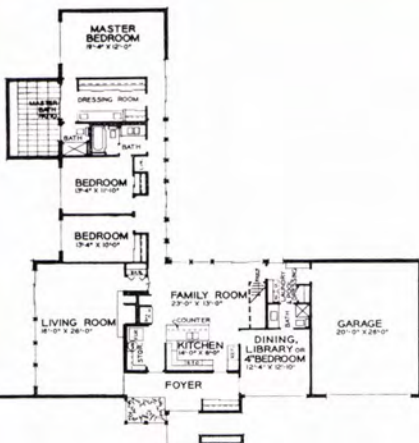
the miracle of modern lighting . . .

As typified by dramatic Virden lighting fixtures, is a part of every Mark '60 Home.

Here, in the entrance foyer, Virden oriental fixtures create an immediate impression of warmth and "lighter" living to all who enter . . . create a pleasant indelible association that will linger in their minds long after leaving.

Throughout the Mark '60, Virden fixtures set an atmosphere of enrichment, enchantment . . . distinctive beauty. Rooms come alive with tasteful charm that can come only from good lighting and Virden makes it easy!

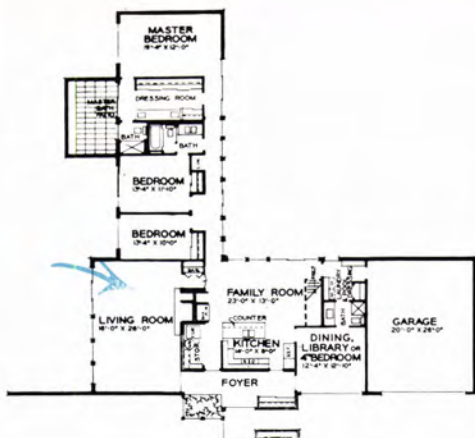
For a colorful 52-page "Light Idea" catalogue which illustrates the complete new line of handsome Virden lighting fixtures, send your request to Virden Lighting, Department S60, 5209 Euclid Avenue, Cleveland 3, Ohio.



THE SCHOLZ MARK '60 "HOUSE OF THE YEAR" features . . .



Interior Decorator—Duane Bondy • Photos—Jim Strong



The walls of the Mark '60 are constructed with Gold Bond Gypsum Wallboard and tastefully decorated with Gold Bond Velvet—a premium quality latex wall paint that is completely washable . . . stays bright and good looking for years! The woodwork and trim are protected with Gold Bond's Velvet Latex Enamel, a semi-gloss latex paint, in soft, subtle, matching shades. Behind this beauty are sturdy fireproof walls of Gold Bond Gypsum wallboard, especially chosen for smooth, seamless beauty.

NATIONAL GYPSUM COMPANY



THE SCHOLZ **MARK '60** "HOUSE OF THE YEAR" features . . .



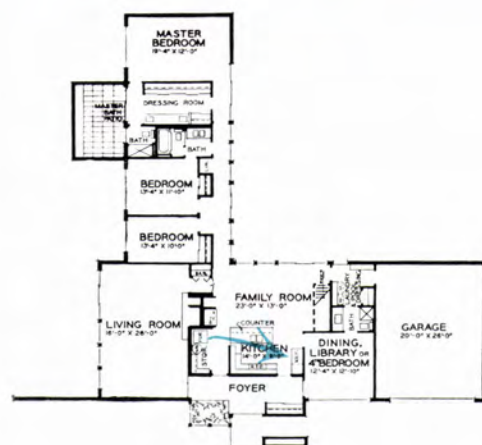
Master Dressing Room and Bath Patio

Sliding glass doors by Arcadia, the world's finest. You'll discover the wonderful outdoors, be safe from wind, rain, cold and dust, thanks to Arcadia's exclusive weatherseal of snug wool pile. In this years-ahead home, your glass walls — framed in enduring aluminum by Alcoa — will roll at finger-touch, smooth and silent. And watch your furnishings come alive in these cheery, spacious rooms! Arcadia — choice of leading architects and builders — makes the difference.

National Member of Producer's Council, Inc. and National Association of Home Builders
Member of Prefabricated Home Manufacturers Institute

arcadia
801 South Acacia Avenue
Fullerton, California

THE SCHOLZ **MARK '60** "HOUSE OF THE YEAR" features . . .



. . . Revco Bilt-In Refrigeration. New low cost, 16.5 Cu. Ft. Combination Refrigerator and Freezer. The 11 Cu. Ft. *Gourmet*® refrigerator section over 5.5 Cu. Ft. Freezer provides ample capacity for both fresh and frozen foods.

The Classic Revco Tru Bilt-In design blends beautifully into open style work center and family living area. The furniture style wood panel doors matching cabinets add another note of distinction to this beautiful functional home.

Revco Bilt-In Refrigeration adds lasting beauty and value to every home.

REVCO
BILT-IN REFRIGERATION

THE SCHOLZ MARK '60 "HOUSE OF THE YEAR" features . . .



This ultra-modern Tappan "400" ushers in a revolutionary new era in both styling and convenience. The breathtaking beauty of this fabulous new range is further complemented by a host of unparalleled features—more advanced conveniences than any other cooking appliance has ever offered; Two ovens and broiler at Visual work-height . . . surface units that slide out of sight when not in use . . . all cooking controls at eye level . . . automatic clock control . . . automatic roast control . . . built-in rotisserie . . . two Set'N Forget educated elements . . . plus a handy cutting board built into the range.

Yes, this sleek new range provides an unmatched ease and convenience in everyday cooking operations . . . brings a new found beauty to today's more-than-modern kitchens.

The Fabulous
"400" by
TAPPAN

THE SCHOLZ MARK '60 "HOUSE OF THE YEAR" features ...



Fiberglas® Polarized Light Panels

The 1960 model Scholz pre-engineered homes introduce another application first to the residential building trade—the Owens Corning Fiberglas polarizing light panels. This initial residential use of the panel as a luminous ceiling provides the food preparation center and bath rooms with maximum light diffusion, all but eliminating shadows, direct glare and reflected glare.

Comfort-conditioning distinguishes the 1960 Scholz model home. This means full insulation with 3" of Fiberglas insulation in side walls and ceilings for year round comfort with economical heating and cooling bills. Plus Full House Power for present and future electrical needs. Fiberglas screening, the strongest ever made, is used in all windows and distinctive Fiberglas draperies complete the window picture.



GOING UP
ALL OVER
AMERICA

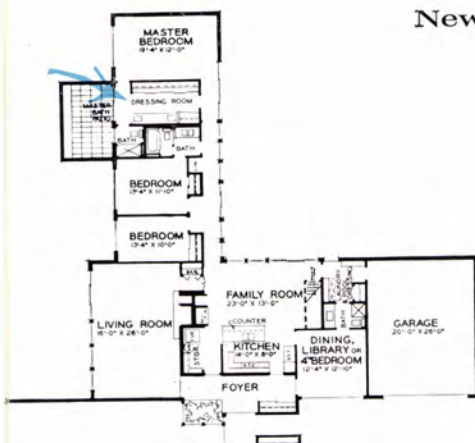


Master Dressing Room and Bath Patio

THE SCHOLZ **MARK '60** "HOUSE OF THE YEAR" features...



New **FORMICA®** WALL TILE for that touch of elegance in your bath room

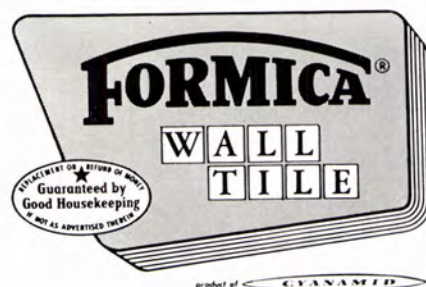


Formica wall tile is a colorful new kind of tile for carefree living.

These 10" x 10" tiles fit snugly together to make a super-smooth, warm to the touch wall that is free of hard to clean grout lines. The sleek sheen of this new kind of bath room surfacing hides water spots—wipes clean with only the swish of a damp cloth. It's truly the material with the "wife-time" guarantee.

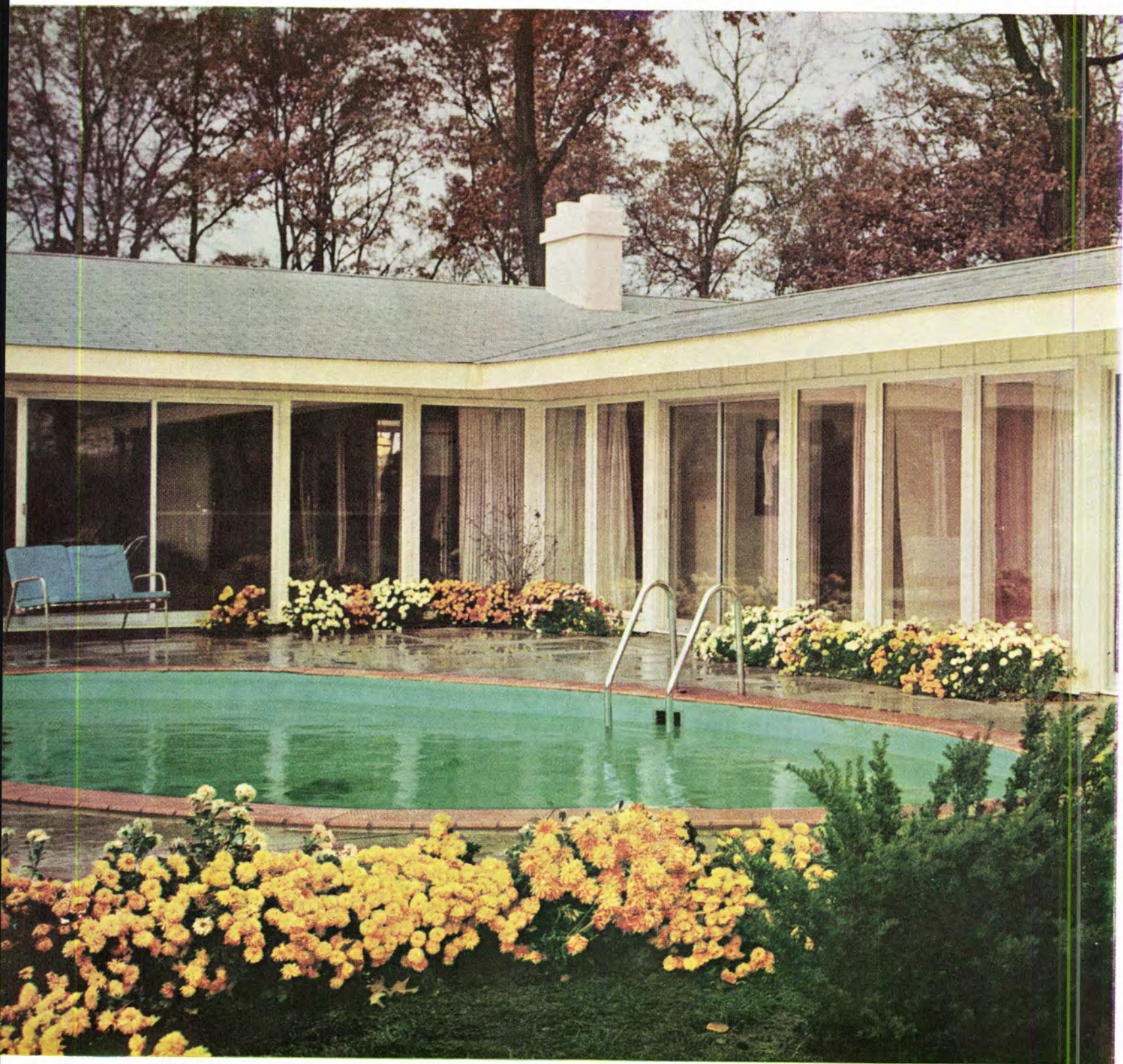
Formica wall tile comes in wonderful muted shades of a fine variety of soft patterns. It has all of the same long life and easy care features that have made Formica America's most famous kitchen work top material.

Free! For colorful ideal literature on bath rooms write
Dept S, Formica Corp., Cincinnati 32, Ohio.



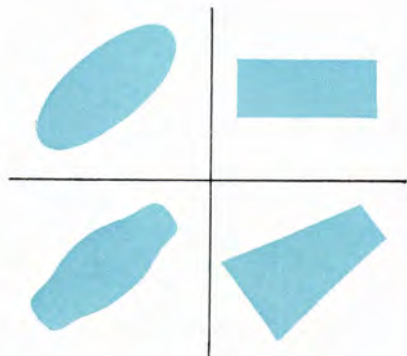
product of **EVANSTON**

THE SCHOLZ MARK '60 "HOUSE OF THE YEAR" features ...



UNIVERSAL PARADISE FIBERGLASS POOLS because:

- Low maintenance, no painting, crack repairing or algi adhesion.
- Three pools in one: . . . wading — swimming — diving.
Quick installation 2½ to 7 days completely installed.
- Sizes and shapes . . . your choice. FIVE shapes, EIGHTEEN sizes to choose from.
- Color . . . Non fade gulf stream aqua everlasting color.
- Equipment . . . Finest swimming pool equipment made.
- Financing . . . Available to meet your needs.
- UNCONDITIONALLY GUARANTEED.

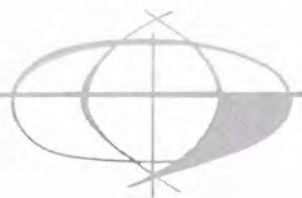


Shapes and sizes to suit any family

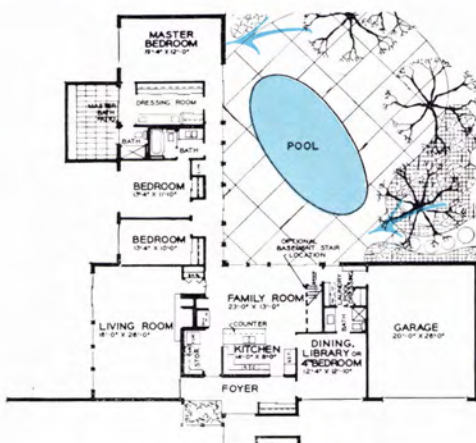
UNIVERSAL

PARADISE POOLS, INC.

3920 N.W. 32nd AVE. • MIAMI, FLORIDA



THE SCHOLZ MARK '60 "HOUSE OF THE YEAR" features ...



The exterior finish walls are built with pre-primed Johns-Manville Asbestos Flexboard which lends itself beautifully to the authentic board and batten styling of the true California ranch style architecture of the Mark '60. This siding material is rotproof, fireproof and weatherproof. In addition it provides an excellent paint base, not subject to the wide variation in paint holding characteristics of other siding materials.

JOHNS-MANVILLE





Sell Husband and Wife!

Air Condition with General Electric Built-in Thinlines

Your homes are sure to please both sides of the family when you offer General Electric Built-In *Thinline* Room Air Conditioners with the exclusive decorator baffle.

Women especially like the decorator baffle because it can be painted, papered or panelled to blend with surrounding walls, or concealed with a picture or mirror.

Men go for the sturdy construction and the design that makes the Built-In *Thinline* a part of the wall. Built-In *Thinlines* are available in two sizes—model R435 of 5,300 BTU* capacity and model R475 of 9,500 BTU's.

Other *Thinlines* can be built-in, too. Models ranging from 6,500 to 16,000 BTU's and two All-Weather (heat pump) *Thinlines* for heating and cooling also can be adapted for permanent, wall installation.

Certain models may also be shipped to the job site in two stages—the case alone for installation during framing—the chassis shipped when the job is completed.

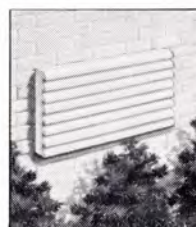
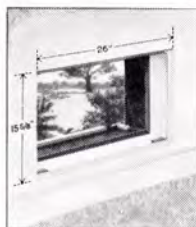
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1. Your workmen install aluminum case during construction. Inside and outside panels protect the case until house is completed.

2. Slide the unit into the case later. Add the inside decorator baffle to the built-in *Thinline*.

3. Outside aluminum grille blends with any architecture. It also can be painted or concealed behind an outside baffle.

*Capacities are tested and rated in compliance with NEMA Standard CN 1-1958, and are stated in terms of British Thermal Units.



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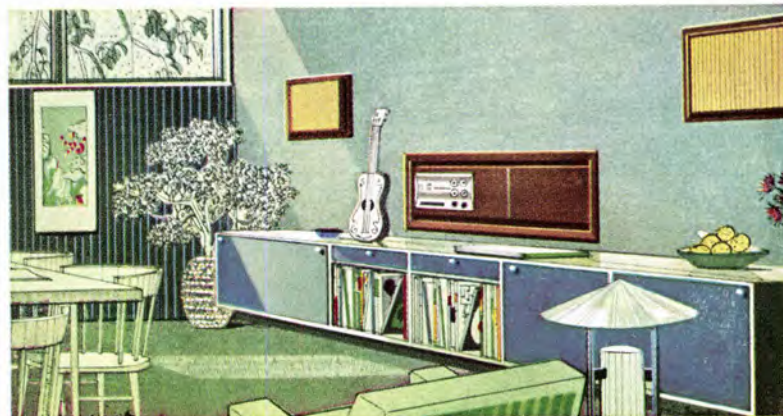
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"LIVING COLOR" MURAL TV. Like 2 sets in one, built in the magic of Color TV and get superb B&W reception too. Simplified color-quick tuning, mirror-sharp

picture, 3-speaker panoramic FM sound, adaptable for stereo. Above, The DK107 Frame for rear ventilation. Front ventilation design also available.



B&W MURAL TV... Another Newsmaker! The custom TV look plus the convenience of "wireless wizard" remote control. Full feature monochrome performance—25% brighter picture. 3-speaker Panoramic sound. Above, The DK103 designed for front ventilation, rear ventilation type available.



PUSH BUTTON RADIO-VICTROLA®... High Fidelity Stereo. Monaural and stereo 4-speed record changer that slides out for easy loading, stereo AM-FM Tuner, visual Stereo Balance Control, 2 in 1 supercharged chassis with 58 watts of power. Above, the BK2 shown with DK109 Panoramic Sound, 3-speaker units. (©RCA Trade Mark for Record Players)

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Bright Gold, Bright Silver and Copper Feature Strip. Thicknesses: .080", $\frac{1}{8}$ ". Sizes: $\frac{1}{8}$ ", $\frac{1}{4}$ ", 1", 1 $\frac{1}{2}$ " and 2" x 36".



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Roundup:

Private starts to drop 9%, dollar volume 6%, says US

The government, like other forecasters, looks for a drop in housing starts this year. But it predicts less falloff in dollar volume. The Commerce Dept forecast: 1.2 million starts, off 9% from 1959's estimated 1,325,000; dollar volume of \$16 billion, off 6% from 1959's estimated \$17 billion. "The dollar outlay," says Commerce, "will continue to be influenced by the trend to larger, better quality homes and by higher costs." A surge in fixup and remodelling plus more hotel and motel building is expected to hold the net loss in dollars spent on private residential work down to only 3%. Commerce predicts multiple dwelling units will account for a bigger slice of 1960 starts.

Public housing outlays will slip 10%, from \$1 billion to \$900 million, says Commerce. It expects public starts to reach only 35,000 vs the 40,000 of 1959, because of a drop in the Capehart military housing program.

For all construction, Commerce predicts a record-breaking dollar outlay of \$55.3 billion, up 2% from 1959. Big gainers will be industrial and commercial construction and sewer and water works—the latter a delayed result of the 1959 housing boom.

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Builders see low-, high-priced house starts off most

NAHB's annual outlook session in the Housing Center has predicted a 10 to 12% drop in starts this year—based on builders' actual building plans. The 25 builders who took part in the closed-door meeting blame tight money, insist demand for housing is still high. They predict rental housing starts will rise while sales housing is cut back most in the low and high ends of the price range. Despite this outlook they don't expect any new legislation from Congress this year.

MBA's forecast is a little more optimistic. In its quarterly economic survey, it suggests the drop in starts "may not exceed 100,000 to 150,000 . . . not particularly important from the standpoint of volume since this (1959) is the biggest postwar building year."

HOUSE & HOME's own monthly mortgage survey indicates 1960 housing starts will be at their low point this winter, should pick up late in the spring as the effect of slightly easier money shows up (see p 63). Thus starts may not reach their 1960 peak until sometime in the third quarter of the year.

WASHINGTON INSIDE: NAHB has paid off the mortgage on the Natl Housing Center 11 years ahead of time. The \$1.5 million loan was made by the Prudential Insurance Co in 1955. Builders used all they could scrape together for advance amortization . . . Sen John Kennedy (D, Mass.) plans to introduce his bill to exempt the building trades from the secondary boycott ban of the Landrum-Griffin Act. The bill has bi-partisan support, apparently has a fair chance for passage. Builders say such a law would be a serious blow to housing, giving building trades power to shut down an entire job even though the labor dispute

might involve only one minor trade and one subcontractor . . . The New York Title I urban renewal scandals have so poisoned the phrase Title I in FHA Commissioner Julian Zimmerman's mind that he has ordered his offices not to use it in public utterances involving FHA Title I repair loans. . . . The Home Loan Bank Board has slapped a sharp limit on the hot money which savings brokers solicit in the East and channel into high-dividend paying S&Ls in the West. Now, no S&L may get more than 5% of its total savings accounts through brokers. And brokerage fees are limited to 2%.

Five more land, housing companies turn to stock market

The rush of housing industry companies to the stock market in quest of equity capital from the investing public continues to grow. Among the latest are Past NAHB President Nels Severin's Palomar Mortgage Co, land development firms operating in Texas, Arizona and Florida, and SIRE Plan of Tarrytown, NY.

The issues and their purposes: Palomar Mortgage Co, which services a \$100 million portfolio in California, Arizona, Nevada, plans to sell 80,000 shares of common stock, \$750,000 in 15-year subordinated sinking fund debentures with common stock warrants attached. Severin founded the company in 1950, holds 69.2% of the 251,850 shares of common. He gives two reasons for the offering: to increase capitalization for more effective expansion, and "I'm getting to the age where it seems advisable to create a market for my holdings."

Great Southwest Corp of Dallas is seeking registration of \$11.5 million in cumulative income debentures due Jan 1, 1975, and 575,000 shares of common stock. Purpose: to pay off debts of two similarly-named

Delaware corporations which it was formed to acquire. It controls some 5,000 acres between Dallas and Fort Worth.

Major Realty Corp of New Jersey wants to issue securities including \$7 million in bonds to use in purchasing unimproved tracts of land throughout the state of Florida.

Mutual Investment & Trust Corp of Tucson wants to offer 150,000 shares of its \$1 par value common at \$3.50 for public sale, to replenish working capital. It recently bought 6,000 acres near Nogales, Ariz.

Sire Plan of Tarrytown, Inc, (Albert Mintzer, president) has SEC approval to issue \$1.65 million in stock and debentures to buy a 215-unit apartment project in that New York suburb.

NEWS continued on p 56

Tomorrow's housing company

Many industry leaders predict it will combine building, financing, selling, materials supply in one big operation

By John Senning

Is there a trend toward a new kind of housing company—a business which combines materials supply, building, financing and selling under one roof?

If so, should you join it—by starting your own auxiliary companies or through merger?

A preponderance of the smartest businessmen in the industry believe the trend is here and growing. And most of them are part of it—even builders like NAHB President Carl Mitnick who owns his own mortgage business but still insists wistfully: "I wish builders could just be builders."

HOUSE & HOME editors and correspondents talked to 65 builders, mortgage bankers, realtors and lumber dealers across the US about the future organization of housing construction, finance and sales. Key findings:

- Builders who have been most successful in the mortgage business—men like Nels Severin and Irving Rose—stubbornly insist no builder should follow their course unless he has the know-how to compete in a new independent business. The big builder-owned mortgage companies are sharply separated from the builder's building operation.

- Mortgage bankers are much more active in building than is outwardly evident. Many of the big companies hold interests in many of the building companies for which they handle financing. And leaders in mortgage banking are urging their fellows to get into building on a big scale—and into real estate brokerage, land development and insurance.

- Realtors are more interested in land development than building. Their aim: to tie up sale of the improved lots to builders and sale of the builders' houses as well. But more builders have started realty subsidiaries than any other type of allied business. Obvious reason: to cut the cost of selling.

- Lumber dealers have quietly spreadeagled the housing business in many a small city. They are building, selling and developing land for other builders—subordinating their liens on the land if these builders buy all materials from the lumber company.

Most mortgage bankers, realtors and lumber dealers (but only a bare majority of builders) expect the trend toward consolidation of complementary businesses to increase. Some of the comment:

Realtor J. Byron Cole of Los Angeles: "The trend is for integrated development with one corporation with various divisions doing the whole thing. Anything that will make for a good development, offering the best possible product at the best possible price is all for the benefit of the homebuyer."

Mortgage Banker W.A. Clarke of Philadelphia: "There is a strong possibility we will see one-shot companies—building, selling and financing. You can operate quicker and more efficiently this way."

Builder Bert Smokler of Detroit: "The building industry hasn't gotten off its knees yet. But soon we'll stand up and be complete. We will have to do everything—including more prefabricating and purchasing."

Lumber Dealer J.E. "Jack" Owen of Austin, Tex.: "For the lumber dealer to con-

tinue in business he must control his business all the way from the ground to the complete house. He should be able to sell his land, build and sell his homes and supply furnishings. The American people want one-stop service in everything they buy."

Builder Ben C. Deane of Los Angeles: "We have to go to big companies whether we like it or not. I think big companies that present a whole package are definitely on the way. We have to face the fact that the bigger outfit, if efficient, is in a better competitive position than the smaller builder. This doesn't necessarily mean he is a better builder but

the small builder is going to disappear almost entirely."

Mortgage Banker Irving Rose of Detroit (whose family also owns the big Edward Rose & Sons building business): "If there is a trend it is not discernible. And if there is one it is not a good thing. If a builder wants to expand his business he ought to start building in more cities, not go into new businesses."

Builder-Mortgage Banker Nels Severin of San Diego (past president of NAHB): "Builders today can get much better service from existing mortgage companies. This wasn't so true 8 or 10 years ago when I started my company (Palomar Mortgage Co.). I couldn't advise any builder today to get into the mortgage business. It would be hard."

Mortgage Banker A.B. "Bob" Robbs of Phoenix, who took a flyer in the building business in 1953 and quit after customers complained of his competition: "The average mortgage company is based on conservatism, while the builder is an optimist. The builder will have a tendency to have the building company dominate the mortgage company and will possibly not have the proper attitude toward underwriting credits."

Builder Dave Bohannon of San Francisco, who also owns a mortgage company, insists: "Builders are becoming big builders but their operations will not spread to other services."

What problems would you encounter if you try to spread into new areas of housing? Here is a trade-by-trade report on men who have tried:

Builders: many selling, few financing

For better or worse, homebuilders have been spreading out into other fields—especially mortgage banking and real estate.

Irving Rose's Advance Mortgage Co of Detroit and Chicago and Nels Severin's Palomar Mortgage Co of San Diego, Phoenix and Nevada are two of the biggest in the US. George Goodyear, also a past president of NAHB, owns a big company in Charlotte.

Yet these builders are among the most outspoken against other builders following the same course. Says Rose, who sees no horizontal trend: "The mortgage business and the building business are both owned by my family but they are entirely separate. In fact, I don't get over half the business from my brothers who run the building operation. And their business is less than 10% of my mortgage business. They can't rely entirely on us. We can't rely entirely on them. I think any builder is kidding himself if he thinks he can

successfully run both a building and a mortgage business."

Builder-owned mortgage companies have one major problem: many investors don't like to buy loans from them. Severin, who sees little but headaches for builders who start in the mortgage business now, comments: "There is a reluctance on the part of investors to do business with builder-owned mortgage companies. I have often found that it is easier [for Palomar Mortgage] to sell the other fellow's mortgages than mine." Says Rose: "The lenders are afraid the builder may be covering up something. There's doubt who he's really representing."

Yet NAHB President Mitnick is expanding his mortgage business. He has been handling only his own business, has not serviced loans but only closed them and sold both the loans and the servicing. Says Mitnick: "I've been forced into this. If we had an adequate flow of money I would prefer not to get into the mortgage business."

Now, Mitnick plans to start a servicing operation and seek other builder's business also. "There's definitely a trend toward builders expanding this way," he contends.

Big Builder Dale Bellamah of Albuquerque got into the mortgage business in 1952 for the same reason as Severin and Mitnick: he was unhappy over the service local originators were giving him, decided he could do better himself. "I did it in desperation, not as a money maker," he recalls.

Besides trouble interesting investors in his loans, Bellamah had two other big problems

LIFE—Arthur Shay



SEVERIN

Robert H. Johnson



ROSE

when he started: 1) other mortgage companies tend to "cut you off unless they absolutely need your business" and 2) "you have to convince competing builders you are not giving yourself preferential treatment."

His Mountain States Investment Corp is now one of the fastest growing companies in the US, services \$90 million in loans. His own building operations, formidable as they are, (1,500 starts in '59) account for only 20% of his originations. He is also in land development, insurance and real state.

Builder Bill Underwood of Jackson, Miss.

has used a state-chartered stock S&L for the same purpose. His S&L originates, sells and services FHA and VA loans, does much of the conventional financing of his own houses. The S&L also services conventional loans sold to out-of-state life insurance companies.

Dave Bohannon's mortgage company closes only his own loans, does no servicing. "It is all right if the [annual] volume is up to \$4 or \$5 million," he says. "It's burdensome if volume is less." Bohannon recommends his plan only to a builder who has enough capital to do his own construction financing. If he

has to borrow construction money he's paying for the originator's service anyway so he might just as well let him do the whole job.

Hundreds of builders have real estate brokerage subsidiaries. Usually, they handle only their own house sales and sometimes houses they take in trade. Says Builder Ralph Staggs of Phoenix: "It is no invasion for a project builder to handle his own sales."

Except for cases where big builders buy materials direct from producers, few building companies have moved into the materials supply business.

Mortgage men: many already building; more expansion urged

Mortgage bankers have found it easier to slip into the homebuilding business than builders have to do vice versa. One good reason: more money.

One of the biggest builders in Philadelphia, for example, is Mortgage Banker Clarke, a past president of MBA and a man who lives the one-stop business he regards as the trend. Though his name shows up on no signboards, Clarke owns several building companies. They will build and sell about \$5 million of new housing this year, with his mortgage company handling all the financing. (This is about 25% of his mortgage company's residential mortgage originations.)

Clarke's mortgage company also buys and subdivides land. It has its own land planning division. In one deal, it is in partnership with a lumber dealer in York, Pa. Lots are sold to builders and liens subordinated so builders can build. The builders must get financing through Clarke, buy materials from the lumber dealer.

Clarke also owns a real estate brokerage business which sells all his own houses, plus



McGREGOR



CLARKE

a small volume of other properties. "We started to expand this business once and then stopped. Brokers resent it and won't do business with you if you're competing with them." This is not true of builders, who will take mortgage money wherever they can get it, he notes.

Clarke's big operation is not typical of mortgage money wherever they can get it," are financially interested in one or more building operations. Indeed, a common

phrase in mortgage banker jargon is "captive builder"—the man who puts up houses with the help of the mortgage man's risk capital. They usually split the profits.

Atlanta's Bob Tharpe of Tharpe & Brooks participates with Tom Swinks on an FHA 221 tract. Houston's T. J. Bettes builds both in joint ventures and through subsidiaries, has built 100 to 125 houses this year. Says Executive Vice President Don McGregor: "We made up our minds some time ago if builders wouldn't get mad at us [for getting into building] we wouldn't get mad at them [for getting into mortgage banking]."

Unlike homebuilding's leaders who counsel against horizontal expansion, the top men in mortgage banking are consistently begging men in their business to expand.

And except for a reticence to step too heavily on the toes of their realtor-customers, mortgage bankers are the most expansion-minded men in housing. Typically, they have insurance subsidiaries. More and more of them are forming syndicates to invest in new projects and land development.

Lumbermen: expanding in every way from subdividing to financing

The most notable efforts at horizontal expansion in housing have been made by lumber dealers and buildings supply houses.

What is now one of the most complete businesses of its kind was started 25 years ago by Allen D. Edwards of Portland, Ore. From building supply he has gradually expanded and added so that today he owns 10 separate operations; a sawmill and veneer plant, a planning mill and wood-working plant, a glass company, two homebuilding companies, a retail lumber yard, a building supply house, a real estate brokerage business, an insurance agency and a new pre-cutting plant.

Edwards describes his business as "Portland's only complete homebuilding service." He explains: "I sort of backed into homebuilding over the years. The expansion into related fields to cut costs and let us meet competition was a natural thing and has been a gradual move in the past few years."

The O'Malley Lumber Co of Phoenix does not build houses but has a finger in mortgage banking, real estate and insurance through subsidiary companies. J. C. O'Malley also

develops land. He currently has a deal with Builder Eugene Hancock (Cavalier Homes) whereby Hancock buys lots. He also buys all other services and materials from O'Malley "as long as O'Malley can meet the competition." If he doesn't, then Hancock can get his financing and materials elsewhere.

The Long-Bell Lumber Co, a subsidiary of International Paper Co, has subdivided land near Tulsa in another experimental deal. Participating builders pay 10% down on lots,

pay no more until the house is sold and closed. But they must buy materials from Long-Bell. Long-Bell has also arranged 90% conventional financing in a local S&L.

Lumber dealers in Texas, Indiana, New Jersey and Ohio have formed mortgage companies to service and sell FHA and VA loans made on houses the dealers build and sell. Most successful of these is the Texas company which now services a \$14 million portfolio for 950 dealers in Texas and Oklahoma.



EDWARDS

Realtors: most just want to sell

Many of the first big US homebuilders were realtors but this pattern has shifted. Some brokers still build but most prefer to concentrate on sales. Some like land development.

Brokers Ryer Triezenberg, Clem Mulholland and Charles Beleel of Chicago devote most of their business efforts to subdividing and improving land, selling lots to builders and selling the builders' houses for a 3% commission. "Some builders don't like to pay the commission," says Triezenberg. "But we usually drop those kind."

Triezenberg concedes that builders who don't use brokers are forcing some brokers into building. "If the real estate man doesn't build he may have nothing to sell," he says.

Los Angeles Realtor J. Byron Cole does

build houses—100 to 200 a year. And he thinks this helps him get builders as customers to sell their houses. "They feel I know their problems."

One of the first realtors in the building business in a big way was Lex Marsh of Charlotte. He started a subdivision development company in 1925, started building and selling in 1933. He went into the mortgage business after World War 2. He originates loans for other builders as well as his own company, finds that competitors in the building business view him differently when he has his mortgage banking cap on. "We find that among the builders who know us, it is no deterrent," Marsh says.

NEWS continued on p 58

FHA approves 5% vacancy allowance for Sec 207, eases loan payoff plan

Rental housing, which apparently set a 20-year record in 1959 and looms as even bigger this year, is getting a four-needle shot-in-the-arm from FHA.

One booster is already in effect. Another should be announced this month. A third one is due in February. The fourth may take longer. All grow out of Commissioner Julian Zimmerman's decision to create a task force to take a fresh look at old FHA programs, see how they can be improved. The changes:

1. FHA will consider letting field offices cut the vacancy allowance from 7% to 5% in figuring mortgage limits for Sec 207 rental projects. Approval of requests—which must come from district directors—is not automatic. New York City already has approval to make the cut. William Painter, assistant to the commissioner who disclosed the move at NAHB's Midwest Rental Housing Conference in Chicago, explains that the key criterion is high occupancy, long sustained. In rent-controlled New York City, FHA vacancies are only 0.8% and the agency says it has no flop projects on its hands.

Chief effect of the cut is to give apartment builders a bonus, thus encouraging more apartment building. Comments Builder Robert Rolde: "If we could get that change through for Boston, it would give me \$50,000 more on every \$1 million of mortgages. It would be the same as raising the loan-to-value ratio from 83 to 88%. My apartments have been 100% rented a long time." (Boston FHA vacancy is 1.3%.)

Adds FHA's Marsh Cunningham, director of the mortgage division, "It would be fantastic to think of doing it in cities like Houston or Dallas where there are high vacancies."

2. FHA has decided to cut the mortgage amortization from 2 to 1½% when a 207 project first opens. The effect is to cut the debt service in the first few years, thus—in FHA's words—"giving the project a better chance to survive if there is any trouble attaining full occupancy."

Technically, the new plan provides for level principal plus interest payments for ten years, then declining payments for the balance of the mortgage. Principal payments start at 1½% and accelerate at the rate of 1.00375 for 120 months, then at the rate of 1.001 for the remaining 348 monthly payments. In later years, payments under this plan are about the same as under FHA's old 2% declining plan. FHA has decided to keep its existing 90% ratio of debt service to income in figuring maximum 207 mortgages, however.

3. FHA is setting out to revamp its room count regulations. The present system, based on laws setting an arbitrary ceiling on mortgages per room, distorts the real aim of Congress, FHA executives have decided. What legislators sought, they say, was more two-bedroom units. But with costs as high as they have gone, FHA has written regulations which boost room count for bigger room sizes, balconies and other items. Now, the agency is going to redefine its room count to put more premium on two-bedroom, two-bath units. Target deadline: February.

4. FHA is aiming at cutting both the time and red tape rental sponsors undergo just to submit a 207 application to FHA. Now, this sometimes takes three months. So the agency is considering easing up on its replacement cost estimate as one basis for mortgage valuation (much of the data must come from the sponsor). Why is this step

so vital, FHA now asks, when the mortgage must be based on value, not replacement cost. And cost certification will force sponsors to return any excess loan, anyway, if FHA makes a mistake and approves too big a loan.

These four moves, FHA hopes, will help keep the apartment boom growing. In 1959, experts estimate 240,000 units were started in structures of 3 or more units—17.8% of all private starts. This year, most predictions are that apartments will reach 250,000 units—20% of private starts.

MARKET BRIEFS

FHA reaches \$1 billion

FHA reserves "are now ample to meet any emergency that can be reasonably expected," says Commissioner Julian Zimmerman. How big is that? Reserves: \$757 million at the close of fiscal 1959, including a whopping \$114 million growth that year. The agency's total assets have now reached \$1.002 billion vs liabilities of only \$244 million. In its first 25 years, to last June 30, FHA insured \$45 billion in home and project mortgages, with total losses of only 0.15%. The only major loss (\$16 million) has been on defense housing.

Failures bring NY probe

Should builders be required to put homebuyers' deposit money in escrow?

Attorney General Louis J. Lefkowitz of New York is considering a proposal for legislation which would do this. He says he's alarmed by builder failures which have cost homebuyers hundreds of thousands of dollars in deposits and down payments.

New York builders oppose the escrow idea, insist it would force them to borrow more construction money and thus boost the cost of housing. President Alexander Paulsen of the Long Island Home Builders Institute told Lefkowitz builder failures are rare, added: "We are convinced that losses [to home buyers] . . . are extremely small as compared with losses in other industries where substantial down payments have to be made in advance of delivery of the finished product."

He suggested Lefkowitz name a fact finding committee to join with builders to study the problem. Lefkowitz said he would.

Sunday blue law voided

A local blue law which had stopped builders from showing models on Sunday in a Chicago suburb has been ruled unconstitutional by the Illinois Supreme Court.

The Sunday closing law of the town of South Holland had previously been upheld

in both the Cook County Circuit Court and Illinois Appellate Court. Both decisions were appealed by Pacesetter Homes Inc and the Chicago HBA.

Nub of the court's decision: "A Sunday law which has as its object the promotion of religion or worship is beyond the scope of governmental power, but one which merely seeks to protect those desiring to worship from disturbance and distraction by others is valid. There is nothing in the nature of mere business activity, as such, which disturbs others in their Sunday worship."

Land ad rules tightened

Florida has tightened the rules governing developers who advertise Florida land out of state.

The state's first control law was passed in 1957, but it did not have the teeth to allow strict enforcement. It gave the state real estate commission general authority to review advertisements but set no special standards.

The new law, and implementing rules put into effect in November, provide that the commission will not only check ads but the details of the developer's plan and his financial arrangements.

"Advertising is to be disapproved if it is false or misleading either in language or form or if the plan of sale or development is lacking in adequate safeguards to assure purchasers that they get what they bargained for or else a full refund," the commission has announced. General rule of thumb will require that ads "tell the truth, the whole truth and nothing but the truth."

Antitrust suit hits National

The government wants National Homes Corp, the nation's biggest prefabricator, to give up control of the seven companies it acquired in a major expansion move last summer (H&H, Sept).

An antitrust suit charges that acquisition of Knox, American, Lester Bros., Best, Thyer, Fairhill and Western Pacific swelled National's share of prefabrication from 25% to 38% (based on 1958 figures for all of the companies—National itself estimated that combined production for 1959 would be 60% of all prefabs). This, the government argues, "materially increased" an already substantial concentration in the industry, increased National's edge over smaller companies "to the detriment of competition."

The government alleges that in '57 the 12 largest prefabricators produced over 50% of the prefabricated market, and that the industry total of 57,800 that year was 6.6% of all starts. Some 20% of prefabricators produced 73% of all prefabricated houses, while 95 small plants, about two-thirds of the industry, accounted for only 14%.

The government says National grew 40% in volume from '57-'58, while the whole prefabricated industry grew only 6%.

National, which went about its expansion-by-acquisition program quietly to forestall the possibility of an antitrust injunction that would prevent its completion, has not yet answered the complaint. Chairman and Chief Executive Jim Price says the suit is based on the mistaken idea that National Homes and its subsidiaries compete only with other manufacturers of prefabricated homes. He argues: "We compete with all house builders. Our share of total starts, even after mergers, is not large enough to have any substantial effect on competition."

LOCAL MARKETS:

Florida builders learn new tricks about retirement housing

Florida's West Coast, from Tampa Bay to Ft. Meyers, is becoming the hottest retirement housing market in the nation.

Centered in peninsular Pinellas County (St. Petersburg), the surge brought starts there to a record 1,000-a-month the first three quarters of '59. Across Tampa Bay, Hillsborough County (Tampa) hit 625 a month, and starts for the area are estimated at 25,000 for the year—an easy record. Builders say

many tracts are chalking up 85% retiree sales—not counting a good many that are advertised solely for retirees as “adults only” developments. So builders figure it is a good bet that 60-75% of all buyers are retirees or near-retired. In Pinellas, one in five is on old age pension, and throughout the area nearly everything for sale is being billed as “ideal for retirement.”

The boom has shot prime land prices in Pinellas to \$7,000 an acre, with typical prices running around \$5,000. But spreading

Jack Swennlngsten



PINELLAS RETIREMENT SPECIAL: \$13,450

Hillsborough County has land under \$1,000 an acre in quantity except near Tampa. Up and down the coast, land is available for much less—though not the \$50 an acre for which giant Port Charlotte went to the Mackles a few years ago.

Most big builders operating in the area are local names, but the scent of profit is beginning to draw outsiders. Willard Woodrow, for one, is coming across the state to take 1,000 lots at Apollo Beach on Tampa Bay below the city—a formerly desolate area where Developer Francis Corr has scratched out the first 1,000 acres of a total 5,200, has 18 builders at work on 330 of them. Among developers, biggest activity is by Arvida Corp, dredging at Bird Key in the Bay, making plans for a chunk of Longboat Key on the Gulf. Arvida also bought a few months ago the Ringling Estate's 2,000 choicest acres.

Homebuilders in the retirement market find that though the median is around 68-70, it begins at an amazing 40. Younger retirees like single-family houses, older ones prefer close-in co-op units, they report.

Typical retiree houses in the area are one- and two-bedroom units priced from \$8,250 to \$12,500. Builders say single bedrooms are harder to sell than two bedrooms except to retirees who are alone. Lots should be small enough for easy upkeep, large enough to offer gardening space. One of the most active, James Rosati, finds that oldsters don't like to be mixed with younger couples with children, contrary to sociologists' recommendation. But others say that younger retirees don't like to be

cloistered with older ones either, so there is a counter-trend to the all-older development.

Financing is usually no problem. Most retirees have the full purchase price or a substantial part of it. But they often dicker for best terms, pay for a tryout period, then pay up the whole mortgage if they like the place. For those who don't have capital, lenders are still reluctant to give full terms, and builders find that FHA special assistance plus the subsidy of Fanny May purchase are a big help.

Miami: Every major builder in South Florida is expected to be offering the low down payment terms of FHA Sec 213 sales-type co-ops within two months.

As now used—or abused as some builders and mortgage men charge—213 permits sale of detached single family houses with only 1% down payment and no closing costs. The law limits loan-to-value ratio to 97%. But a builder can put up a 2% working capital requirement himself and absorb closing costs. Thus a homebuyer can move into a \$15,000 house for only \$150 vs \$630 under Sec 203. And 213's 40-year mortgage means lower monthly payments.

Big Builder Herb Heftler, helped by Institutional Mortgage Co, was first in the area to use 213 (*Nov News*). Until 213 down payments were cut in the 1959 Housing Act, his advantage over Sec 203 builders was small.

When Heftler started offering his 1% down deal other builders and mortgage bankers protested this was unfair—a misuse of 213. The FHA-VA committee of the local MBA chapter wrote FHA Commissioner Julian Zimmerman protesting. But in late November 25 of them also showed up at FHA for

a schooling session in 213 procedures conducted by Chief Appraiser George Talley. Several have already switched to 213.

Small builders have a harder problem. As one FHA official points out, they seldom can sell or build fast enough to make 213 work. The co-op plan requires that houses be sold in groups of eight or more. Small builders who have tried 213 are complaining that prospective buyers back out rather than wait indefinitely until a panel of eight is complete. But any small builder offering only 203 terms is finding his competitive handicap tough to overcome. Discounts on the 40-year loans are also hard for small builders to swallow. Typical price in the New York wholesale market today: 92.

El Paso: The market on new homes collapsed in the last quarter of 1959, has sent builders into 1960 with an unsold inventory of 400 to 500 homes—11 to 14% of their 3,600 starts for the year. (Their best year: 4,800 starts in 1958.)

In an effort to move unsold homes, builders have been offering sales inducements like carpet, delayed payment closing costs.

While builders are having trouble selling the houses they have, the Army has grabbed authorization for 1,000 more Capehart units at nearby Ft Bliss. Protesting builders, realtors are promised a reappraisal of the need.

And just outside the city, plans are going forward for a new city of 167 sq mi. The land was assembled by Chicago Realtor Arthur Rubloff. He has sold 65,000 acres to publicly-held Horizon Land Corp (New York Lawyer Joseph Timan, president). The company says it will spend \$1 billion to develop a city for 1.5 million persons. One traffic planning item: boulevards 500' wide.

Walter Daran



Mackles bring a model house 1,000 miles to the customer

Florida's big General Development Corp is shifting its national sales efforts from lots to houses.

It will even build model homes in several northern cities. The first, pictured above, on the lower level of New York City's cavernous Grand Central Station. It is a standard two bedroom, one bath concrete-block-stucco home which the Mackle Co—builder in all General Development tracts—sells for \$11,600 with lot (FHA down payment: \$370). It was shipped from Florida in two freight cars, was assembled in 10 days by tradesmen working around the clock.

Selling in commuter hubs is not new for General Development. Its northern agents

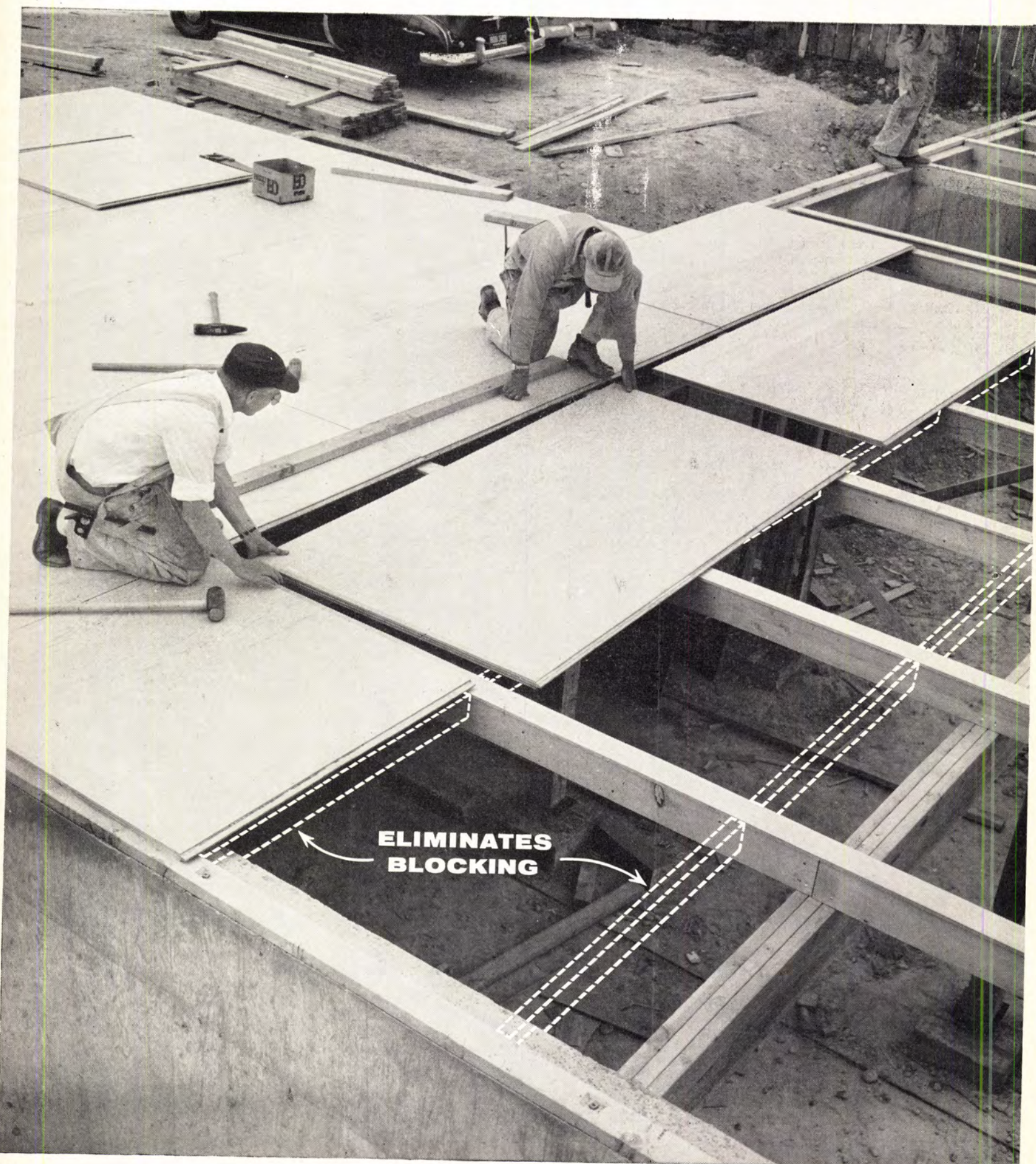
have had booths in most of the big northern railroad and bus terminals for two years. But they have sold lots rather than houses. The company has sold 100,000 lots in nine Florida locations, most of them on a \$10-down and \$10-a-month basis.

Besides the model homes, General Development has taught 200 salesmen how to sell houses door to door in the North. It has independent agents in 177 localities. Every salesman will carry scale models of Mackle houses.

Each salesman has a sales goal of two houses a month. If each meets this minimum General Development's one year sales would be 4,800 houses. *NEWS continued on p 62*

ANNOUNCING NEW

...the fastest, simplest, least expensive



T & G 2·4·1

floor construction system ever devised

New t & g 2·4·1 plywood combined subfloor-underlayment will save you from fifty to well over two hundred dollars per house—depending on the materials and framing system you are now using—and also give you far stronger, tighter construction.

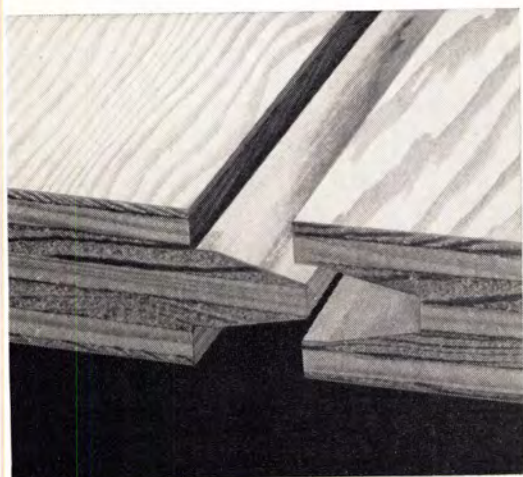
The system is simplicity itself. A two man crew can install over 1,000 sq. ft. of the new t & g 2·4·1 plywood in less than four hours. The number of pieces of framing, along with labor, is reduced by more than 60 per cent. Beams on four foot centers comprise the entire understructure, with the precisely engineered tongue and groove joint replacing conventional 2x4 blocking. The 2·4·1 panel serves as both subfloor *and* underlayment. No additional

underlay or building paper is needed for tile, hardwood or other finish flooring. The smooth underside makes an attractive beamed basement ceiling.

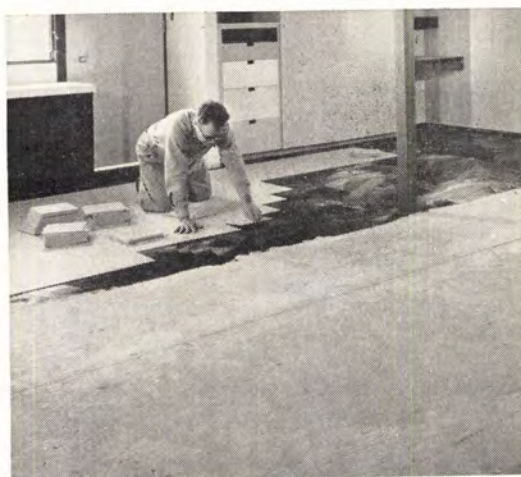
The system has been thoroughly checked in both the laboratory and field installations by Douglas Fir Plywood Association engineers and has been used successfully on dozens of actual builder homes. For more information see your regular supplier, or write:

DOUGLAS FIR PLYWOOD ASSOCIATION
TACOMA 2, WASHINGTON

— a non-profit industry organization devoted to research, promotion and quality control



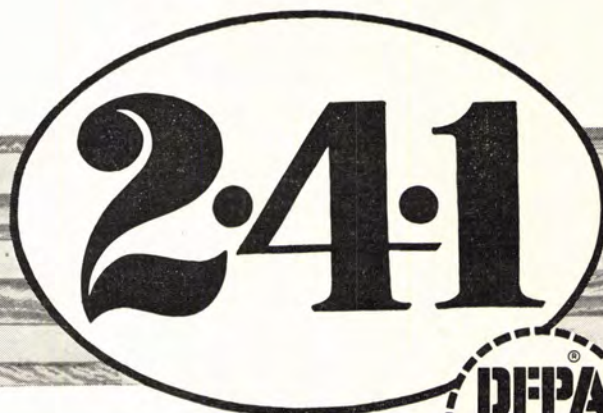
Precisely engineered tongue & groove joint eliminates blocking between beams, provides solid connection capable of withstanding heavy concentrated loads.



Finish flooring from thin vinyl to oak strip may be applied directly to the smooth 2·4·1 plywood surface. No additional underlayment or building paper is needed.



Underside of floor presents an attractive panel and beam basement ceiling, unmarred by a complicated network of joists and bridging—a big feature with home buyers.



1 1/8" PLYWOOD COMBINED SUBFLOOR-UNDERLAYMENT



'60 may be big year for tax changes; IRS, Congress study new proposals

Changes in income tax rules which could have far-reaching effects on the housing industry are being mulled in Congress and by the Internal Revenue Service.

IRS indeed may wipe out the tax deductibility of dues paid to trade groups if a substantial part of the group's job is lobbying. And there are rumblings of a move to require convention-goers to prove that a meeting substantially aided them in their business if they claim it as a business expense. IRS suspects there is more partying than business at most conventions.

IRS has always allowed full deduction of dues to a professional or trade group, without regard to the group's activities. Now, it would disallow that portion of dues used for lobbying. IRS won a recent Supreme Court test case on this issue. It refused to let liquor dealers in Washington and Arkansas deduct expenses incurred fighting laws to bar liquor in certain localities.

The cost of the rule change to builders, realtors and other small businessmen would be small since their dues are peanuts. Cost to S&Ls, whose dues to the S&L Leagues run as high as \$2,500 (depending on size), could be much more. There is much opposition to the proposed change from advertising interests who probably would lose a large source of ad revenue as various associations called off ad campaigns aimed at everything from changing laws to fighting featherbedding.

The change in deductibility of convention expenses could hit builders, mortgage bankers, realtors and the rest of housing's trade groups more severely. The average convention spenders from \$500 to \$2,500, depending upon how far he travels.

Business Editor J.A. Livingston of the Philadelphia *Bulletin* took note of the succession of parties which marked the recent American Bankers Assn convention (no more than are typical of builders or realtor conventions), wrote: "Its [the convention's] original purpose—education and serious talk about banking problems—has been lost in a competitive merry-go-round of social get-togethers . . . A Treasury official surveyed the succession of breakfasts, luncheons, cocktail parties with awe and consternation. Could these lavish affairs be regarded as justifiable business expense?"

IRS is also digging into the non-profit status of all trade associations. NAHB is worried like the rest, particularly about its profitable Chicago convention. NAHB Counsel Herb Colton has quietly circulated a questionnaire among members to buttress the association's contention that the product displays are a vital educational activity.

A general revision

The House ways & means committee has begun what it hopes will become a long overdue overhaul of federal income tax laws. Main aim: to eliminate the maze of loopholes and exemptions so income tax rates could be cut sharply without much loss of revenue to the Treasury.

If Chairman Wilbur Mills (D, Ark.), is successful it could mean lower tax rates—business and personal—for everyone. But it could also change the shape of the housing market.

One of the big exemptions in the present law lets homeowners deduct all interest paid on home loans—substantial amounts on today's 30- and even 40-year loans. Several

witnesses (the committee is listening to scores of economists, professors, businessmen, lawyers and labor experts) have complained that this in effect represents a 25% subsidy of home ownership. They propose the exemption either be wiped out or that homeowners be required to list an imputed rental income in their returns to put them on a more equitable tax footing with renters.



MILLS

Also under consideration: a proposal to end income tax exemption on state and local bonds. Most mortgage men say this change would bring some money back into mortgages.

Many wealthy individual investors who could buy mortgages or even one of the forms of participating shares now offered, are putting big proportion of their liquid funds into tax-exempts. Defenders of tax-free bonds protest that without it many towns and cities would be unable to finance public improvements.

Mayors rip GOP housing policies

"We're taxed and in debt to the limit," said Philadelphia's Mayor Richardson Dilworth, of America's cities. "And the federal government is going to have to start pumping back a fair share to us." Before 1,500 fellow delegates to the American Municipal Assn's 36th annual congress in Denver, Democrat Dilworth thus put his finger on one of US cities' biggest problems. And in resolutions smacking more of anger than sorrow, the Democrat-dominated (because most big cities today are, too) AMA gave its solution: a cry for more federal subsidies, especially for housing and renewal.

The problem was capsuled by Democratic Presidential Hopeful Sen. John Kennedy (Mass.), who reminded the delegates that by 1980, 80% of the people will live in urban areas which get only "the last thin dime" of each tax dollar. (The rest: 75¢ to the federal government, 15¢ to state governments.) Said Kennedy: "Our state legislatures, still rural dominated in most states, will neither expand municipal taxing powers, nor distribute to cities and suburbs a fair share of the tax dollars collected within their boundaries."

Public attention at the AMA focused on its plea for long-term, low-interest federal loans to cities to help railroads with commuter problems (this idea, welcomed by Eastern railroads, was accepted by Western roads only after much persuasion by Yaleman ('21) Dilworth and his colleagues). But

Tax Attorney Leonard Silverstein, a consultant to NAHB, has proposed that a provision be put into the tax law for businessmen (like builders) who liquidate their investment with the sale of their product. He notes that the builder who buys land and sells homes must list all income from this sale as ordinary income—even though he has held the land more than six months. This would qualify him for capital gains tax treatment if he had sold the land alone.

And the committee is also considering what changes, if any, to make in income tax on mutuals—S&Ls and savings banks (*Dec, News*).

Two changes stalled

While the committee is studying what exemptions to eliminate, it is almost certain that no more will be created. Thus two of interest to the housing industry look indefinitely stalled:

- The builder and realtor-supported bill to grant real estate trusts conduit tax treatment as investment trusts are. This would limit taxation to the beneficiaries of the trust. The trust, itself, would not be taxed as it is now, a fact which has almost stymied their development.

- HHF Administrator Norman Mason's suggestion—made at the NLRDA convention in Cleveland in November (see p 67)—that home improvement expenses be given the same tax write-off now allowed on investment property.

The Mills committee is expected to produce some type of tax revision bill this session though its chances for success—particularly in the Senate—seem to hinge most on how many exemptions are unchanged. Every exemption has its defenders, in and out of Congress.

the association's strongest language was reserved for housing.

AMA accused the Administration of "frustrating the intent of Congress" that every American family have a decent home, demanded a congressional investigation of the federal housing and urban renewal. Asked what this meant, Mayor Ben West of Nashville, Tenn. blurted: "It's to find out why the Administration is doing its very best to starve and maim this program."

Only six years ago, AMA debated vigorously whether to support public housing or not. This year, hardly a voice was raised against these new subsidy pleas:

- More public housing for low-income families, with all the units authorized in the 1949 Housing Act, more time for cities to use allotments, transfer of unused units to other cities instead of cancellation.

- A whole new program, including direct loans "to the extent necessary," to put urban housing "within reach" of middle-income families.

Less than a fortnight after the delegates had delivered their blast and gone home, HHF Administrator Norman Mason met with a hand-picked "representative group" of 11 mayors in Washington to discuss urban renewal. They agreed, said Mason afterwards, that more middle-income housing is a "major problem," but that "no one action will do the job." Mason also complained that renewal's "workable program" is a "misleading name."

MORTGAGE MARKET:

Life companies step up FHA buying; some experts foresee loan shortage

Will investors face a mortgage shortage this winter?

Many mortgage bankers now say so. They cite two reasons: 1) the inventory of loans on hand is low with sales to Fanny May continuing high and 2) house sales have slumped so badly that loan originations are sure to be off sharply.

Some mortgage bankers, notably those who deal with insurance companies, admit they do not have enough loans to meet current demand. Said Atlanta's Bob Tharpe in mid-December: "I put out feelers last week to buy a few loans wholesale. I couldn't find any." Others also report their shelves clean.



"The price of mortgages could move up a point based on the scarcity of loans alone," says Chris Gebhardt of Los Angeles' Colwell Co. Paradoxically, hardly anyone expects the money market, itself, to ease enough to produce lower discounts. Indeed, most expect even more tightening with higher rates later in '60.

But sometime this year—possibly in January but at least by April—the experts expect enough of an easing to push housing up to a 1.2-million-start year. Peak month for starts may well come in the third quarter of the year.

Lost in the tremblors which gripped housing when savings banks exited from the mortgage market last fall has been the resurgence of buying by life insurance companies.

The life insurance companies—paced by the Metropolitan and Prudential, two biggest in the US—have quietly resumed their dominance in the FHA market for the first time in 10 years. Across the nation, they are buying FHAs at 96½ or 97 in such big volume that builders are very reluctant to take less (except from Fanny May).

A savings banker, Vice President Robert M. Morgan of the Boston Five Cents Savings Bank, sums up this way: "For 10 years the savings banks have supplied the marginal money in the FHA-VA market and this has set the price. The banks had no deposit trouble so they were always in the market to some extent. In October they *did* have trouble due to the Treasury's Magic 5's. So they're out. But the Magic 5's didn't hurt the life companies. They have money . . . they're in the market strong and they're making the market."

Of course, both the Met and Pru can offer especially good prices without sacrificing yield. Met is paying ¾% servicing on most FHAs it buys now (Nov, News) and Pru retains servicing itself.

On the sobering side, Jim O'Leary, economic research director for the Life Insurance Assn, predicts the life companies will "shift their emphasis somewhat more to business and industrial financing" later this year. But, he adds: "I expect there will be a substantial flow of new money and repayments into home mortgages. . . . I believe this would also be true of other mortgage lending institutions." O'Leary predicts 1.2 million starts this year.

A few savings banks are buying a few loans now, but the bulk of them are not expected back in the out-of-state market before March or April.

Their loss of deposits after the Treasury's October refinancing was finally totalled at \$187 million. Their net deposit gain for all of 1959 was an estimated \$1 billion—way below the \$2.1 billion of 1958.

But the Philadelphia Savings Fund Society is buying FHAs in Philadelphia at 99—a price which almost eliminates competition from mortgage bankers.

Key hope for less pressure in the money market for the first six months of 1960 is the Treasury's comparatively good position.

It will still be borrowing for credit needs until March. Then it expects a \$4 billion cash surplus followed by \$2 billion in June. Still unsettled: will the Treasury again try another short-term issue like the Magic 5's this winter?

Many a money and housing official predicts net Treasury activity will ease money market pressure. Jim O'Leary disagrees: "My belief is that the seasonal surplus in the first half of 1960 will fail to provide any real easing because of liquidation of governments by corporations [to undertake plant and equipment programs]."

Will Fanny May cut its secondary market prices again? Some mortgage men were predicting so in mid-month after FNMA paid a record 5.35% for a \$200 million issue of 9-month debentures.

MORTGAGE BRIEFS

France seeks US money

US housing has a new competitor for money in the capital market—French housing.

Credit Foncier of France offered and sold a \$50 million bond issue in New York in December—though about \$20 million of it was sold to foreign investors. The issue had a 5½% coupon but was sold at 95½ to yield 5.89%.

Credit Foncier provides the long term financing for the government's special housing construction program. This program, started in 1950, is to encourage construction of medium and low cost apartments and houses by giving subsidies and loans to persons whose plans qualify.

This bond issue is the first sold by France in the US since a \$100 million issue in 1924. It was retired in 1949.

Bond trade made

Fanny May's first swap of 4% VA mortgages for 2¾% non-marketable US bonds proved a smashing success.

And many a mortgage man now concedes the swap may *help* the mortgage market more than it will hurt it. Reason: the S&Ls, savings banks and insurance companies which were the chief traders now have paper which will bring them a regular run-off which can be put back into mortgages. The bonds, locked in until maturity in 1980, produced nothing but interest. The holders can even sell the mortgages—if they want to liquidate badly enough (at less than 90).

Fanny May traded \$188 million in mortgages, although it had planned to limit the initial swap to \$150 million. Bids were too good to pass up. Successful bids ranged from 101.125 to 105.15, averaging 102.03. Bids were made on \$283 million in loans. Lowest bid of the 236 received from 125 bondholders was par.*

The premium paid means the government's paper loss in trading 4% loans for 2¾% bonds is cut from about \$7.5 million to \$4.5 million. This may temper some criticism of the swap in Congress. The Senate last year passed a resolution opposing the plan; the House took no action.

The Administration undertook the mortgage-for-bond swap to help balance the 1960 budget. A total of \$335 million in loans were to be offered, which means at least \$146 million remain to be traded. But the Administration has indicated it may offer even more mortgages before the fiscal year ends in June. (Fanny May has \$972 million of the 4% loans in its marketing & liquidation portfolio.) Date of the next offering is tentatively set for some time this month. But Rep Albert Rains (D, Ala), chairman of the housing subcommittee and a consistent critic of the swap, warns he will ask Congress to stop it.

Two years too late

New York State has belatedly decided that it does not approve of International Guaranty & Insurance Co of Tangiers, Morocco—an insurer of accounts in state-chartered savings & loan associations.

Nearly two years after five other states in-

* Bidders comprised 11 S&Ls, 34 savings banks, 26 insurance companies, 12 commercial banks, 5 individuals and 7 other investors.

'Buy mortgages now,' bankers urged; but few are expected to do so

Don't expect commercial bankers to make that big entry into the home mortgage business anytime soon. Indeed, banks are making and will be making even fewer home loans than they have in the past two years.

Just a year ago, the American Bankers Assn quietly started a promotional and educational drive to persuade more banks, 1) to solicit personal savings deposits and 2) make more real estate mortgages.

One phase of the program is making good progress: banks want more savings. But with money rates so high banks are putting little of their savings deposits into home loans. Most goes into short-term business and personal loans. Dr Kurt Flexner, ABA's mortgage division director, shrugs it off: "In the current tight money situation it's normal for banks to be more interested in short-term loans."

Yet when he spoke to bankers at ABA's first regional mortgage workshop in New Orleans in November, Flexner warned: "Banks which add mortgage lending and consumer credit activities will grow faster than the others. If banks do not respond, they will lose out to their competition—the savings & loan associations."

"The idea is for a bank to stay in the mortgage market and not be too concerned when interest rates fluctuate . . . In a private enterprise economy we should be most concerned about allowing a vacuum to exist in financing homes for private families and housing for colleges and old people. If there is a vacuum today, it will be filled by government intervention."



FLEXNER



ANDRUS

Walter Andrus

ABA's first workshop drew about 150 bankers from Texas, Louisiana, Mississippi, Tennessee, Alabama, Arkansas and Oklahoma. ABA men call this close to the turnout expected, but onlookers figure it reflects no big upsurge of interest in mortgage lending. One ABA official insists more bankers would have attended if the two-day session had not followed the ABA convention so closely (only three weeks).

Vice President Cowles Andrus of the New Jersey Bank & Trust Co of Passaic, a workshop speaker, also proposed that banks take on more of the mortgage banking function—originating, selling and servicing loans for other investors. Said Andrus: "Many commercial banks find this a very profitable activity as it increases the liquidity of a bank's own portfolio and supplements its organization. Contacts obtained this way are extremely valuable, particularly if a bank's mortgage portfolio has reached its saturation point."

It is this kind of talk which worries mortgage bankers (*Nov, News*). When FHA was started, its founders expected commercial bankers to originate FHA loans, sell them and service them. But the bankers, still shaken by the wave of depression failures, never filled the gap, paving the way for the modern mortgage company.

Andrus shook up his audience when he suggested that now is the best time for commercial banks to be investing in real estate mortgages (and he pointed to FHAs and VAs as the safest of any mortgage investment). Said Andrus: "With mortgage loan rates at their present peak, this is an excellent time to take advantage of a situation which enables banks to develop a cushion to lessen the impact of declining interest rates. Rarely in the history of banking has such a golden opportunity been presented and those of you who do not take advantage of it will surely miss the boat."

ABA's next regional mortgage workshop will be Feb 22-24 in San Francisco. These sessions point up strongly the new emphasis of ABA's savings & mortgage division on help for commercial banks rather than savings banks which once dominated the division's activities. [This year's S&M division president is Louis S. Finger, president of the Andover (Mass.) Savings Bank. The presidency customarily alternates between a commercial banker and a savings banker. Insiders believe Finger may be the last savings banker to hold the job.]

ABA's endorsement of the Mason bill to increase the federal income tax on savings banks and S&Ls (*Dec, News*) has prompted 222 savings banks to quit. Another 142 have so far not renewed their membership. Only 305 have renewed but most apparently are staying only so they can send employees to ABA's banking school.

Builders find new ways to use second mortgages

For better or worse, second mortgages have made another comeback—an almost inevitable byproduct of a tight money market.

Many are non-amortized or partially amortized short term (3 to 5 years) balloon notes—the kind that have periodically been denounced in Congress and by government housing bosses (*Nov '57 News, et seq*).

But some builders, notably in Florida and California where secondary financing is most common, have introduced new twists which should overcome some of the old objections. Two of the most interesting:

1. More second liens are long term and fully amortized at an interest rate the same or only slightly higher than that on the first mortgage. This cuts monthly payments and it eliminates the refinancing which confronts mortgagors who come to the end of a short term un-amortized note.

Builder Harris Goldberg of Los Angeles, for example, offers his buyers a 78% first mortgage from a local S&L at 6.6%. Goldberg takes back a second for 12% of the purchase price (\$21,000 to \$28,000) and the buyer pays 10% down. Goldberg's second runs for 25 years at 6.6%, same as the first.

Goldberg figures the 12% is his profit. How can he afford to take it back over 25 years? He doesn't. "The average California homeowner stays in any given house only five to seven years. And each of our seconds requires that if the mortgagor sells the

house, he must pay off the second mortgage. It cannot be transferred with the house," he explains. Thus he expects to get his money in 5 to 7 years, perhaps less since there is no penalty for prepayment. He says he will keep most or all of the second trust deeds himself.

2. Builder Willard Woodrow, starting a new group of homes in Carol City (Miami), has arranged 80% first loans from an S&L on his new \$13,990 homes. He will take back seconds for up to 20% to give 100% financing. The second is a five-year note at 8½% and is partially amortized.

The new gimmick in Woodrow's plan is a bonded guarantee that if the mortgagor cannot pay off the loan after five years, it will be renewed for five more years on a fully amortized basis. Interest rate would be "the prevailing rate" which could be the legal limit of 10%. Monthly payments would obviously jump but, in effect, the buyer is getting 10 years to pay off his principal.

A break in the tax bill

Woodrow plans to sell his second mortgages—at a big discount, of course. He won't state how much but many secondary liens in Miami bring only 50¢ on the \$1. This would roughly equal a 10 point discount on an FHA or VA loan equalling both his first and second.

For the builder who can afford it there are good tax reasons for keeping the seconds as

Goldberg does. The second lien must be reported in the year received as a deferred income transaction. But it is taxable at its market value, not its face value. So if the current market for loans of this quality is 50¢ on the \$1, this is the sum on which tax must be paid.

If the builder holds the note, 50% of the collected principal in succeeding years is recovered capital (on which tax was already paid) and 50% is ordinary income in the year received.

Builder-Attorney Sylvanus Felix of Oklahoma City cautions that the Internal Revenue service can and has challenged some claims of market value on second mortgages. "The value depends upon who the mortgagor is, his position, the terms of the loan and the market for it," he explains.

Builders can claim the full face value of a second mortgage as deferred income if the lien is less than 30% of the purchase price. In an ordinary deal where a builder gets the proceeds of the first mortgage and the second this is obviously not applicable.

There is a way around this problem. Some builders, particularly in California, build and sell homes with one loan—a 20 or 25 year construction loan which also doubles as the permanent amortized mortgage. No new mortgage is originated when the house is sold. The homebuyer is simply substituted for the builder as borrower on the long term construction loan. Thus on a \$15,000 house

on which the builder has negotiated a \$10,000 long term construction loan, he can take a \$3,500 second mortgage after the \$1,500 down payment without being required to list the second lien as taxable income. He has not taken the proceeds of a new mortgage to repay his construction loan. And the \$3,500 note by itself is less than 30% of the purchase price. Taxes therefore are paid only as the principal is repaid.*

US cross-section

Here is the second mortgage picture in four cities where it is most active:

Los Angeles: An estimated 70% of all new house sales in the metropolitan area are being financed conventionally—with only 10% involving an all-cash down payment above one mortgage. Second mortgages are especially common in higher priced homes; conditional sales contracts more common in lower priced tracts.

Most seconds are only partly amortized.

* Builders often use this device when they plan to sell the house on contract. It eliminates one set of closing costs.

Usual terms run 3 to 5 years. Vice President Arthur Neelley of the California Federal S&L figures the typical second mortgage is for \$5,000, carrying a rate ½ to 1% above the first mortgage. Mortgagors repay 1% of the principal per month with a balloon payment at the end.

The number of 20-25 year, fully amortized second mortgages—like Goldberg's—is increasing sharply as builders try anything they can afford to help sell houses and qualify more buyers.

Best estimates are that 60% of the builders keep their seconds. Those who sell must discount them 25 to 40%, cutting their profit. Some have worked out deals to pay their sub-contractors or other investors in this paper. One builder has used seconds to buy land.

Miami: Second mortgage financing is still most common in Broward County, north of Miami, where FHA-VA land approval was delayed due to lack of sanitary sewage disposal systems. Heritage Homes has 24½ year fully amortized seconds—same term as the first—but at an 8% rate vs 6% on the first. Heritage has sold 650 homes this year—75% of them with the help of second mortgages.

Columns of adverse newspaper publicity against balloon notes have discouraged their use. Indeed, abuses in secondary financing—connected mostly with home improvement work—were responsible for Florida's new mortgage broker licensing act (*June, News*) which puts mortgage men under supervision of the State Comptroller.

San Francisco: Volume of second mortgage financing has increased substantially, now covers an estimated 40% of all new house sales. Most builders sell their seconds at 40 to 50% discounts.

Chicago: Sale of houses through conditional contracts is more common than second mortgages. One reason: most S&Ls frown on seconds, look more kindly on contracts since they involve only one mortgage and the builder is the mortgagor. Says Assistant Vice President George L. Armstrong of Talman Federal: "We will not do it [make a first loan if a second is also to be made] knowingly. Sometimes nothing is wrong with it. Other times there is a great possibility of default. In a lot of cases there is an inflated price. You've got to be extremely cautious."

NEWS continued on p 66

MORTGAGE MARKET QUOTATIONS

(Sale by originating mortgagee who retains servicing.) As reported to HOUSE & HOME the week ending Dec. 11, '59

FHA 5¾s (Sec 203) (b)							VA 5¼s					Conventional loans		
FNMA Scdry Mkt ^{xy}	New Construction Only				Existing ^z Min Down 25 year Immed	City	FNMA Scdry Mkt ^{xy}	New Construction Only				Comm. banks, Insurance Cos.	Savings banks, S & Ls	Construction loans ^w Interest + fee
	Minimum Down* 30 year Immed		10% or more down 20-25 year Immed	Fut				No down 30 year Immed		5% or more down 20-25 year Immed	Fut			
96	96-97	95-97	97	97	95-96 ½	Atlanta	92	91 ^b	91 ^b	91 ^b	91 ^b	6-6¼	6-7	6-6½ + 2½
97	par-101 ^m	par-101 ^m	par-101 ^m	par-101 ^m	par-101 ^m	Boston local	93	98-par ^b	98-par ^b	98-par ^b	98-par ^b	5½	5½-5¾	5½-5¾
—	95-95 ½	95-95 ½	95-95 ½	95-95 ½	95-95 ½	out-of-st.	—	91-91 ½	91-91 ½	91-91 ½	91-91 ½	—	—	—
96	95-96 ^b	95-96 ^b	97-98 ^b	96-97 ^b	97-98	Chicago	92	90-91 ^b	90-91 ^b	92 ^b	91-92 ^b	6	6-6½	6-6½ + 1½-2
96	96½-97	95½-97	97-98	97-98	96½-97	Cleveland	92	91-92	a	91-92	a	6-6¼	6-6½	6 + 1-1½
95½	95-97½	94½-97	96-98	96-97½	95-97½	Denver	91½	92-94 ^b	92-93 ^b	92-94 ^b	92-94 ^b	5¾-6¼	6-6¾	6½ + 1-2½
95½	97	a	97½	a	a	Detroit	91½	92½	a	93	a	6-6¼	6-6¼	6½ + 1½
96	95-95½	95½	97	97	95	Houston	92	91-92½	a	a	a	5¾-6¾ ^e	6-6½	7 + 2
96	92½-94	92½-94	96	96	93-94	Jacksonville	92	90-91	a	a	a	6	6½	6½ + 1½
95½	94-95	93-94	96-97	95-96	95½ ^g	Los Angeles	91½	90-91 ^b	89-90 ^b	a	a	6-6½	6.6-7	6 + 1½-2*
96½	97	97	98	98	97	Newark	92½	92	a	a	a	6	6	6 + 1
97	99 ^b	99 ^b	99 ^b	99 ^b	99 ^b	New York	93	95 ^b	95 ^b	95 ^b	95 ^b	6 ^b	6 ^b	6 + 1-1½ ^b
95½	95-96	94-95 ^b	97 ^b	a	95-96 ⁱ	Okla. City	91½	91½-92 ^b	a	91½-92 ^b	a	6-6¼	6¼-6½	6-6½ + 1-2½
96½	97-97½	97-97½	97-97½	97-97½	97-97½	Philadelphia	92½	a	a	a	a	5¾-6	5¾-6	6 + 1-2
95½	95½-96½ ^k	95½-96½ ^k	96-97 ^b	96-97 ^b	94 ^d	San. Fran.	91½	91 ^b	90 ^b	a	a	6-6½	7.2-7½	6-7 + 1½-2½ ^b
96	94-97	93½-97	94½-97 ^f	94-97 ^f	94-97	St. Louis	92	a	a	a	a	5¾-6½	6-6.6	6-6½ + 1-2
96½	96 ^b	96 ^b	97-98 ^b	97-98 ^b	96-97 ^b	Wash., D.C.	92½	91 ^b	91 ^b	92 ^b	92 ^b	6 ^b	6 ^b	6 + 1½-2 ^b

*3% down of first \$13,500; 15% of next \$2,500; 30% of balance.

SOURCES: Atlanta, Robert Tharpe, pres, Tharpe & Brooks, Inc; Boston, Robert M. Morgan, vice pres, Boston Five Cents Savings Bank; Chicago, Murray Wolbach, vice pres, Draper & Kramer, Inc; Cleveland, David O'Neill, vice pres, Jay F. Zook Inc; Denver, C. A. Bacon, vice pres, Mortgage Investments Co; Detroit, Stanley M. Earp, pres, Citizens Mortgage Corp; Houston, Donald McGregor, exec vice pres, T. J. Bettes Co; Jacksonville, John W. Yates, vice pres, Stockton, Whatley, Davin & Co; Los Angeles, Chris Gebhardt, asst vice pres, The Colwell Co; Newark, William F. Haas, vice pres, Franklin Capital Corp; New York, John Halperin, pres, J. Halperin & Co; Oklahoma City, B. B. Bass, pres, American Mortgage & Investment Co; Philadelphia, William A. Clarke, pres, W. A. Clarke Mortgage Co; St. Louis, Sidney L. Aubrey, vice pres, Mercantile Mortgage Co; San Francisco, Raymond H. Lapin, pres, Bankers Mortgage Co of Calif; Washington, D.C., Hector Hollister, exec vice pres, Frederick W. Berens, Inc.

► 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.

Footnotes: a—no activity. b—very limited activity. c—commercial banks do very little mortgage lending in Texas. d—FNMA eligible; 2 points less if ineligible. e—S&Ls charging 2 to 3 point fees. f—prices based on minimum down. g—all minimum down loans to FNMA. h—S&Ls charging 7% plus 2 ½ to 4 points. j—for better quality loans only. k—life companies only buyers. m—some at 5 ½, some at 5 ¾. w—six months construction loans unless otherwise noted. x—FNMA pays ½ point more for loans with 10% or more down. y—FNMA net price after ½ point purchase and marketing fee plus 2% stock purchase figured at sale for ½¢ on the \$1. z—on houses no more than 30-years old of average quality in a good neighborhood.

NEW YORK WHOLESALE MORTGAGE MARKET

FHA 5³/₄s

Immediates: 93 ½-94 ½
Futures: 93-94

VA 5¹/₄s

Immediates: 90 ½-91
Futures: 90 ½-91

FHA 5³/₄ spot loans

(On homes of varying age and condition)
Immediates: 90 ½-92 ½

Prices for out-of-state loans, as reported the week ending Dec 18, by Thomas P. Coogan, president, Housing Securities Inc.

Note: prices are net or originating mortgage broker (not necessarily net to builder) and usually include concessions made by servicing agencies.

FNMA STOCK

	Month's Month's			
	Nov. 13	Dec. 10	low	high
Bid	57 ½	55 ¾	55 ¼	58
Asked	59 ½	57 ¾	57 ¼	60

Quotations supplied by C. F. Childs & Co.

Lumber dealers plan new moves for survival

Approve higher dues, expanded national programs to help in fight for markets

Retail lumber dealers are sharpening their national organization in order to compete for a bigger share of housing's dollar volume.

Heartened by better sales and profits (some report as much as 8% net against 1958's pallid 3% average), they are still plagued by cutthroat price competition, direct-selling to volume builders and market inroads by fixup applicators and prefabbers.

But directors of the National Retail Lumber Dealers Assn, at its annual meeting in Cleveland last month, made it clear they won't take the competition lying down. Says H. R. "Cotton" Northup, NRLDA executive vice president: "These fellows are determined to keep abreast of this competitive picture and know what's going on." Some of the ways adopted at Cleveland:

Dues were boosted \$3 apiece to \$18 for NRLDA's 12,000 members to pay for more and better national services. Among other items, the money will help pay for two steps recommended by a bombshell industry survey conducted last year by management consultants Cresap, McCormick & Paget (*Jan '59 News*): 1) a bigger staff to assist the executive and bolster relations with member associations and 2) a drive for 5,000 new members.

Communications were ordered improved within the industry by establishment of a monthly *Washington Report* to be sent to all members. Like newsletters of other housing groups, the *Report* will carry news of association policies, activities, services. It replaces a similar journal that died a lingering death two years ago largely because copies reached members as much as six weeks late, sometimes never. The new sheet was hastened into existence at least partly by the shocked discovery of NRLDA President H. W. Blackstock at last year's meeting that some dealers there were unaware they were members of a national group—only knew of their state or regional affiliation. The *Report* is the second new NRLDA publication this year. In October, it started a biweekly labor letter.

Education was sparked with approval of a full series of six audio-visual kits for sales seminars for yard workers and supervisors. First of the set (cost: \$18,000 each) was sponsored on a trial basis last year by US Gypsum. Second was produced by Masonite Corp and unveiled at the Cleveland meeting. "We expect the third, which is being produced for us by Kaiser Aluminum, to be ready by the first of the year," says Education Chairman Phil Creden of Chicago. "And the basic texts for the next three have been prepared and are in the hands of prospective sponsors now. We may not make salesmen out of every foreman and worker," explains Creden, "but it's a big help just to have them awake to the possibility of increasing sales."

Marketing research was begun with a survey of marketing practices across the nation. It will also cover dealer opinions on needed changes in distribution.

When results are tabulated, insiders say, they will help shape policy on where NRLDA should stand on efforts to cut the high cost of distributing building products—efforts that sometimes envisage eliminating retail materials dealers.

Materials handling unit takes new, basic tack

After six years of plugging for standardization and mechanization in materials handling, NRLDA has switched its emphasis to showing lumber dealers ways of improving efficiency with their present plant and equipment.

Rechristened "Dealer Operations Research," the new materials handling program was unveiled at NRLDA's Cleveland meeting. It became the biggest crowd-puller of the week. Some 600-700 dealers at a time were handed workbooks, shown how to use them in figuring handling and storage costs in their own yards. Morning demonstrations outdoors were followed by afternoon skull-practice inside, in a three-day series.

"It doesn't mean that we are giving up on standardization or mechanization," says Materials Handling Director James Wright. "But we figure that any dealer ought to be able to increase his profit from 3 to 5% just by learning how to cost his operations, then make indicated changes."

"The average lumber dealer doesn't realize that outside of sales, he's just in business to assemble, store and sell materials. The only place a machine fits into materials handling is in using space more efficiently, and making labor more productive."

"The dealer first needs to know what it costs him to perform the basic operations. Then he can tell what he needs to reduce his costs."

The costing operation is the first step in a three-phase program that Wright, who was appointed to his job in June '59, calls "beginning at the beginning instead of the middle." Other phases will be yard layout planning, and research—including continuing work on unit sizing, vehicle and building development. "Eventually, all the phases will work simultaneously," says Wright. "But the first thing is to get costing information to the dealers, then build up data on their needs in the other phases."

One reason behind the change: comparatively few lumber dealers have been able to benefit from unitized materials and more machinery. As a result, producers (especially lumber mills) dragged their feet on standardization while smaller dealers waited in vain for improvements, or bought equipment they couldn't use efficiently and soured on the whole idea.

LuReCo, still growing, boosts aluminum again

"We feel," President Clarence Thompson of Lumber Research Council told a jam-packed meeting room in Cleveland, "that we have finally come of age." His reasons, given to the more than 500 lumber dealers who gathered to hear the latest about the council's LuReCo system of modular house components:

- Membership (cost: \$200 & up per year)

Photos: H&H staff



STRUCTURAL COMPONENTS are catching on fast, reported W. D. Page, executive vice president of DFPA's Plywood Fabricators Service. The parent organization will pour \$4 million into sales, expects to enlist 140 licensed fabricators, double quality control facilities, hike its field force to 90 in a 1960 expansion of a year-old pilot program.



PREFABBER THREAT shouldn't worry LuReCo dealers, said Seattle Dealer Robert Blackstock: "You can produce homes 10% cheaper than anyone else in the business." Why? Retail dealers on the West Coast are already able to get "guaranteed delivery and guaranteed price" on carloads of lumber because of their LuReCo volume.



CONSUMER FINANCING on convenient terms makes "price and everything else" secondary, Dealer Raymond Tylander told meeting. He urged lumbermen to learn all forms, especially those available from local institutions: "Learn all you can from their lending officer so you can take his place . . . screen applicants for loan qualifications."



LAND DEVELOPMENT offers extra profit, control of materials sales to builders who want lots, advised a panel headed by Dealer Harry Balcom. He said builder relations aren't hurt "nearly as much as we've been led to believe" by such sidelines. But panelists warned novice developers to study community growth, get professional planning help.

has grown from 1,491 in 1958 to 1,625 as of last Nov. 1. "We expect to add 500 more in '60," says Thompson. "We're picking up speed. We wouldn't like to have 20,000 members, but we would like to have 5,000 active members eventually." In 1958, LuReCo dealers marketed 21,000 homes, sold them to builders or erected them themselves for sale.

- LuReCo's 1960 line of homes are all engineered for full use of aluminum building products—and designed for LuReCo by Reynolds Metals Co. (For the past three years LuReCo's annual line of new models has been designed by Douglas Fir Plywood Assn).

- LuReCo, in cooperation with DFPA, has just finished a research house designed to test new and cheaper roof systems, use of box beams and floor panel systems. "We felt that the roof system from the top plate up, was too expensive, so we made a grant to the University of Illinois small homes institute to see what we could learn," says Thompson.

NRLDA's new president: salesman Paul DeVille

NRLDA's president-elect is Paul V. (for Vincent) DeVille, 51, a genial Canton, Ohio lumber dealer. He was born and raised there, started in the business there at 16, now owns the company where he began as "office boy and greenhorn" in 1924.

Unlike many retail lumber dealers, DeVille has no family tradition in the business. But he has a lot of faith in its future. At 18,

H&H staff



DEVILLE

he became a salesman for a second Canton lumberyard, Bartlett Lumber Co., and two years later joined another employee in buying the company out. He got his share, "\$1,000 cash and \$29,000 credit" on his ability as a salesman. "I was only 20 at the time," he recalls, "and you can bet the banks didn't know that." In

the years since, the business that is now DeVille Lumber Co has grown from a gross of \$80,000 a year to \$1 million. His son, Charles, 24, is now in business with him.

A specialist in sales, DeVille lists its improvement in the industry among his top three goals as NRLDA president. He has already presented his experiences in home improvement merchandising to a dozen state and regional assn meetings.

As president, he hopes also to increase national membership substantially, has set a goal of 3,000 for '60. Third on his program is improvement of public understanding and appreciation of the lumber dealer. "He's the kingpost of this situation," he says. "Solid, reliable—no suede shoe boy" DeVille will spend a third of his working time on association affairs, expects to visit every state and regional affiliate of the national.

NRLDA's stepladder succession of officers was upset this year when Leslie G. Everitt of Colorado Springs, second vice president (and slated to succeed DeVille), withdrew for personal reasons. His place as first vice president is taken by last year's treasurer, W. B. Oldham of Dallas, Tex. New 2d vice president is William Johnson of Boise, Ida. Treasurer is John W. Dain, Mahopac, N. Y.

MATERIALS BRIEFS

Three firms push builder-sales

Alcoa, Reynolds, and giant Flintkote Corp are revamping building products sales as competition sharpens. The moves are seen by some industry observers as forerunners of similar ones by other firms. They are:

Flintkote established a new building marketing research division under Gerald Gilligan, marketing expert for Stanford Research Institute. It consolidated its building lines into a Flintkote Div, is eyeing some products like pipe, floorings, adhesives & coatings, for future inclusion. It has realigned sales staffs to insure more direct builder contact with a wider range of products.

Reynolds created 13 divisional architectural and building sales manager posts to oversee operations of the company's offices in 45 cities.

Alcoa appointed Thomas J. Lannen manager of residential sales succeeding William S. Ellis, who becomes advertising promotion manager for the company. Lannen's job: to direct long-range product development, oversee an "enlarged" residential sales force, in what insiders say is a supporting move to Alcoa's recent decision to get in to manufacture of end products as well as primary metal.

Building costs still going up

Building costs went up again in 1959, reaching an 18-year gain of 157% over 1941, according to F. W. Dodge Corp.

A house that cost \$7,500 to build in '41 would cost \$18,750 to build today, says Dodge. The firm noted 2% increase in metropolitan New York and Northern New Jersey, found nationwide that labor costs rose in 129 of 144 areas, while materials increases in 50 areas were not offset by 22 which showed slight decreases. The findings were somewhat less than the 3% residential increase for the year on Boeckh's index of labor and materials, or BLS' 2.1% hike for materials alone—chiefly lumber, which were up 4.5% overall, October to October.

Distributors eye components

Building materials distributors, alarmed at changes that are cutting them out of some distribution channels, are beginning to eye component distribution as one antidote to their competitive ills. At the annual meeting of the Natl Building Materials Distributors Assn in Chicago, discussion of components ran a close—if informal—second to better merchandising and stronger trade ties to prevent producers from bypassing distributors.

The members, whose annual gathering has grown in nine years from a mere 50 to some 700, came to Chicago making no secret that they feel their backs are to the wall. "The biggest problem is misclassification," said President Don Knecht, of Rapid City, S. D. "We're overproduced, and manufacturers haven't enough normal channels, so many are developing distribution through non-qualified channels (ie, selling retailers at jobber prices).

"The new national game is fix the blame." Psychologist G. Herbert True of Visual Research, Inc, told the distributors. He cautioned against a tendency—not confined to wholesalers—to seek solutions that only buttress their present inadequacies instead

of seeking new ways to take a truly functional role in distribution and the economy.

"We've been running our business by the seat of our pants too long," admitted President Knecht. "The modern . . . wholesaler needs to know more about profits, new ideas in merchandising, inventory controls, sales incentive, compensation and training.

"Components . . . are a must for today. We didn't see the potential prefab was developing. Component parts are here now and hitting us in the face. We'll lose our business without [them]."

Sales Vice President F. E. Dutcher of Johns-Manville's building division gave some good reasons: "There is no question that components can be produced in quantity far cheaper than they can at 25 or 30 different points through a territory (ie, by retailers)." Who could more logically fill the role, he asked, than the distributor? He listed component manufacture as one big way they can keep their businesses growing in the '60s. And he gave them one good reason why sighing for the good old days before "misclassification" won't do much good: "Twenty-five years ago, there were only a handful of dealers doing \$1 million a year . . . Today there are hundreds . . . Substantially more lumber dealers are now able to buy in truckloads and carloads." Why do some manufacturers sell them direct? "In most cases, production exceeds demand."

Prices: lumber recovering

Western lumber is recovering from a severe price drop in November that industry sources blame on overproduction through the fall.

Fir plywood fell to its lowest since the '58 recession—\$64/m sq ft for 1/2" sanded, \$90/m sq ft for 5/8" sheathing. Late in the month some mills raised ply prices at list to \$68 and \$94 for the two types, with mixed but improving success. Meanwhile, dimension lumber is firming, with Crow's industry average showing \$80.63/mbf for all species, up \$5.75 from a year ago. Reasons: "increased confidence" in the price by dealers, and the fact they may now buy without suffering a year-end inventory tax. Other changes:

Cement prices were raised 10¢ to 15¢ a barrel by Marquette Cement Mfg Co at four mills in Illinois, Georgia and Tennessee. Marquette said prices will remain at '59 levels at five other mills.

Plumbing fixtures were hiked 5% by leading manufacturers, among them American-Standard, Crane, Murray Corp. Kohler says it "has not reached a decision" on its prices; Universal-Rundle of New Castle, Pa. says it "will probably follow the industry pattern soon." All cited higher labor and material costs for the rise, first since a 3% hike in the first quarter of '59.

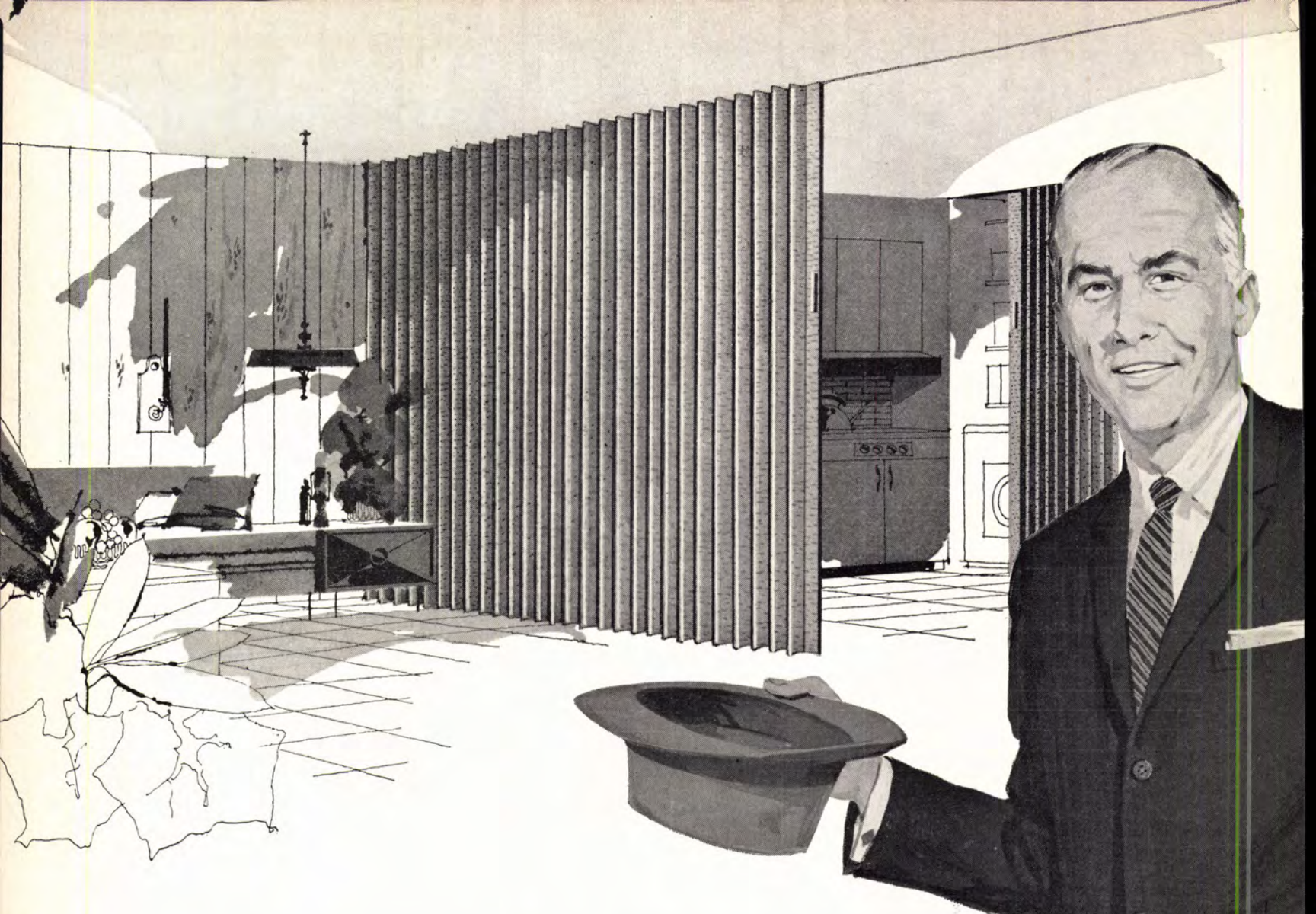
Teamsters ignore pickets

Teamsters have decided to take no chances with the secondary boycott ban in the new labor reform law.

President Jimmy Hoffa has announced his independent union will not recognize any picket lines set up for organizational or recognition purposes. And teamsters will observe picket lines involving a primary strike only if the striking union will insure the teamsters against loss in a damage suit.

The policy almost assures that teamsters will be supplying materials to any building site regardless of pickets.

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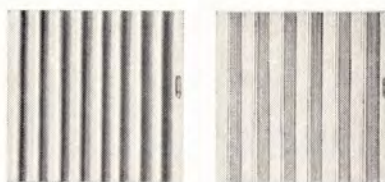
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The rush to celluloid

Housing trade groups take advantage of dearth of movie shorts to offer 'soft-sell' documentaries

If all goes well, during the next 12 months the smiling face of Cinemactor Edward Everett Horton will appear on hundreds of local telecasts across the nation, inviting a total of some 9 million viewers to spend 13½ min witnessing the trials & tribulations of a young couple hunting a house.

Only after the audience is thoroughly involved in the battle that Dave and Laura Blair wage against phony want ads, wrong addresses and vicious dogs in their search for a home, will the program stand revealed as a thinly disguised (and practically painless) documentary on the good offices of the realtor, and how he goes about performing them.

TV helps

Emergence of this house opera in the long-time realm of the horse opera has a good many points of interest. For one thing, the film's sponsor, the National Assn of Real Estate Boards, will not pay a penny for the air time involved. But more significantly, NAREB's "The House Hunters" follows hot after a film on the good offices of the mortgage banker, and how he goes about performing them. This is "The Road to Better Living," premiered this fall by MBA, and slated for the same kind of TV exposure.

Together, the two films are the latest instances of a mass entry into the use of "sponsored" (i.e., industry or trade-produced) documentary films in which virtually every major trade group in housing recently has made, is making, or soon will make a film to present its best image to the public.

"Everybody's doing it," says MBA's public relations director, George Knott. Among the others: the US Savings & Loan League, American Bankers Assn, Home Manufacturers' Assn, Natl Lumber Manufacturers' Assn, American Title Assn, Douglas Fir Plywood Assn, American Institute of Architects.

Together, these organizations have spent or budgeted approximately \$250,000 on their latest films alone. They will reach (through TV public service showings, commercial movie houses, club, church, school and trade groups) an aggregate audience estimated at nearly 43 million.

For some, like NAREB and MBA, film is a new public-relations tool. For others, like ABA and DFPA, it has been a long-standing part of their efforts. But of films produced by all of the organizations in the past two years, or slated for production in the coming year, the latest for each is a general promotion film designed primarily to "soft-sell" the sponsor to the public.

Treatment varies from straight documentary, favored by lumbermen, whose operations often have great visual appeal, to complete story lines with heavy emphasis on entertainment as well as information as in NAREB's first. Casting ranges from stars like Horton to simple filming of workmen on the job, as in DFPA's latest. A documentary on construction (through use of plywood components) of the Squaw Valley, Calif. site of the 1960 Winter Olympics, DFPA's has already had 244 television showings, is beginning to move into school, service club and similar bookings.

"You can never say we sold plywood because of the film," says DFPA's John Ritchie, "but we can say that we have captured someone's attention for 14½ min without interruption. At that rate it costs us under 3¢ per person for their undivided attention."

It is this feature—low cost for solid, long-life exposure of their story—that is bringing housing groups, as it has brought a good many other industries, into sponsored films, says Will Parker, president of Film Counselors Inc of New York. Parker's firm supervised the making of both the NAREB and MBA films. It has planned and supervised making of documentaries for 44 industry and trade groups in the past 13 years.

One reason, says Parker, for the rush to celluloid, is a big expansion in the potential audience, created by television's need for public service programs, and a thirst for short subjects by movie house exhibitors.

NAREB's film, six months in the making, cost around \$40,000, according to Asst Public Relations Director Charles Bernhardt. "At that rate," says Parker, "it cost just about the same as a full page ad in a big national magazine . . ."

Big bookings

Although bookings for NAREB's "House Hunters" are not complete, arrangements for MBA's "Road" give a good idea of a typical sponsored film's potential:

- One-year schedule on public service TV programs; estimated 300 showings, 9 million audience; cost for circulation, \$3,450.
- One year schedule 16mm service club and school bookings, with renewals to five years; cost, \$7,750/yr; estimated audience, 250,000.

In addition, says Parker, whose firm also arranged for booking services, "the movie business has changed—most major studio short subject departments are out of business, but exhibitors want to give their audiences a program. So the door is open to documentaries sponsored by industry that are good." By "good," he explains he means entertainment value, plus information and a "soft sell" rather than a hard one. One such, made for a major chemical firm, is just beginning a schedule of 4,000 movie house bookings. Cost for the service will be \$40,000, but exposure will be 10 million certified attendance.

"A complete film program would hit all three—TV, movie houses and group showings," he says. For this reason, most films tend toward the 15-30 min format suitable for such use, often with a 10-min version for movie houses.

Other reasons for the popularity of films, compiled by ABA's extensive service, a self-supporting activity 10 years old that now offers 10 films on various aspects of banking suitable for various age and interest groups:

- More than 500,000 16 mm sound projectors are in "constant use" in the US today.
- More than 28,000 adult groups use sponsored films as a regular part of their programs; more than 2,000 colleges and universities, more than 15,000 churches book sponsored films for their groups.
- More than 97% of secondary schools have

continued on p 88



BANKSIDE MANNER is displayed by banker-hero of ABA's "A Man to Know." Housewife's visit about budget troubles is, says film, "reassuring—like a visit to her family doctor." B&W, no names. Budget: \$25,000. Release: fall '58. Exposure: TV (3.6 million), rentals (33,000).



BUSHED HOUSEHUNTER finds problems solved, says NAREB's "The House Hunters" after "the capable hand of the realtor has smoothed out all difficulties." Color, features Edward E. Horton. Budget \$40,000. Exposure: TV, rentals (est 9 million), possibly movie houses.



SMILING SALESMAN of civic growth, mortgage banker in MBA's "Road to Better Living" recruits busy builder to house personnel of new plant in town by promising to help find line of credit. Color. Budget: \$75,000. Exposure: TV, rentals (est 9 million).



CARTOON CAPERS lighten US S&L League's "Harvey Dilemma." Title character finds S&Ls offer "all the security of a cookie jar, with the return of a sound investment." Color. Budget: \$30,000. Release: late '57. Exposure: TV (6.2 million), rentals (460,000).



FEARFUL NEIGHBORS stand before half-finished models for interracial project. All live within 200 yards, fear Negro residents will destroy value of their

homes, so oppose it. L. to r.: Edward and Marcia Breitenbach, Robert and Virginia Parrish, Dr. Leonard and Ann Bronstein, Edward and Virginia Burdick.

Chicago suburb fights inter-racial tract

Morris Milgram's group hits snags when it picks site in all-white commuter town

The quiet, tree-lined north Chicago suburb of Deerfield, Ill. has grown so fast in the past 10 years (from 4,000 to 10,000 pop) that another new subdivision attracts little notice. Thus, when Progress Development Corp of Chicago bought 22 acres there last fall, submitted plans to build 51 houses priced from \$30-\$35,000, asked permits to put up two models, it had little trouble getting a green light.

It wasn't until early November that Deerfield became aware that Progress was an ironically apt company name: all-white Deerfield had been chosen as guinea pig host to the area's first interracial suburban housing development. Progress, dismayed Deerfielders discovered, was a subsidiary of Modern Community Developers Inc of Philadelphia. MCD is headed by Builder Morris Milgram, a deceptively soft-spoken crusader for interracial housing who since 1954 has built four integrated developments in Philadelphia (*H&H*, Apr. '55) and Princeton, N. J. Milgram founded MCD two years ago to lend equity money and guidance to like-minded persons in communities anywhere.

From the moment a scandalized Episcopal minister (whose aid in preparing the town for announcement of the development's true nature had been confidentially solicited) let the cat out of the bag, Deerfield's reaction was almost choleric. Most of the town's homeowners are comfortable (average take-home \$9,031 a year) junior-executive commuters. They have invested an average of \$23,000 apiece in their houses, rely on a stable or rising market to get their money out in case of transfer. They fear tagging their town as interracial will bring 1) a flood of Negroes, 2) falling property values. These fears, plus other, more shadowy ones conjured up by plain prejudice, have led to cries of "this isn't blockbusting, it's community-busting," mass meetings, formation of an action committee—ten lawyers to battle the project on legal grounds, catapulted Deerfield into national news.

Builder Milgram, stocky, bespectacled and crew-cut at 43, makes no secret that his activities are prompted as much by conscience as commerce. He is little dismayed by the furor. He calls it unfortunate the town was not better prepared for the news, but makes it clear he intends to carry on. Backing him and his Chicago associates against the Deerfield action group is the Chicago law firm of (Adlai E.) Stevenson, Wirtz and Rivkin, of which Partner W. Willard Wirtz is a director of MCD.

"Basically," says Milgram, "I wouldn't dream of building houses that all of my friends couldn't live in." But he also believes—and has for years—that urban Negro population pressures inevitably will force integrated suburban housing. "Either we'll have a series of violent incidents as first one, then another family moves into a new neighborhood, or we'll have intelligent, fair community planning," he says. He believes his course is the latter, points to his four completed projects as evidence that interracial housing can be a) profitable and b) kept interracial without harming the community.

Key to Milgram's operation is what he calls "balanced occupancy"

continued on p 75

Photos: above, LIFE—Robert W. Kelley; below, LIFE—Arthur Shay



ANGRY CITIZENS at mass meeting in school hall raise hands against project. Said one: "We could settle this whole thing by torching those houses." Though booing integrationists, most of crowd favored more legal means.



LIFE—Stan Wayman

BUILDER MILGRAM, accused by one Deerfield clergyman of "violating the law of love" by forcing integration, has turned down an offer by townsfolk to buy him out, now faces a threat by the park board to condemn his tract for a playground. Board set a special election on a bond issue including \$167,000 for the purpose (Milgram's Chicago associates paid \$113,000 for the area). Its passage seemed assured when citizens group polled town, found 3,507 residents against Milgram, only 460 for him.



LIFE—Art Shay

THREATENED HOUSES across Wilmot Road in Deerfield from models (bottom) are already unsellable, their owners claim. Said Merchandiser Morris Courington of his (far 1): "The real estate office wouldn't even list it."

'Community busting,' cry residents, but inter-racial builders carry on

continued from p 70

but which is little more than a quota system designed to prevent his projects, like most "interracial" projects, from going swiftly all-Negro. It is insured by a deed provision giving Milgram right of first refusal if the owner wants to sell, thus allowing Milgram to control the racial mix for years beyond first sale. Are the quotas legal? Milgram's aides admit they are questionable, but agree with him that quotas are vital to his operation. He learned the need for them in 1954, when he began selling houses in his—and Philadelphia's—first interracial subdivision, Concord Park. A community of 140 homes priced from \$11-\$14,000 in Trevoze, just outside the city, the development attracted a flood of Philadelphia's house-hungry Negroes. "We saw we would have to set up some controls," says Milgram. The result: a 55% white, 45% Negro ratio that is still maintained.

Headstones, eggheads don't complain

Like his other three developments, Milgram's Concord Park was built in association with Pennsylvania Builder-Realtor (and prominent Quaker) George Otto. All four were also built without the kind of opposition being met in Deerfield. One reason: careful site selection. Concord Park is bounded by a railroad and a main highway, faces a cemetery across another road. The nearest housing is an all-Negro tract. Says one Negro resident: "The people in the cemetery couldn't complain and there wasn't anybody else around, so the development was built without opposition." Similarly judicious site selection governed Greenbelt Knoll, 19 California-style contemporary ranch homes priced at \$18-\$25,000 in a heavily wooded hollow in Northeast Philadelphia. Milgram himself lives in one of these.

While Milgram and Otto were building in Philadelphia, they were approached by a group of ministers and townspeople interested in interracial housing for Princeton, N. J., who invited the builders to try their hand there. With the local group paving the way, university-oriented, largely egghead (and liberal) Princeton accepted two developments totaling 40 homes at \$18-\$43,000 without fuss, although some neighbors quietly sold out and left the fringes. The racial mix was set at 40% Negro.

All the developments have been slow to sell. Concord Park took three years. Princeton, just completed, took two. Milgram freely admits it is because white buyers are scarce. He relies on conviction to bring some, tries to attract others with extra value. "Our houses have to be better than those they can buy for the same price in an all-white development," he says. Even so, without Milgram's careful quota-nursing, most observers are convinced the developments would "go black" quickly.

While one simmers, other sites sought

What can Milgram's earlier developments tell Deerfielders about property values and impact on the community? Most realty brokers dealing in the areas involved think the circumstances are so different it's almost impossible to tell anything. Both Philadelphia projects were built in areas which already had some Negro residents; in effect whites had moved in on the Negroes. In Princeton, community attitudes seemed to favor the projects from the start—and even then some whites moved away. But in general, property values have remained stable. Concord Park area is suffering some decline, but brokers call it a general decline in that entire area of Bucks County; it affects all-white developments some distance away. Princeton, with its two just completed, has suffered no surge of panic selling. Within the developments, property values have paced surrounding areas in general, though sales to whites may be slower than to Negroes. Milgram himself feels that if Deerfield keeps its head, there should be no ill effects.

While Deerfield simmers, Milgram is going ahead with plans to repeat the performance elsewhere. Some \$600,000 of MCD's first \$1.5 million stock issue, floated two years ago, are subscribed. The company's officers and advisers include such notables as Sens Jacob Javits (R, NY) and Joseph Clark (D, Pa.), Mrs. Eleanor Roosevelt, ex-baseball player Jackie Robinson. Interested groups are at work in New York City, Chester, Pa. and unnamed towns in Delaware, Connecticut, New Jersey and Iowa selecting new sites.

Whatever the outcome of the current experiment, there is little question that commercial viability of Milgram's idea is on crucial test. If he prevails and Deerfield's fears are disproven, the develop-

continued on p 77

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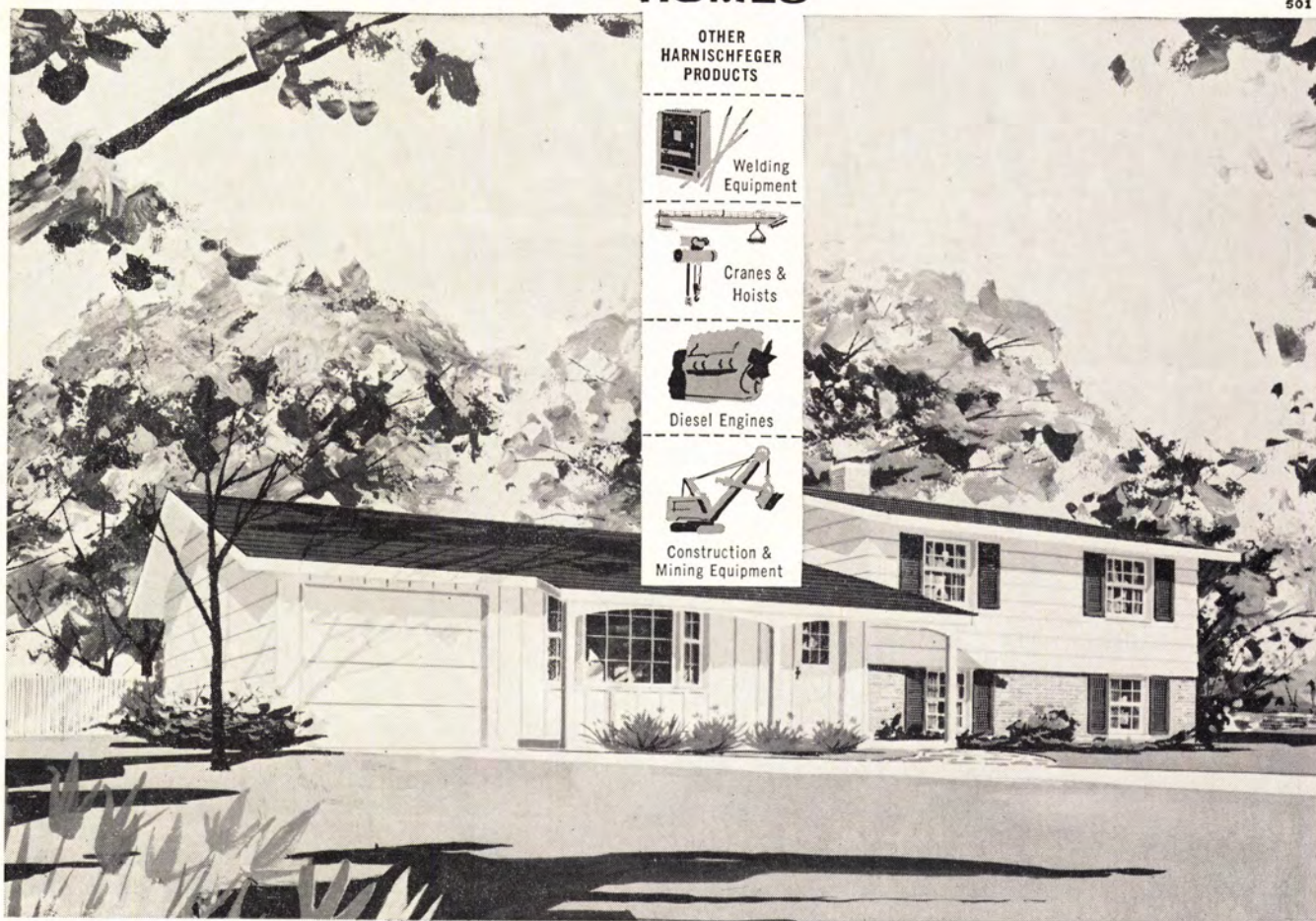
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continued from p 75

ment may well be the milestone he hopes. If panic or violence takes over, the milestone may turn out to be a millstone instead.

Levitt puts Negro sales up to court

Big Builder Bill Levitt will scrap his white-only sales policy in Levittown, N.J. and sell homes to two Negroes if the state's antibias law is upheld by the New Jersey Supreme Court.

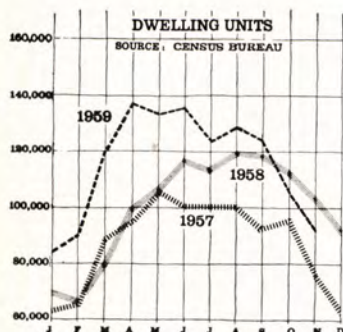
This decision, reached in an agreement with lawyers for the Negroes, who charged Levitt's refusal to sell them houses was illegal under the law, will dispense with lengthy hearings before the State Division Against Discrimination, and further court hearings.

Levitt had contended that the state law, which bans discrimination in federally-aided housing, did not apply to his operation because federally insured mortgages were actually made to the buyers, not the builder. Lower courts overruled him, ordered him to appear before the division for hearings, denied his assertion that the law was unconstitutional. Lawyers believe his decision to let the case ride on the high court review has saved four or five months of commission proceedings.

Calif. bias law held to cover brokers

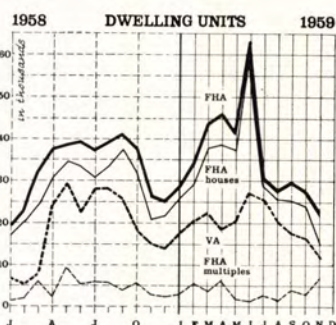
California real estate brokers and salesmen who operate on a "white only" basis are open to damage suits from minority persons under a 1959 amendment of the state's civil code. State Attorney General Stanley Mosk has ruled that the amendment, which guarantees equal service from any business whatever to all persons, applies to real estate brokers. The law had formerly been limited to a specific list of businesses named in the code. The new interpretation supplements the state's law against housing bias in publicly-assisted housing. The law provides for no government enforcement, but civil damages which an injured minority person will have to prove to a jury's satisfaction.

STATISTICS:

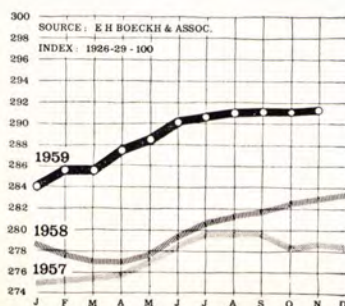


STARTS & APPLICATIONS: Housing starts (left) rebounded in November, just as most experts were predicting a further slide. Private starts totalled 90,700 for a seasonally adjusted annual rate of 1,210,000 vs 102,100 starts and a 1,180,000 rate in October. Total starts were 92,300 vs 105,100 in October. For the first 11 months, total starts were 1,294,200 for a seasonally adjusted annual rate of 1,343,000.

FHA applications (right) on new units continued to slide, dropping



20.2% from October to 21,803. Applications on new homes were off even more—33% to 16,110, lowest monthly total of 1959. Applications on multiple units were up 74.3% from October to 5,693. New home applications for the first 11 months totalled 351,600—still up 10.3% from the same period of 1958. VA appraisal requests on new units also continued downhill, reaching 12,208, off 26% from October. Totals for the first 11 months: 222,914 in 1959, 219,442 in 1958.



rose .5 point, from 291.1 in October to 291.6 in November on Boeckh's index. Reason: spotty labor increases across the country, says Col. E. H. Boeckh, who predicts more of the same.

Slower than ever, BLS failed to compile materials prices on schedule, was unable to come up with a preliminary figure for the month.

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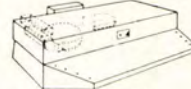
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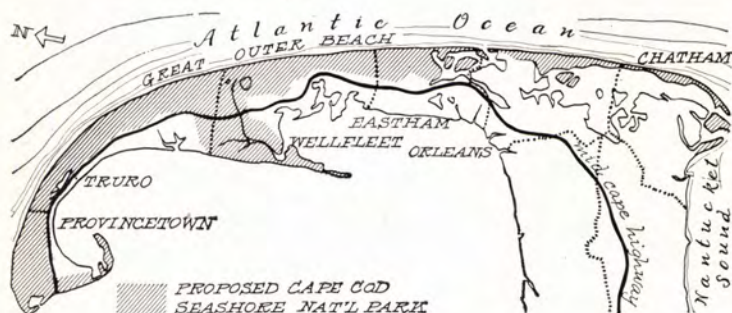
Cape Cod seashore park plan would hit builders, but a hearing on the scene suggests the bigger need will prevail

The primly wainscoted, staunchly old-fashioned town hall auditorium of Eastham, Mass., on Cape Cod's elbow, had seldom seen such a crowd. Local residents and summer dwellers back for the occasion rubbed elbows with officials of state and federal governments, jammed every seat in sight. Television floodlights cast a stark glare and microphone cords laced the floor as the US Senate committee on interior and insular affairs opened hearings on proposals to create a Cape Cod National Seashore Park.

Behind the proposal lies a new problem spawned by population growth, prosperity, shorter work weeks and faster transportation: the nation's seashore recreation areas are rapidly vanishing from public accessibility through resort development. The park would take some 30,000 acres—virtually all—of the Lower (i.e., farthest out) Cape. Objective: to prevent the 40-mi sweep of Great Outer Beach and adjoining dunes, marshes and woodland from being spoiled by a sprawl of beach cottages and commercial developments. If carried out, the national park would not only be the first established since 1956, but would be the first ever to be created in a prime resort-home building area instead of wilderness.

When it was first proposed early in 1959 in an omnibus bill covering ten other seashore parks,* the idea was greeted with horror by residents of the six Lower Cape towns that would be virtually surrounded by the park. Reaction was so violent that Sens. Leverett Saltonstall (R) and John Kennedy (D), and Rep. Hastings Keith, all of Massachusetts, devised a separate bill designed to meet some of the objections. At the hearings, this bill was the one chiefly discussed.

"Beautiful and imaginative . . . much the best of the many bills thus filed to create a park here," said former US Attorney General Francis Biddle, who lives half the year on a 12-acre estate in the Lower Cape town of Wellfleet. "Tyrannical, arbitrary seizure," snapped Mrs. Walter P. Chrysler. Her fear: that from among the 50 million now within a day's drive of the area, the park would attract "undesirable masses" to ruin the quaint charm of Cape towns. Selectman Charles E. Frazier Jr. of Wellfleet voiced a deeper fear: taking land for the park would choke off resort and summer home building that accounts for 75% of his town's employment, deprive it of areas for expansion



that account for three-fourths of the town's new tax revenues. Countered Prof. Serge Chermayeff of the Harvard Graduate School of Design, whose Wellfleet property is within the proposed boundaries: "The very houses of which Mr. Frazier is so proud are the things which are eroding the Cape."

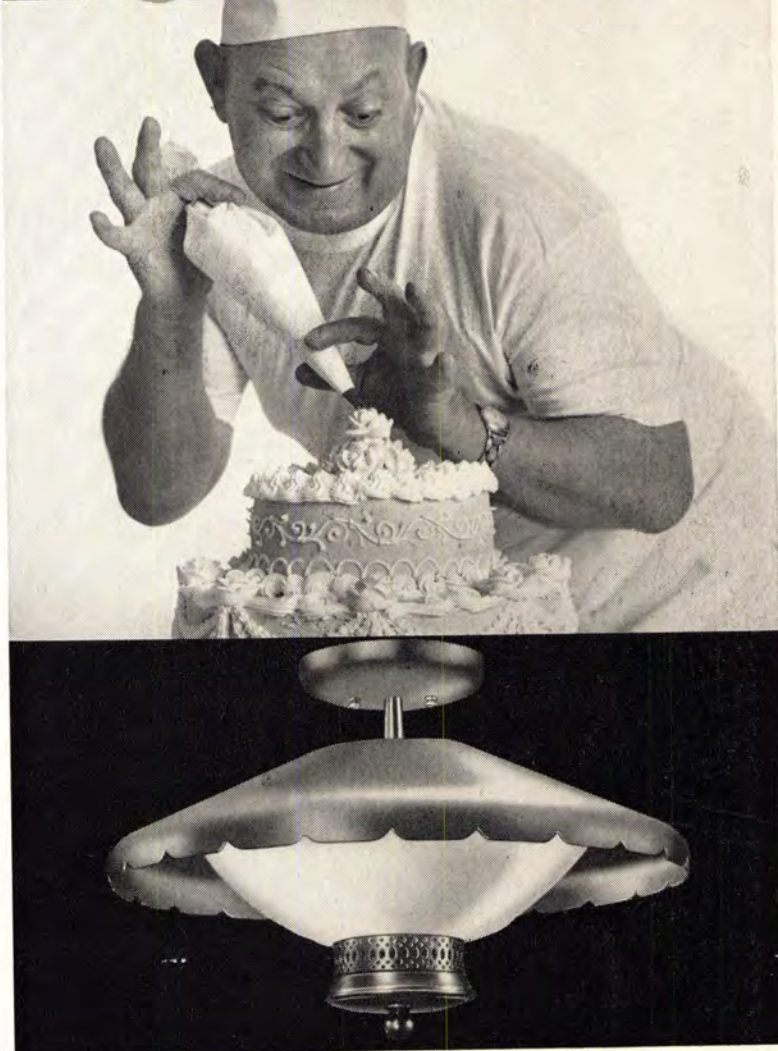
Beneath the debate, all but a hard core of opponents were clearly resigned to the coming of the park, mostly interested in ways to make it painless. Opposition has waned partly because residents already can see, along Rt. 28 around Hyannis, what undisciplined resort commercialism can do to mar a landscape. But it has dwindled chiefly because of the bill's unique shock absorbers for the area.

Recognizing the truth of Selectman Frazier's assertion—that, except for fishing and some summer enterprises, the bulk of work for Cape residents stems from building and maintaining summer places, the bill provides that 10% of park lands falling in any town may be set aside for new construction *provided* the town enacts zoning regulations to govern it according to strict standards. It also provides that residential areas placed under such zoning shall be protected from taking by the Secretary of the Interior in forming the park *except* that if the zoning changes, this protection may be lost. Further, payments in lieu of taxes on any property taken from the towns are provided for two years after the taking.

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* The others: Padre Island, Tex.; Oregon Dunes and Sealion Caves, Ore.; Indiana Dunes, Ind.; Point Reyes, Calif.; Cumberland Island, Ga.; Huron Mountains, Pictured Rocks and Sleeping Bear Dunes, Mich.; Channel Islands, Calif.

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Provisions of the bill point up the view, stated editorially in the *New York Times*, that such park areas "must be acquired in a very short time if their quality is not to be dissipated by the real estate speculators . . ." because local governments have fumbled the ball in providing adequate controls over their activities. The alternative, in the eyes of the Natl Park Service, is national park status for such lands, though it has been careful not to express official approval or disapproval of any specified plan. And the view of most Cape Codders is summed up by a "resolution" offered at the opening of the Eastham hearings by Selectman Sabin Hutchings of nearby Chatham: "This day let us be guided by reason. In the course of human events, the mind must eventually yield to evident things."

URBAN RENEWAL:

FHA 221—5-year-old fiasco

In 1954, the Eisenhower Administration conceived FHA Sec 221 as one of the sharp new tools it needed to hitch private lenders and builders to urban renewal. Sec 221 offers something close to giveaway financing (for details, see p 85) to displaced families who will buy a cheap house, new or used. Worried lest builders glut the market because the deal looked so gravy-covered, Congress required HHFA to authorize city-by-city quotas for 221 housing before any was built. The quotas were based on needs estimated with local help.

Five and a half years later, the program is still trying to get to first base. More than 1,000 cities have workable programs—prerequisite to US handouts for public housing and urban renewal. But only 120 have obtained 221 mortgages (although 272 have quotas). Of the nation's authorized quota of 102,533 units, only 13,856 were started as of Sept. 30, latest figures. FHA insurance covered another 2,144 existing houses. In the states north of the Ohio and east of the Mississippi, only 3.8% of the 37,420 quota was under construction. And in Los Angeles, with a 221 quota of 3,000 units, there was one application and no starts at all.

In fact, 221 has been used chiefly in the South where the social framework of segregation makes lenders (and the public) less fearful of geographical integration. Charges Washington's Metropolitan Assn of General Improvement Contractors: "... a nearly total fiasco."

In a belated effort to overcome 221's deficiencies, Congress last year boosted its mortgage limits for high-cost areas. They went from \$10,000 to \$12,000 while the old \$9,000 limit for normal areas was kept. Thus Congress succumbed again to its recurrent itch to palliate housing problems like its high cost by subsidizing money instead of getting at the real troubles (eg code waste, restrictive work rules, local technical standards that prevent industrial production). Item: the new high-cost limits are not automatic; each FHA office must ask Washington for approval.

Selected statistics of the program few know and ever fewer seem to want:

City	Quota	Appl- cations	Starts	City	Quota	Appl- cations	Starts
Bessemer, Ala ..	1,000	253	..	Baltimore	1,450	..	..
Birmingham ..	1,720	391	345	Detroit	1,112	277	215
Mobil	1,500	1,010	1,121	Superior Twp ..	300	108	107
Phoenix	400	22	10	Ypsilanti Twp..	600	516	495
Tucson	200	..	..	Minneapolis ..	770	..	..
Los Angeles ..	3,000	1	..	St Paul	965	..	..
San Fran.	150	..	..	Pascagoula, Miss	295	100	..
Santa Cruz ..	195	1	..	Columbia, Mo ..	160	3	1
Hartford	700	..	..	St Louis	2,560	40	..
New Haven ..	200	..	..	Jersey City	2,400	1	..
Wilmington, Del	200	35	..	Newark	1,000	..	..
Wash. DC	3,525	283	..	Buffalo	500	22	..
Dade Co, Fla ..	1,700	7	..	Rochester	300	27	..
Jacksonville ..	1,300	566	228	Syracuse	500	11	..
Orlando, Fla ..	470	133	..	Greensboro, NC.	330	105	92
Pompano Beach.	190	5	..	Raleigh	380	305	28
Sarasota	190	80	..	Cincinnati ..	3,100	114	..
Tampa	1,700	1,228	667	Cleveland	1,350	8	..
W Palm Beach..	350	133	..	Columbus	2,212	1,131	296
Atlanta	5,500	1,974	1,534	Dayton	1,600	240	126
Columbus, Ga ..	350	209	157	Harrisburg	635	41	33
East Point, Ga.	250	..	..	Philadelphia ..	3,950	99	..
Macon, Ga	265	154	114	Pittsburgh	1,150	12	..
Savannah	800	572	358	Puerto Rico ..	4,235	216	70
Honolulu	1,100	320	176	Providence	375	1	..
Chicago	2,000	2	..	Chattanooga ..	2,000	683	513
N. Chicago	225	..	..	Knoxville	560	331	210
Springfield, Ill	20	1	..	Memphis	3,025	1,660	803
Indianapolis ..	165	14	..	Nashville	3,800	586	524
Des Moines	450	8	..	Corpus Christi ..	412	340	120
Kansas City ..	900	76	3	Fort Worth	570	184	70
Topeka	669	106	32	Gd. Prairie, Tex	625	8	2
Louisville	1,490	1,413	981	Lubbock	785	48	..
Newport, Ky....	100	18	..	Port Arthur	674	16	..
Baton Rouge ..	810	901	311	Norfolk	1,090	964	792
Shreveport	410	201	93	Milwaukee	2,068	135	..
Portland, Me ...	90				

NEWS continued on p 82

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Raye McCall



NADIR OF SUBDIVISION development is what Pomona officials call this 1955 tract of stucco boxes. Still over half unsold four years later, the tract is undergoing a lender-financed renewal job which the city applauds.

Four-year-old tract undergoes urban renewal to end blight

With 60% of homes still unsold, owners plan to spend \$300,000 on a major facelifting

Almost as soon as it was built in 1955, the 103-house subdivision in Pomona, Calif. shaped up as a major fiasco.

The 1133 sq ft stucco ranch homes (three bedrooms, two baths) were cheap enough (\$10,000 with only \$400 down and a 20-year, 6% sales contract loan). And the floor plan (*see sketch*) was pretty good, if unlovingly executed.

But the construction won no prizes for quality. The land planning made the city planning department blanch. The architectural style—if you could call it architecture at all—left buyers cold. By the time they had “sold” only 75 (and taken about 25 back), the original builders, Lane E. Shanks, Billy F. Jones and four investors, gave up and sold out.

Today—three owners later—the Oakdowns tract remains less than 40% occupied. With the other 60% fallen prey to vandalism and decay, the tract is now undergoing a \$300,000 facelifting under guidance of the savings and loan that originally backed it—an effort that comes just as the Pomona Urban Renewal Committee had decided the subdivision is now a “blighted area,” and asked the city council to seek federal urban renewal aid to keep it from becoming a slum.

What went wrong at Oakdowns makes a lesson the housing industry can study with profit. Briefly, it was the wrong house in the wrong market at the wrong time—too big a handicap for easy terms to overcome. In design, the homes reflected at its cheapest the tail end of the Cliff May-inspired wave of modern ranch houses that swept southern California. Of slab and dry-wall construction, they were short on storage space, had no built-in “extras,” included only a one-auto carport. They came on the market just as the style fad shifted to Hansel & Gretel and other builders with better “modern” homes also were having sales trouble.

The price was designed to appeal to industrial workers. There was talk, five years ago, of industry moving east from Los Angeles toward Pomona; but even today Pomona hasn't much industry.

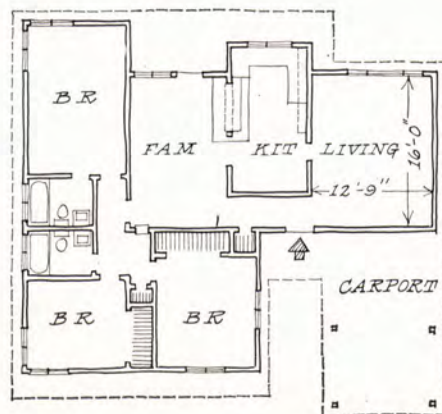
When they locked the barn door

“We were stunned when we saw the plans,” recalls Charles Stapleton, Pomona planning director. “But our hands were tied by law, so we had to approve them.”

Thus Oakdowns was built under Pomona's 1948 zoning law. This was tightened in 1957 so as to make any more subdivisions like Oakdowns impossible. Items:

- Lot sizes were upped from 6,000 to 7,200 sq ft minimum, except for a few older parts of town where the vacant lots left are 6,000'. Oakdowns becomes an oasis of 6,000' lots in a 7,200 sq ft area.

- Single-family homes in 7,200 sq ft lot areas now must have at least a 20 x 20' garage. The old law had no requirement. Planners contend that Oakdowns was unsightly, among other reasons, because its one-auto carports had too little storage



BETTER OF TWO FLOOR PLANS

space; so residents cluttered their front yards with tricycles, scooters, bicycles.

- Street lights, street trees, street signs are now required. As before, so are sidewalks, curbs and gutters.

How not to sell a turkey

After about 18 months, the original builders sold out to a second builder, who later sold to a Denver investor. But despite tiny down payments, the Oakdowns homes wouldn't sell. Of the 103 built, 45 have never been occupied. Another 40 are in the hands of buyers who have stuck with them. The remaining 20 were occupied at one time, but have been repossessed by Broadway Federal S&L.

As the sales situation grew desperate, credit checks grew negligible. One woman, expelled from her house, went across the street and “bought” another one.

Oakdowns seems to have had more than its share of vandalism—both from residents and outsiders. One occupant, bitter over the repossession of his house, carpets & furniture, chopped holes in doors, walls and cabinets. Other vacant houses now have loose roofs, stolen fixtures, broken windows, ripped walls from which cabinets have been torn.

Early last year, Broadway S&L and the investor from Denver made a serious effort to sell the houses. They furnished and landscaped three models, offered them for \$9,999 with only \$99 down and \$68 a month—but still on a sales contract. Full-page ads in local newspapers proclaimed an “exciting home buying opportunity.” Realtors Hartman Noonan were able to sell only a few.

Switch toward quality

By now, Broadway Federal had close to \$500,000 sunk in Oakdowns. It asked Henry M. Miller of Regent Development Corp—one of Broadway's customers—to see what he could do. Miller, who does about \$500,000 to \$750,000 a year custom building, calls his first day in Pomona “one of the worst in my life.” He found the tract's occupant-buyers dispirited and bitter. Some had spent sizeable sums on landscaping, turning the carports into garages or play areas. But the neighborhood still seemed the same. Some local realtors were hostile, some hasty, some

continued on p 85

indifferent; almost all looked on him, he says, as a sharpie from outside.

Finally, Miller found Clyde Warren, president of the Pomona Valley Realtors, who had been thinking of urban renewal for the tract himself. Warren had built 42 homes only a block from Oakdowns shortly after it opened. It took eight months, but they sold from \$14,250 to \$14,500 with \$1,000 to \$2,000 down and second mortgages which, he reports, have almost all been paid off now.

After talking to Warren and other realtors, Builder Miller decided the Oakdowns houses just could not be sold, even if restored to good condition. So he persuaded Broadway S&L to go along with a major quality-upgrading of the whole tract. Fixing damage will cost from \$1,000 to \$1,500 per house, he figures. On top of that, Miller expects to spend another \$3,000 per house to re-roof, paint, landscape, fence 63 vacant homes, add patios, decorative lights, wall-to-wall carpeting, paneling and some fireplaces, and convert the carports to two-car garages with bulk and trunk storage added. In 32 houses of one floor plan (there were only two), he plans to tear out the kitchen, install built-in ranges and ovens. And he is changing the name to Regent Plaza.

When the job is done, Miller hopes to sell the homes for \$14,500, with 5% (about \$700) down and a 25-year 6.6% loan. He will carry and hold his own second mortgages, which he thinks will run from \$750 to \$1,000.

To do a thorough job of upgrading the tract, Miller has also approached all 40 of the existing owners, asked them to let him improve their homes at the same time—with Broadway S&L providing financing. Only a few have refused so far.

What it proves

Today, Pomona looks on the tract with a new attitude. Planner Stapleton, for instance, helped to arrange a blanket zoning variance to permit the renewal job. Pomona's ordinance requires a 25' front setback. To put double garages on the lots, the city is permitting a 15' setback—for garage use only. "We are very encouraged here because private industry is coming in to help out on a problem which we recognize as blight, or the beginning of it," says Stapleton. "It proves that city government does not have to get into urban renewal if private industry will recognize its responsibilities."

As for the lessons learned, Original Builder Lane Shanks says: "We felt that this was the price range needed in the town at that time, but we couldn't sell because it was the wrong time. There was a recession. Today, I'd put more conveniences into houses, for the public is more discerning."

Leo Maynard, loan officer for Broadway Federal S&L (which will have \$800,000 in the tract when Miller completes his overhaul of it), says the S&L now realizes it "pulled a boo-boo" originally. He adds: "We are trying to redeem ourselves for ever investing in what we know now is poor housing—from the sociological standpoint of the community as well as our own economic point of view. We'll sell them yet, and this time we think the community can be proud of them."

Pomona has escaped any repetition of its Oakdowns nightmare. It was the first development in its area, but it did not set the trend. But Planner Stapleton still gives this advice to "any community that is in the path of expansion: get your zoning ordinances updated before the influx begins."

RENEWAL BRIEFS:

New rules on grants

"At the beginning of planning, the cost of a (renewal) project is no more than a guess. Federal and local records show that nine times out of ten, the guess has been wrong."

For this reason, as Urban Renewal Commissioner David Walker explains it, the Urban Renewal Administration has decided to stop earmarking any particular sum of grant money when a city applies for a planning advance to start a renewal project.

Explains Walker: "The majority of capital grant reservations have to be increased when the firm estimates come in—months or years after the federal government is committed to the project. This is bad business practice—for the government or anyone else."

The new rules should speed up renewal planning, Walker contends. Some Washington renewal experts, however, call the move more like a hidden ball play with Congress. Now, they contend, when Congress begins agitating for more money for renewal, the Administration may be able to say it still has all the money authorized last year.

Co-op fund for rehabilitation

Eleven Washington, D.C. savings & loan associations have put up \$1,820,000 for a co-operative credit pool for loans to rehabilitate housing.

The fund, first of its kind in the nation, has been hailed as "a shining example for others to follow" by Home Loan Bank Board Member William Hallahan. The aim is to make it easier for owners of homes which do not meet the district's 1955 housing code to obtain a fixup loan. If an S&L appraiser—and FHA—approve the loan, the

credit pool will make it, says William H. Dyer, executive vice president of Perpetual Building Assn and chairman of the fund's administration committee.

How-to-do-it book on 221

"221"—The Program Nobody Knows, by John H. Haas, 23 pp, \$1, published by Metropolitan Assn of General Improvement Contractors, Washington, DC.

The author, who is executive secretary of the association which has published this pamphlet, estimates that "not more than a few thousand" people in the US know and understand the opportunities which FHA Sec 221 offers to builders and improvement contractors in communities with workable programs.

Adopted in 1954 to produce through rehabilitation or new construction relocation housing for persons displaced by acts of government, Sec 221 offers the top inducements in FHA: 100%, 40-year loans, FNMA purchase of mortgages under special assistance subsidy, freedom for the owner or builder to sell his new or rehabilitated property on the same terms to anyone if he has not found a displacee within 60 days. But remember: HHFA has just acceded to Negro pressure groups, now specifically requires that all 221 units be open to minority families.

Haas spells out in detail the procedures and opportunities for owners, contractors, lenders and even lists operational pitfalls drawn from the experience of those who are working in the program now. (Sample: 221 families run large, so six room homes are almost a must.)

This little booklet should be worth its weight in platinum to some who don't know 221 now. The first edition of 2,000 copies is already sold out; 600 went to local officials, says Haas. More are to be printed. (For more news of 221, see p. 81).

PUBLIC HOUSING:

New rules will push rehabilitation

Federal public housing is about to get a strong nudge toward rehabilitation.

New regulations—about to be issued by the Public Housing Administration when this was written—will require localities to canvass their housing supply for rehabilitatable properties before they may apply for federal approval to build new units. PHA staffers are thinking primarily of big rental projects—such as defunct FHA 608s—or hotels as fixup possibilities for subsidized housing.

This new rule is only part of what may become a surprising clampdown on public housing by the Administration. PHA is also about to issue orders that:

1. No public housing may be built that is "out of character" with other types of middle-income housing—ie no lavish design standards. The philosophy behind this was recently expressed this way by HHFA Administrator Norman Mason: "Some folks think it is pretty ridiculous to pay \$14,000 to \$17,000 a unit for public housing when they, the taxpayers who support it, live in far less costly housing."

2. Cities must have a site approved by the governing body before PHA will entertain an application for new public housing units. Originally, PHA was preparing to require

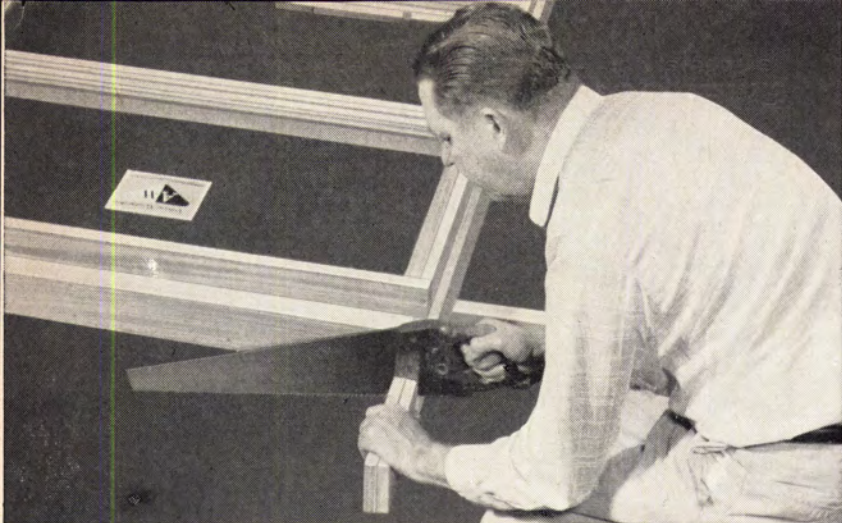
official approval of both a site and an alternate site. But the language was softened at the last minute.

PHA has backed down from a plan to stop making preliminary loans for planning public housing projects—a maneuver aimed at dissuading architects from promoting public housing. Some staffers argued successfully that ending preliminary loans would discriminate against small cities which have no public housing yet. Reason: big cities with going programs could probably hide the cost of planning new projects in operating costs, but cities with no public housing could not.

Also abandoned is a proposed regulation barring cities with stalled projects from getting federal approval for any more. PHA has already served notice it will act to cancel approved projects that have been stalled more than two years, on the ground that such inaction constitutes a breach of the annual assistance contract with the US. PHA aides explain this crackdown seems stiff enough by itself.

Most of these new rules, say capital insiders, were hatched not by PHA, but by HHFA. This antagonized PHA Commissioner Charles Slusser enough to speed up his decision to quit (see p. 89).

NEWS continued on p 88



Seven steps instead of 22! Simply cut two load-bearing struts to fit header construction you use. Nail Strutwall to adjacent studs, tilt up with wall. Two-thirds of conventional framing, installing and finishing is eliminated.

“New Andersen Strutwall* saved 16 man-hours per home!”

*Reports Douglas H. Robertson, Vice President,
ROB-LUN Lumber and Builders Supplies, Inc.,
Niagara Falls, New York*





Frontier Homes workmen tilt up framing with window units in place. Builders everywhere report Andersen Strutwalls deliver a good saving in total installed cost—even when compared with cheap, conventional windows.



More beautiful—and trouble-free! Handsome wood sash and frames of Andersen Strutwalls add charm, natural warmth and beauty to Frontier Homes. Complete precision-made components assure strongest, tightest joining of window and wall.

“Our customer, F. J. Balcerzac & Son, Inc., general contractors of Medina, New York, used Andersen Strutwalls in the recently completed Frontier Homes, Inc. development. This consisted of 111 homes—and the use of Strutwalls saved 16 man-hours per home, or a total of 44 working days!” Mr. Robertson continued.

“All of the time-consuming cutting and sawing of cripples was reduced. All we had to supply was lineal footage for inside and outside framing. We fabricated the 2 x 6 headers ahead of time in our shop—making this a virtually complete framing package. The builder, of course, was pleased with the savings in time and money.”

More and more builders, both large and small, are finding that they can make remarkable savings by using Andersen Strutwalls. That's because they cut normal window installation two thirds—from about 22 steps to 7! Strutwalls come with the Andersen Windows and adjacent framing members already joined—including load-bearing side struts, jack studs and other members.

For more information on cutting building costs with new Andersen Strutwalls, phone your Andersen Distributor. Or write Andersen Corporation, Bayport, Minnesota. Andersen Windows are sold through dealers only throughout the U.S. and Canada.

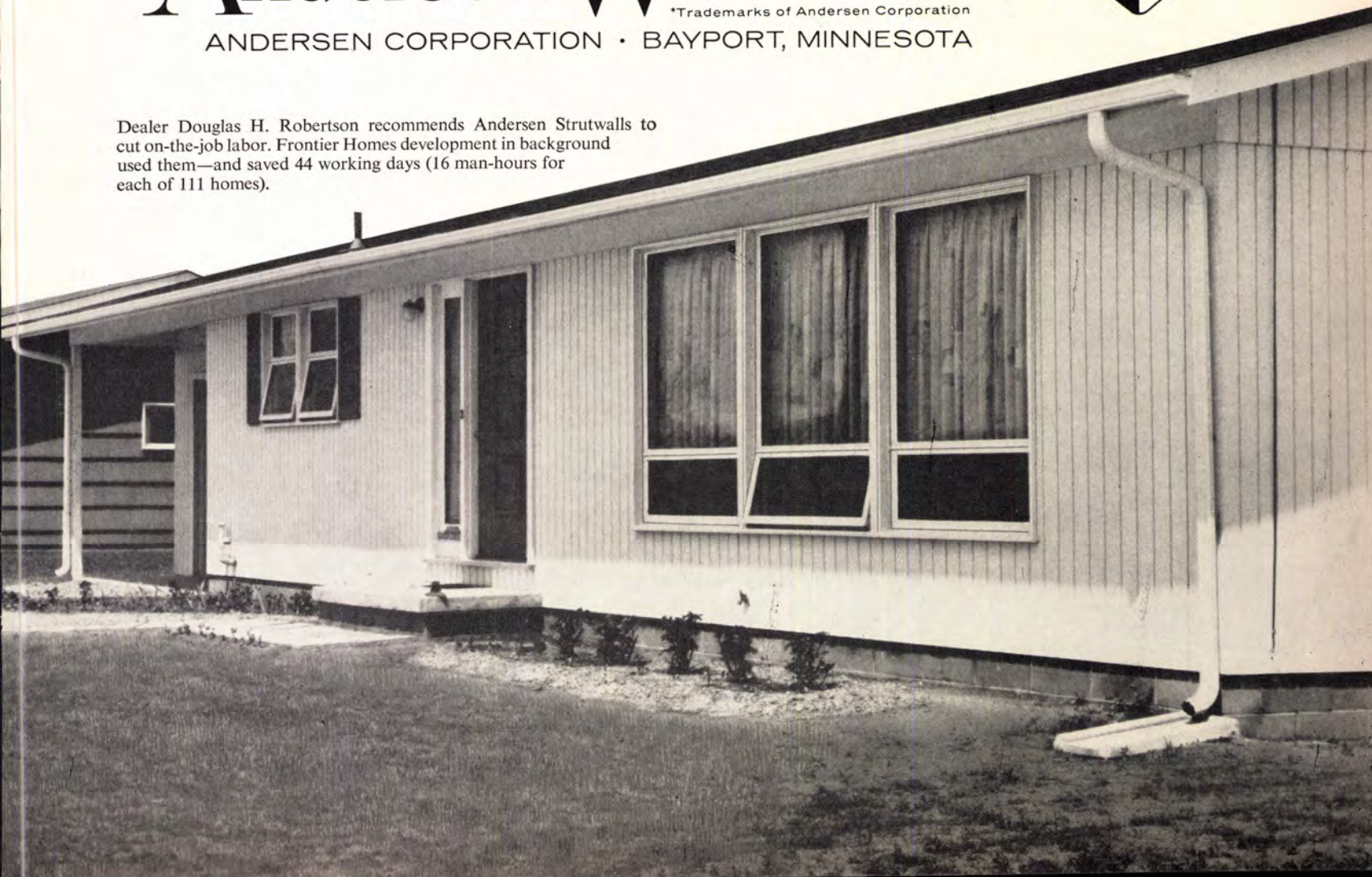
Andersen Windowalls*

*Trademarks of Andersen Corporation

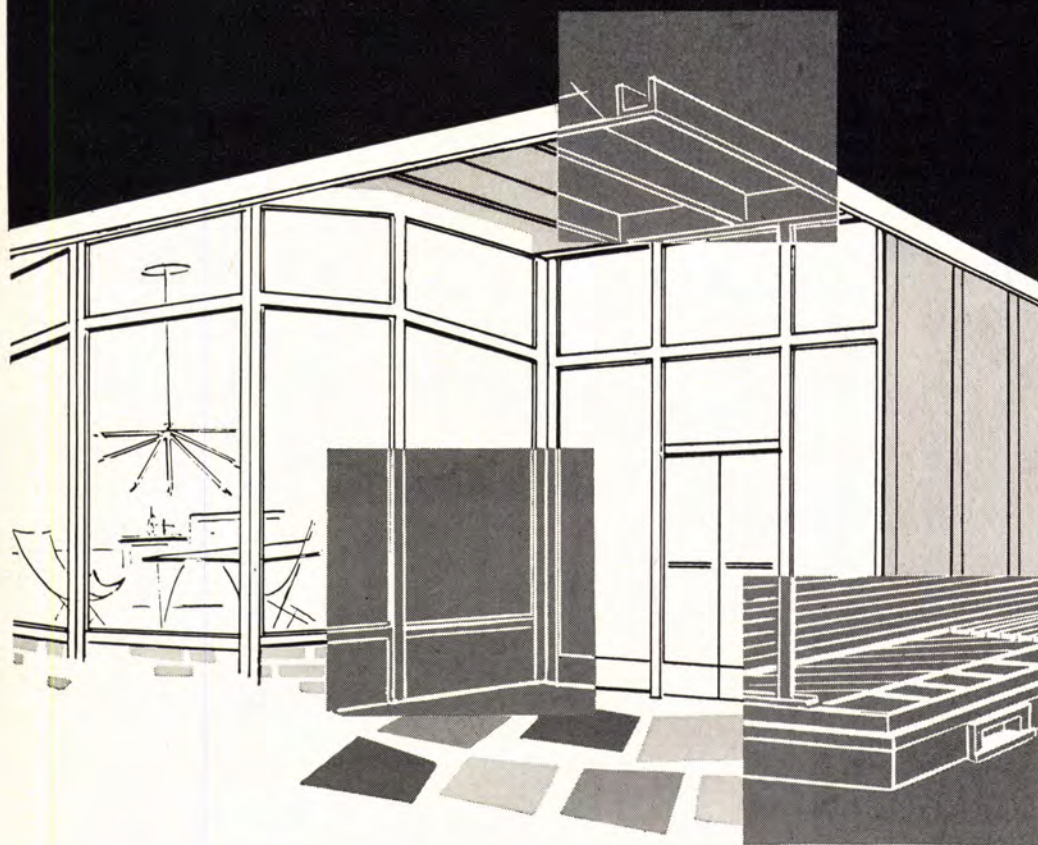


ANDERSEN CORPORATION • BAYPORT, MINNESOTA

Dealer Douglas H. Robertson recommends Andersen Strutwalls to cut on-the-job labor. Frontier Homes development in background used them—and saved 44 working days (16 man-hours for each of 111 homes).



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against termites and decay



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PRESSURE-TREATED LUMBER

offers freedom of design...
freedom to build with wood—
anywhere

Wood, the most versatile and flexible of all building materials, takes on still other dimensions of application when it's **WOLMANIZED**® pressure-treated lumber. Myriads of simple yet intriguing uses unfold themselves to the builder... offer extra pluses that mean so much to prospective buyers... yet cost so little to do.

Original treatments—both in basic structures and in supplementary carports, lanais, work sheds, decks and stairways—appeal to and attract prospects... make it easier to convert them in active customers who buy your homes.

The cost for this protection and added flexibility? Surprisingly little—2%, or even less, than the cost of the completed home.

Find out about **WOLMANIZED** pressure-treated lumber now and where to use it to give assured protection against termites and decay. See the yellow pages of your telephone directory or write direct for the name of the **WOLMANIZED** lumber producer nearest you.

for:

- foundation posts
- sills
- joists
- sub-flooring
- sleepers
- headers
- stairs
- decks
- door frames
- window frames
- fascia
- gutters
- board and batten siding

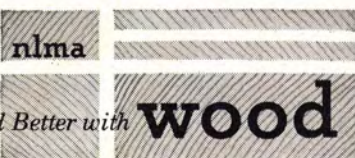
Send for bulletin on **Wolmanized** pressure-treated lumber which gives complete details and specifications and supply sources.

W-80



WOLMAN PRESERVATIVE DEPT.

Koppers Company, Inc., Wood Preserving Division
753 Koppers Bldg., Pittsburgh 19, Pennsylvania



Live, Work, Build Better with **wood**

'Too many cooks' plus hard sell can kill a film

continued from p 69

projectors, are hungry for films suitable for audio-visual education.

"The motion picture—firmly established as an informal, educational and entertainment medium—is fast becoming one of the principal tools in public relations," says ABA.

Although groups differ in their setups, there is a trend to booking through an established agency, making the operation self-supporting through rentals and outright purchase plans. For example, MBA members can rent a print of "Road" for \$10, buy one for \$150, get an identifying trailer with their name on it for an extra \$100. Using a similar system, ABA has amortized its total \$315,000 cost for films so far.

Cost of films to sponsors ranges from MBA's \$90,000, to \$5,000 for AIA's vocationally-oriented "Designing a Better Tomorrow" (which leans heavily on filming still pictures to create illusion of motion). Says Film Counselor Parker, "It's like trying to say what the cost of a painting might be. It's not the canvas or the paint or the frame, but who the artist is. There is no top limit."

Notable exception to the trend is NAHB, which last fall decided to spend \$800,000 of its own and producers' money (*Oct, News*) on promotion and production of a TV spectacular boosting National Home Week. Enthusiasts for sponsored films point out that to get exposure proportional to the greater cost, the spectacular will have to draw around 180-million viewers—a trifle more than the total US population. But NAHB has its own reason for avoiding films: in 1954 the builders released a 60-min, \$75,000 opus called "Million Dollar Castle," in cooperation with 14 other associations and materials producers. It cost \$50,000 to distribute over three years, was seen by only 196,000 viewers. "We'd like to forget it," says one NAHB staffer.

Not all experiences are happy ones, admits Parker. Too many cooks, too little understanding of the "soft sell," too much reliance on nonprofessional distribution can kill a film's effectiveness. "But," he says, "for a client whose story can best be caught on film, I believe that it is the most effective and economical means, in the long run, to tell it."

NY attorney general tries to curb out-of-state S&Ls

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vestigated the company, NY Attorney General Louis J. Lefkowitz filed a court petition to bar S&Ls insured by International from advertising for savings in New York. He names eight S&Ls in his petition. At least seven of them no longer use International Guaranty insurance. But this fact came to light after Lefkowitz filed papers asking that officials of the S&Ls and of International Guaranty appear in New York City Jan 13 for questioning.

Lefkowitz charges that International is almost insolvent, has only about \$150,000 to insure \$100 million in savings accounts—\$20 million of it from eastern savers.

Lefkowitz' charge was played up sensationally in all New York papers—and even many out of state, a fact which disturbs S&L leaders. Reason: the stories put emphasis on S&Ls and the words "fraud" and "scandal," with only brief mention that more than 4,000 of the nation's 6,000 S&Ls have federal insurance.

PEOPLE:

Slusser quitting as PHA boss

Public Housing Commissioner **Charles E. (for Edward) Slusser**, who for 6½ uneasy years has held Washington's most unenviable housing job, sent his resignation to The White House last month. Word came back (but was not publicly announced when this was written) that the resignation would be accepted, effective Dec. 31.

Slusser's departure is not unexpected. He had been fuming privately for months at what he considered unwarranted efforts by HHFA Administrator **Norman Mason** to throttle public housing (for details, see p 85). In November, Slusser became eligible for a federal pension (he also fought in the Army in World War I and the Mexican border hostilities in 1916).

Slusser, now 62, came to Washington in 1953 after an unprecedented 9½ years as Republican mayor of Democratic Akron, Ohio. He also had the distinction of being a realtor who had plugged hard for public housing in his home town. He became public housing's sixth boss in an atmosphere of calm endorsement. The Senate banking committee asked him no questions, recommended confirmation after a perfunctory, five-minute hearing. Slusser dropped a prophetic remark to newsmen at the time. "My new job is considered a hot spot," he said. It was. By the time he stepped out, Bob Slusser had managed to tangle not only with higher-ups in the Administration but also with local public housers and subsidy-minded members of Congress.

Such conflicts, in retrospect, seem almost inevitable. Slusser headed an inflationary program the President does not like. His fight—largely successful—to remove excesses and abuses from a program that had run wild and loose for years earned him the hatred of many local public housing executives. This year, he didn't even bother to attend the NAHRO convention—the biggest annual get-together of local housing project managers. Before Congressional housing subcommittees, Slusser was often nettled, made a poor witness for an Administration that proposed to build much less subsidized housing than the opposition wanted.

Yet in Slusser's 6½ years, some 160,000 public housing units were added to the nation's supply (which now totals 463,991). Belatedly, public housers came to realize that too many projects were designed like prisons, were concentrating so many problem families in one place that poor but decent folk were impelled to leave. Slusser pointed public housing toward an answer to this: scattered sites, prefabs, rehabilitated units.

His last, and bitterest, row with pro-public housing legislators ended in compromise. Threatened with a law to force PHA to surrender controls localities insisted were too onerous, Slusser promised Congress last February to give up for two trial years: 1) mandatory PHA audits and 2) mandatory PHA approval of local authority operating budgets. Some PHAides now predict privately that enough local authorities will make a mess of their new freedom so PHA will have

to resume control of how they spend their money.

For all his earnest efforts to tidy up a subsidy program that now costs US taxpayers \$115 million a year, Slusser was unable to come up with the big idea the Eisenhower Administration wants: some other (and cheaper) way of helping poor folks get better housing. Columbia's Prof. **Ernest Fisher** is now at work on this for HHFA.

White House economist joins FNMA board of directors

The Administration has tightened its grip on Fanny May.

Dr. Raymond Saulnier, chairman of the President's Council of Economic Advisers, has been named to the Fanny May board of directors. This means that only three of the five board members now represent housing agencies. The fifth is Treasury Undersecretary **Julian Baird**, named to the board last May (June, News).

HHFA Administrator **Norman Mason**, as Fanny May board chairman, names the board members, but the choice of Baird and Saulnier was made in the White House. Saulnier replaces FNMA General Counsel **Robert N. Reid**. The other board members: FNMA President **J. Stanley Baughman** and Vice President **Walker Mason**, former deputy HHFA Administrator.

Builders view the latest change as formalizing Saulnier's influence in Fanny May. They insist it supports their contention—made when Baird joined the board—that the Administration regards housing as a contracyclical device to be turned on and off as the economy demands. Saulnier, himself, has insisted this is not Administration policy (Dec '58, News).

Both NAHB and NAREB are expected to renew demands that the Fanny May board be enlarged to include industry representatives. This would require legislation. HHFA's Mason has already taken notice of these demands by naming a Fanny May advisory committee—composed of representatives from eight builder and mortgage banking companies.

Committee members: Vice President **Cowles Andrus** of New Jersey Bank & Trust Co., Passaic, N.J.; President **Aubrey M. Costa** of Southern Trust & Mortgage Co., Dallas; President **Frank P. Flynn** of National Homes Acceptance Corp.; Senior Vice President **Harry Held** of Bowery Savings Bank; **Robert A. Holloway** of Bardwell & Holloway Inc., Baton Rouge; President **Richard G. Hughes** of Hughes Investment Co. (also a past NAHB president and still a big builder); Vice President **Robert B. Patrick** of Bankers Life Co. of Des Moines, Iowa; Executive Vice President **Charles Wellman** of Glendale (Calif.) Federal S&L.

Don Moore, 31, who resigned in August after two years as executive director of the Home Improvement Council, has formed his own firm, Don Moore & Co., to provide marketing and public relations services in the building and fixup fields. Among his

first clients: one-stop Remodeler **Herbert Richheimer**, the Home Improvement Products Assn. Moore, a one-time Topeka, Kan. newspaperman, helped publish two shelter magazines before joining Operation Home Improvement when it started in 1954; after its transformation into HIC in '57, he became head staffman. He is succeeded at HIC by **Edgar V. Hall**, HIC's former advertising and promotion manager.

Albuquerque Builder **Ed Snow**, 37, will take over the 3,840-acre, 12,000-home Hoffman City project there which the late **Sam Hoffman** had just begun when he committed suicide Oct. 13 in Phoenix (Nov. News). The sale was announced in Chicago by Hoffman's son, **Jack**, as part of a move to sell off his father's western projects, confine operations to Chicago where Jack has been building since 1955.

In the deal—terms were not revealed—Snow gets the site, near the west edge of Albuquerque, a comprehensive master plan, water rights, a four-room school, several model homes, and the contracts of nearly 500 purchasers. The project will be Snow's biggest. Since 1948, he has built 4,000 houses and two shopping centers in Albuquerque and six other New Mexico cities. He says he will follow the Hoffman master plan, may let other builders participate (as he has in other sites) as long as they follow the plan, too.

Banner, ex-NAHRO president, to head D.C. renewal unit

Knox Banner, 45, executive director of the Little Rock Housing Authority, has been named executive director of a new, privately-financed Washington, D.C. group that aims to replan and rejuvenate an 85-block sector of the capital's downtown business district.

In Banner, the Washington group (the Natl Capital Downtown Committee Inc) is getting one of the nation's ablest renewal experts. In 5½ years at Little Rock, Banner has built no public housing ("We have an adequate supply already* for relocation needs," he says). But he has sparkplugged urban renewal there into one of the most effective small-city programs in the US. Sample: the Housing

Authority has developed one subdivision of 69 attractive Negro single-family homes (built by private builders and financed under FHA Sec 221), is at work on two more. He has pushed rehabilitation in other renewal projects, winning support for his work from builders, realtors and top business leaders alike.

A tall, mild mannered Texan, Banner graduated Phi Beta Kappa from Rice Institute in 1935, worked as a field office manager for the Social Security Administration before World War 2, when he served as a Naval lieutenant (jg) on a fleet minesweeper in the Pacific. He joined the Public Housing Administration in 1946, wound up as assistant to the regional director in Ft Worth before coming to Little Rock. He was presi-

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* 1,178 units, of which 750 are Negro-occupied.



SLUSSER



SAULNIER



BANNER



Santa Maria, Calif.: Builder,
Stuart Bartleson and L. D. Minor

30 HOMES SOLD ON OPENING DAY!



Philadelphia, Pa.:
Builder, Bud Peskin

11 HOMES SOLD FIRST DAY!



Pittsburgh, Pa.:
Builder, A. C. Schwotzer

**MODEL SOLD BEFORE OFFICIALLY
OPENED!**



Cleveland, Ohio:
Builder, P. W. Reynolds

**\$70,000 HOME DRAWS 16,000 VISITORS
ON JUST 2 SUNDAYS!**

BUILDERS SELL OVER \$1,000,000 IN TOTAL

There's never been anything like it! Coast to coast, reports from builders are coming in—proof that Total Electric Homes are a phenomenal, million-dollar success in less than 2 weeks! In Augusta, Ga., more than 5000 people turned out in the rain for a Total Electric Home opening. In Philadelphia (Washington Township, N.J.), eleven homes were sold on opening day. Another builder in New Jersey has decided to go Total Electric on his entire development—600 homes! All across the country, Total Electric Homes are being bought before they've even been built—and they're outselling competition in price classes from \$15,000 to \$50,000.

Any home can be made Total Electric—regardless of the size, style or price range you have in mind, because electricity can be used as elaborately or thriftily as you wish. Heart of a Total Electric Home is safe, quiet, dust-free electric heating. Beyond that, you can let your imagination be your guide. Many builders include a Total Electric food preparation center, a laundry and home planning center, and a home entertainment center. But your homes can have any or all of these conveniences—and for far less than you think.

To help builders sell their Total Electric Homes, Westinghouse has undertaken the biggest promotional campaign of its



Cheshire, Conn.: Builder,
R. B. Anderlot

**BIGGEST MODEL HOME CROWD IN
HISTORY OF CONNECTICUT!**



Augusta, Ga.:
Builder, George Perkins

**3 HOMES SOLD; 5000 CAME OUT IN
RAIN OPENING DAY!**



South Bend, Ind.:
Builder, C. Harry Swanson

SOLD 5 HOMES WITHIN 2 WEEKS!



St. Louis, Mo.: Builder, Elmer
Vorhof and Milton Duenke

**THOUSANDS OF VISITORS ACCLAIM
HEAT PUMP AS ANSWER TO YEAR
'ROUND INDOOR CLIMATE CONTROL!**

ELECTRIC *gold medallion* **HOMES** IN JUST 2 WEEKS!

kind the industry has ever known. On television and in magazines, in local newspapers and through editorial coverage, Westinghouse is selling the concept of Total Electric Living to millions of prospects. And millions of new prospects have been created by making people dissatisfied with the homes they now own!

Right now is the time to start planning your Total Electric Home. Westinghouse will give you all the advice and assistance you need. Get details by contacting your nearest Westinghouse Total Electric Home representative.

SURPRISE ANNOUNCEMENT!

Be sure to visit the Westinghouse exhibit at the N.A.H.B. Show in January for news that will make it easier than ever for you to make your next homes Total Electric!



YOU CAN BE SURE...IF IT'S **Westinghouse**

WATCH "WESTINGHOUSE LUCILLE BALL-DESI ARNAZ SHOW" CBS-TV ALTERNATE FRIDAYS

dent of the Natl Assn of Housing & Redevelopment Officials in 1956-7. Since last April, he has also been secretary-treasurer of Urban Progress Inc., a Little Rock citizen group with aims similar to those of the Washington group.

His understanding of renewal problems strikes many another expert as profound. "No matter how much assistance they receive, some slum families are not prepared to move into standard housing," he has said. "They must be accustomed in gradual stages to a better environment. The key is to persuade people to want to live better—within their financial ability."

OFFICIALS: Newest of the ever-changing list of assistant FHA commissioners is an ex-food manufacturer from Michigan, **Robert M. Farr**, 60. He succeeds **Harold W. Prehn**, Springfield, Ill. as the man in charge of mortgages and properties.

Farr, a sun-tanned, snow-thatched, small town tycoon, comes to FHA with a background in commercial banking, investments and manufacture of salt, chemicals and starches. Three years ago, Farr sold Huron Milling Co (headquarters, New York City; factory, Harbor Beach, Mich.) to Hercules Powder Co. Now, he grins: "I've been on a three-year vacation. But I've discovered golf is more fun when you can't play whenever you want to."



FARR

FHA's Commissioner **Julian Zimmerman** says: "We are fortunate in obtaining the services of a man of Mr. Farr's attainments . . ." His attainments include: 1) an investment career from 1919 to 1927 with Union Trust Co of Detroit, Otis & Co of Cleveland and the First Natl Bank of Detroit; 2) a salt-manufacturing career from 1927 to 1946, winding up as president and general manager of the Diamond Crystal Salt Co division of General Foods; 3) a civic career, as chairman of the St. Clair County (Mich.) board of supervisors from 1935 to 1950—the first person to hold the job so long, and 4) a 30-year banking career with Commercial & Savings Bank in St. Clair, where he was successively vice president, president and chairman. Farr resigned Dec 2 to join FHA.

Big Builder **Dale Bellamah** of Albuquerque, taking a world wide look at housing in November, stopped in Beirut, Lebanon to check on a few acres of orchard he had been willed by his parents. (They had emigrated from Lebanon to the US before he was born.) He learned that he and a brother were heirs not to one but a multitude of parcels. Their value: \$2 million to \$3 million. He told newsmen: "Too bad all this wasn't discovered years ago when our parents were trying to make ends meet running a small grocery store in New Mexico."

Lawyer **Paul J. Wilkinson**, who joined Baltimore's Title Guarantee Co as an examiner in 1923, moved up from executive vice president to president, succeeding the late **George H. Schmidt**, (Dec., News). Title Guarantee now does business in 16 states.

2 of 3 biggest California title companies merge

California's No. 2 and No. 3 title companies have agreed on a merger. But it took No. 1 to make it possible.

The deal brings together Security Title Insurance Co and Land Title Insurance Co, both of Los Angeles. The merged companies will be headed by Security's ebullient president, **William Breliant**.

Breliant, 37, who gained control of Security in a proxy fight in 1956, lost a merger bid a year ago. He was outbid by giant Title Insurance & Trust Co for the California Pacific Title Co of San Francisco. (Calpac was then third largest in the state.) It was a particularly bitter blow because Breliant's big ambition is to outstrip TL in gross and assets someday.

Ironically, when TI bought Calpac it also got 36.7% of the Land Title stock owned by Calpac. Fearing a possible anti-trust suit, TI decided to sell. But it found there was no willing buyer but Breliant. So Breliant negotiated to buy the rest of the stock. He agreed to give 1⅓ shares of Security for each share of Land or \$29.17 per share for a limited few. The deal still leaves Security well behind Title Insurance in size. The figures:

	Assets	'58 Gross
Title Insurance	\$85 million	\$40.5 million
Security (after merger)	\$23 million	\$13.1 million

Until now, Security has been unable to break into the lucrative Los Angeles County

area. With Land Title as a base and doing business under the name of Security only, Breliant hopes to cut deeper into TI's share of the LA business. (Security had done business in 15 other southern California counties though its headquarters is in LA.) LA title business has been divided TI, 80%, Land, 15%, Pacific Coast Title, 4%, and others, 1%.

DIED: **Myron D. Miller Jr** 36, secretary of the National Mineral Wool Assn since January '59, and former NLMA staff member, of a cerebral hemorrhage in Maplewood, N. J., Nov. 24; **Richard B. Tucker**, 73, former ('47-'55) executive vice president of Pittsburgh Plate Glass Co, at Virginia Beach, Va. Nov. 26; **Alexander M. Bing**, 80, New York City real estate developer who as president of City Housing Corp, first limited profit housing group, was a pioneer in low-price housing, helped found Sunnyside Gardens, Queens, after an operation in New York Nov. 29; **Joseph Ray Sr**, 72, Louisville realty broker who became HHFA's race relations chief in '53, served until last year when he became HHFA assistant for youth fitness, of a heart attack in Washington, D. C. Nov. 30; **C. Philip Pitt**, 71, secretary of the Baltimore Real Estate Board from 1918-1953, after a long illness there, Dec. 1; **Maximien J. Ferran**, 55, longtime New Orleans home-builder and vice president and home show chairman of the New Orleans chapter, in New Orleans, Dec. 5.

CANADA:

NHA interest rate boosted to 6¾%

Will the new 6¾% NHA interest rate produce a new surge in housing starts?

Builders are hopeful. But even as Works Minister David Walker announced the boost from 6 to 6¾%, many builders were still insisting that slow sales remain a bigger problem for them than mortgage money.

The NHA rate increase came Dec. 17, one week after Walker met with builders and CMHC President Stewart Bates. Builders showed the officials reports from NHBA locals; almost all of them contended no NHA loans were available at 6%.

Ottawa's decision—as reluctant as it was belated—was also influenced by a strong trend toward second mortgages and conditional sales contracts. Conventional loans are limited to 65% loan-to-value ratio in Canada and often command a stiff 8% interest. Seconds usually bring 8%, too, but are typically non-amortizing balloon notes.

The NHA rate boost is the first since Jan 1957 and the biggest since the National Housing Act was passed in 1954. Lowest the rate has ever been was 5¼% in 1955. Despite the higher rate banks will still not be making NHA loans immediately. They are limited to 6% on any kind of loan under the Bank Act. But an amendment to the law removing this block is likely later this month or in February.

Builders do expect insurance companies to begin making commitments again, a fact which should help firm up spring building plans. Works Minister Walker predicts NHA lending will be resumed "at a substantial rate."

NHBA leaders (who lean away from subsidy, unlike US builders) now want the government to consider letting the NHA rate move with the market. They oppose any large sale government lending (which accounted

for almost as many NHA starts as private lenders last year). They suggest that direct lending be limited to areas where needed most and with no floor area limits (now 1,050 sq ft for a three-bedroom house).

They also want: 1) more general use of 30-year amortization allowed by law but seldom used, 2) lower income requirements for borrowers, 3) reduction of the 2% insurance fees, 4) an increase in the 65% federal loan-to-value ratio on conventional loans (it is 60% in some provinces).

NHBA steps up research effort, asks CMHC aid

NHBA's faltering research program is being beefed up and prodded forward.

Architect Samuel A. Gitterman, former senior staff architect with the Central Mortgage & Housing Corp, has been named NHBA technical director—its first. Gitterman had been in the government 20 years, quit in August to open his own office in Ottawa. He will work on a consultant basis now though the job may eventually be full-time.

NHBA has built two research houses. It ran into trouble on the second because it had so many experimental features not in conformity with the Calgary building code (eg fixed windows, no roof covering on a painted plywood deck). It was finally completed last fall.

Gitterman will present plans for a third research house at the NHBA convention this month. NHBA hopes CMHC will help by leasing it land (which would thus be free of local codes) and by giving it a grant.

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The Golden Sixties

Never has a decade in America's history started with greater expectations: technology stands at its highest level . . . pocketbooks are bulging . . . new frontiers in space, materials and energy open before us.

This issue is about the promise of these golden years.

To show you what makes this promise more than just a dream, the editors and Housing's No. 1 Economist Miles Colean have charted the 1970 housing market against the 1957 housing inventory, a comparison which makes clear the great opportunity in

The market for the Golden Sixties.....cover and 100

But—as this year starts—the state of the market is sobering: in the midst of plenty, money is tight; in the midst of an expanding economy, house sales are slow. To see what some smart builders are doing about the sticky market, turn to

How to succeed with today's serious buyers..... 120

Because tight money hurts homebuilding first and worst, **HOUSE & HOME** and the Housing Industry Council invited a top-level panel of men involved in making financial policy for the housing industry to a

Round Table on the tight money market..... 144

The evolving shape of the future is already evident in the work of homebuilding's idea men—the imaginative architects. You will see some of this work in

Today's experimental houses..... 135

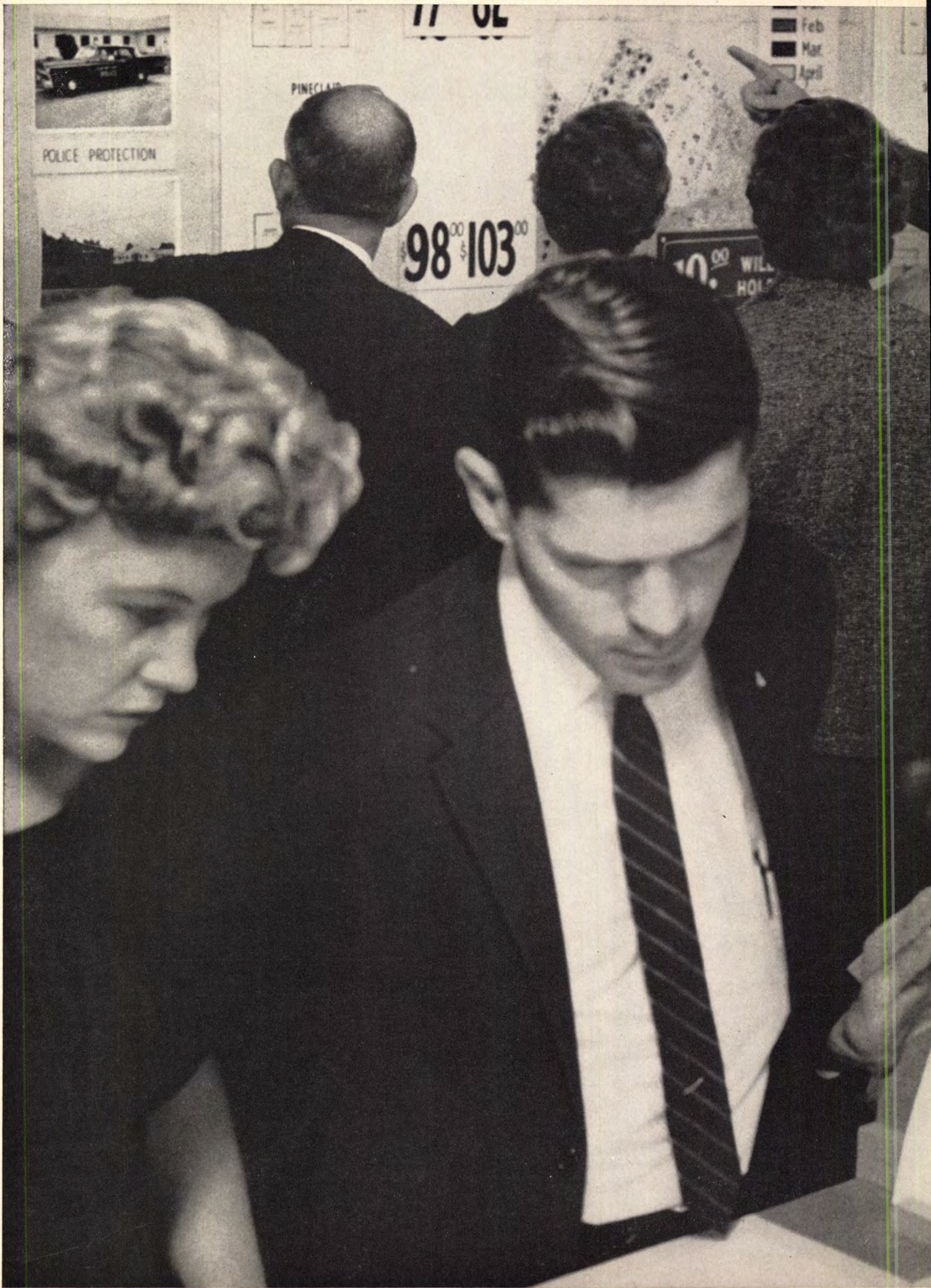
The technology that will make tomorrow's houses possible is being perfected in the industry's research and production facilities. To see why drastic change in our houses and in the way we build them is inevitable, turn to

The industrial revolution in housing..... 150

This new technology is implicit in many products now on the market. You will see what January 1960 has to offer in **HOUSE & HOME's** annual home show:

New products for 1960..... 165

Also in this issue: News, indexed on p 55; Letters to the editor, p 102; and New ways to build better, indexed on p 179.





The challenge of right now:

How to succeed with today's serious buyers

"Either we learn to live with a new kind of buyer, or we might as well go out of business."

Omaha Builder D.E. Van Pelt was speaking for himself last month. But, whether he realized it or not, he was also speaking for the whole housing industry.

Since late summer and early fall, homebuyers have been more serious, more cautious, more critical, and more demanding than at any time since World War II. (Says Miami Builder Stanley Frederick: "It takes people three weeks to come back to our houses after the first look. They are shopping that hard.") Result: a sticky market that posed new problems for builders everywhere.

Even in the sticky market, some builders in every area are selling well

For example:

In Dallas, Fox & Jacobs sold as many of their "Flair" models (average price: \$28,000) in the last three months of the year as in the same period in 1958.

In San Francisco's Bay Area, Brown & Kauffmann's production and dollar volume were the "highest ever" in early December. Said Sam Kauffmann: "We're working harder now. But we're selling our quota—a house a day at \$25,000 and a house a week at \$40,000 to \$50,000."

In Tulsa, Okla., Lloyd and Olin Creekmore sold 27 houses between Labor Day and Dec 11. Their '58 record for the same period (when the Tulsa market was stronger): seven sales.

In Charlotte, N.C., Ervin Construction Co rolled up a \$3½-million volume (243 houses) in the three fall months—up \$1¼-million from the same period in 1958.

In southern New Jersey, Jacob Lefferts was selling faster in November than in the spring and summer boom months.

In Palo Alto, Calif., Eichler Homes sold 18 houses in one tract in the first ten days of December "when the market here is traditionally dead."

And despite the sticky market, some builders in every area have big plans

In Florida, several builders are betting on a huge market this year. North of Miami, Heritage Homes will stage the biggest opening ever held by any builder. (Heritage will even have special vehicles to carry visitors

continued

around a 10-acre display area). In West Palm Beach, Perini-Westward will unveil a "city within a city." And in Boca Raton, Jaynor Builders are erecting one of Buckminster Fuller's geodesic domes (see p 164) as a model house.

Elsewhere, builders may not be going in for spectaculars. But they are working at big things. Examples: Eichler Homes will use 42 billboards to introduce its contemporary houses in southern California; Ervin Construction will open an 800-house tract in Charlotte; and Centennial Construction Co will start an 800-house subdivision in Dallas.

Here is what these sales leaders know about their serious buyers:

Their buyers want more—bigger and better houses, more equipment, and better neighborhoods.

Their buyers can afford more. In some local markets (Indianapolis, Chicago, San Diego, and Savannah), the biggest sales successes are already in the \$16,000-to-\$19,000 range.

But the leaders are working hard for every sale because:

Their buyers know more—more about houses, more about the equipment that goes into them, and more about the importance of good location. Many of them are already homeowners who are now in the market for their second, third, and even fourth houses.

Their buyers are concerned about the money shortage. Even in areas where mortgages are available, newspaper stories about tight money have discouraged many people from trying to buy a house. (Because house sales have been slow since Labor Day, many bankers are finding they now have mortgage money.)

Their buyers are shocked by high interest rates. Second-time buyers—many of whom have 4% and 4½% mortgages on their present homes—balk at buying a new house when they find out what today's steep rates (up to 6%) will do to their monthly payments (see money Round Table, p 144).

Their buyers are reluctant to sell their present houses when they find out how much of their equity will be eaten up by brokerage fees and discounts. Says Rochester, N.Y., Builder Lee Pflanz: "I've got a dozen deals tied up because people can't sell their old houses—or refuse to take a licking on them."

Their buyers are tempted to put their savings into the government's 5% bonds instead of into downpayments on new houses.

Their buyers are concerned about the effects of the steel strike. In some areas (ie, Detroit), these effects were direct—causing widespread unemployment and practically halting home sales. In others, the effects were indirect—causing worry and making people cautious about buying a new house.

Their buyers are attracted by better rental deals. In some areas (ie, Los Angeles, Houston, Dallas, Detroit), apartment vacancies have been as high as 17% in the last few months.

Here is how the leaders are boosting their sales to today's serious buyers:

They are finding new ways to give more for the money—instead of figuring how much they can leave out of a house to bring the price down.

They are raising their sales standards. Almost 2,000 builders and sales managers have enrolled in NAHB's new Sales Managers Club (see box below). And 150 builders and sales managers paid \$155 apiece plus travel expenses to attend NAHB's three-day marketing seminar in Washington in November.

They are no longer counting on terms to sell houses. Financing is still a critical item (see money Round Table, p 144), but terms alone are not the answer. One indication: many builders in the same area have the same financing, yet some are selling and others are not.

To get the details on exactly what the leaders are doing to stay ahead, a team of HOUSE & HOME editors fanned out across the country—sat in on marketing seminars, talked with realtors and lenders, and interviewed several hundred builders in 33 states and Canada.

Their research—compared and analyzed—boils down to the 20 principles of success on the following pages. No single builder is following all 20 principles. Nor is any one principle the sole basis for success. But, taken as a group, these principles reveal a surprisingly clear picture of how the leaders are selling houses to serious buyers in today's sticky market.

NAHB's Sales Managers Club typifies today's serious approach to selling

"Through the Sales Managers Club I get more useful sales ideas in one month than I can normally uncover in a year."

That endorsement from member Bob Gardner of Englewood, Colo. is only one example of how builders and their sales managers are reacting to NAHB's hard hitting new approach to today's sales problems.

An offshot of NAHB's Merchandising Committee, SMC had five founders: Committee Chairman Dave Fox, of Fox & Jacobs, Dallas; Director Bill Molster; Assistant Director John Pollock of NAHB's Sales and Merchandising Dept; and sales managers Jim Peacock of Place & Co, South Bend and Dale Witt of Viking Construction Co, Virginia Beach.

No. 1 reason for the club's popularity is an Idea-of-the-Month program. It gives members a chance to exchange their most proven sales and merchandising tips. Here is how it works: each month a different question is sent to members. Examples: "What unusual techniques do you use to follow up sales?" "How do you overcome price objections?" "How do you find and qualify salesmen?" Sales managers have a week to mail ideas to John Pollock at the Housing Center in Washington.

Pollock forwards all ideas to a judge who picks the 20 best. The following month these ideas are sent to the entire membership for use, where it makes sense, in their own sales programs. And from each month's 20 best ideas, a 12-judge commit-

tee, plus a panel of editors, will select the three best ideas of the year. The big winners will be announced at SMC's champagne brunch in Chicago, Jan. 18.

In addition to the idea exchange, SMC members are taking a look at some broad problems. Examples: How to raise the standards of new-house selling; how to train salesmen to sell better; how to find the best salesman for the job.

Are they coming up with the answers? Says Sales Manager Jack Franzen of Fox & Jacobs: "Through SMC we are getting solutions to problems faced by all salesmen who are on the firing line every day. We are adding immeasurably to our knowledge—and best of all—we are adding to our incomes."



H&H Staff

NEW PRICE HIGH FOR BILL LEVITT boosts his Levittown, N. J. range by \$10,000. Sign in front of fenced-in (and unfinished) two-story

colonial reads: "The Country Clubber/opening in February/price about \$25,000." Levitt's top price here had been \$15,000.

1. The leaders are broadening their price lines

"It's the one sure way to capture the lion's share of the total market in your area," says Lawson Ridgeway of Centennial Construction Co in Dallas.

All over the country the leaders are moving up and down the price ladder, while still continuing to build in a proven, successful range. Some, like Ridgeway of Dallas and Charles Ervin of Charlotte, N.C., plan to fill "a crying need" for more basic houses in the low-cost range. Some, like Jack Blackman of Swarthmore, Pa. and Brown & Kauffmann of Palo Alto, Calif. plan to build more luxurious houses in a higher price range. And most leaders say they intend to keep on building better houses in the middle-income range.

"Be adventurous. Explore the market," says General Sales Manager Frank Hart of Walker & Lee, Lakewood, Calif., the nation's biggest new-house realtor. "That's what the leaders are doing. Their shrewdness breeds success."

What are some of the reasons shrewd leaders give for broadening their price structure?

"We want to sell the growing number of second-time buyers," says Bob Moretti of Whitecliff Homes in San Mateo, Calif. "They want a bigger house, more features, top quality all the way. And they can afford a bigger, better house because they have more equity than first-time buyers."

To meet this market, Moretti and his partner, Paul Petersen, will offer \$35,000 houses in addition to their middle-price houses which range from \$14,000 up to about \$23,000. Other leaders plan to include the same market. Alan Brockbank of Salt Lake City will sell in the \$16,500 to \$25,000 range to interest more second-time buyers. Alvin Hawbaker of State College, Pa. will do the same thing.

"Location determined my new price range for 1960," says Andy Place of South Bend. He will open a new subdivision this spring with houses priced to sell from about \$16,000 up to \$18,000, and he will still continue to build in the \$20,000-and-up price class. "We've owned this land for some time, and it's just suited to the lower price range we're going into," Place says.

"A natural zoning plan lets me price my houses from \$14,000 to \$30,000," says Matt Jetton of Tampa. "I build next to a lake and I put my most expensive houses near the water where the view is best. Then, as the houses move farther away from this view, I decrease them in size and price."

"Urban redevelopment programs created a huge relocatee market in our area," says Bill Witt of Virginia Beach, Va. To sell relocatees and to keep pace with an equally important middle-income market, Witt's 1960 price range will be from slightly under \$9,000 to about \$20,000.

"The retirement market is growing by leaps and bounds," says Jake Lefferts of Middletown, N.J. "It is very strong in our area, and I have so many requests for a two-bedroom house for retirement couples that my price range will be wider this year than ever before." Most of Lefferts' 1960 houses will be priced from \$22,500 to \$45,000. But he has already sold one \$65,000 house to a retirement couple.

"Once you've built a reputation for good value, it's easy to climb up and down the price scale," say New Jersey Builders Cantor & Goldman. They build a \$14,000 house, now plan to add a \$17,290 split level "for prospects who have a little more money and who know our reputation."



Dorrell



Dorrell



Ed Beekman

BROAD PRICE RANGE of Robert Edwards' St Louis models goes from \$10,900 (house at left) to \$27,000 (center) to \$70,500 (right).

continued

2. The leaders are building in several places at once

"You sell more houses when you sell in more than one location," says Builder John Mackay, who now has four subdivisions in three cities in California and Utah.

Everywhere the successes in today's tough market include builders who are on the move. Some of them merely move to new locations across town. Others are moving from city to city, from state to state, or even from coast to coast. But whether they move three miles or 3,000, here are some of the advantages they are getting.

1. They are drawing sales from more prospects. Eichler Homes of Palo Alto, builds a contemporary house for which the market in any one area is limited. But by building simultaneously in half a dozen communities, Eichler sells over 700 houses a year at \$25,000. Florida's Mackle brothers now build over 2,000 houses a year—but only because they tap markets throughout the state. Petersen & Moretti build in six California towns and draw on a total market of three-million families. Says Bob Moretti: "Building in new areas is our guarantee of a good market."

2. They are cashing in on local housing booms. Cities like San Diego, San Jose, Phoenix, and Tucson—boom towns for several years—are now full of out-of-town builders. Sacramento is another fast-growing city that has pulled in builders from other California towns, and the whole state of Florida is a lush market that has drawn builders from all over the country.

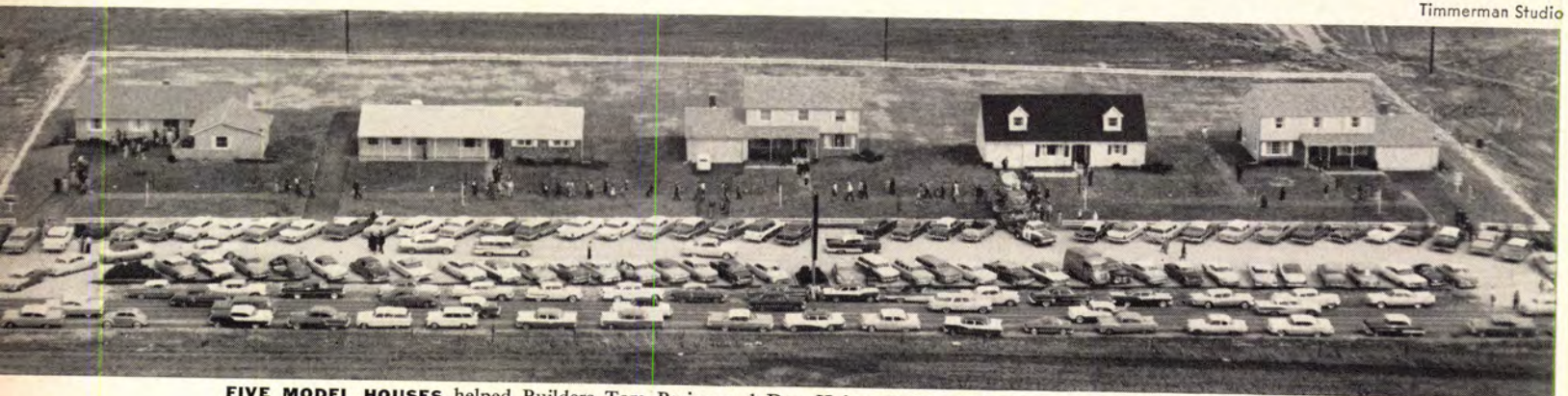
3. They are taking advantage of less competitive markets.

Says Dallas Builder Lawson Ridgeway: "One reason I'm moving to Austin this year is that I'll have less competition there." Jack Blackman of Swarthmore, Pa. is moving nine miles farther out of town: "We are going into areas where competition has not had the foresight to go."

4. They are getting opportunities to broaden their price range. Since land cost is the key influence on price class, a builder usually has to find new land when he wants to move up or down in selling price. To go down in price, Caldwell & Cook moved across Rochester, N.Y., to cheaper land. To cover a price range from \$11,000 to over \$30,000, Charles Ervin builds in half a dozen sections of Charlotte, N.C.

5. They are limiting their vulnerability to local troubles like high taxes, rigid zoning, unemployment, and strikes (the steel strike showed many builders the wisdom of building in several cities). To keep from putting all their building eggs in one market basket, Boston's Campanelli Bros have started operating in Chicago and West Palm Beach. When high real estate taxes slowed sales in one New Jersey town, Beir-Higgins opened a development in another community.

6. They are avoiding slack periods in their operations. American Housing Guild of San Diego keeps two or three subdivisions going at once. Reason: to avoid equipment downtime and crew layoffs. While they are developing land in one area, they are finishing their houses in another. Builders who own earth-moving equipment find they can keep it busy—and thus make it pay for itself sooner—by operating in several places.



Timmerman Studio

FIVE MODEL HOUSES helped Builders Tom Perine and Don Huber, Indianapolis, keep up volume (300 sales in '59) when market slackened.

3. The leaders are adding models to their lines

Instead of trying to get a larger share of part of the market, sales-successful builders are now aiming at—and selling—a larger share of the total market in their communities.

To do so, they are now showing more houses and more different kinds of houses. Builders who had a single model now have two, builders who had three models now have five or six. Some builders who have worked with five models are now offering as many as eight to ten.

Sometimes the added models are different styles. In Dallas, Lawson Ridgeway, who offered a colonial and a "ranch provincial," now displays a contemporary as well. He says: "The market swing locally is about 80% to contemporary." In Seattle, Bell & Valdez completed their biggest year. Among their six models: one with a Hawaiian style roof, another with a roof like a Swiss chalet, two with contemporary plans and design.

Sometimes the added models are different types. In

Indianapolis, Perine Development Co is selling successfully because it offers a 1½-story and 2½-story as well as two ranch styles. Sales record: 300 in 1959—up 260 houses over 1958. In Celina, Ohio, Kessler Builders, who were successfully selling a three-bedroom model over a basement, added a slab-on-ground house with four bedrooms and a family room. Object: to give the customer more above-ground space for the same money.

Sometimes the added models are different in size. In Oak Forest, Ill., Medema Builders sold 150 houses by offering buyers a choice of two 1-story models (one 3-bedroom and one 4-bedroom) and two side-to-side splits (with completely different plans). In Haddonfield, N.J., Goodwin Housing Corp was selling splits that ranged from three bedrooms at \$16,500 to five bedrooms at \$21,500.

Other examples: in Portland, Ore., Dwight Haugen was offering models with garages to the back or front of the lot,

patios to the front, side, or rear. In South Bend, Andy Place—after 13 years of building only slab houses—added a two-level house with the lower level halfway in the ground. The new model boosted his 1959 sales by 15%.

In Plymouth Meeting, Pa., Fox Bilt Homes, whose sales surged in the latter part of the year with three models (a split, hillside, and ranch), is adding three more models (a new split, a new ranch, and a two-story) this month. In San Antonio, Ray Ellison was selling ten different houses.

In Jacksonville, Fla., Meyers & Lazeau sold 108 houses the

last half of 1959, moved into 1960 with sales ahead because they were offering a wide variety of houses—some with carports and some with garages, some with fireplaces, some 25' deep and some 31' deep. In Savannah, Clayton Powell introduced six new models at once. Result: for a month after his opening, his sales equaled the combined total of all the other builders in town.

No matter what builders did to add more models—through changes in types, sizes, or styles—the fuller line of houses was a clearly discernible trend by the year's end.

4. The leaders are packing more value into their houses

In the midst of the '59 steel strike Builder Irving Carlson of North Wales, Pa. kept his crews together and his dollar volume up by building \$25,000 and \$35,000 houses on contract. Explains Carlson, who has been building for 20 years: "I built my reputation on giving the customer the most house for his money. People come to me to build their houses; so I expect I'll build regardless of strikes, slumps, or tight money."

Elsewhere builders were finding that adding value to a house without increasing its price was a sure way to keep sales up when the market was down.

Some builders are adding value with more high-quality materials

In Jacksonville, Meyers & Lazeau, who had their best year in '59, use only No. 1 grade yellow pine for framing and only high quality light fixtures. Says Dick Meyers: "People note the little things today. And if they don't, we point them out."

In San Antonio, Ray Ellison uses top-grade wood sheathing, finds its \$25 extra cost is more than offset by the added sales by word of mouth.

In Oak Forest, Ill., Medema Builders use only No. 1 kiln-dried lumber. Says Neil Medema: "We pay more for lumber because it saves us in the long run: no sticking doors, no callbacks. We've learned that the lowest-priced item is not necessarily the cheapest to buy."

Some builders are adding value with more built-in equipment

In Framingham, Mass., Campanelli Bros is offering three big ranch houses (from \$17,500 to \$18,300) with a full complement of appliances: range, oven, dishwasher, clothes washer-dryer combination, garbage disposer, and even a wall-hung refrigerator.

In Portsmouth, Va. Bill Witt is selling three-bedroom houses with built-in range, oven, and refrigerator. Price range: \$8,250 to \$10,950.

In Kansas City, Sam Hoff offers a 3,000-sq ft split level with air conditioning for \$32,000 (price includes the lot, two fireplaces, two terraces, 2½ baths).

And in Tulsa, Lloyd Creekmore puts air conditioning in a 1,737-sq ft house that sells for \$20,940 (price includes the lot, carpeting, appliances, two baths).

Some builders are adding value with more living space

In East Lansing, Mich., Hodney Construction Co sells a 1,600-sq ft house for \$16,000 without land.

In Berea, Ohio, Bob Schmitt, ex-NAHB Research Institute chairman, offers a 1,348-sq ft L-shaped ranch for \$14,900. Its FHA appraised value: \$17,500.

In Franklin, Mass., Davmar Inc is sales ahead of starts with two 7-room split levels selling at \$15,300 and \$15,500. Houses are equipped with oven and range. Says the builder: "In this market, value sells houses."



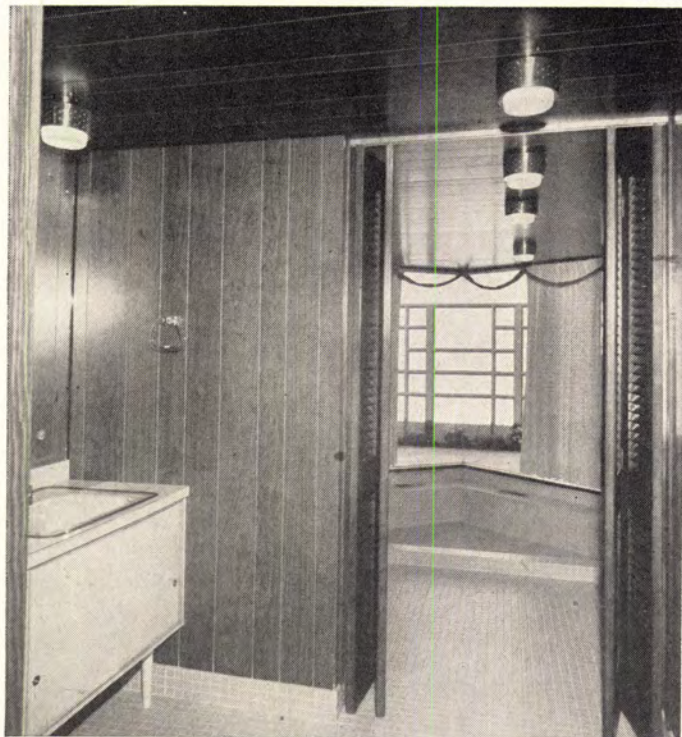
BETTER KITCHEN—with built-in appliances, ample cabinets, tiled back-splash—helps Ray Ellison sell well in San Antonio.



BETTER BATHROOM—with auxiliary heat in ceiling and shelf space for linen over laundry—is feature of Ellison's \$13,000 model.

continued

Dorrill



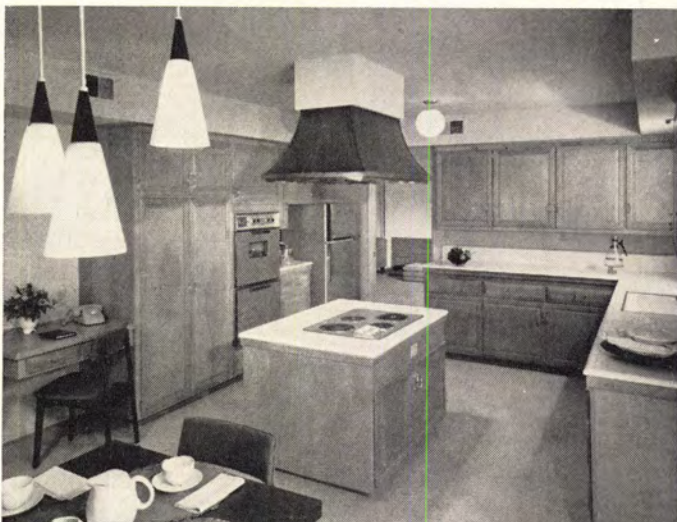
LUXURY BATH in one of Robert Edwards' St Louis houses has sunken tub, plywood-paneled walls, ceramic tile—even a secluded sun garden.



LUXURY DRESSING ROOM with built-in vanity is big feature of \$12,800 and \$15,000 houses in Centennial's Town North tract, Dallas.

5. The leaders are offering luxury at tract-house prices

Fedlerfoto



LUXURY KITCHEN in Harris Goldberg house, Ventura County, Calif., has island range, other built-ins, quality cabinets, work desk.

All over the country the sales leaders in today's market are including so-called extras in their basic houses—even in the lower price brackets. Examples:

In Lakewood, N.J., Bob Schmertz' air-conditioned houses sell for \$11,395.

In Jacksonville, Meyers & Lazeau put central heat and a fireplace in \$12,000 houses.

In Dallas, Lawson Ridgeway includes sliding glass doors off master bedrooms in his \$12,800 houses.

In Orlando, Fla., Herbert Heftler offers central heating and air conditioning, a garbage disposer, and an intercom system in \$12,475 houses.

In Southern California, Harris Goldberg and Keith Brown include a dryer as well as other appliances at \$14,950.

In Wilmington, Leon Weiner offers a balcony off the master bedroom in 1,850 sq ft splits for \$16,500.

In Tulsa, Lloyd Creekmore's \$20,940 houses include a hobby room, a separate dining room, a stone fireplace, carpets, and a mosaic stone entry.

6. The leaders are creating their own good locations

"Good location" has always been the No. 1 rule for successful selling. But with few choice locations still available, today's leaders are being forced to move into not-so-good locations—and then to upgrade them.

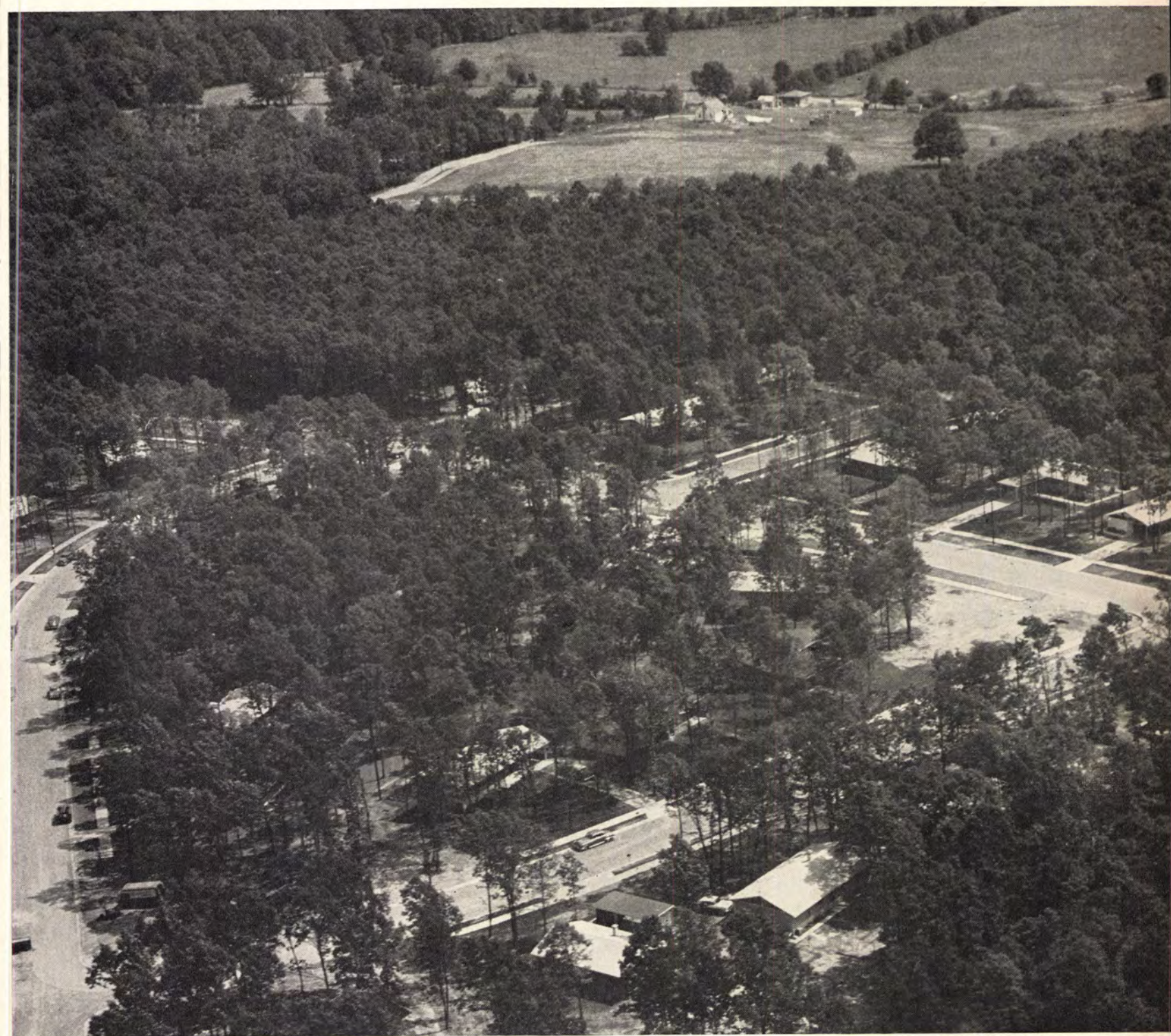
They are building roads, putting in sewer and water lines, and developing community facilities. With imagination and skill, they are creating pleasant places to live. Here is what three leaders are doing to make their own locations:

1. In Ventura County, Calif., Harris Goldberg has converted 1,000 acres of cattle and wheat land into a burgeoning suburb with most of the amenities buyers want. He has developed large water resources, started a sewerage system, given away two school sites worth \$100,000, and planned

for churches, shopping centers, and golf courses.

2. In Medina, Ohio, Ed Mears is selling \$28,000-\$60,000 houses fast because he has turned a woodland into a country club-like development. He offers a \$100,000 clubhouse, swimming pool, small golf course, stable and bridal path, tennis courts, and a 12-acre lake stocked with fish.

3. And in Sarasota, Fla., Paul Paver this month will open a \$200,000 recreation center to provide buyers of his \$12,000-\$19,000 houses with "a play area that also gives newcomers more of a feeling of belonging." The 14-acre center includes a 140' x 60' community hall and a 75' x 42' swimming pool.



TREES AND CONTOURS are saved by Builder Alvin Hawbaker, who says this is why he does 75% of the building in State College, Pa.

7. The leaders are developing better neighborhoods

They are finding that attractive neighborhoods give them a big competitive edge—particularly with second- and third-time buyers.

Here are some of the things successful builders are doing:

They are laying out lots to take advantage of the land. For example: two California builders (Conejo Valley Development Co and Whitecliff Homes) use one engineering firm with rolling land and another with flat land.

They are siting houses to take advantage of the land. For example: Pennsylvania Builder J. Alvin Hawbaker, a National Homes dealer, retains a top architect to site his houses on rolling land. Architect Charles Goodman preserves the natural countryside setting by keeping big trees and rock outcroppings.

They are bringing in trees to improve their lots. For example: Eichler Homes is moving big trees into a new Los Angeles tract and putting wiring underground to enhance their effect. Says Joe Eichler: "Our raw land costs were so high that we have to build higher-priced houses. To sell these quality houses, we have to surround them with a quality setting." The name of Eichler's tract: "Los Arbores" (The Trees).

And they are even putting in better-quality lawns. For example: to get a better-looking neighborhood fast, Meyers & Lazeau, Jacksonville, sod their yards solid with bluegrass. Says Paul Lazeau: "FHA doesn't allow us any extra for this, but we feel it's worthwhile because it gives the neighborhood an established look right away."

continued



HOUSING FORUM conducted by Merchandising Specialist Stan Edge gave Heritage Homes, Miami Beach, new facts about buyers' wants.

8. The leaders are studying their markets more carefully

The builders whose business held up late last year when most housing sales were falling off were hitting their market on the target. They knew exactly where to build, what price range to build in, and what to give their buyers in planning, design, and equipment.

Builders like Eichler Homes of Palo Alto, American Housing Guild of San Diego, Raleigh Smith of Houston, and Perine Development Co of Indianapolis all had good fourth quarters. And they all backed up their own judgement with some form of systematic market analysis.

Here is how some of the leaders got the facts to pinpoint their markets:

Some builders got the facts at local consumers' panels. One example: Housing forums were held in Houston for Raleigh Smith, in Rochester, N.Y. for Caldwell & Cook, in South Bend for Andy Place, and in Miami Beach for Heritage Homes.

The forums were run by Merchandising Consultant Stanley Edge in cooperation with *Better Homes & Gardens*. The participants: from 30 to 50 women whose incomes and interests qualified them as prospects for the builders' houses. Edge prepared two lengthy questionnaires which, when answered by the women, provided detailed information on their likes, dislikes, and ability to buy. A key question: participants were asked how they would spend up to \$6,000 in "optional money." On the basis of the

results, each builder will erect a *Better Homes & Gardens* Housing Forum House. Edge will hold 20 similar conferences for other builders this year.

Some builders got the facts from prospects' reactions to model houses. Tom Perine stationed hostesses in his models, had them ask questions prepared by his advertising agency.

Some builders got the facts from buyers' reactions to their own houses. Builder-Realtor Darwin T. Lynner of Des Moines used the material gathered in interviews with buyers as a guide in planning new models. Joe Eichler sent interviewers to find out how buyers were living in their houses, learned they like a fourth bedroom but were not using it for sleeping. Result: a change in merchandising—the fourth bedroom is now furnished and advertised as a study.

Some builders got the facts from door-to-door interviews. In Lakeview, Ind., Roy Van Arsdel asked families if they would spend more to live around a lake. The answer: yes. So Van Arsdel turned a mud pond into a small pleasant lake, around which his houses sold fast.

Some builders got the facts by studying significant local statistics. American Housing Guild used statistics—on local employment, building permits, apartment vacancies, etc—as one basis for boosting its top price from \$17,000 to \$19,000. Today the \$19,000 houses are AHG's best-sellers.

9. The leaders are adding top-notch people to their staffs

Builders who are ahead and want to stay ahead are no longer relying on themselves alone to get the job done.

Nowhere was this reliance on executive talent more evident than at the recent NAHB marketing seminar: of 37 sales managers who attended, 20 were unaccompanied by their builder bosses.

"The days of the lone-wolf builder who can handle building, merchandising, land buying, design supervision, market research, and financing—all with equal ease—are numbered," says Builder Ed Bennett of Bethesda, Md.

Item: Bennett (25 houses a year in the \$30,000 class) spent \$2,000 recruiting an executive assistant, ended up with a Harvard Business School graduate.

Item: Charlotte, N.C. Builder Charles Ervin hired a CPA away from a big New York accounting firm. The CPA helped put Ervin's operation on a sound big-business footing, installed systems for cost accounting and materials purchasing.

Item: Jacksonville Builders Meyers & Lazeau hired a general manager away from a local bank because they thought a man with financial experience was just what they needed for better balance. (Partner Dick Meyers is heavy on the technical end; Partner Paul Lazeau is heavy on merchandising and selling.)

Item: Builder Ray Ellison of San Antonio hired a top salesman from a top California realtor to give his own organization more merchandising push.

Item: American Housing Guild, San Diego, hired a full-time research man, also has a purchasing specialist.

Item: While Dave Fox, of Fox & Jacobs, Dallas (chairman of NAHB's Merchandising Committee) was helping run the marketing seminar in Washington, his sales manager was attending the course, and his construction vice president was attending an American Management Assoc meeting in New York.

10. The leaders are cutting costs with better machines and methods

Builders who are not crying the sales blues are putting as much effort into cost cutting as they are into merchandising.

They are cutting costs with better materials handling. Examples: 1) Medema Builders, Oak Forest, Ill., save \$75 to \$85 a house by using a "Sky Hook" (see photo) to handle framing, lumber, and trusses; 2) Fischer & Frichtel, St. Louis, position pre-built panels with a tractor-mounted crane; 3) Bob Schleicher, Gary, Ind., uses a crane mounted on a truck trailer to unload trusses and wall panels; 4) American Housing Guild, San Diego, insists that subcontractors use fork-lifts to place chimney brick at each house.

They are cutting costs by using power tools instead of hand tools. Examples: 1) John Long of Phoenix uses power presses to clinch fasteners to roof trusses; 2) Medema Builders use bench saws and automatic staplers and nailers.

They are cutting costs by getting more building done off the site. Example: Many leaders are building with trusses and modular panels. Some, like Tom Perine of Indianapolis, make their own components in shops close to their sites. Others, like Medema Builders, buy components from lumber companies. For more examples, see p 152.

Says Ed Bennett of Bethesda, Md.: "When I learned that three carpenters quit the trade for every one that enters, I saw the handwriting on the wall. I don't build anything on the site now that I can get economically delivered."

They are cutting costs by simplifying on-site finishing. Examples: 1) Fischer & Frichtel spray-paint their houses; 2) Jake Lefferts, Middletown, N.J., uses aluminum siding with a baked-on finish; 3) Bob Schmitt, Berea, Ohio, uses snap-on aluminum trim around doors and windows.



POWER CRANE ("Sky Hook"), mounted on a tractor, lets Medema Builders, Oak Forest, Ill., hoist lumber by horsepower instead of manpower.

11. The leaders are cutting costs with better cost accounting

"You can't cut costs until you know what they are. The only way to find out is to use a good cost accounting system."

So says George Martin, Louisville, chairman of NAHB's Business Management Committee. "We stay on top of our costs by using a card system: we can pull a card and know the to-date costs on any house in 20 minutes."

Here is how three other leaders are keeping tabs on costs:

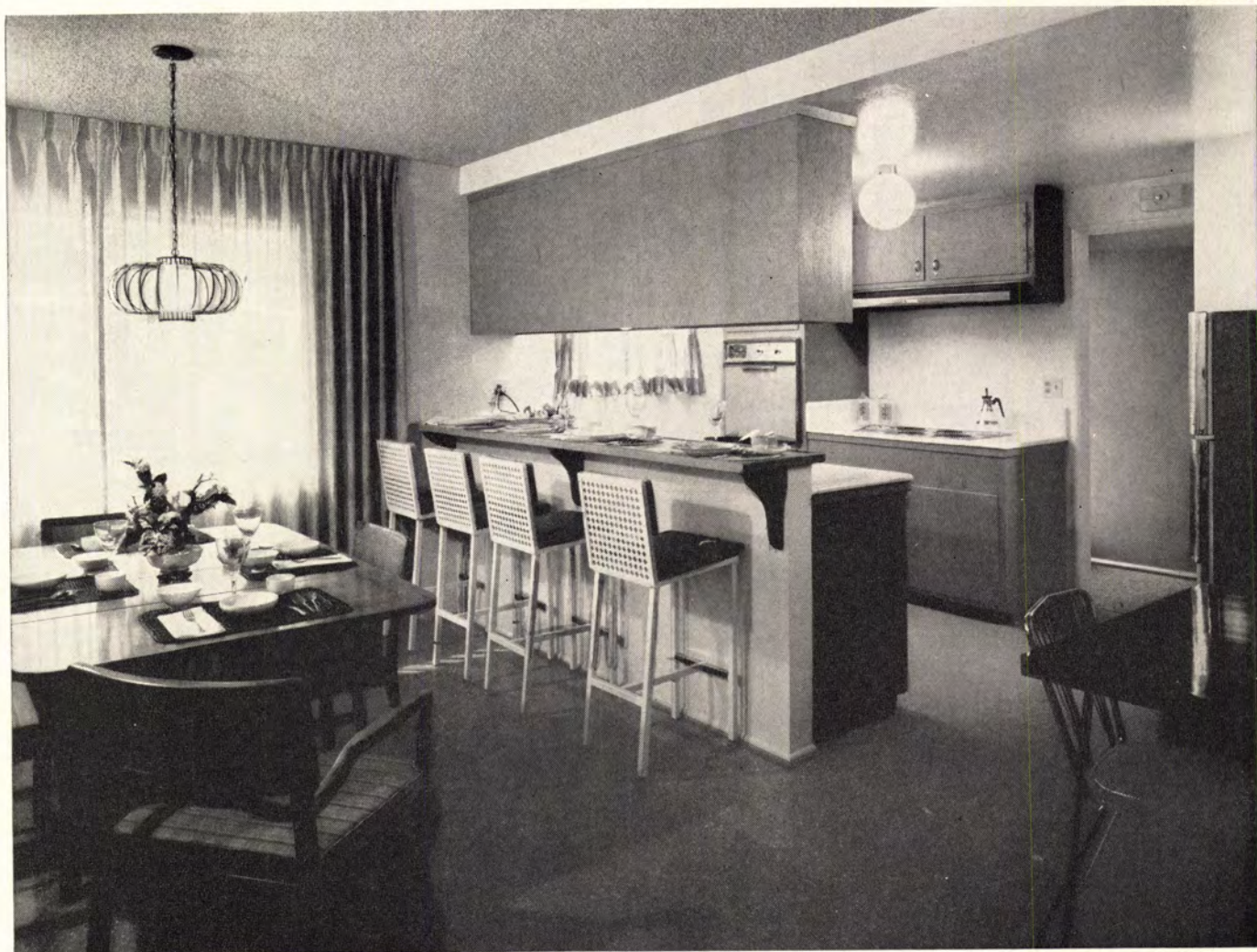
1. Ed Bennett of Bethesda, Md., measures his job costs, item by item, against his original estimates. He checks on a weekly basis, starts looking for the trouble whenever he finds an item that's out of line.

2. Partners Tom Perine and Don Huber of Indianapolis,

who sell \$2,000 below FHA appraisal, compare daily labor costs with standards set up through time-and-motion studies. And to control inventory, they use IBM machines.

3. Meyers & Lazeau, Jacksonville, keep detailed job costs on each house "to find out which houses net us the least. Once we find out, we analyze why. For example, we found we could cut trimming costs by ordering trim for one house at a time and having it delivered to each house instead of by bulk buying for many houses at once. The higher initial cost was more than offset by savings from no warehousing, no rehandling, and no damage or pilferage. Only a good cost accounting system could tell you that."

continued



HIGH-FASHION FURNISHINGS in Harris Goldberg's \$15,000 houses have paid off in a sell-out at his Ventura County, Calif., tract.

12. The leaders are furnishing more of their model houses

"There is a standard way of merchandising almost any new product under the sun, and the standard way for houses is to show them furnished."

So says Pennsylvania Builder Bob Fox, who this year will furnish twice as many models (six) as he did in 1959. Other leaders are thinking and acting along the same lines:

In Phoenix, Gene Pennington furnished 17 models when he opened two tracts last fall. Result: 79 sales in three days.

In Savannah, Clayton Powell first showed a furnished model two years ago, now has three furnished professionally. Result: "I am drawing bigger crowds and stirring up more talk about my houses."

In San Antonio, Ray Ellison, who had never furnished a model before, furnished ten last fall. Result: "My sales have made a big dent in the market."

Many leading builders are putting more emphasis on the quality of their model-house furnishings. To do this, they are turning to top decorators for advice. Says Builder Harris Goldberg of Ventura County, Calif.: "We have given Interior Designer C. Tony Pereira a blank check to furnish 12 models."

Many leaders are refurnishing their models more often. Oregon Builder Dwight Haugen furnishes each model three times a year "to have a reason for advertising our models over and over again and to get people to come out time after time." Florida Builder Larry Richmond frequently changes furnishings in a model built on a downtown corner: "Last year we sold \$2½ million worth of houses from this one model. People keep coming to it the way they go to fashion shows."

Do furnishings really boost house sales? Boston Builder George Iverson has proof that they do. He displays two identical models, but furnishes them differently: "Prospects think they are looking at two different houses—some buy from one, some from the other."

Julius Shulman



PATIO FURNISHINGS to dramatize outdoor living played a big role in success of Marina Shores beach community near Los Angeles.

13. The leaders are scheduling more off-season openings

They have opened models in the November and December holiday seasons, and they are planning more openings in January and February.

"January has always been our best selling month," says Bob Fox of Plymouth Meeting, Pa. "And last November we sold more houses than in September and October combined."

Why are the leaders scheduling more off-season openings?

"To build up a backlog of presales for spring delivery and to extend the time for model-house viewing," says Fox.

"To beat the competition to the spring buyers," says Dwight Haugen of Portland, Ore., who will introduce his new models this month or in February.

"To start selling when people are most aware of the space shortage in their old houses—right after Christmas," says Alvin Hawbaker, who opened his new models in State College, Pa., on New Year's Day.

Other leaders who have made a success of off-season openings include: Strauss Bros, who opened in Denver the weekend before Thanksgiving; Clayton Powell, who opened in Savannah in November; and Matt Jetton, who opened in Tampa three weeks before Christmas.

Some builders are also scheduling off-season openings to capitalize on special local conditions. Example: Herb Heftler opened a line of air-conditioned models in Orlando in sweltering August.

14. The leaders are giving buyers a bigger part in planning homes

"As far as I am concerned, this is the only way to build and sell houses today," says Pennsylvania Builder Jack Blackman, who had a good last quarter in 1959 and expects to triple production this year.

Among the leaders, buyer participation ranges all the way from selecting room colors to changing plans. How much choice or change the leaders allow hinges largely on their volume and their price range.

"The higher your price range, the more buyer participation you can afford," says Long Island Builder Sidney Weniger. "In our Brookville development, houses range from \$40,000 to over \$65,000. If people are going to pay that much for a house, they don't want a duplicate of the one next door. But, whatever the price range, some tailoring is almost a necessity."

Here is why some leaders give buyers a part in the planning:

"Our market is the second-time buyer," says Bob Moretti of San Mateo. "He's knowledgeable and has a little more to spend. He is willing to pay for value; we are eager to give it, so we allow him choices and let him make sensible changes. Of course, we build in volume, which lets us give our buyers a little more leeway."

"Versatility is our stock in trade," says Bob Booth of McCravy & Harkey in Shreveport. "Each of the 25 houses we built last year is a little different. I figure we'll sell 30

houses this year just because people know we'll tailor the house to their specifications."

Here is the way some leaders let buyers take a part in the planning:

They offer catalogs of plans and styles. Larry Richmond of Sarasota uses a nine-plan book. Richard Goodwin of Haddonfield, N. J. provides a standard foundation, but lets buyers take their pick of 50 different plans. Petersen & Moretti offer 17 different floor plans and 92 exterior variations in six California subdivisions.

They give buyers an optional equipment list. G.S. Shipp of Port Credit, Ont. breaks his list into three parts: standard equipment, optional extras, and a "You Choose" list from which the buyer can select one of five plans, room and equipment colors, gas or electric appliances.

Builder Blackman's equipment list is so detailed that he even offers his buyers trees and shrubbery at wholesale nursery prices. His buyers get a choice of millwork, insulation, and interior finishes. He lists the cost of widening and lengthening rooms. And, although his basic house has four bedrooms, he credits buyers with \$112 if they want only three.

Staggs-Bilt Homes in Phoenix combines a catalog and equipment list. Inside the front cover is a form where buyers can indicate by number the plan they want and list the appliances and colors they decide on.



BUYERS CHOOSE colors and materials for new G. S. Shipp house, Port Credit, Ont. Store decorator displays paper, tile, color chips.

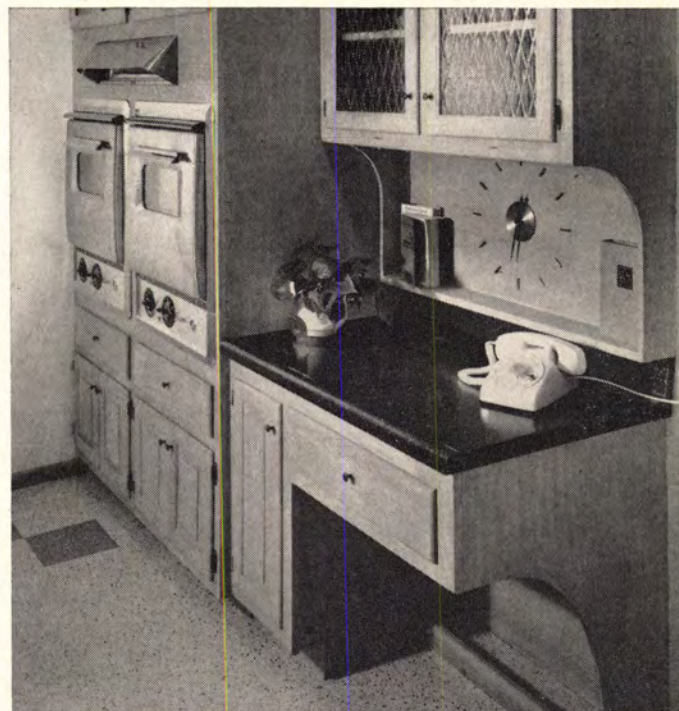
WIDE CHOICES are given buyers in Houston by Pace Setter Homes, which lets buyers assemble their own plans from variety of units.



continued



BEDROOM STUDIO in Martin Cerel house near Boston is designed and furnished to appeal to the woman as a leisure-time artist.



KITCHEN OFFICE in Wenwood house on Long Island is designed to appeal to the woman as a "general manager," has desk, clock, cabinets.

15. The leaders are dramatizing the woman's role in the home

"A woman looks at a new house and conjures up visions. She sees the house as a backdrop against which she plays out her many roles."

So says Builder Robert Edwards of St. Louis. Other successful builders in today's market share this philosophy. Here is how they are translating their thinking into more sales.

They are appealing to the woman as a hostess. Edwards furnishes his model houses lavishly, regardless of their price class. He uses fine furniture, deep pile carpets, expensive wallpapers and lighting fixtures because he believes that the woman's first important question is: "How can I entertain in this house?"

They are appealing to the woman as a creative person. Holtzman & Silverman of Detroit have an upstairs "Lauder at Leisure" room, which is designed as a private retreat for painting, hobbies, sewing. Says Irwin Holtzman: "We point

out that the washer and dryer (included in the sales price of the house) take the drudgery out of laundering and leave a woman free for the more creative pursuits we know she is interested in."

They are appealing to the woman as a manager. The kitchen in Builder Edwards' house is designed as "a sort of executive suite, the counterpart of the husband's office." Besides a wide range of built-in equipment, Edwards puts in wood paneled walls, a wall phone or an intercom, and a long counter which can be used as a desk.

They are appealing to the woman as guardian of her family's social standing. "The new house in a good neighborhood upgrades her family in a woman's eyes," says Dale Witt of Virginia Beach. "We talk to her about the pleasant neighbors she will have, introduce her to the ministers in the area, show her the school. We also point out that the new address is likely to impress her friends."

16. The leaders are demanding better-than-average salesmen

Most builders who kept on selling well through the slack market were hiring better salesmen, training them better, and paying them better.

"One really professional salesman is worth two or three just-average men," says Sales Manager James Welch of Hasbrook Construction, Chicago. Sales managers and builders at NAHB's marketing course in November agreed. And most of them said they were trying to find new and better salesmen.

To get professional selling, a number of successful builders are turning to realtors who specialize in new-house selling. Says California's Harris Goldberg: "I want the best salesmen I can find, and that means the top realtor in our area."

Successful builders are planning every step their salesmen take—leaving nothing to chance. Here, for instance, is how builders who retain Sales Consultant Kelly Snow sort

out hot prospects on crowded Sunday afternoons:

They station hostesses in model houses. The hostesses talk with visitors and, when they find a couple who are really interested, they say: "You have just won a door prize," and pin a corsage on the wife's coat. The corsage singles out the couple for special attention by salesmen.

Successful builders are also planning their salesmen's activities on weekdays, when the average salesman does little or nothing. Dale Witt of Viking Construction, Virginia Beach, has sold scores of houses by holding kaffee klatsches in neighborhoods where families might become buyers. She provides coffee and doughnuts, then shows photos and plans of Viking's new houses. In the San Francisco area, Brown & Kauffmann salesmen call on personnel managers of plants or research labs to leave brochures, photographs, and a hand-held Kodachrome viewer with a set of slides showing houses and neighborhoods.

17. The leaders are finding that today's buyers are stunt-proof

"Our second- and third-time buyers can't be taken in by circuses, balloons, gimmicks, and other hoopla," says California Builder Bob Moretti.

Many other successful builders agree with him although they point out that emotional appeals are still a basic ingredient of effective merchandising. Says Realtor Frank Hart of California's Walker & Lee (which sells new houses in 42 subdivisions): "There are 187 reasons why people buy houses, and all of them are concerned with senses and emotions."

Merchandising Consultant Stanley Edge of Pittsburgh says today's buyers have "educated emotions" and are buying with a "real knowledge of houses and what goes into them."

To sell their "stunt-proof" buyers, the leaders are using more "deep sell" merchandising—backing up appeals to emotion with appeals to reason. Here, specifically, is what many of them are doing:

They are dignifying the emotional appeals in their merchandising

Viking Construction, Portsmouth, Va., is finding that the word "homesites" has a strong emotional appeal to prospects. "It evokes a feeling of individuality and permanence. It helps us sell steadily in an area where there are a great many look-alike project houses on small lots."

Hodney Construction Co in East Lansing has great success by appealing to prospects' emotional need for privacy and more room with a "Space House."

The Wenwood Organization on Long Island finds that its "Manor House" attracts many second-time buyers "who see it as a symbol of their own success."

They are making their product displays more elaborate

G.S. Shipp of Ontario has three separate display rooms—one for color, one for equipment, one for construction materials. Lawson Ridgeway of Dallas has elaborate wall-mounted displays of materials and equipment. He encourages serious prospects to take small color samples home to help them make up their minds about color schemes. He thinks big displays "answer many questions more explicitly than the salesmen can."

Some builders, like E.J. Fitzsimmons of Honolulu, are using comparison displays. He shows off "my good copper tubing next to a rusted pipe."

They are appealing to knowing buyers with more "reason-why" merchandising

"Many of my prospects are engineers and technicians," says Eugene Delle Donne of Newark, Del. "They demand explanations on the performance, quality, and stability of materials and equipment."

Kartes Builders in Rochester, N.Y. also have a large market of technically-minded buyers. "It's not enough to demonstrate sliding glass doors," says Sales Manager Don Damaschke. "Our salesmen have to know, in general, how the heat pump works."

Eichler Homes salesmen are also trained to talk quality and value and to spell out what they mean. And, in addition, signs leading up to Eichler's model houses tell prospects about the important materials and products they will see inside.

Says Hodney Construction's Ed Mullaney: "I use the same principles as an automobile salesman. I talk technical data and give it out to prospects who really want to know."



Roland Quintero

THREE-DIMENSIONAL DISPLAYS used by Eichler Homes show brand-name products, give full story on benefits. Designed by Consultant Kelly Snow, each of 20 displays is sheltered from rain, lighted at night.

18. The leaders are using more reason-to-buy advertising

Their ads—like their model-house displays and their salesmen's presentations—are aimed at people who want to be convinced with facts and figures.

Here are just two recent examples:

1. In South Bend, a series of Place & Co ads dramatized the low operating cost of a new house. One ad shows a woman in a shoe store. Bold caption: "I'm buying these shoes with the money I saved on my heating bill this month." The woman, identified in the ad, lives in a Place home. The photo was taken in a South Bend store, also identified.

2. In Seattle, three consecutive Bell & Valdez ads sold the new house as a long-term investment. Each ad included a chart showing how a house increases in value compared with an automobile, a boat, and a savings account. The chart's headline: "Here are the facts." Its figures:

	1954 Value	1959 Value	Net
Automobile	\$ 4,253	\$ 1,490	\$2,763 loss
Boat	\$ 2,000	\$ 1,000	\$1,000 loss
Savings account	\$ 1,000	\$ 1,126	\$ 126 gain
HOME	\$15,000	\$17,500	\$2,500 GAIN

continued

19. The leaders are making it easier for homeowners to trade up

On Nov. 8, Savannah's Clayton Powell did two things to increase sales in a sticky market: 1) he introduced a new line of models, and 2) he joined the ranks of leaders who trade new houses for old. By Nov 30 he had sold 19 houses—11 by making trades.

Powell's reasons for trading are like those of many leaders: "We brought out higher-priced models to sell second- and third-time buyers who are a lot more willing to buy a new house if they can first get rid of the old one."

Some successful builders in today's tough market are coming up with new ideas to make trades work. In Celina, Ohio, Kessler Builders have found a new way to finance the trade-in house (a problem that has puzzled many builders

anxious to trade). Kessler Sales Manager Owen Hall explains his system: "We sell trade-in houses on land contracts. In a typical case, the new-house buyer had a 4½% loan to retire. We assumed this loan and sold his house on a land contract to newlyweds who paid \$900 down. In three years we will get back our money from the old-house buyer. Meanwhile we get 6% interest on our loan from the new-house buyer."

Many successful builders are getting realtors to handle their trades. In San Mateo, Calif., the trades of one builder, Bob Moretti, are handled by six brokers—one in each area where he builds. In northern New Jersey, one realtor, J.I. Kislak Inc, handles trades for 12 builders.

20. The leaders know that a good reputation is fundamental

"Your reputation cannot be duplicated by anyone else," says Virgil Meaden of Hugh Edward Inc, Gainesville, Fla. "It is synonymous with quality, whether high or low."

No one knows better than leading builders that public esteem often makes the difference between losing a sale and making one. And so they work hard at their reputations—for quality, for value, for good design. They work hard at creating a public image—by participation in their com-

munities' activities on civic, educational, and charitable levels. And they work hard at creating an institutional image which often engenders good will, not only for their companies, but for the housing industry in general.

Says Sidney Weniger of Long Island's Wenwool Builders, a 52-year-old company: "When you come right down to the essentials, you find you have just three things to sell: experience, reliability, and integrity."

ONE KEY TO A BUILDER'S REPUTATION, say all of today's sales leaders, is the quality of the neighborhoods he leaves behind him. /END



James T. Strong

A look at design in the decade of the 1960s:

What changes can we expect in the mass-produced house?

You can see some of the possibilities to come in

Today's experimental houses

Like all experiments, the value of off-beat houses lies in what can be learned from them, and how their ideas can be used—not in how a particular house can be copied.

Experimental houses, commissioned by clients who can afford art-to-live-in, are by nature daring in materials and structure and planning, and above all, in form.

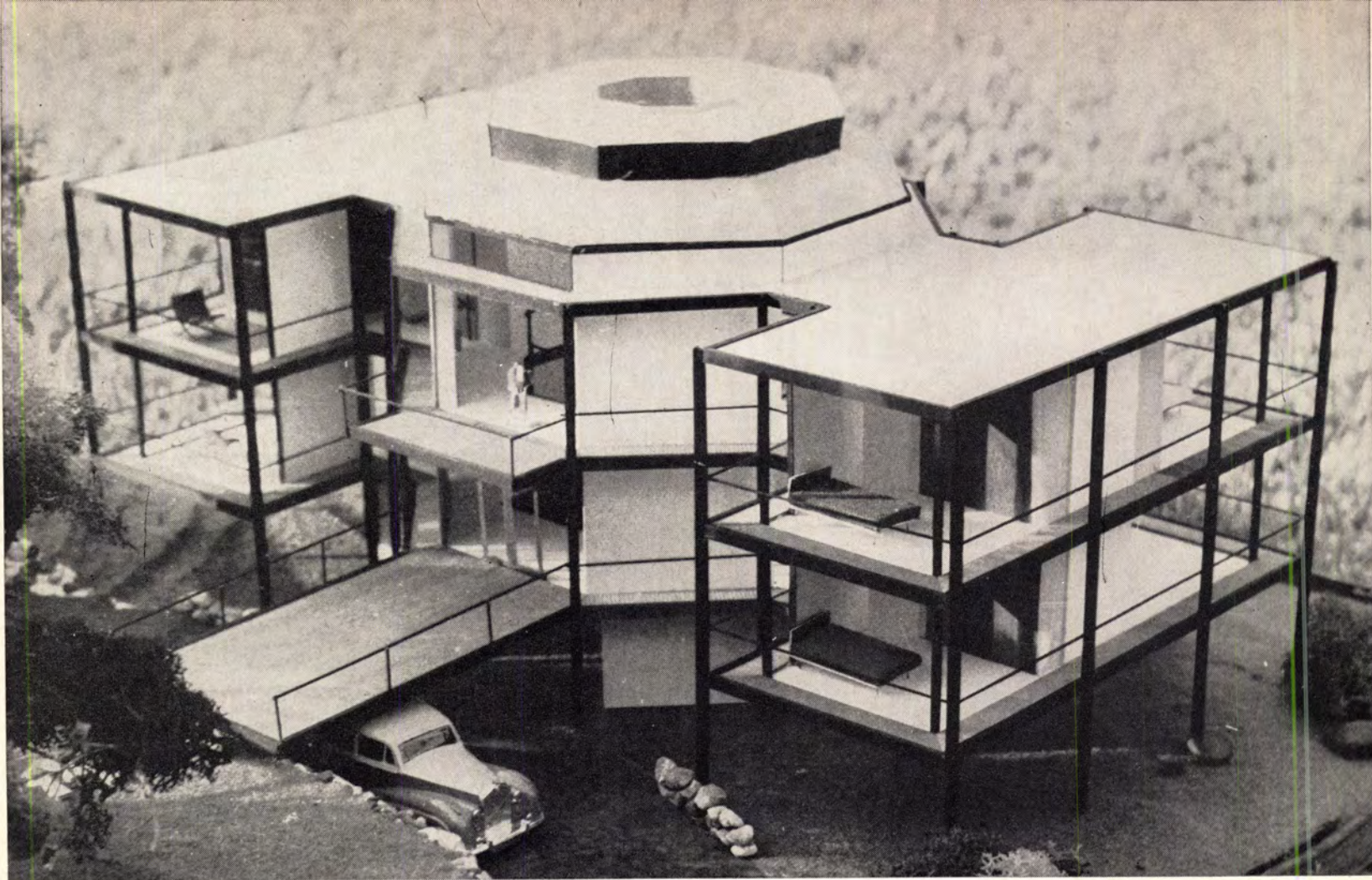
Sometimes the experiment turns out to be at best a novelty, at worst a freak. But sometimes the architect hits on something new and really important for living; sometimes—when all the shouting is over—the experiment turns out to be architecture.

The important thing in any case is that new directions are being explored and new ideas are being tested. In fact—most of today's production houses embody ideas that first appeared in earlier experimental houses.

For instance: today's popular provision for indoor-outdoor living owes its existence to earlier experiments with an all-glass wall; today's widely-accepted big overhang is a modification of yesterday's bold experiments with cantilevers.

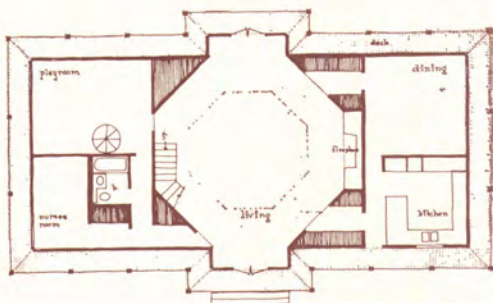
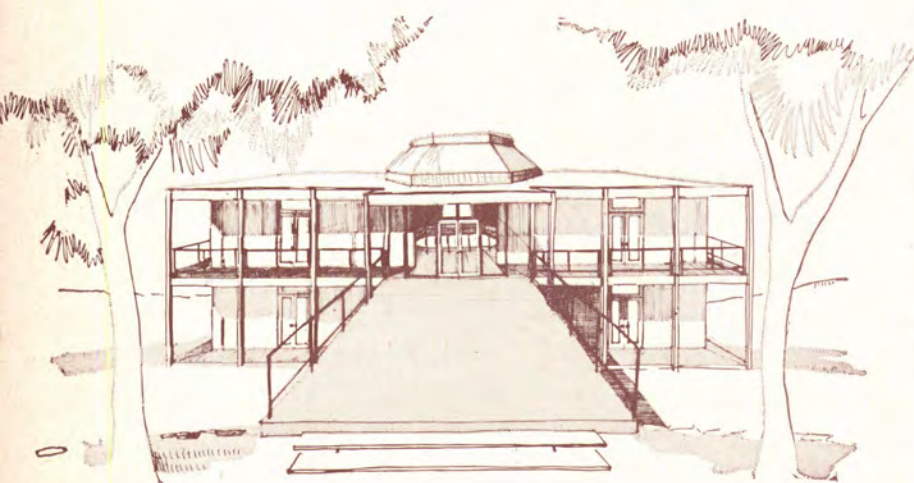
On the next eight pages you will see seven examples of the kind of notions that forward-looking architects are now experimenting with. In the next ten years, many ideas from these houses may come into common use.

To see these experimental houses, to judge them for yourself—are they merely bizarre? or just modish novelties? or perhaps great architecture?—turn the page.



OCTAGON with pavilion wings was second stage scheme; it was dropped because it used too much exterior wall.

Here are two new experiments in geometric form



OCTAGON in a rectangle is final scheme; it cuts amount of exterior wall; angles are filled by storage space on both floors.

Both of these experiments point up how architects are trying to get away from the conventional rectangular shape by adapting familiar geometric forms.

The house on this page uses a rectangular plan, but it puts an octagon in the center.

Say Architects Bolton and Barnstone: "This almost classic Palladian plan of a central hall and surrounding wings developed in three stages: The first, a three-story octagon, was abandoned, because the octagon's 28' diameter made size and shape of bedrooms awkward. The second scheme, rectangular pavilions attached to a central octagon [photo, above] was dropped because it added too much perimeter wall. The third, an octagon set in a rectangle [drawings, left], is the one we are now using. The conventional rectangle saves exterior wall, while the central octagon makes a perfect center for intimate home life."

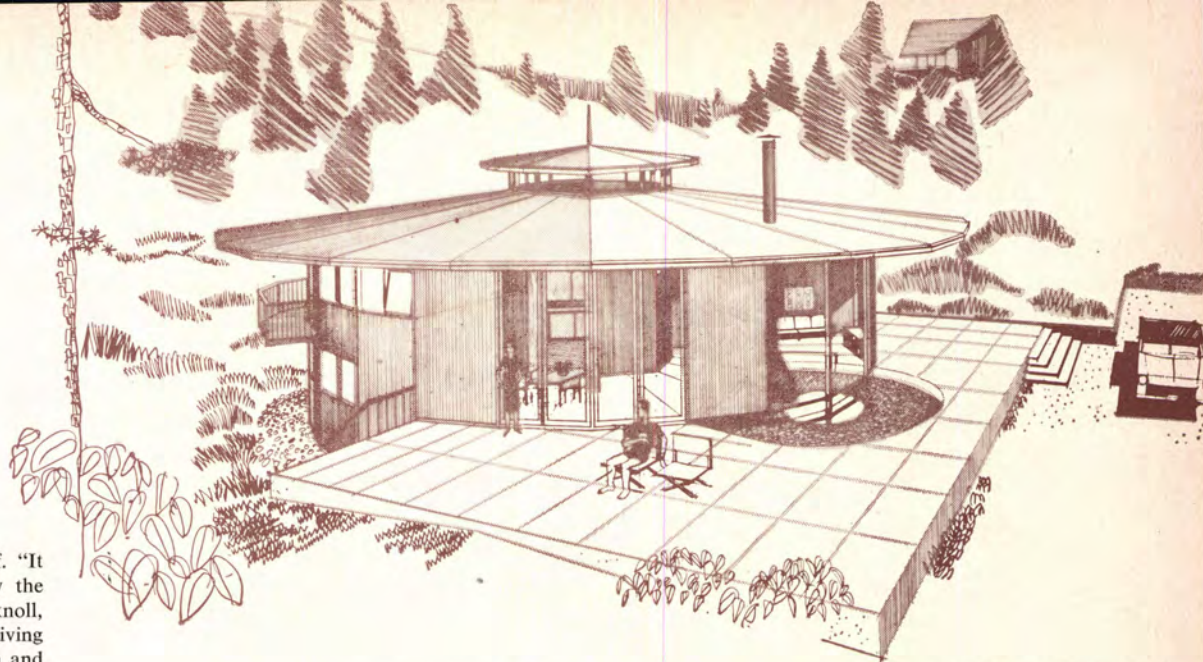
The house across-page is actually a split-level plan within a circular form.

Say Architects Marquis and Stoller: "We have been working with a hexagonal house (finished) and a triangular house (under construction), as well as this one, and our clients have been as fascinated as we are with the possibilities of various forms. But you cannot impose unusual forms on a house just for the fun of it; they must fit the structural system and the materials. They must also be appropriate to the site and to the clients' needs if they are to result in enrichment and variety."

ARCHITECTS: Bolton & Barnstone

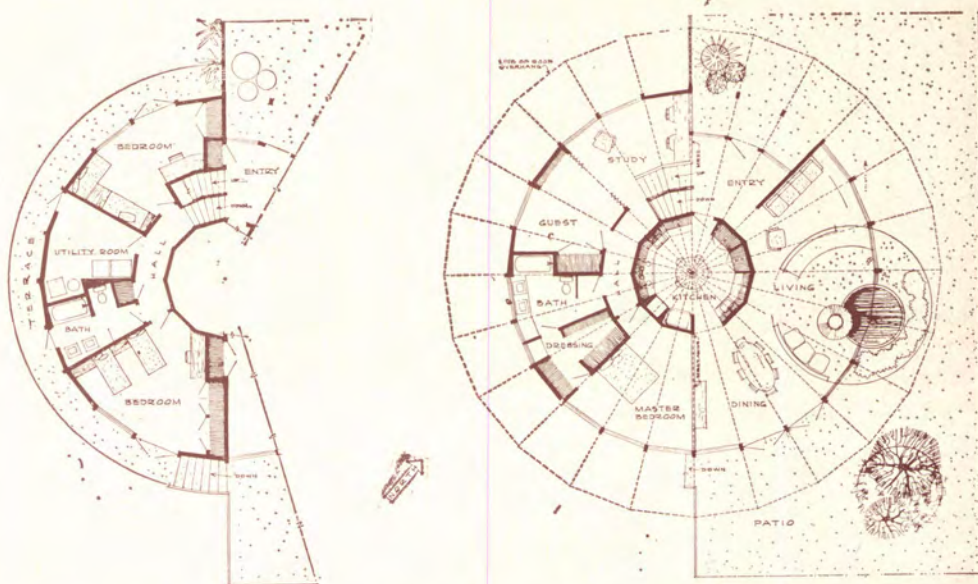
LOCATION: New Haven

STAGE: preliminary drawings



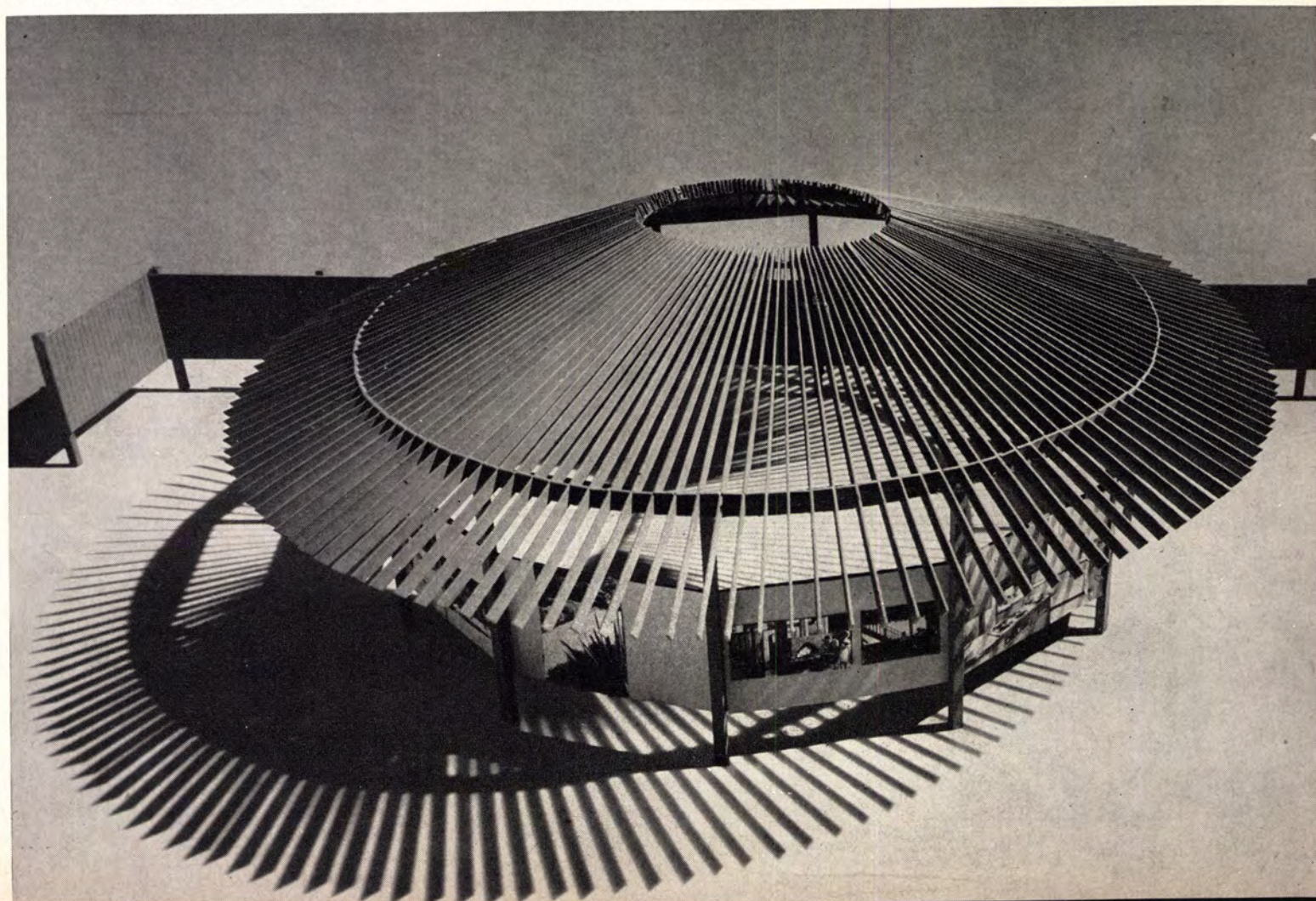
ROUND HOUSE needs space to set it off. "It would be ridiculous on a city lot," say the architects, "but it will be at home on a knoll, with views in all directions." Plan keeps living areas at entry level, puts master bedroom and study up a half-flight, children's bedrooms and utilities, down.

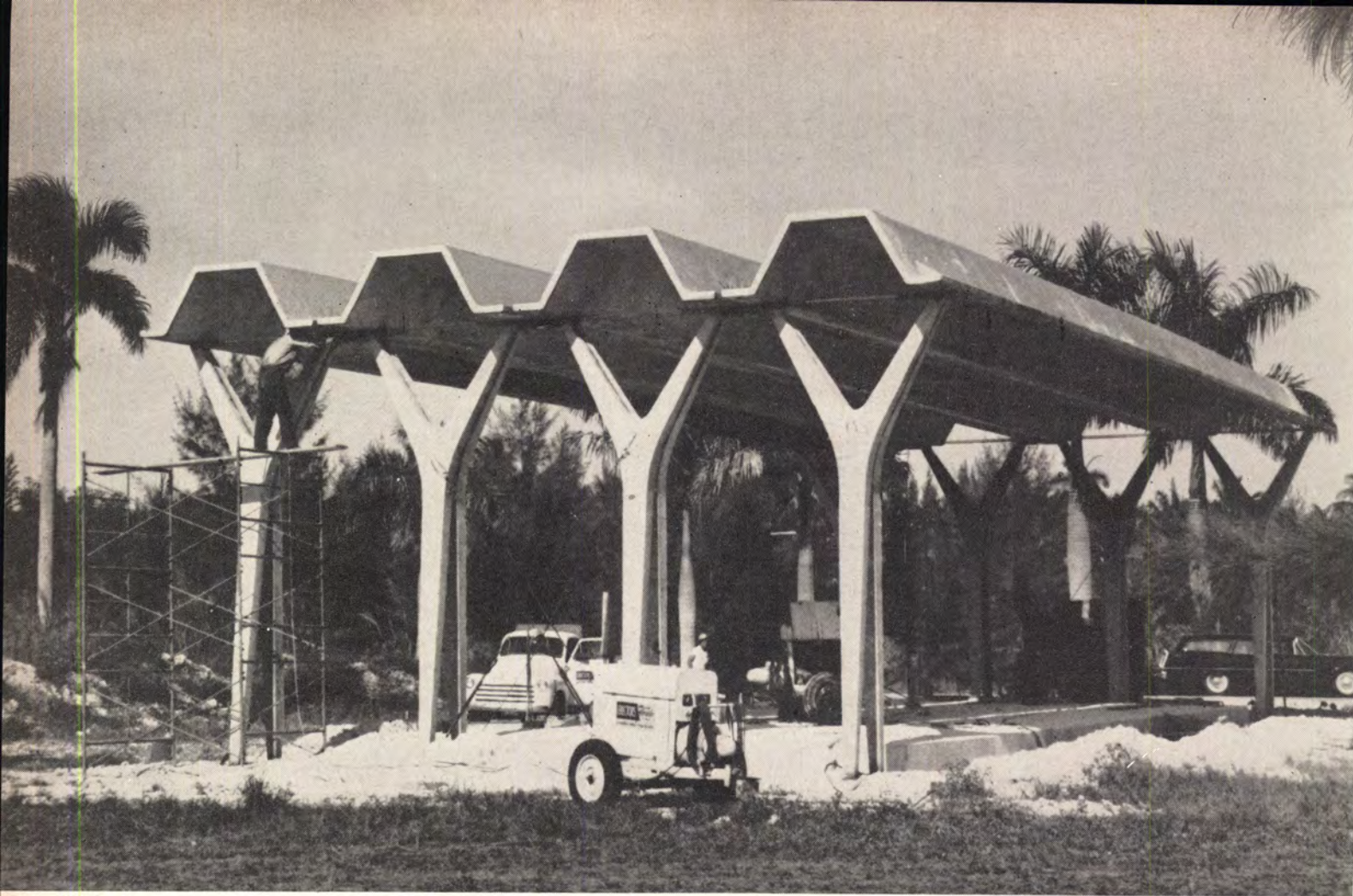
ARCHITECTS: *Marquis and Stoller*
LOCATION: *Northern California*
STAGE: *working drawings*



TENSION-COMPRESSION RING SYSTEM to be used in round house (above) was first developed by the architects for a display pavilion built last year in

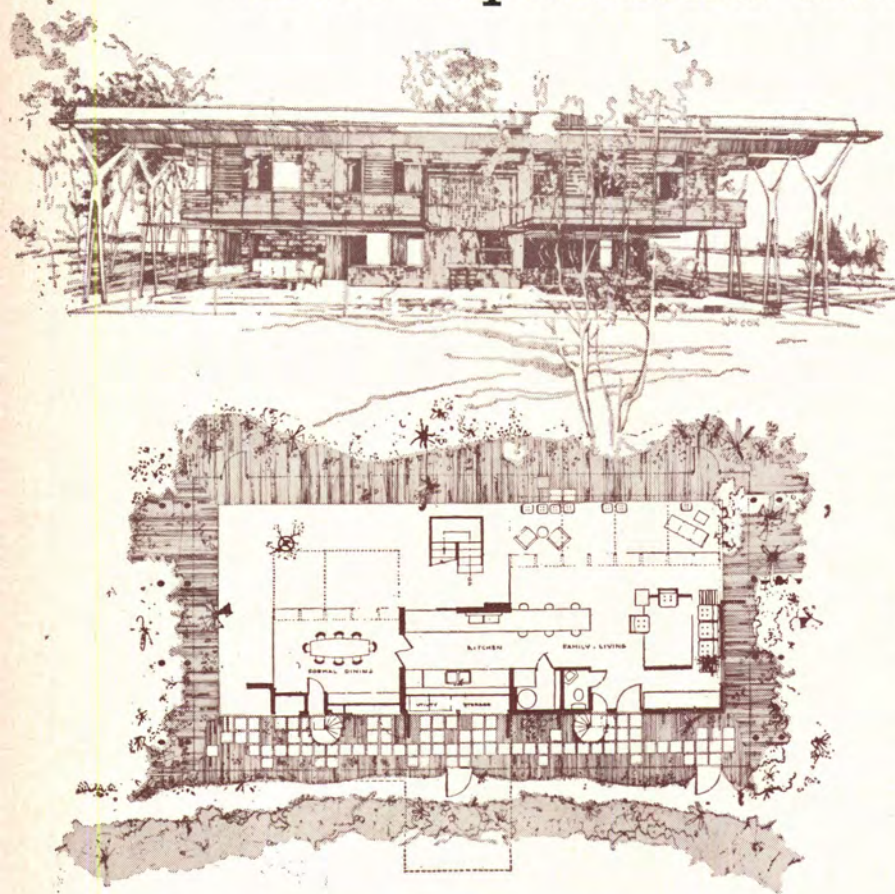
San Francisco (model, below). In house, walls between columns will be flat surfaces, not curved, and filled with panels of wood or glass.





PRECAST BENTS echo shape of palm tree nearby. Bents were cast in two sections, bolted together at the site.

These experiments test radical structural ideas



OVERALL SHELTER is 36' wide, 72' long, 20' high. Second floor will have two "apartments," one for owners, one for daughters.

And although they both use concrete, they use contrasting form and structural techniques. The experiment on this page has a precast concrete frame, in rigid planes, while the one across-page uses concrete sprayed on a steel armature.

The house on this page was suggested by the folded plate roof, the forms for which were already in existence.

Says Architect Bob Browne: "This is as valid as any approach using pre-conceived form. Experiments in form are bad only when they impose unnatural situations upon the users or the problem, for art's sake, or for ego's."

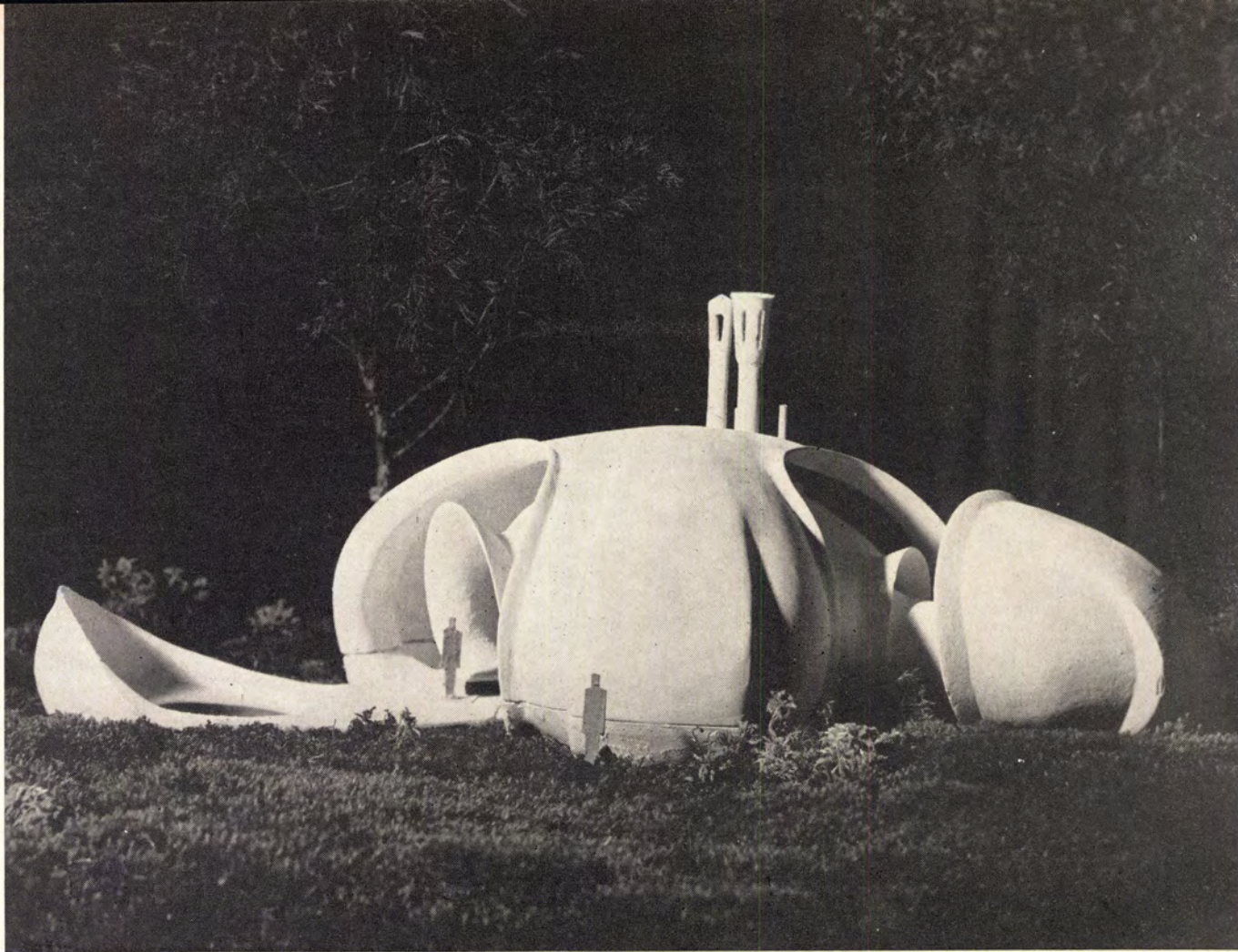
The roof is carried on two-legged, Y-shaped bents, four at each end of the house. The second floor is hung from the folded plate roof by tension rods, so the concrete bents are the only vertical support. The bents have their peculiar arm-and-leg shape to brace the house in two directions. Roof to ground screening, set back of the bents, will surround the house. Total area: 3,768 sq ft, for \$31,000.

New techniques for the house across-page are also expected to keep costs down.

Says Architect John Johansen: "The erection period will be short, labor costs low, the processes of building and spraying the armature simple."

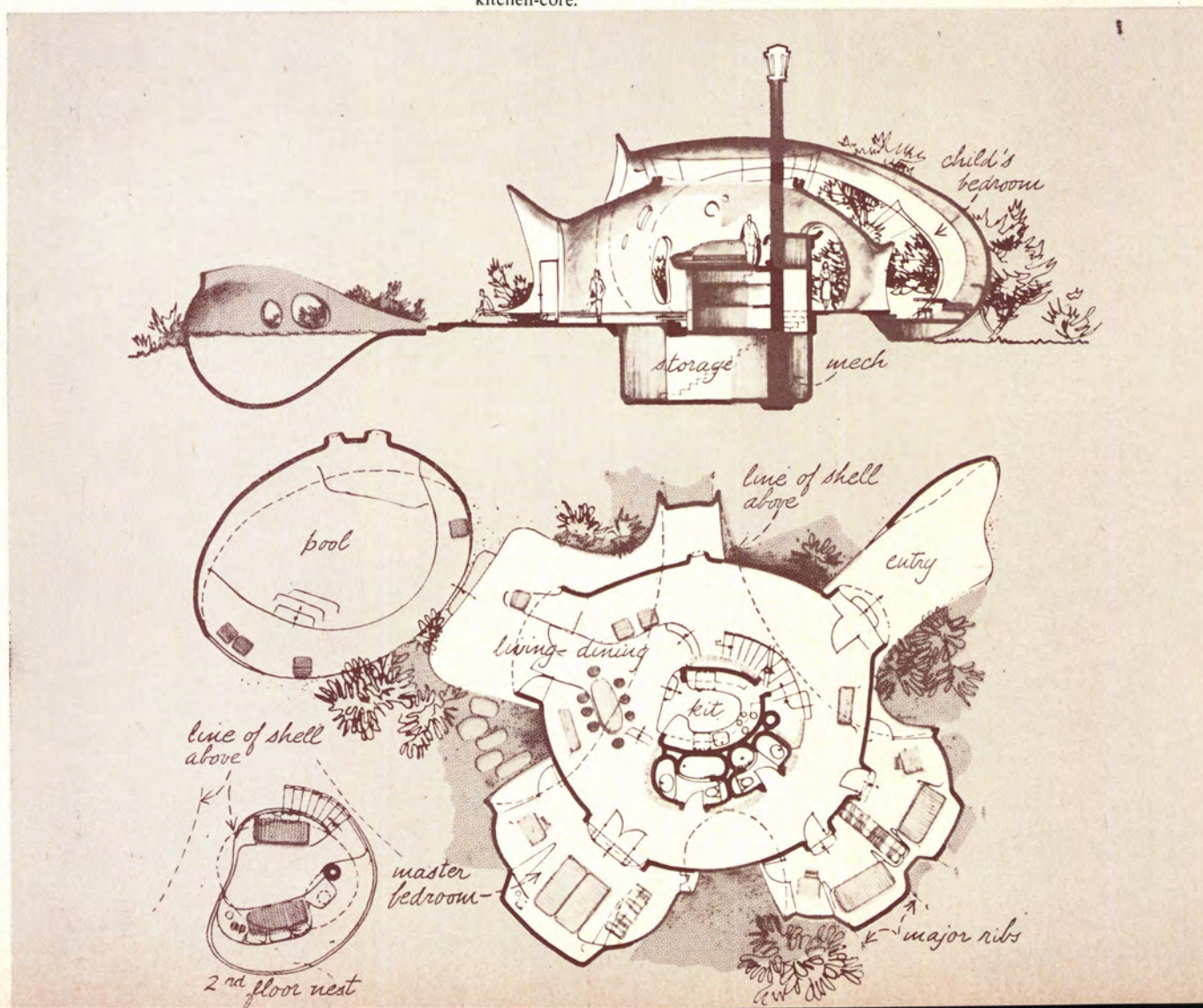
Insulation will also be sprayed-on, while walls and ceilings can be textured or painted. Floors can have any finish that normally goes over concrete slabs. Radiant heating coils can be buried in floor, wall and ceiling, or forced warm air and air conditioning can be used.

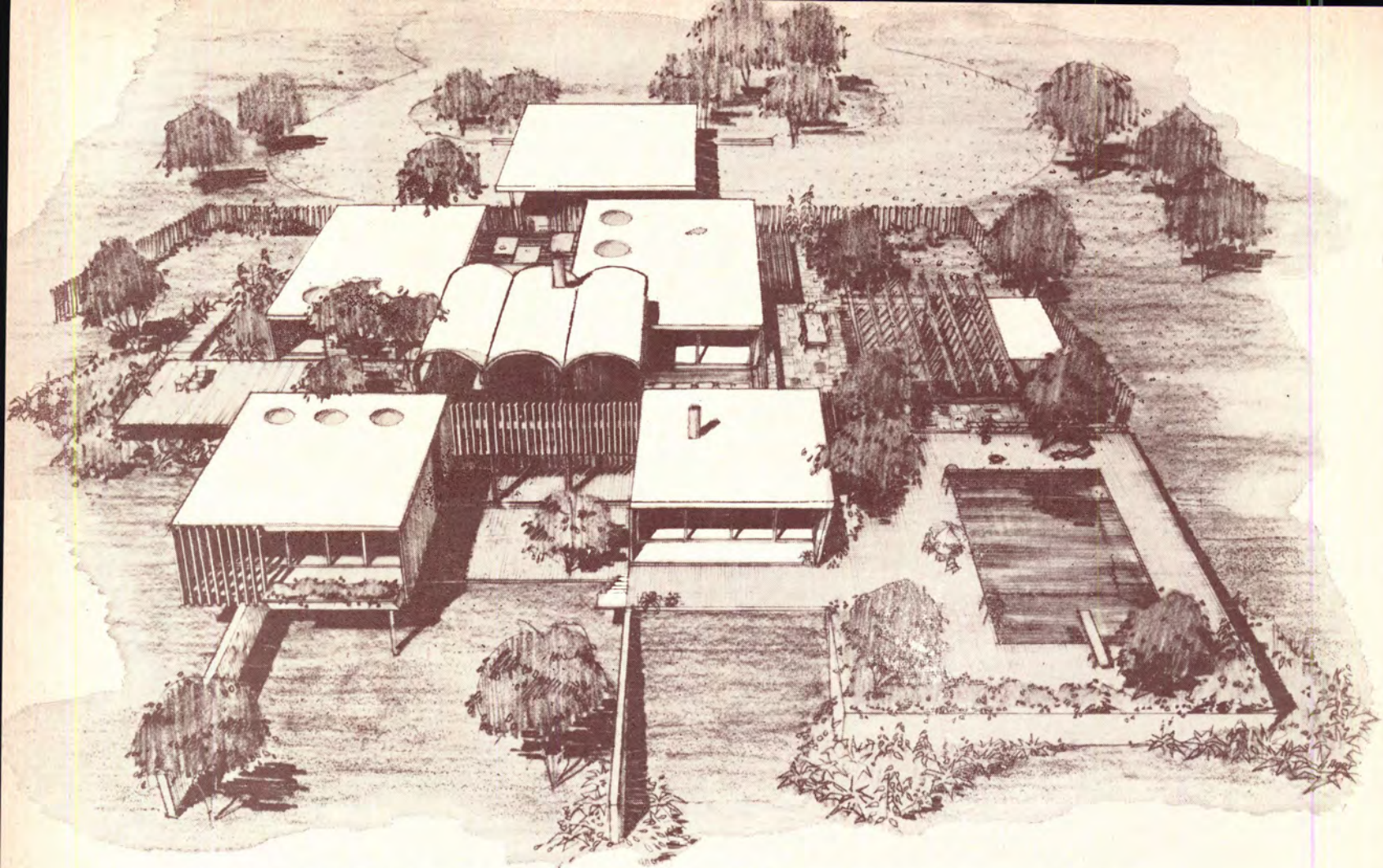
ARCHITECT: Robert B. Browne
ENGINEER: Walter C. Harry
LOCATION: Miami, Fla.
STAGE: under construction



ARCHITECT: John MacL. Johansen
 LOCATION: New Canaan, Conn.
 STAGE: working drawings

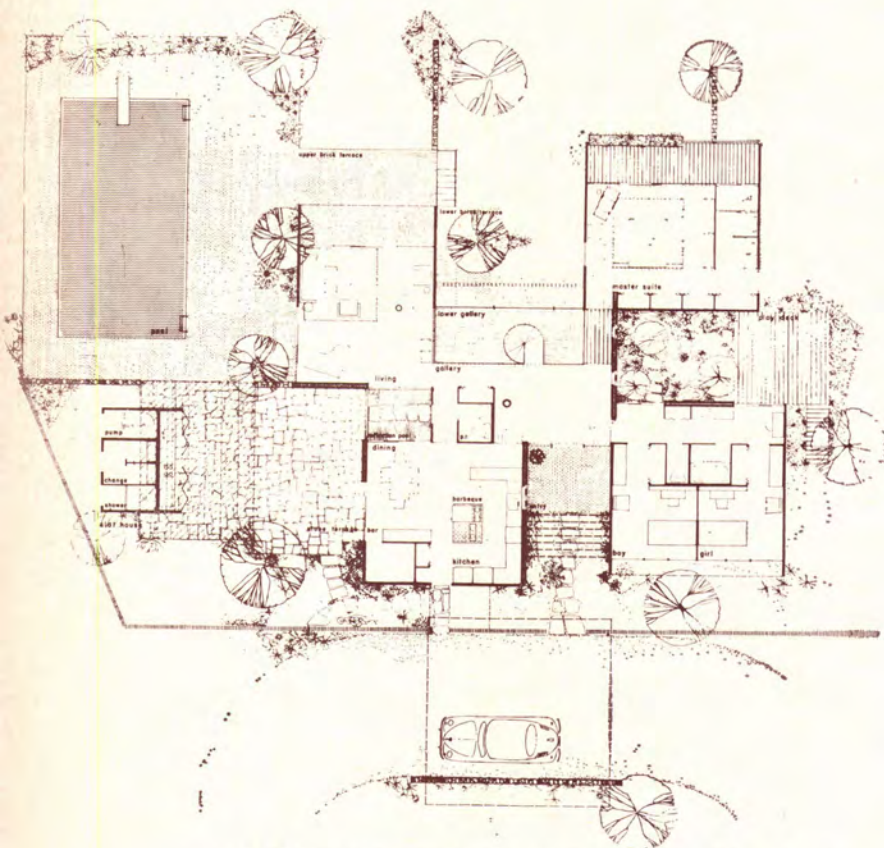
PLASTIC SHAPE of proposed sprayed-concrete house is like shapes found in nature. Architect Johansen calls it "sculpture in human scale." Johansen would spray-form much of the storage and furniture as well as the basic structure. The vertical "pole" shown below would house mechanical equipment. Doors and windows would be made of plexiglass panels, scribed and bent to fit the free-shaped openings of the building. Plan calls for three bedrooms, plus extra room over the central kitchen-core.





SEPARATED PAVILIONS get perfect privacy, frame outdoor living areas. Estimated cost: \$25,000 for enclosed spaces.

These unit-sections are experiments in flexibility



PLAN shows how entrance-level gallery connects pavilions. Lower level has playroom, utilities, storage, space for future bedrooms.

The two experiments on these pages are very different in intent: one is a custom house, and one a study in mass-produced movable units. But they have the same effect on planning: they create the utmost flexibility.

The house on this page is designed so each separate function of living is in a different unit.

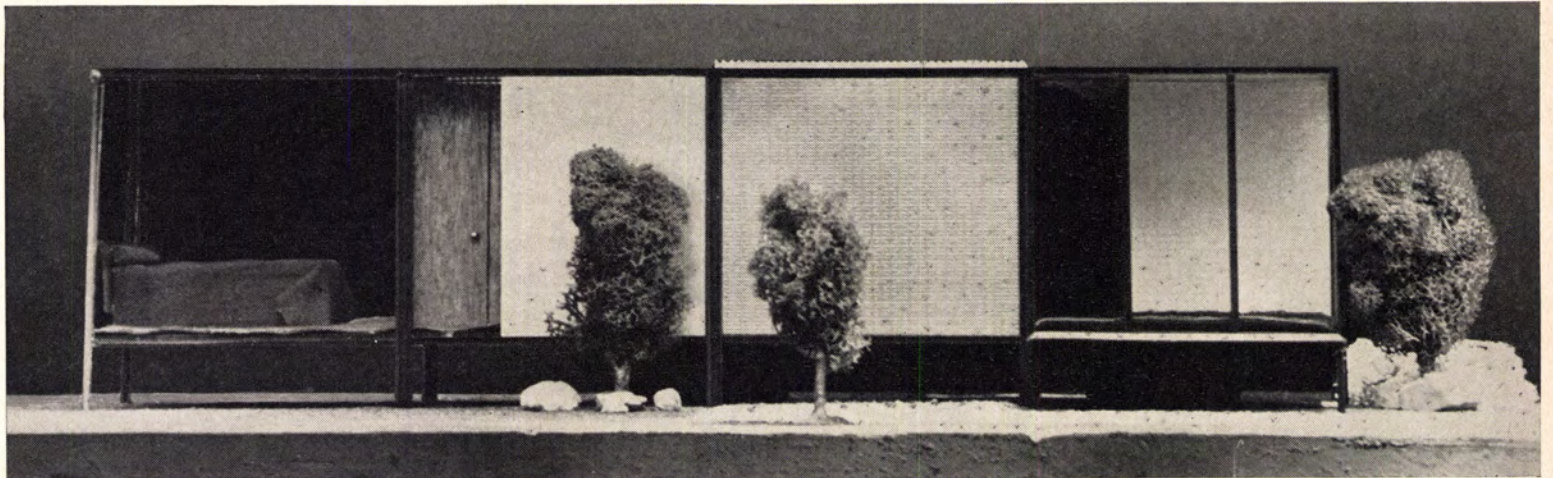
Say Architects Turano and Gardner: "We wanted complete separation of the various living functions. And we wanted to integrate indoors and outdoors with the outdoor living in secluded areas. So we used a series of pavilions, each designed for a specific purpose. With each living function self-contained in a different unit, the units could be placed wherever they would work best.

The same kind of flexibility is possible in production houses, too, with units like those across-page.

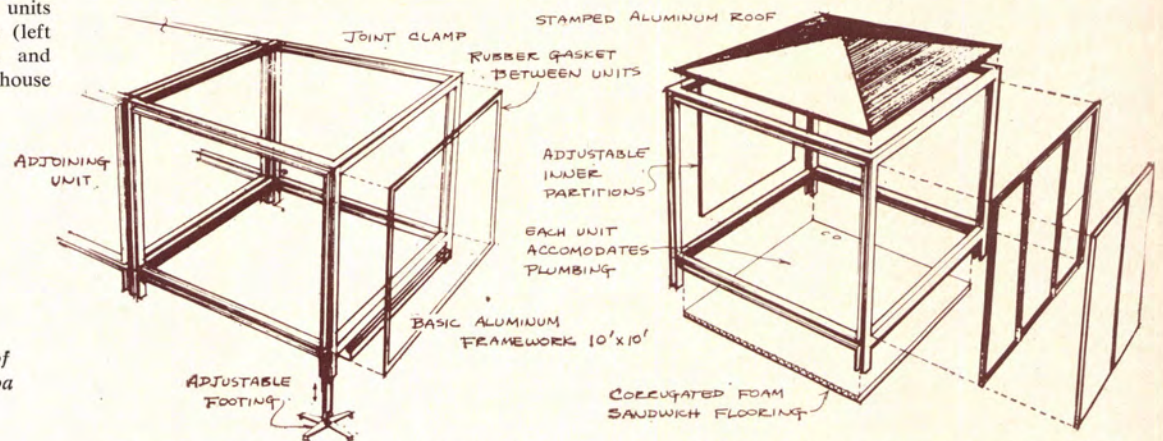
Says Industrial Designer William Stumpf: "Most mobile homes are moved only once—to the site. So why not combine their mobility with flexibility in units like these—10' squares, 8' high—that can be arranged to fit any plan?"

The units would rest on jacks (instead of a foundation) which adjust to variations in ground levels. They would be shipped on a flat-bed truck, completely assembled; the jacks dropped to the ground and the truck driven out from under. This would allow factory economies in production, plus complete flexibility in planning. The walls could have a variety of finishes. Walls and flooring would be a foam-core sandwich panel, with heating elements in the wall sections.

ARCHITECTS: Turano-Gardner Assoc
CONTRACTOR: Jack Wilson
LOCATION: Simi, Calif.
STAGE: under construction



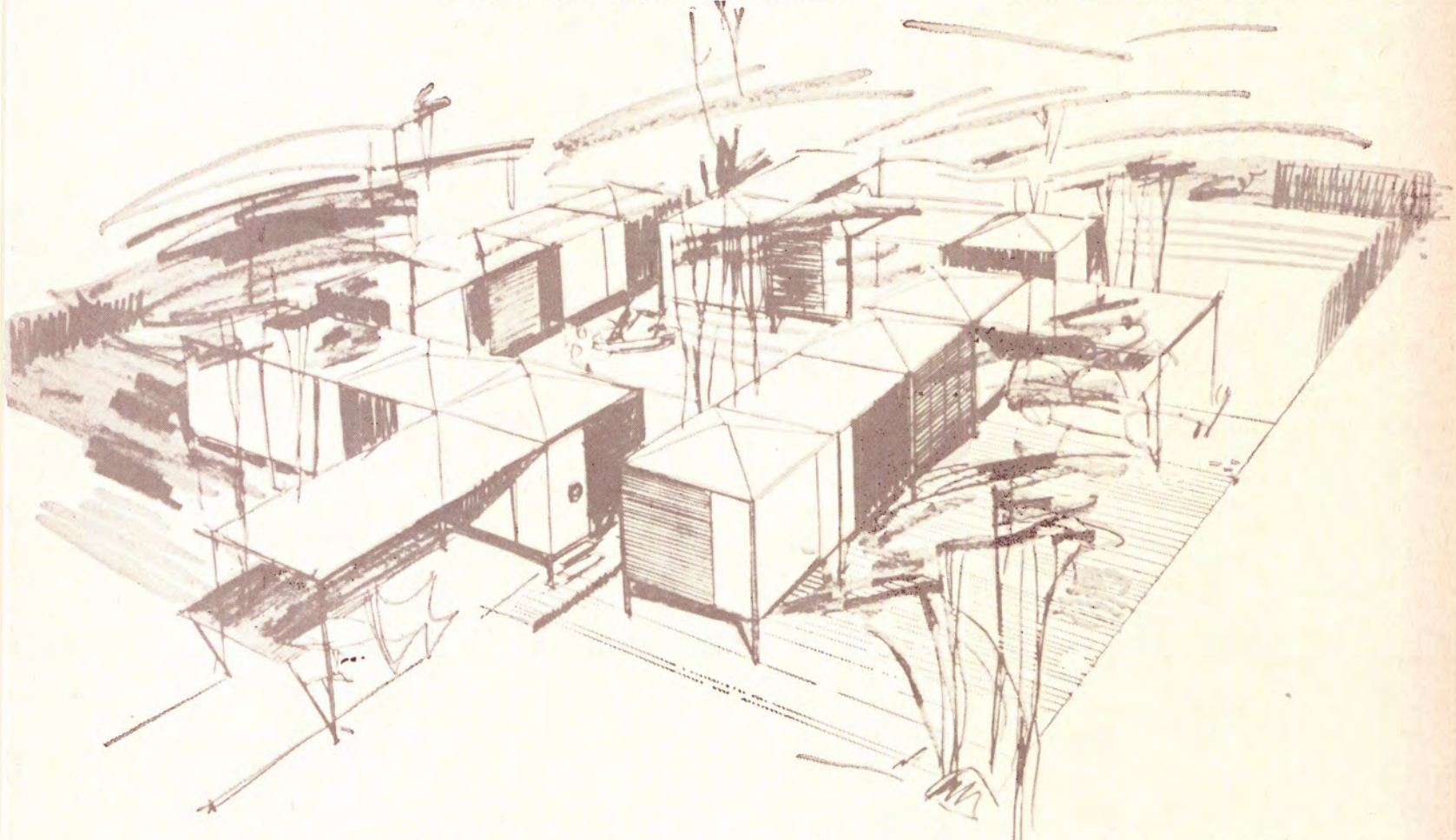
MODEL shows how four of the mobile units form a basic house. Wall materials are (left to right) glass, wood door, plastic, and stamped aluminum panels. Steps up to house are added after units are in place.



INDUSTRIAL DESIGNER: *William E. Stumpf*
STAGE: *project only, sponsored by Alcoa*

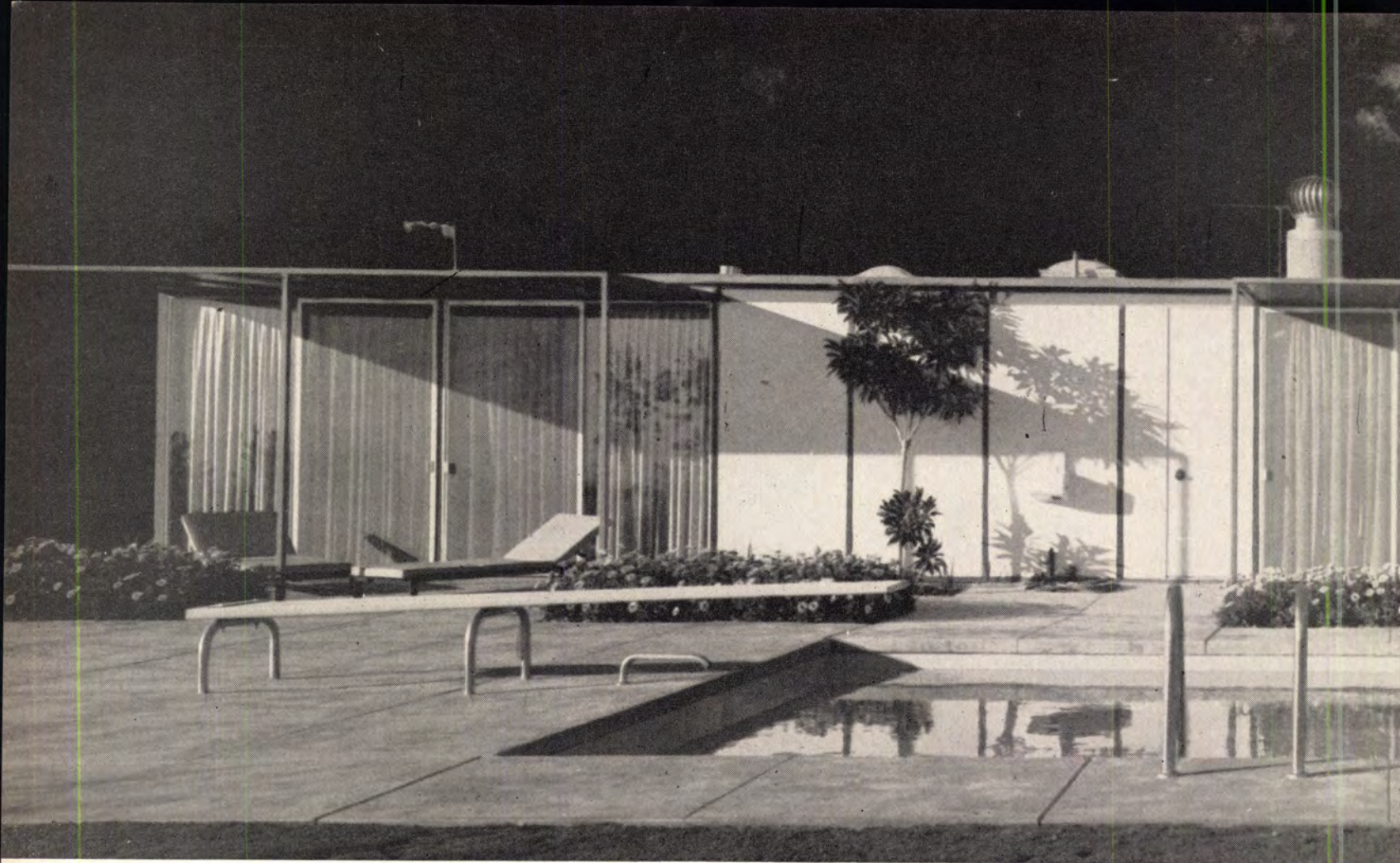
BASIC FRAMEWORK for mobile units is aluminum, in H-shaped sections. Units are joined together by rubber gaskets and clamps.

UNIT'S ROOF is stamped aluminum joined to frame by gasket and clamp. Interior walls can be faced with wood, plastic, aluminum.



UNITS could be used for beachhouses, hunting cabins, motels, and guest-houses as well as for complete new houses or additions to existing ones;

could also be moved from one site to another at owner's whim. Scheme is similar to George Nelson's industrialized house.



SLENDER FRAMEWORK gives house an elegant line. Solid wall panels are plastic-faced marine plywood.

Here is an experiment in design for panelization

This experiment was designed primarily to prove the value of prefabricated steel framing, used with prefabricated wall panels, in house construction.

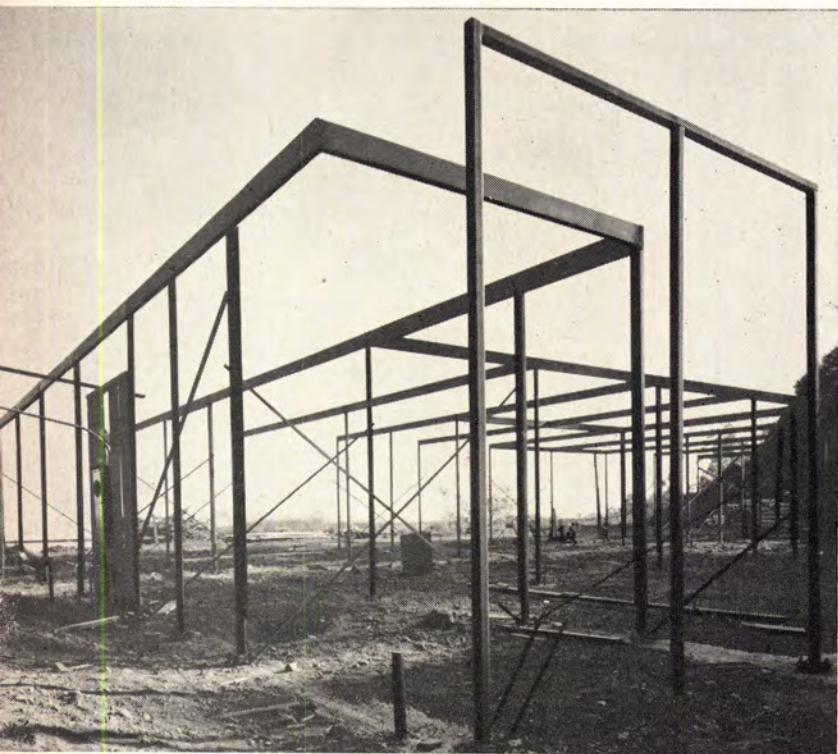
But the house on these pages also shows that factory-type production can be combined with crisp design.

Says Architect Craig Ellwood: "This experimental house leads the way toward developing new and more exciting uses of what we formerly thought were building materials 'new' to private homes. The segregation of structure from walls provides design flexibility not otherwise possible, and sets no limitations as to selection of wall panel material."

Steel framework was prefabricated into 16' bents of 2"x5½" beams and 2"x2" columns, of hollow steel tubing. Bents were erected by four men in eight hours; the only field connections were 19 beam welds and 40 base-plate welds. Columns were shop-fitted with leveling plates, and the plates were bolted on-site to the concrete footings. Because all framework is a uniform size, prefabricated exterior and interior wall panels (all non-loadbearing), sliding glass door units, and fixed-glass panels and shutters are fixed directly to the steel frame. Shutters and interior floor-to-ceiling doors have steel jambs that are bolted directly to the columns.

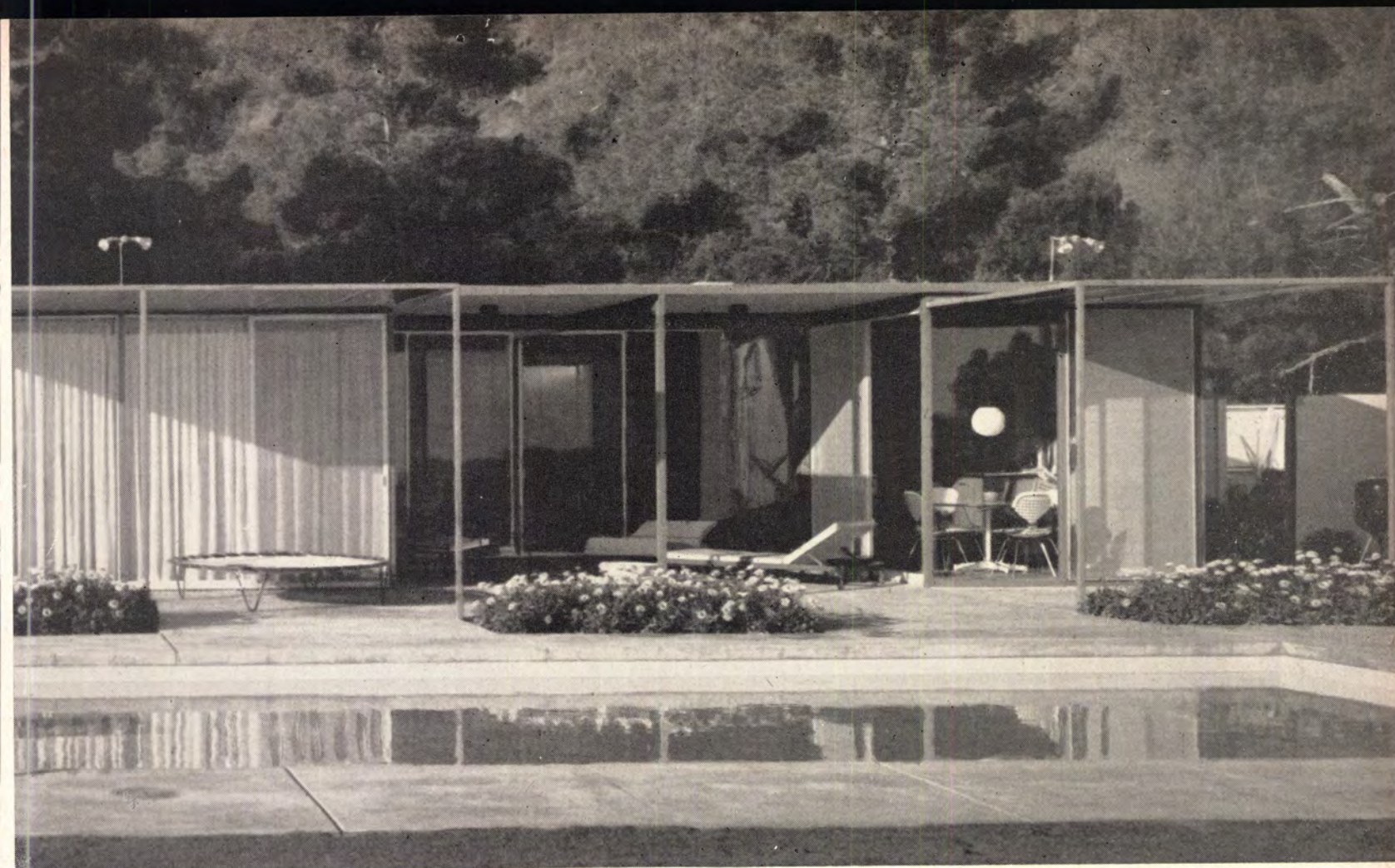
A 2½" wide by 3/16" thick steel flat mullion fits over the edges of the panels and is screwed directly to the columns, and to the beams under the eave line. Mastic and rubber gaskets are used for watertight seals.

This was *Arts and Architecture's* Case Study House #18.

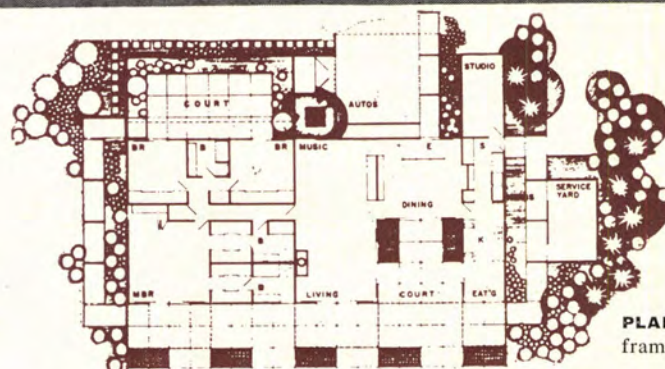


STEEL SKELETON was field-welded into rigid cage unit. Floor slab was poured after columns were fastened to grade footings.

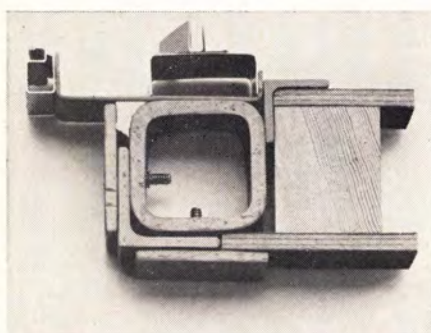
ARCHITECTS: *Craig Ellwood Assoc*
 STRUCTURAL ENGINEERS: *Mackintosh & Mackintosh*
 CONTRACTOR: *P.E. Philbrick Co*
 STEEL FABRICATOR: *Houlberg Iron, Inc*
 STAGE: *completed*



Photos: Marvin Rand



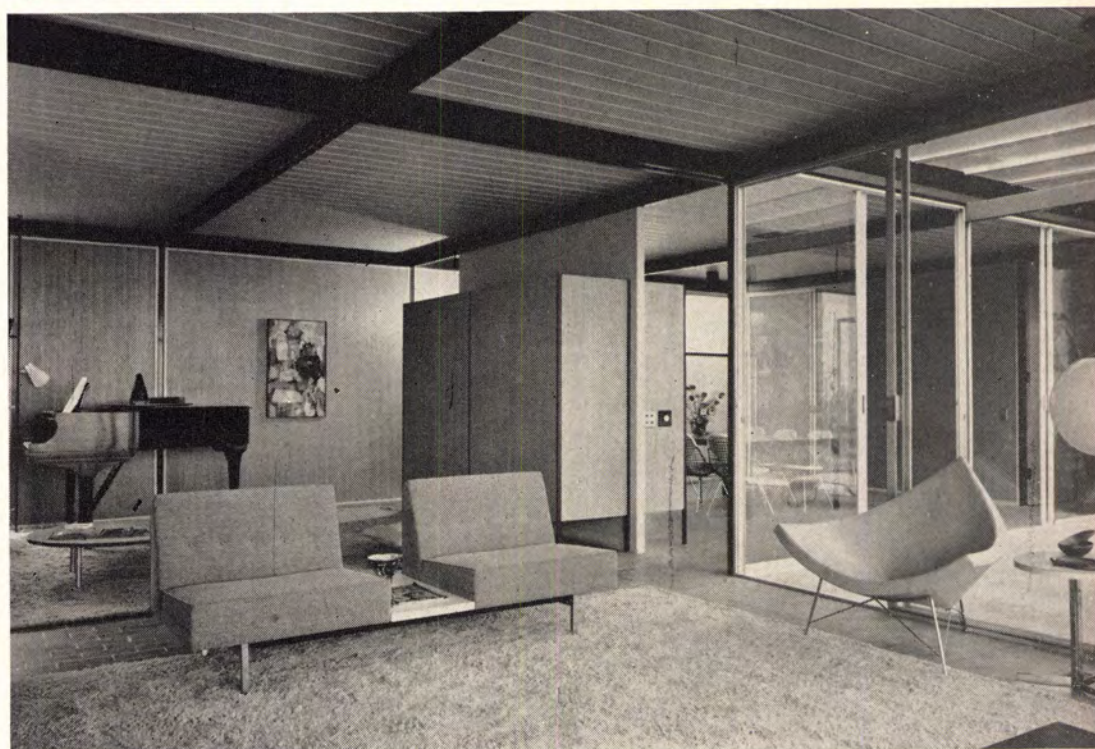
PLAN is essentially simple rectangle; open framework extends out to break flat lines.



SECTION is through connection of door and jalousie components to tubular columns.



NON-BEARING PANELS being set into place are 1/4" plywood, sandwiching wool insulation.



LIVING ROOM AREA shows the complete openness framing makes possible. Steel ceiling

beams were covered with 1 1/2" t&g steel decking, and both were left exposed. /END

Round Table report:

The panel:

FOR THE HOUSING INDUSTRY COUNCIL

S. W. Antoville, chairman
US Plywood Corp

Harold Boeschstein, president
Owens-Corning Fiberglas Corp

C. B. Burnett, president
Johns-Manville Corp

John M. Coates, president
Masonite Co

Thomas F. Gleed, president
Simpson Timber Co

Joseph A. Grazier, president
American-Standard Corp

Frank L. Magee, president
Aluminum Company of America

George J. Pecaro, president
Flinlkote Co

John Brown, chairman,
Housing Industry Group
senior vice president, National Gypsum Co

FOR THE LIFE INSURANCE ASSOCIATION

Milford A. Vieser, past chairman,
Mortgage Policy Committee
financial vice president, Mutual Benefit Co

FOR THE MORTGAGE BANKERS ASSOCIATION

B. B. Bass, president

James W. Rouse, board of governors member
ACTION, president

FOR THE NATIONAL ASSOCIATION OF HOME BUILDERS

Thomas P. Coogan, past president

Richard G. Hughes, past president

Nathaniel Rogg, economist

FOR THE NATIONAL ASSOCIATION OF MUTUAL SAVINGS BANKS

Grover W. Ensley, executive vice president

William A. Lyon, past president
president, Dry Dock Savings Bank

FOR THE NATIONAL ASSOCIATION OF REAL ESTATE BOARDS

Eugene P. Conser, executive vice president

Alexander Summer, past president

FOR THE US SAVINGS & LOAN LEAGUE

Norman Strunk, executive vice president

ECONOMISTS

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M. Mason Gaffney
University of Missouri

Arno Johnson, chairman
Advertising Research Foundation

Gordon W. McKinley
Prudential Insurance Co

Ezra Solomon
University of Chicago

Robert C. Turner
University of Indiana

Observers:

FOR THE COUNCIL OF ECONOMIC ADVISORS

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FOR THE FEDERAL RESERVE BOARD

Winfield W. Riefler, assistant to the chairman

FOR THE TREASURY DEPARTMENT

Charles Walker, assistant to the Secretary

FOR THE DEPARTMENT OF COMMERCE

Louis Paradiso, chief statistician

FOR THE HOUSING & HOME FINANCE AGENCY

M. Carter McFarland, director
Division of Economics & Program Studies

FOR THE CED COMMISSION ON MONEY & CREDIT

Bertrand Fox, executive director

MODERATOR

P. I. Prentice, editor & publisher
House & Home

Where will the money come from?

How can we stop this inflation?

What good can tight money do?

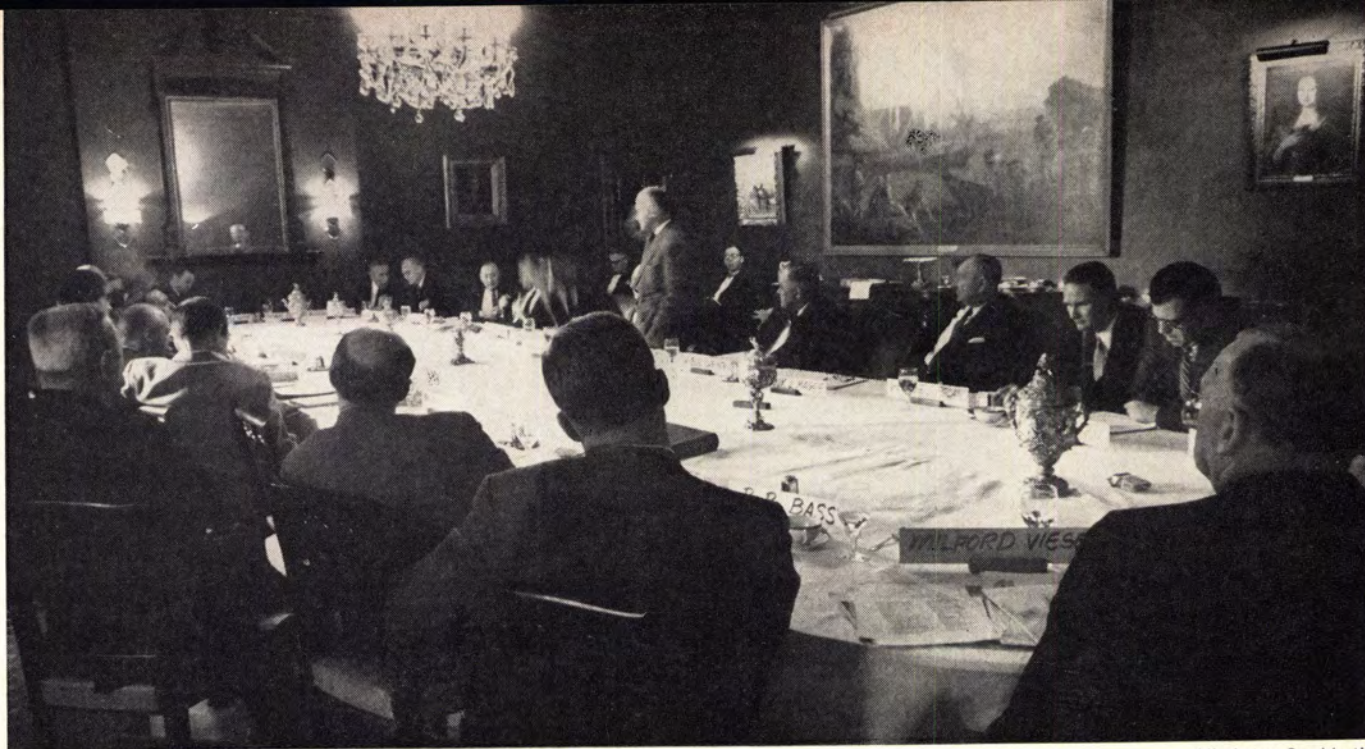
Because tight money hurts homebuilding first and worst, long before it begins to affect other industries seriously, the Housing Industry Council joined HOUSE & HOME this fall in sponsoring the first Round Table conference on tight money held since 1956.

The discriminatory impact of tight money on housing and how that discriminatory impact should be cushioned was just one of many problems the Round Table considered; for the panelists recognized from the start that the problem of providing the money needed for more and better housing is just part of the bigger problem of providing the money needed to expand the whole American economy. They recognized that homebuilding's monetary needs cannot be met by special consideration and special favors; they can be met only if the bigger problem of more savings and more credit is solved for other industries too.

So we believe the Round Table's findings are well worth careful study not only by housing professionals but by all businessmen interested in expanding the American economy while preserving a sound and stable dollar.

The Round Table panel included high-level representatives of every important trade association in the housing industry; it included the president or the chairman of nine of the biggest manufacturers serving the housing industry; and it included seven top-flight economists. The President's Council of Economic Advisors, the Treasury, the Federal Reserve Board, the Department of Commerce, the Housing and Home Finance Agency, and the CED Commission on Money and Credit sent high-level observers. These observers made very important contributions to the discussion but they were not members of the panel and were not asked to associate themselves with the panel's consensus and recommendations.

The Round Table report which follows reflects the consensus of the panel. It was written after careful study of the transcript. It was submitted to every member of the panel for review, and it was then largely re-written to reflect many sound and constructive criticisms, comments, and suggestions offered by the panelists. But, of course, it was out of the question to get 100% agreement on so many points from so many experts representing so many divergent interests.



All photos: Ben Martin

The most urgent and difficult domestic problem facing America is

1. how to check the creeping inflation that is slowly eating away the purchasing power of the dollar, and at the same time . . .
2. how to provide enough money to finance the enormous economic expansion we want and need through the next decade and enough money to keep a fast-growing and increasingly productive labor force employed.

This double problem is really one and indivisible; America's growth will be stunted unless we find means to halt the inflation; conversely, growth itself is one of the very best means to inhibit inflation.

Up to now America has not found the right answer to either half of the problem. Prices are still rising and investors are seeking safety in equities and demanding higher interest to cover the inflation risk in fixed obligations; but our economy is expanding much slower than it could and much slower than Russia's.

The housing industry has more to gain by solving this double problem than any other industry, because the housing industry must borrow more long-term money than all other industries combined if it is to meet the country's need for many more and much better homes. Conversely, the housing industry has more to fear from inflation and more to lose by failing to solve this double problem than any other industry.

Most of the money needed to finance the great expansion of the '60s will have to come from a great increase in savings—an increase in savings so great that it will almost certainly require a substantially higher *rate* of savings. Only a small part of the need can be met by an increase in money and credit, for credit expansion on the scale needed to span the gap at the present rate of saving would bring such a rise in prices that people would save much less (because people stop saving dollars today if they lose faith that those dollars will buy as much tomorrow). So beyond a certain low rate of inflation, *the more we inflate to span the gap, the less voluntary savings there would be and the bigger the gap would grow.*

continued



GRAZIER
Manufacturers can't gear themselves to such big drops in their market.



ANTOVILLE
Until we come to grips with the constant increase in costs we will have trouble with the value of money.



MAGEE
If we had a wage freeze, competition would drive prices down.



PECARO
It may be erroneous to assume that an increase in demand necessarily raises prices.



GLEED
The Federal Reserve has only a small part of the responsibility.

But there are two important points to remember in seeking a solution to our double problem:

1. The faster we expand our national economy the faster we can expect a parallel increase in savings and perhaps a parallel increase in the rate of savings;
2. The more we all do to curb and correct the inflationary pressures and revise the inflationary policies that have been weakening the dollar, the more credit the Federal Reserve can safely make available to finance the growth of our economy.

There would be less need for high interest rates today and much less need for tight money if inflationary pressures were not so rampant and the resultant fears of inflation were not driving savings out of mortgages and other fixed interest obligations to seek a hedge against inflation in common stocks and land speculation.

All of us want a sound and stable dollar. The only question is whether tight money is a good or even a realistic way to try to stabilize it.

The Federal Reserve cannot cure inflation; neither can the Treasury

Perhaps the most dangerous illusion in America today is the illusion that the rest of us can wash our hands of the inflation problem and delegate to the Federal Reserve and the Treasury our responsibility for doing our share to keep the dollar stable and sound.

Because of this dangerous illusion, almost all of us are persisting in policies and practices whose consequences can only be inflationary, and there is much truth to the cynicism that "everyone is against inflation for anybody but himself."

So we find labor unions insisting on highly inflationary wage policies and in many instances highly inflationary featherbedding policies too. We find farmers using their political power to get highly inflationary subsidies for producing less. We find strong tariff pressures to keep American prices well above the world level. We have personal income tax rates devised to divert savings into spending. We have a corporation income tax structure whose effect is to subsidize the creation of debt. We have no policy at all to control consumer credit, and we have no policy at all to halt the inflation in land prices that is now running far faster than any other type of inflation.

These inflationary policies and practices will be discussed later at greater length, along with the inflationary aspects of some of our present housing policies. The important point to remember now is that:

The stronger the upward pressures on prices, the more restraint the Federal Reserve must apply on credit to curb inflation. The more we leave the whole responsibility for keeping the dollar stable up to the Federal Reserve alone, the more restraint the Federal Reserve must apply and the more reason there will be for tight money.

Conversely, the less upward pressures on prices and the more we all share the responsibility for keeping the dollar stable, the more credit the Federal Reserve can provide to help finance economic expansion.

The Federal Reserve would be the first to agree that it cannot prevent inflation without a great deal more help than it is getting and a lot less producer pressure for higher prices (including less labor pressure and less farmer pressure). All it can hope to accomplish with tight money is to keep inflation from gathering spontaneous momentum and spiraling out of control.

Here, in brief, is the Round Table consensus:

1. A tremendous investment in new plants, new machinery, new roads, new schools, new stores, new community facilities, and new housing will be needed all through the next decade. (See *p 230.*)

It will take a great expansion of our whole economy to provide jobs and homes for 35 million more Americans, to meet the goal of a continuously rising standard of living, and to prove that a free economy like ours can outstrip the growth of a Communist economy.

2. Inflation must be checked. The growth of our economy depends on savings, and people stop saving when inflation destroys their faith that the dollars they save today will buy as much tomorrow.

3. Housing has more to fear from inflation than any other industry, because housing has to borrow more savings for longer terms than all other industries combined.

4. There are not one but two ways to increase savings. One is to cut consumption to get more savings out of a given gross national product (GNP). The other is to accelerate the growth of the GNP in the expectation that savings will get at least the same proportion of the bigger total.

5. The measures used to check inflation should be those which will put the least possible check on economic growth and expansion.

6. Monetary control (ie, tight money) is one of the essential tools needed to stop inflation, but there are other tools equally important. Monetary controls alone cannot stop inflation without halting economic expansion and causing greater unemployment than the voters would tolerate. Monetary controls are an essential complement—not a substitute—for the other things we should all be doing to cure inflation.

7. A balanced Federal budget (or, when appropriate, a Federal surplus) is another very important tool to check inflation, but balancing the budget at a high level like \$80 billion a year is likewise not enough to stop inflation.

8. There is less need to "take the bloom off the boom" now than there was in 1956, because today there is no shortage of materials or labor to sustain the 1959 production level. There is no evidence of excessive demand pressing on short supplies to force prices up.

9. There is no clear evidence that tight money stopped price inflation in 1956 and 1957. Paradoxically, consumer prices began to rise after money was tightened and stopped rising after money was eased. (See *below.*)

10. The impact of tight money is bound to be uneven and discriminatory. Almost inevitably it hits homebuilding first and worst. (See *p 148.*)

11. Cutting homebuilding back does little to stop inflation,

because the housing industry can sustain the 1959 volume without straining its available manpower and materials. (See *p 230.*)

12. Housing costs are kept high and inflated by the big ups and downs in homebuilding starts due to alternating too-easy-money and too-tight-money. These ups and downs make it impractical for the housing industry to control and cut its costs. (See *p 230.*)

13. Federal taxes, tax exemptions, and tax deductions for depreciation make it impossible for mortgages to compete on even terms with corporate bonds or state and local government bonds; so the housing industry has a real case for asking special relief from taking an undue share of the brunt of tight money. (See *p 148.*)

14. Federal Reserve policy is not the sole cause of today's high interest rate. (See *p 231.*)

15. Neither monetary controls nor a high-level budget balance can get at the basic causes of the inflationary bias manifest in our economy since 1952. (See *pp 231, 232, 236, 238.*)

Unlike the inflation from 1945 to 1952, which stemmed partly from the pressure of pent-up demand on limited supplies, partly from the monetization of World War II debts, and partly from the Korean War financing, the inflation since 1952 has been largely non-monetary in origin, and this non-monetary inflation bias will be hard to check by monetary controls alone, even with a balanced budget.

16. Among the principal causes of today's inflation bias are: a) the inflationary wage-price spiral, b) the inflationary Federal give-away programs, especially the farm subsidies for producing less, c) the inflationary Federal income tax policy which was originally conceived to tax away much of the money that would otherwise go into savings, d) an inflationary corporation tax whose effect is to subsidize borrowing, e) the lack of any consumer credit control policy, f) the lack of any land policy at all, g) the ability of some industries to maintain prices in slack times, and cost-based pricing practices throughout industry and trade.

17. The less we do about these basic causes of inflation, the more restraints the Federal Reserve must apply on credit to curb inflation.

Conversely, the more we do to lessen these inflationary pressures, the less need there will be for credit restraints and tight money.

18. Competition will be much keener in the next decade, and from now on the Government should put more reliance on competition to check inflation. Foreign competition has become a major factor in our domestic market, and our own industries have so enlarged their productive capacity that the price trend would probably be down instead of up if the pressure for higher wages without greater productivity could be checked.

We must learn from our experience with tight money in 1957-58

The last HOUSE & HOME Round Table on tight money (Nov '56) was held before anyone could know how the tight money experiment of 1956-57 would work out. All we knew then was that tight money had hit homebuilding first and worst; it had had little or no effect up to that time on other industries or on consumer credit, but it had already cut private homebuilding back more than 28% from the 1954 easy money peak.

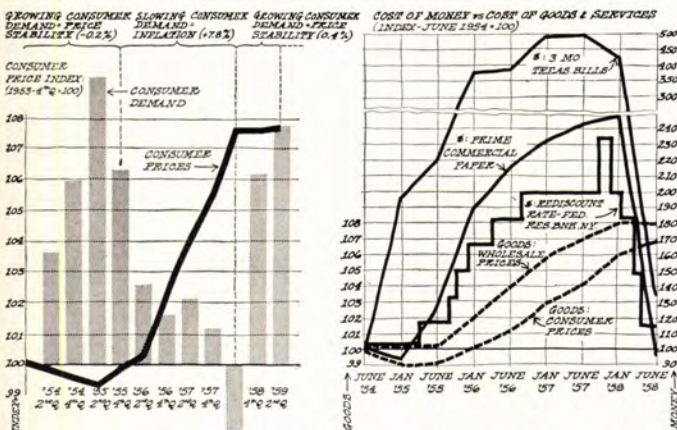
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Does tight money raise prices?

Yes, argued panelist Arno Johnson

"The price inflation from 1955 to 1958 was not due to excessive consumer demand pressing on limited supplies; as late as mid-1957 Treasury Secretary Humphrey could find only four primary shortages in our whole economy.



"In 1954 and 1955, the years when consumer demand grew fastest from \$251.3 billion to \$285.6 billion (in constant 1958 dollars), consumer prices declined .2%. In 1956, 1957 and the first half of 1958, when consumer demand was cut back by tight money and rose only one-sixth as fast to \$292.5 billion, consumer prices rose 7.8%. In 1958 and the first half of 1959, when consumer demand was stimulated by the return of easy money and shot up to \$311.8 billion, consumer prices leveled off again and rose only .4%.

"Prices did not start going up until after the monetary controls were applied to restrain the boom. When those restraints were applied I predicted that their effect would be higher prices instead of lower prices, and that is exactly what happened.

"Tight money curtailed consumer demand at a time when there was no serious shortage of supply or capacity. As sales fell off, production fell off too; and this cut in production had a negative influence on productivity, thereby raising unit costs. The lower productivity and the higher unit costs put the squeeze on profits and created a strong pressure to raise prices in order to sustain profits.

"While consumer demand was growing fast in 1954 and 1955, productivity per employee grew 5% and prices declined. As demand was cut back in 1956 and 1957, productivity declined 2% and prices rose 8%. When demand renewed its rapid growth in the last half of 1958 and the first half of 1959, productivity per employee increased 7% and prices leveled off.

"The best way to keep prices from rising is to make full use of our productive capacity and full use of our manpower. This would permit greater productivity and enable manufacturers to make bigger profits at lower prices. It would also permit a big increase in the American standard of living.

"Since 1952 our economy has averaged only 40% of the growth that would be needed to achieve by 1970 the gross national product Vice President Nixon has declared 'perhaps attainable' by 1968. In only two years since 1952 has our economic growth equalled or exceeded the average rate of growth this goal would require year after year; those two were the recovery years of 1955 and 1959, and in both these years the Federal Reserve felt it must tighten money to take the bloom off the boom."

But we did not know yet:

1. Whether the 1956 tight money would stop the wage-price spiral;
2. Whether the 1956 tight money would bring lower prices;
3. How the 1956 tight money would affect the growth of the economy;
4. What the 1956 tight money would do to the Federal budget and the Federal deficit;
5. What the political consequences of the 1956 tight money would be.

The results are now in for all to read, and the best the proponents of tight money in 1956 can claim today is that things would have become much worse if money had been kept easier. Specifically:

1. Tight money in 1956 did not stop the wage-price spiral. Wages kept climbing almost as fast as they climbed when money was easy. The highly inflationary steel wage pact was put through when money was approaching its almost tightest, and the tight money policy had to be reversed long before it could create enough unemployment to make the unions cut their demands for more.
2. Tight money in 1956 did not halt the rise in prices. On the contrary, prices did not start to go up until after the Federal Reserve began tightening credit; the 1955-57 price rise paralleled very closely the rise in the cost of money; and the rise in prices did not ease off until after money was eased in late 1957 and early 1958.
3. Tight money in 1956 precipitated (but did not necessarily cause) the recession of 1957 and 1958, which cut the rate of growth in America's consumer demand from \$12 billion in the first half of 1956 to minus \$3 billion in the first half of 1958.

Supporters of the tight money policy in 1956 say the recession was inevitable to make up for over-expansion in 1955 and that the recession would have been much worse if tight money had not "taken the bloom off the boom" when it did.

4. The recession in turn cut Federal tax revenues so hard that it turned the 1957 Treasury surplus of \$1.6 billion into a cumulative deficit of more than \$15 billion for 1958 and 1959. This deficit is in itself inflationary and threatens to undo much of whatever good was gained by tight money in 1956.
5. The recession was the No. 1 reason for the landslide defeat the Republicans suffered in the 1958 election. This defeat raises a very important question: Will the voters ever tolerate a tight money policy carried far enough and long enough to be effective?

Here is why tight money always hits homebuilding first and worst

The impact of tight money and high interest rates is always uneven and discriminatory. It is easy on the commercial banks, because most of their money is in short term loans. It is hard on the savings banks and the savings and loans,

because it makes them pay high interest to *all* their depositors and shareholders, but most of their money is tied up in long term loans issued at comparatively low interest rates in earlier years. It has little effect on consumer credit, because consumer credit pays such high interest that it is bound to be cut down last and least and because the pure interest charge is so well hidden that the consumer seldom knows what he is paying.

Tight money hits homebuilding first and worst because:

1. Homebuilding is more dependent on long term loans. Homebuilding has to borrow more long term money each year than all other industries combined.
2. More than 50% of all the cost of owning and maintaining a mortgaged home in the early years is interest, so homebuying is much more sensitive to changes in interest rate than purchases where interest is a minor factor. When interest rates rise, hundreds of thousands of prospects drop out of the market for houses, either because lenders will not qualify them to buy at the stiffer rates or because they find they can no longer afford the better home they wanted, so they might as well stay where they are. When money is tight, builders have even more trouble making sales than they have borrowing money. But that does not mean that sales would have been slow if money had been easy. It just means that tight money kills sales.
3. High corporate income tax rates give corporations—notably big corporations—a bigger interest deduction than the average home buyer. Corporations, if they earn enough profit, can deduct 52% of a higher interest payment from Federal income taxes. Many homebuyers take the flat 10% deduction. It includes an allowance for interest payments, but it is nothing like the 52% most corporations get. To equalize free-market competition for money between bonds and home mortgages, Congress would have to allow homebuyers bigger income tax deductions for interest.
4. Mortgages cannot compete on even terms with tax exemptions. For many investors a 2% tax exempt offers a bigger net after taxes than a 6¼% mortgage.
5. Volume homebuilding depends on advance commitments. When money gets tight lenders prefer to operate in the spot market, so advance commitments are hardest of all to get when money is tight.
6. Mortgage interest rates are sticky, even on conventional loans. As for FHA and VA, the Government lets their rates move so slowly that when money gets tight they are almost unsalable without very big discounts; and many big lenders, especially insurance companies, drop out of the market when discounts exceed 4%.
Inadequate interest rates have almost eliminated VA as a factor in the market; VA starts are down from 392,000 in 1955 to 95,000 in the first ten months of 1959.
7. The market for FHA mortgages is restricted by law to "qualified investors", and amortized mortgages with their increasing monthly pay-offs and diminishing monthly interest require so much bookkeeping and re-investment that many investors, including some of the fastest growing accumulations of savings like pension trusts, mutual funds, and casualty company reserves, have been slow to include them in their portfolios.
8. Higher interest hits home buyers ten times as hard as it hits consumer credit buyers. A ½% interest boost adds so little to the monthly consumer credit installment that few consumer credit borrowers care or even know what interest they are paying. For example, a ½% interest boost increases the monthly payment on a 10% two-year \$1000 consumer credit loan only from \$46.14 to \$46.37, or less than ½ of 1%; but it raises the monthly payment on a \$10,000 5¼% 25-year mortgage from \$60 to \$63, or 5%.

continued on p 230



Federal Reserve Board thinking is explained by observer Riefler

"We have said all along that the Federal Reserve alone can't control this inflation.

"It is primarily the job of budget and monetary policy to control demand inflation such as we had right after World War II and again in 1950 at the outbreak of the Korean War. Monetary and budget policy can take out the excess demand and still keep full employment and a stable price level.

"But in 1955 we began running into a different inflationary problem—which some people call the inflationary bias built into our economy. For example, we have a tax structure that makes the cost of interest less important to a corporate borrower. We have the labor factor and the wage-price spiral. We have strong industries with administered prices. We have a commitment to full employment that means monetary controls will never be pushed to the point of causing unemployment. I know of nothing more important than the need of devising new policies to control the inflationary bias that is being built into our institutions.

"Now we face still another inflationary problem—the problem of an inflationary expectation—and once an inflationary expectation gets started, particularly today when we do not have the gold standard, it induces a spiral that makes it worse. As more and more people begin to expect inflation to continue, it diminishes the incentive to save in money terms and increases the incentive to spend, to invest in equities, to invest in inventory and excess plant capacity. This confronts the central bank with a terribly difficult problem of restraining the induced expansion of money that follows. And that is what we are up against today.

"Once inflation gets started it has in itself an incentive that tends not only to perpetuate it but to accelerate it. Monetary control alone cannot cure today's inflation. The big thing you can say is that so far the credit brakes have kept inflation from going through the roof.

"The demand for money today is the best evidence of how strong the inflationary pressures are, and the biggest problem before our society is how to get at the causes of those inflationary pressures.

"I would like to see increased production go into lower prices. That would restore our international posture. It seems to me that that is terribly important. I think our present 52% income tax on corporate profits is definitely harmful in an incentive economy. It is particularly harmful in making corporate borrowers less sensitive to interest rates.

"I think the housing industry has a responsibility to help add to the savings of the community. The people who live in houses ought to bear their proportionate share in providing the savings needed to finance the housing market. The incentive to own a house is probably the strongest incentive we can give an individual to save. Houses and the mortgages on them tend to turn over in about twelve years. On a 20-year mortgage a homeowner would save \$463 in twelve years for every \$1,000 of mortgage principal. On the 30-year maturity he saves only \$217. In other words, the increase in mortgage terms from 20 years to 30 years reduces by nearly 60% the amount of savings made available out of the instinct for homeownership."

The industrial revolution in housing



is "inevitable in the 1960s"

That is the conviction of almost all top housing experts.

Why? Because the technical problems that have prevented development of a truly industrialized house have now, in the fullness of time, been solved. And because economic conditions once unfavorable to drastic changes in housing no longer exist. The industrialized house, most of the experts agree, is not just a possibility but—in the face of the explosive market of the '60s—a necessity.

Ever since the '20s people have been planning the industrialized house—sembled almost entirely from big parts made on factory assembly lines with highly productive labor and efficient production machines, and requiring a minimum of on-site labor. It is easy to see why the industrialized house seemed imminent then:

Automobile makers had set an example with factories where materials flowed in one end and finished cars, produced on an assembly line, rolled out the other.

Wood producers had developed laminated sheets—plywood—

which promised a new structural shell technology that would sharply reduce materials costs and on-site assembly.

Visionaries like Buckminster Fuller foresaw the possibilities of making a house by hanging an assembly of factory-made components on a prefabricated structure and foundation.

But it is also easy to see why the dream was not fulfilled: For all the great possibilities of those decades, there were no builders who had resources strong enough to introduce a different kind of house. And there was no volume market for an industrialized house.

As the '60s begin, there are still serious problems that could slow the revolution

There is the problem of conflicting and inadequate codes, the problem of continually rising land prices, the problem of inefficient land use, the problem of tight money, and the problem of inadequate capitalization.

One big reason today's codes are such a problem is that they block the standardization that is a prerequisite of industrialization and they enforce waste at a time when lower costs are a necessity.

One big reason land prices keep rising is speculation (land can now account for as much as 50% of the cost of a house).

One big reason land is being used so inefficiently is that there is either too little zoning (land values are insecure) or too high zoning (builders cannot afford to build).

One big reason money is tight is that when the government attempts to check inflation by tightening money it hurts the housing industry "first and worst."

One big reason capital may be inadequate is that per capita savings may not keep up with rising population.

But something is being done now about all these problems. The new FHA-MPS, the three model performance codes, and the current ASA study of codes give hope of a uniform code. And to see what some of the leading figures in housing have to say about the money and land problems, see the Round Table report beginning on p 144.

But the problems are far outweighed by all these factors that favor early drastic change

First and very important is rising demand. Many experts feel that only if homebuilding industrializes can it meet the housing needs of new families and second-time buyers who want to trade up (see p 155 and the front cover).

Second and very important is rising costs. It is hard to see how building costs can be cut without going to efficient in-plant production (see p 155).

And in addition:

Today's big builders and big manufacturers have a vested interest in the change to the industrialized house.

Today's big builders have access to the sizable amounts of capital needed to industrialize.

Today's big builders have the management forces and know-how to handle industrial production.

Today's big builders want to build all year around—possible only with industrialized methods.

Today's housing research is gaining momentum—with the help of NAHB, materials producers, and builders.

Today's industrial capacity is not fully used, can be adapted to making housing components.

Today's building products include many industrial components, and many more are on the way.

Today's buyer's market is dissatisfied with conventional housing values (so much so that over 15% buy plant-made trailers or manufactured houses).

Today's material handling equipment will move and place industrial components with ease.

Today's distribution pattern favors plant-made components more than ever, should favor them even more during the '60s.

To orient yourself on where the industrial revolution in housing stands today, and to see the drastic and dramatic changes of industrialization that lie ahead, *begin reading on the next page.*

In today's components, you can already see the first stage of change

The home manufacturers' builder-dealers are working right now with some of today's most industrialized components. Home manufacturers' are, indeed furthest along in the development of the industrialized house. (For a report on their product and its future in the '60s, see last month's H. & H.)

Many builders make their own components, and many others buy them from lumber dealers

For example, John Long—already one of the lowest-cost builders in the country—has opened a huge shop at his Maryvale tract which is turning out wall panels and other components for his 1960 houses.

Fox & Jacobs of Dallas are building an on-site shop to turn out components. (They also take great pride in the quality and finish of their shop-made cabinetry, which they figure costs them 30% less than if it were made on the job.)

Fischer & Fritchel of St Louis have just set up manufacturing facilities to make panels, complete wall sections, and other components.

Nels Severin, former president of NAHB, has set up to manufacture sandwich panels.

And many other builders have long been building trusses and other components in their own shops, and a few builders (one example: John Hall of Phoenix) are preassembling their plumbing.

For many years, any builder even vaguely interested in economy has been buying windows ready-made. For the same reason, more and more builders are buying pre-hung doors, room dividers, storage walls, soffits, bay windows, gable ends, stairwell assemblies, and trusses that have been built on jigs in their local lumber yard. Many builders are getting important cost savings by using yard-built Lu-Re-Co panels developed by the Small Homes Council (see photo, right).

And a few builders already buy industrialized components made in a factory

Alcoa, for example, is now selling its foam-core sandwich panels (bottom photo, right) to a few builders, though the panels are not yet being widely promoted. Masonite and Koppers are about ready to release their foam-core panel to the market.

Most of the appliance manufacturers either have, or once had, complete kitchen packages on the market (for one example, see photo right).

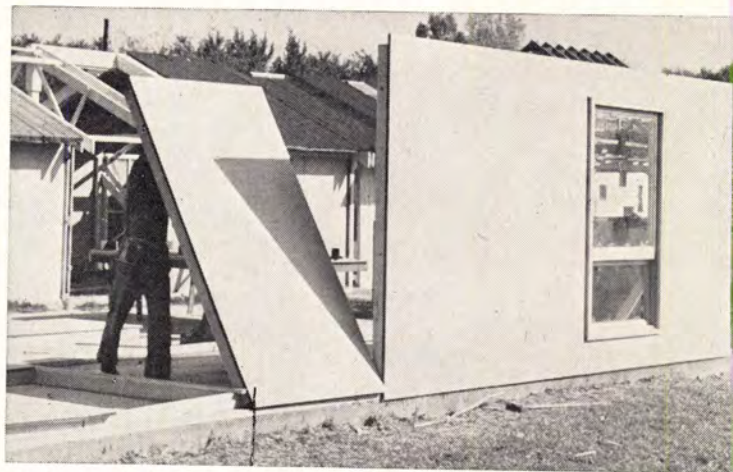
Several bathroom packages or complete plumbing trees are available—from Apsco (photo right), and Kingsberry Homes (which sells to conventional builders as well as its own builder-dealers). One prefabricator, Homebuilding Corp., offers its builder-dealers a complete mechanical core; see H&H, Dec '59, p 112.

And most heating manufacturers offer a virtually complete "package," with built-in cooling equipment, pre-assembled and pre-wired controls, and diverters to ducts or piping.

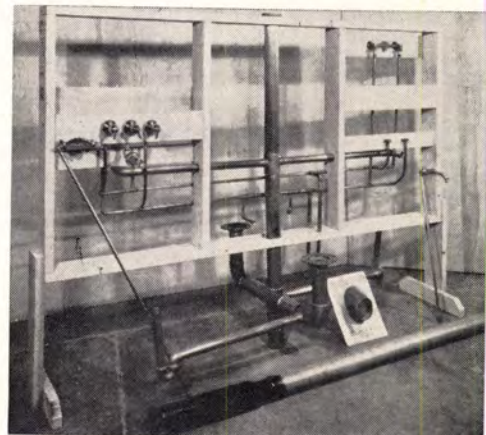
All of these components represent the first stage of change towards the industrialized, "made-in-a-factory" house; all save money by substituting productive in-plant labor for high-cost on-site labor.



ROOF TRUSSES are standard with builders in many areas. Nail-glued truss shown here is one of several types used.



LU-RE-CO PANELS penetrate deeper into homebuilding every year. There are now over 1,600 dealers selling them to builders all over the country.



PREFAB PLUMBING WALLS are produced by supply houses like Apsco and by home manufacturers.



PACKAGED KITCHENS like this 1958 GE model require only three plumbing connections.



INDUSTRIALIZED PANELS like this Alcoa panel let builders close in houses in a day.

Small Home Council

Wallbridge & Bell

Standardization of dimensions and codes is the next essential step

As long ago as 1955 a HOUSE & HOME Round Table on standardization quoted building experts as saying: "The revolution in homebuilding since the war redoubles the importance of standardization . . . As assembly-line methods take a larger and larger part in home building, the need of components sized to fit together becomes urgent."

The dimensional standardization that was urgent in 1955 is imperative today.

The standards the industry wants do not involve great changes

Here are the recommendations on dimensional standardization made by the Round Tables:

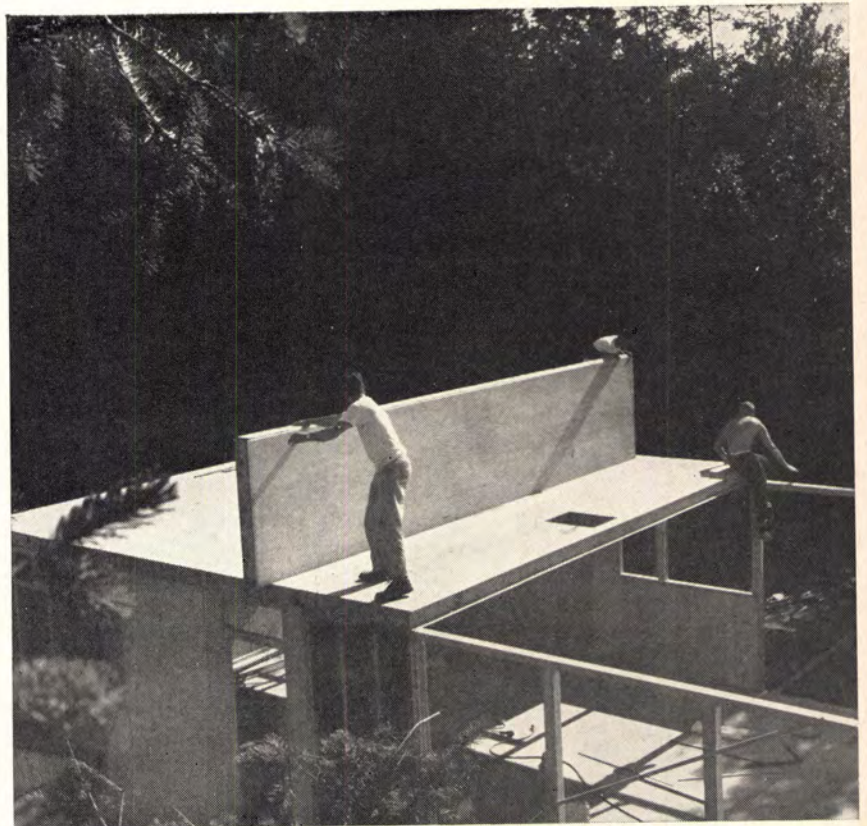
1. A basic 4' module, with even-foot fractional modules.
2. For flat ceilings, a standard height of 8' plus a tolerance (8' wall height under sloped ceilings).
3. For windows, widths to fit a 4" module, heights (just five of them) to serve bathroom, bedroom, kitchen, living room and halls.
4. For outside doors, one standard height—6'8"; one standard width—36".
5. For bathrooms, a 32" module with a 16" half module. This would fit both the stud spacing and the common dimensions of present bathroom fixtures. At the tub enclosure, the module would allow a 5' tub plus 4" for the added depth of the wet wall.
6. For kitchens, a standard 24" cabinet width and a 12" half module; an alternate wall cabinet height of 44" to reach the standard 8' ceiling.

Not only will the manufacturers' production and warehousing problems be eased by standardized dimensions, but the builder should be in a much better position too. "Once local builders accept coordinated dimensions they can get coordinated components from many different sources, and so increase their design variety and purchasing power," says Neil Connor, chief architect for FHA. Adds Ted Pratt, Royal Oak, Michigan builder—"standardized components let the small-volume builder take advantage of quantity production in factories, as well as giving him more design flexibility."

And code standardization is essential to dimensional standardization

For example, Ingersoll-Humphries is ready and anxious to market a cost-cutting prefabricated bathroom. But says I-H's Walter Gerstacker, "codes are the biggest deterrent. As it is now, Philadelphia requires a drum trap, while drum traps are outlawed in Detroit. Iowa requires lead bends, but most of the country abandoned them years ago. What can we do? Our hands are tied with so many regulations to meet." (See also quotes at right taken from HOUSE & HOME Round Tables on codes and standardization.)

What can be done? Says Carl Boester, "There is not a code in the land that prevents use of a good new system, if you are willing to provide engineering analysis and to work with the code body."



"... THE NEED FOR COMPONENTS sized to fit together becomes urgent as assembly line methods take a larger and larger part in homebuilding."



Home Manufacturer
PETE KNOX:
Width of openings was set to suit the vertical house we built 20 years ago.



Architect
LEN HAEGER:
With dimensional standardization you could preassemble the plumbing.



Builder
BOB SCHMITT:
Lack of standardization defeated the normal progress in this entire industry.

Photos: Walter Daran



Architect
CARL KOCH:
It is getting harder and harder to interest young architects in houses, very largely because they just don't see the sense of building antediluvian structures to fit old codes.

Howard Staples



Builder
ERNIE ZERBLE:
One city in five uses a nationally recognized code.



Builder
BILL COFFMAN:
I build in the Minneapolis area under 27 different local codes.

continued

Powerful factors have a "vested interest" in change

Two divergent groups, the country's big-volume builders, and industrial manufacturers, are vitally interested in the industrialization of the house:

Big builders see industrialization as their big chance to control building costs

"With components prefabricated in a plant or a shop assembly line," says Builder Ike Jacobs of Dallas, "you can build in any weather, summer or winter; you can schedule your building exactly; you eliminate waste labor and materials; you greatly improve the productivity of labor; you save money, and you also know exactly how much your final product will cost you. That kind of control is worth plenty, and it gives us the same control that other industries already have."

Big volume builders are especially interested in the cost-savings of industrialization because they work on a relatively slim unit profit. They cannot absorb constantly rising costs without upping the price of their houses, and they cannot raise the price of their houses forever or they price themselves out of the big-volume market.

And big-volume builders already have the resources to handle the big change:

They have the management resources to handle all the management problems that will arise in shifting from conventional building.

They have (or can usually get) the money to buy either 1) the handling equipment for positioning big components they buy, or 2) the production equipment to make some of their own components. And they have the volume needed to amortize the cost of this equipment.

They have the purchasing power to work directly with manufacturers and materials producers to get what they want.

Industrialists see it as a chance to expand their markets

Materials producers and many other manufacturers see housing as the important growth area for their production capacity. *For example:*

Appliance manufacturers now supply half of their growth items to housing, and the appliance industry may soon dominate the housing industry, say experts quoted by Burnham Kelly in his thought-provoking new book, "Design and the Production of Houses."

The metals producers—and particularly the aluminum industry, which already sells twice as much aluminum to housing as it sells to defense—have excess production capacity that they would be delighted to put to work rolling out panels and other components for houses.

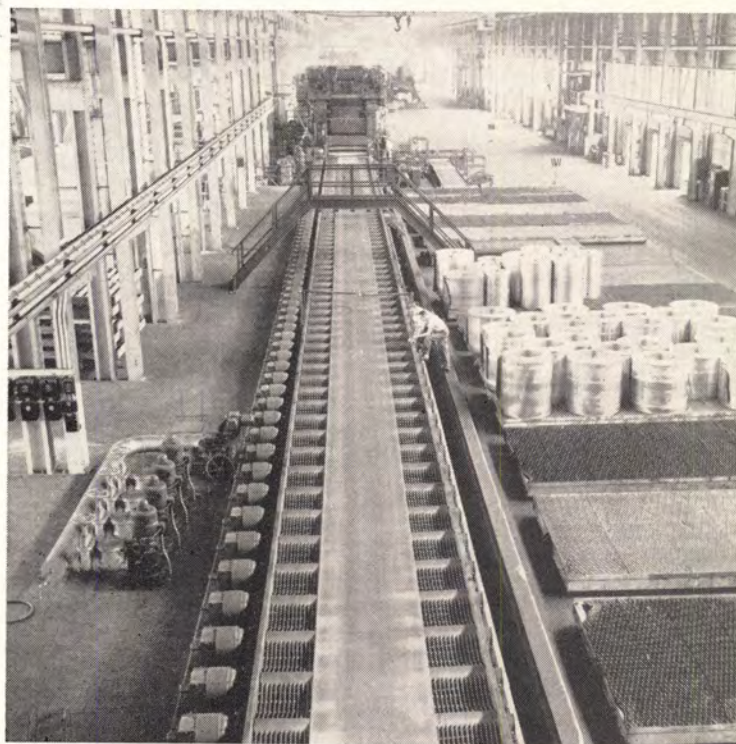
The aircraft industry—hit by defense cutbacks—is looking to housing for new markets; and two aircraft makers have already leased Buckminster Fuller's Geodesic principle for possible production.

And the chemical industry is vitally interested in the housing market, largely because of the potential for plastics in new components.

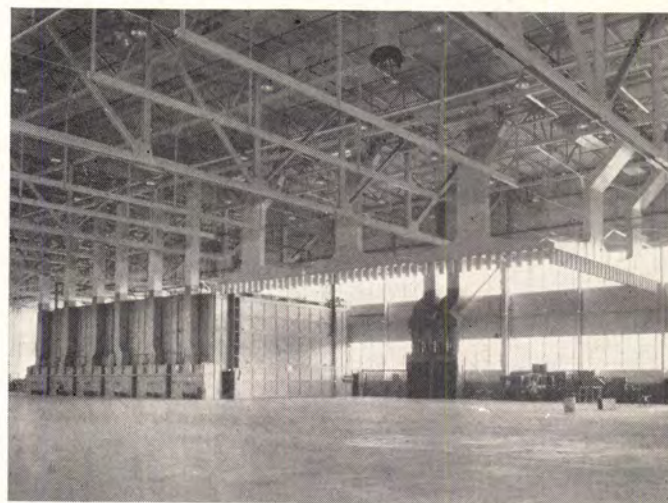


Branden Enterprises

BIG-VOLUME BUILDERS already mass-produce houses, understand the saving in mass-produced building parts. California operation is shown.



METALS PRODUCERS like Alcoa (whose plant is shown above) are eager to pour more of their production into the housing market.



AIRCRAFT MANUFACTURERS have giant (and sometimes inactive) factories that experts consider nearly ideal for making house components.

And rising building costs and fast-growing demand will force action

Building costs have risen nearly 25% in the '50s, and Housing Economist Miles Colean predicts the trend will continue at at least the same rate in the '60s (see chart right)—unless drastic action is taken to reduce sharply on-site labor costs. The danger is acute that the cost of houses will increase faster than the rise in real incomes and this would force many people out of the housing market.

Colean has also predicted that population (chart right, bottom) and family-formation increases will boost housing starts to about 1.5-million a year by the mid-'60s. (See also the cover chart.) The danger is acute that we will not have enough field mechanics in the '60s to build this many houses.

The reasons? 1) The building trades are not training apprentices fast enough. 2) Other industries will also feel a labor pinch and will be competing for labor. And 3) the population increase of the next decade will mostly be in the very young and old-age groups.

The assembly line looks like the only answer to higher labor costs and labor shortages

Almost every housing expert agrees that on-site labor is the most costly enemy of efficient building and that industrialization can lick the problem.

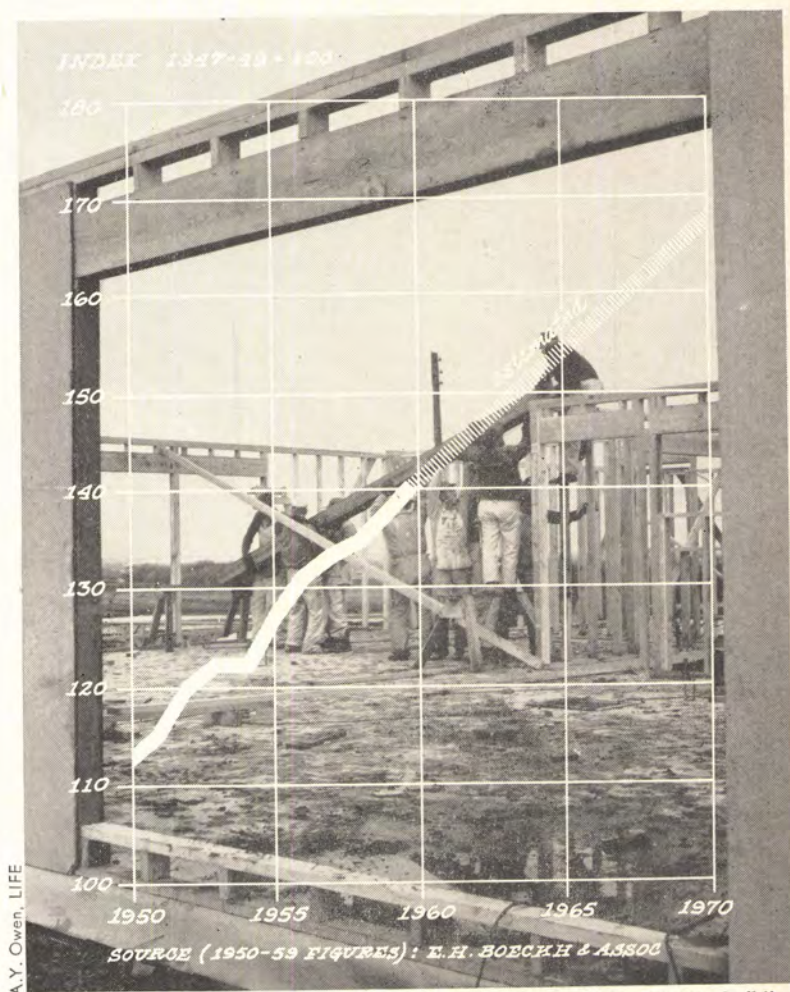
How much can we cut building costs by substituting in-plant labor—working with efficient, labor-saving equipment—for on-site labor? Says Byron (Rip) Radcliffe, Professor of Building Engineering at Michigan State: "Building costs could be cut one-third with industrialized assembly-line techniques." (NAHB's Research House in East Lansing—which Radcliffe helped develop—could easily be industrialized, he says; and if it were, could be assembled in the field in just two days by six men.

The savings of complete industrialization will force even "stand-pat" builders to switch

It has been mostly big-volume (and cost-conscious) builders that have adopted piecemeal the developments to date in industrialization. For example, most big builders have long been building with trusses, not just because trusses are cheaper than conventional roof framing, but because trusses make possible all the savings of under-cover, one-room construction (see H&H, Sept '58). And it is mostly big builders that have set up shops to make components for the shell of the house (see p 152).

But other builders have hesitated to modify their present, smooth-working building systems until they can get a complete line of components that will significantly cut their total cost (including mechanical and finishing costs). Typical comment: "I'm open to new ideas. But when I can save only a few dollars—and maybe even lose money—why should I switch?"

But just as Henry Ford forced hand-crafted automakers to industrialize or be priced out of business, the savings of the first industrialized houses will probably force most conventional builders to make the big change to factory-made components.



RIISING BUILDING COSTS are inevitable if we continue present building practices. Chart is based on figures from Housing Economist Miles Colean.



RIISING POPULATION will increase the demand for housing. Experts guess annual family formation will reach record high of 750,000 in late '60s.

continued

Stressed-skin panels, made in a factory, will soon be widely used

It has already been proven that building with stressed-skin panels (panels with one or two structural faces glued to stringers or studs as in drawings at right) is one of the cheapest ways to build.

Small Homes Council studies show that a stressed skin panel roof, using 1x4 ribs at 12" centers and $\frac{3}{8}$ " plywood glued and nailed both sides, should cost 87¢ a sq ft in place; cheaper, says SHC, than conventional or flat roofs. Florida Builder Mel Larsen is building with stressed skin panels (see drawing, top right) that costs only 67¢ a sq ft in place (see H&H, July '59).

So far, little has been done with panels for floors, but new developments in foundations (see p 159) will almost surely accelerate their development.

Why are stressed-skin panels cheaper than conventional construction?

1. They can be produced quickly by labor working on jigs.

2. They use less materials than a conventional wall to do the same job. Reason: in stressed skin panels the faces and studs work together to develop bearing, racking, bending and shear strengths; whereas, in conventional construction, studs must provide all the bearing strength and the sheathing must develop all the racking strength.

3. On-site work is minimized, since the big parts are easily set in place and fastened.

The biggest problem with panels is inflexibility —and the solution is standardization

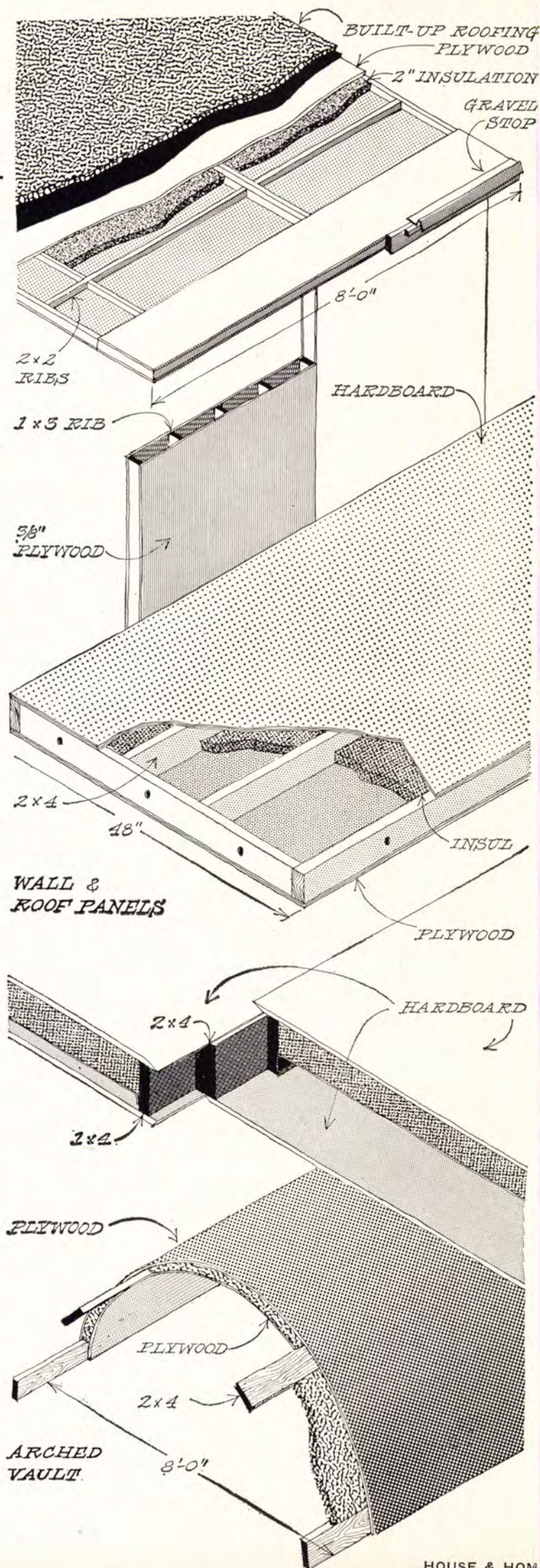
Michigan State's Rip Radcliffe puts it this way: "Unless panel-system designs can provide architectural flexibility, these systems may be limited."

There will be very little inflexibility if panels are built to the standard 4' building module (see p 153). With 4' modular parts, walls can be turned at any module point, doors and window panels can be fitted in with no extra work and the problem of fitting floor and roof panels will be minimized.

Also crucial to design flexibility: panel-joining systems. Says Radcliffe: "A poor joining system can defeat a good panel. We need to develop better joint details that allow right angle corners without special detailing, work with door and window panels, accommodate dimensional inaccuracies, are tight enough to be rainproof without calking and are easy to work on the site."

Most stressed skin panels will use materials already in everyday use

Douglas fir plywood and dimension lumber now have the big foothold in stressed skin panels. In the future, however, any of many materials with shear, compressive and tensile strengths in the same range may be used. Examples: particle board, pressed hardboard, reinforced plastics, asbestos cement. Vapor barriers (critical, since a panel can be seriously damaged by condensation) may be polyethylene, aluminum foil, asphalt impregnated kraft paper, neoprene, or similar paints. Insulation could be glass, mineral, vegetable, urethane, or polystyrene.



Within a few years, sandwich panels will move into the market

"And in the long run, they are probably the best bet," says Monsanto's Mike Gigliotti. Why?

A sandwich panel is a single unit of skins and core bonded together, which replaces all eight layers of a conventional wall or stressed skin panel. And it reduces shell thickness and materials used to a minimum." See drawings at right.

Right now, sandwich panels are not cheap. One reason: panels made so far have been made on pilot-plant equipment. But panels spewed out at rolling-mill speed should cut production costs sharply. The other reason: the plastic resins used widely in experimental panels for foam cores, adhesives, and skins is high: even the least expensive cost 20¢ a lb. But these prices should drop as demand grows bigger. "And even at high per lb prices," says Tom Werkema of Dow, "plastic foams are a good buy because they serve as structure, vapor barrier, insulation, and glue all at the same time."

How do sandwich panels work? The thin, strong skins provide resistance to bending, edgewise loading, and racking; while the core resists shear and prevents the faces from buckling. These panels can be light and thin because they utilize to the utmost the physical properties of each layer of the sandwich.

New sandwich panels will make use of new materials used in new ways

According to MIT's Prof Al Dietz: "Sandwich panels could have skins of stainless steel, porcelain enamel on steel or aluminum (see p 162), reinforced plastics, high-pressure laminates, clear plastics, and reinforced concrete—as well as plywood, hardboard, and aluminum. Cores could be foams of glass, styrene, urethane, phenolics or epoxies; fiberboard, balsa wood, metal grids, paper honeycombs, glass fibers, or expanded concrete."

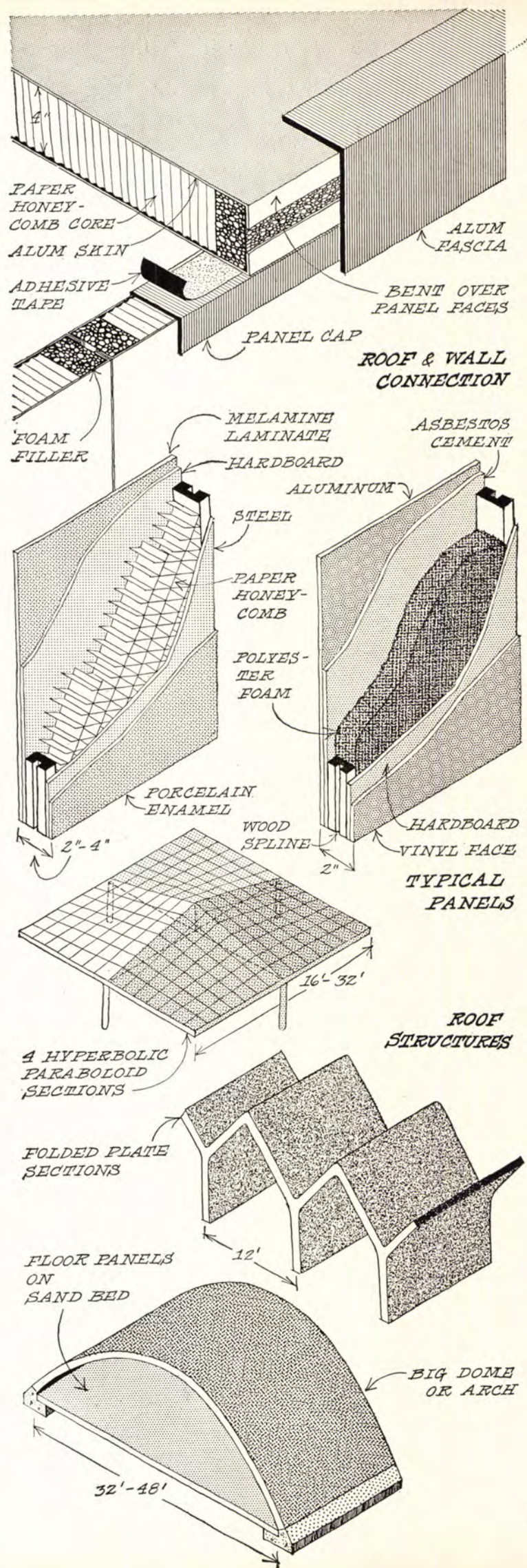
And Monsanto has even perfected safety-glass panel with a vinyl butyrate interlayer. It is load bearing; transparent; heat-, sound-, glare- and light-insulating; may cost only 80¢ a sq ft.

Sandwich panels have special problems —and special advantages

Engineers have other problems besides cost to solve before sandwich panels will become common:

1. The different materials in a sandwich can expand at different rates with temperature; and this can lead to bowing or buckling.
2. Air pressure changes inside the sandwich, produced by changes in temperature, can induce a pumping action that can draw water vapor into panels through some skins, and through joints.
3. As with stressed-skin panels, joining systems are still under study.

But the unique advantage of sandwich panels is an important one: unlike stressed-skin panels, they can be made in continuous sheets and non-linear shapes—like arches and folded plates and hyperbolic paraboloids (see drawings right) and big shells without corners (see p 164).



continued

Other new structural parts will come into wide use with the new panels

Experts predict that a wide variety of engineered parts will soon be available to give architectural and structural flexibility in standardized panel systems.

Standard posts, beams and structural mullions will be designed to work with solid and glazed panels. (Post-and-beam systems will not be necessary with the new load-bearing panels, but they may often be desirable for design reasons.)

Arches, structural bents, girders and space frames will make possible bigger spans, new house shapes. (New components like 2'-wide Bermuda roof planks with integral exterior finish, insulation, and ceiling may be used to span arches and bents.)

Door frame panels, reinforced brick masonry panels, new fireplace and stairway units, one-piece soffit-eave-gutter units will add design flexibility.

Concrete, masonry, and plastic panels will enhance interior and exterior treatment.

In these components, familiar materials will be used in new forms and new ways

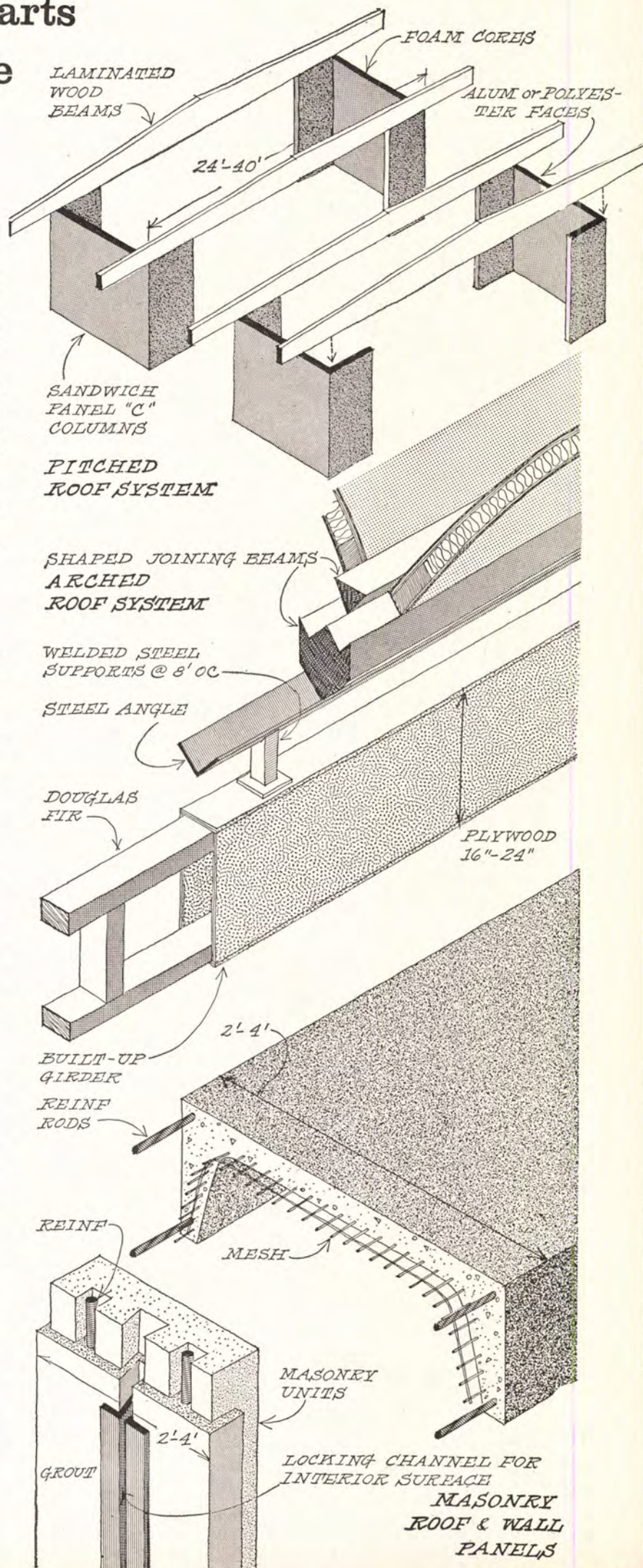
"The rapidly increasing strength of glass . . . will make it increasingly important as a load-bearing element [see also p 157]," says James Archer, research chief of Pittsburgh Plate Glass. "Through new processes, windows will automatically become darker as the sun shines brighter. The level of daylight may even be changed by the homeowner at the flick of a switch. Glass walls will be made transparent or opaque at will. We'll even be able to control the passage of air through glass. Our problem is one of trying to imagine big enough."

"Steels with superior resistance to corrosion—that develop denser, more protective oxides—will soon be available," says James Austin, research chief of US Steel. "This means designers can use lighter sections and be assured of greater net structural strength. And new plastic coatings will be so tough that components can be fabricated by roll forms and press brakes, be punched, lock-seamed, drawn, and slit without damage to the coating."

"Light, thin concrete roof, window, wall, and floor sections made with prestressed, concentrically placed reinforcing wires are being used in Florida right now," says Albert Marsh, panel manufacturer of Tallahassee. "They combine the economies of low-cost concrete with the light weight and strength made possible by steel reinforcing."

"Experimental asbestos cement panels have been given great strength and high dimensional stability by pre-shrinking with new high-pressure steam-curing processes," says William Gooden, commodity manager of Johns-Manville.

The big sleeper in this emerging battle of materials is wood. Laminated structural wood members—in forms, sizes, and shapes impossible to get from a tree—are already breaking into homebuilding. And new phenolic resins in sheet form may cut their costs. With a new process developed at Washington State College, beams can be laminated with special presses in just seven minutes—a process that until now has taken at least 12 hours.



And the new systems will allow low-cost prefabricated foundations

"To date, there has been very little research and experimentation in solving the problems of the hand-crafted foundation," says Architect Jim Lendrum.

Reason for the lag: a conventional house does require a foundation of great solidity and strength. But, with new structural panel systems which will be lighter and stronger than conventional construction, foundations should change radically, become much lighter and cheaper.

"Why should houses rest on the ground?" asks P. W. Bachman, Koppers' research chief. "This lets in dampness, brings on cracking. Why not suspend the house from overhead members held up by vertical foundations completely separated from the house? Certainly the light weight of tomorrow's sandwich panels should make this feasible." (Back in the 1920's, both Buckminster Fuller and Frank Lloyd Wright suggested houses supported from central masts, with just one pad foundation under the mast. In the age of light-weight panels, the time may finally be ripe for such a solution.)

Some engineers (like Michigan State's Rip Radcliffe) feel that foundations can be far shallower. A 22" depth has been proposed as adequate even in very cold climates because, these engineers feel, "frost just doesn't seem to go deeper than that."

Designer Carl Boester has worked out a new system that uses a prefabricated grade beam made of post-tensioned masonry blocks lying on a sand bed (no mortar is used). Ends of the beams will be held down with earth anchors driven deep into the soil (see drawing right). More on this system will be published in an early issue of *HOUSE & HOME*.

Some experts, taking their cue from the very strong slabs used on unstable soils in Texas, are thinking in terms of structural pads on which room units can "float" on a sand bed. Since there might be a danger of differential settlement between pads, units would have to be independent of each other, connected by semi-flexible passageways.

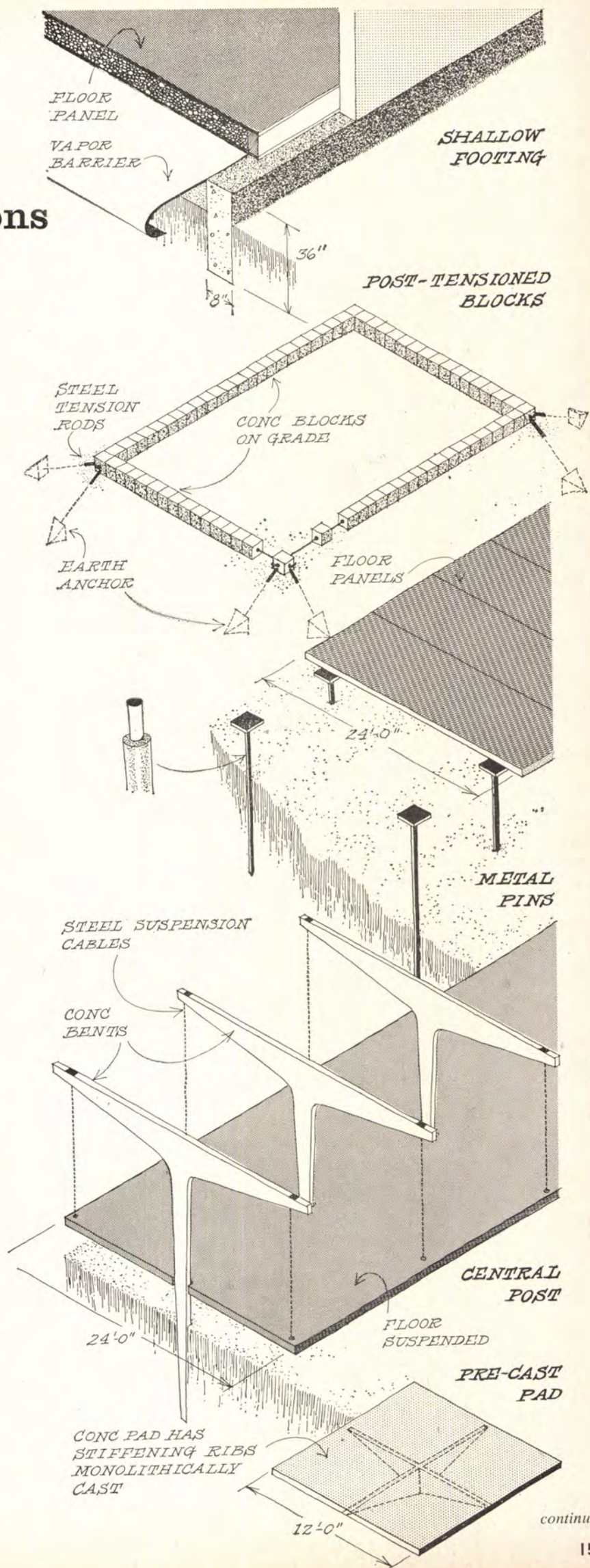
On stable soils, very cheap piers and pins may be used

As Carl Boester points out: "If you built a very strong house on a ledge of rock, you would need no more foundation than a few concrete blocks. The rock would never move, and the blocks would simply level your structural floor panels."

This explains the reason why piers or pins can be used on stable soil. Piers could be precast and dropped into holes in the ground, and precast beams placed on them to support exterior walls—while the floor would rest on a sand bed (with vapor barrier).

Architect George Nelson has suggested that concrete coated steel pins could be driven into the soil to support an industrialized house; very much in the way that piles are used in commercial and vacation-house building.

Architects Peter Blake and Julian Neski worked out this system for tide-land vacation houses: piles are driven at 8' and 12' centers around the periphery of a house and left with their tops at roof level. House framing is bolted to the piles which then become an architectural feature.



continued

Plant-made utility cores will cut the high cost of on-site mechanical work

"Up until now builders have resisted complete mechanical packages. In the past they felt they could not economically use them," says Builder Andy Place of South Bend.

"But today," Place adds, "mechanical subcontracts in the field run as high as 50% of the cost of a finished house. These costs can only go up in the '60s when good field mechanics will be at a premium. And the only way to lower these costs is to use the production savings an assembly line can give."

Builders have also felt that mechanical cores might limit their planning flexibility. One standard core for all their houses would take all the variety and appeal out of their highly merchandisable baths and kitchens, they said.

But the concepts of mechanical cores are changing fast. The core has been broken down into its component parts (bathroom, kitchen, light and power, heating-cooling, communications). Designers are no longer thinking of one big, all-inclusive, standard units, but rather of a number of units and elements that could be grouped in various ways and simply "plugged in" to each other.

Bath and kitchen units will eliminate most on-site plumbing

"The prefabricated bathroom unit we have developed would cut plumbing labor from 40 man-hours to five man-hours," says Walter Gerstacker of Ingersoll-Humphries. "It would give the builder a better plumbing job, and it would be light enough for two men to lift into place. The core could be designed to take a number of standard kitchen packages that would be plumbed back to back with the wet wall."

The biggest boost to prefabricated bathroom design was the recent FHA ruling allowing inside baths. Providing a window in the wall of a bath core was an almost insurmountable obstacle for the manufacturer because it meant that the core could be positioned only one way, raised the problem of window size. But bath cores like the one at right could be fitted into almost any house design.

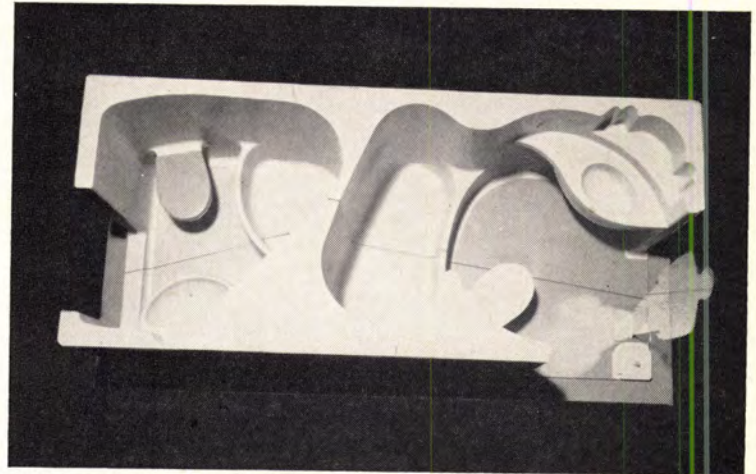
All other utilities could be controlled from a central core unit

Heating-cooling, light and power, and intercom systems cannot easily be packaged in a core, but their controls can. For instance, a wiring harness could be packaged with the core, and at the job site, wires could be run out from the core to pre-wired panels. The complete on-site wiring job would involve only one connection per room. Heating and cooling could be handled just as simply:

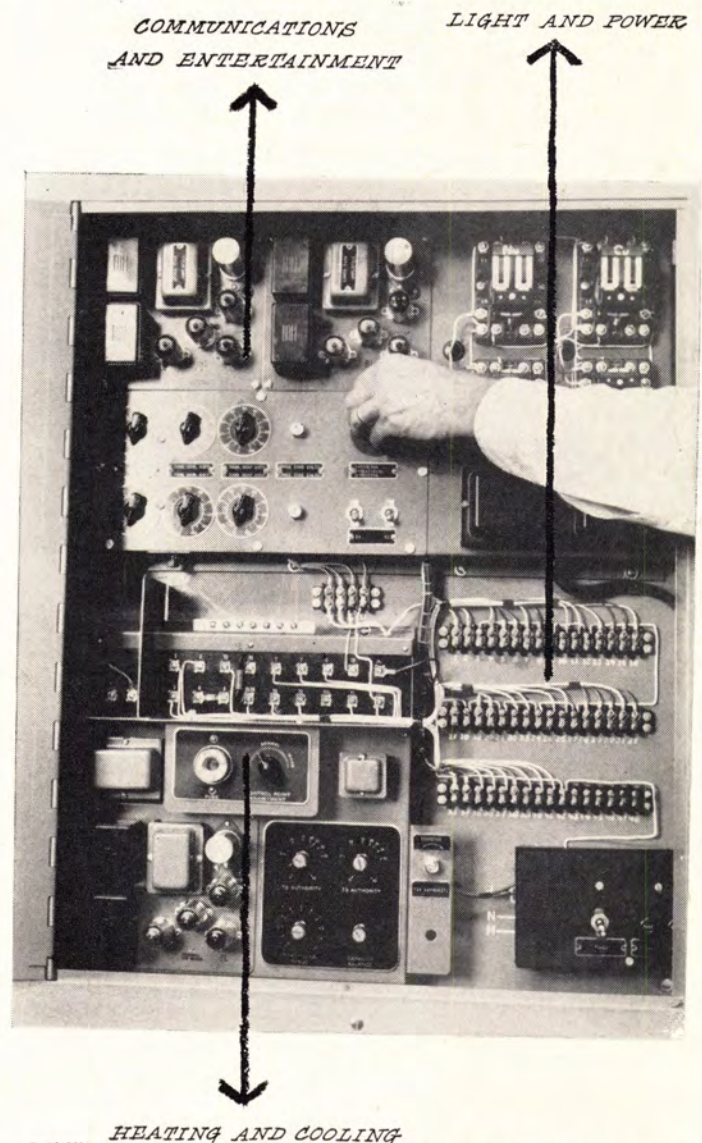
Air-to-heat pump units, baseboard or whole-panel electrical resistance heat units, or thermoelectric and thermionic units could be built into panels, simply connected by one wire from the core.

Warm air could be distributed by small flexible high speed air ducts run from the core to the outside wall panels.

Hot water runs might be laid from the core to an outside-wall baseboard loop running through the slotted bottom edge of partition panels.



TWO-BATHROOM UNIT, molded in reinforced plastic by Monsanto for their Disneyland house, was designed by Henry Dreyfus for Crane Co.



MECHANICAL CONTROL CENTER in house of the '60s might look like this. Controls would be set by builder or serviceman, then left alone.

And durable plant-applied finishes will also cut on-site labor

"You can paint with a spray gun four times as fast as you can with a brush. And you can speed up spraying 50% by doing it under controlled, assembly-line conditions," says Willard Worth, research chief of National Homes. "This means plant pre-finishing of panels and other components is a sure way to cut finishing costs that can run as high as 10% of total house cost."

Here are the types of finishes being perfected in laboratories for in-plant application on engineered parts and components:

For exterior walls: acrylic enamels with 20-year life for wood and aluminum exteriors, phenolic and other hard overlays for wood surfaces, porcelain enamels that can be fired at low temperatures for aluminum and steel exterior walls, epoxies and silicones that seal masonry, clay and concrete walls.

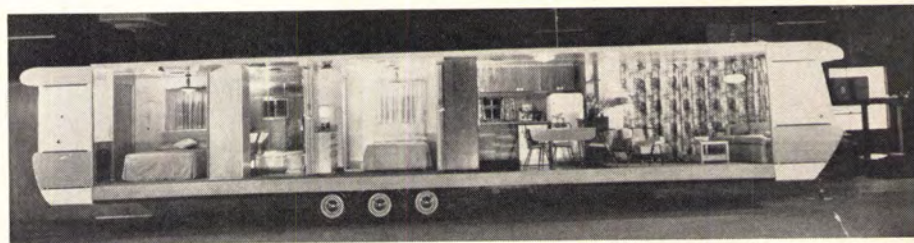
For roofs: neoprene and similar elastomers for spray or roll coating of panels; urethane coatings that can have mineral aggregates added for texture; tough, super-durable polyvinyl fluoride films; sprayed on vinyl films for colorful, jointless seals.

For interior walls: latex paints (polyvinyl acetate, acrylics, styrene-butadiene) with heavy mineral fillers that can cover joints in one pass of the spray gun, silica coatings that keep walls dust-free and easy to clean, porcelain enamels for shower stalls and bathroom walls, melamine and styrene laminates for bathroom panels.

For floors: improved vinyls, both clear and filled, and in tiles and sheets, that will be easy to clean; epoxy and urethane coatings for hard wear indoors or out; tough clear ureas and other varnishes for hardwood and cork floor surfaces.

For built-ins: ureas, cellulose and epoxies in new paints and varnishes for more color, clearer grain and longer life; polyester and melamine films and laminates for closet walls, kitchen cabinet finish.

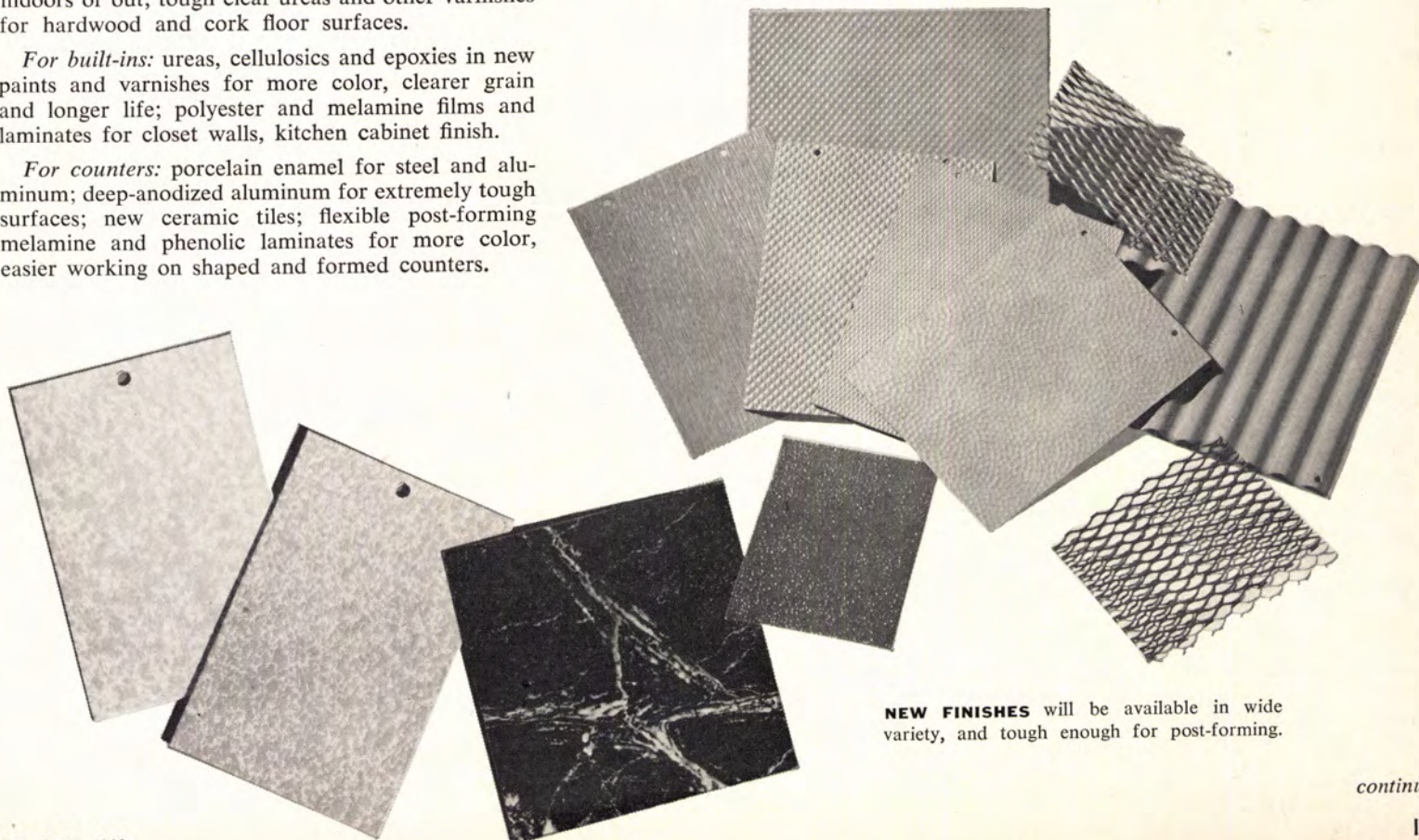
For counters: porcelain enamel for steel and aluminum; deep-anodized aluminum for extremely tough surfaces; new ceramic tiles; flexible post-forming melamine and phenolic laminates for more color, easier working on shaped and formed counters.



MOBILE HOME rolls out of the factory completely prefinished—and furnished. Finished in the field, manufacturer's costs would be 10% higher.



MOBILE HOME KITCHEN has prefinished cabinets, paneling, ceiling and floor. (Complete mobile home can be shop-built in 14 man-hours.)



NEW FINISHES will be available in wide variety, and tough enough for post-forming.

How far, how fast? Here is a cross-section of expert opinion

In his book, "Design and the Production of Houses," Burnham Kelly summed up the almost unanimous view of housing-industry experts: "... the lid will come off in the '60s. The present pressures add up to a difference in kind, not merely in degree. We are rapidly approaching that point on the graph of change when there comes a sudden snap-over and all the major conditions are altered."

Architect Carl Koch has developed a steel and porcelain enamel house—for 1960

"Whether used with steel or aluminum, porcelain enamel components offer the industrial advantage of dimensional stability, high and permanent finish, and mass-production economy. They may be applied at once in the housing industry," says Koch.

The research house, shown at right, is being built right now in Ohio. Cooperating with the prime sponsor, Ferro Corporation, are US Steel, Fenestra, American Standard, Youngstown Kitchens, and GE. Each will have a hand in producing the various components, including the mechanical units shown in drawings.

And here are other top experts' views on the timing of the industrialized house

Says John Long, one of America's biggest home-builders: "By 1963, just about the entire house will be prefabricated away from the building site as components. The last to go will probably be floor and foundation, because job-poured concrete is hard to beat."

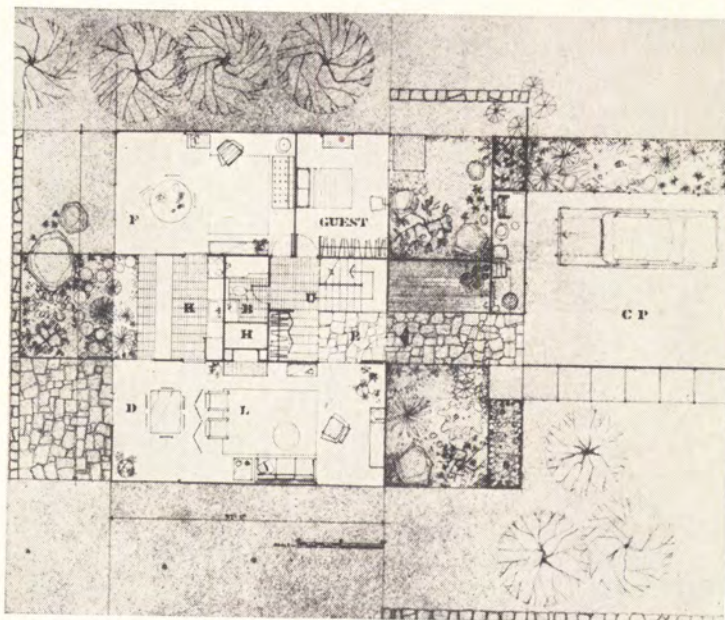
Says Ralph Johnson, technical director of NAHB: "The industrial approach to housing—call it off-site, assembly-line, component building—is coming a lot faster than a lot of people guess. In my opinion, 10% of all houses will be built this way within 3 years; in five to ten years these techniques will dominate the housing industry."

Says P. W. Bachman, vice president of research, Koppers Co: "I would say that it won't be very long before you're working with factory-made exterior wall panels. We think the price factor might be favorable to the plastic panels because the price factor means laid up in place, not necessarily the price per sq ft of what you buy."

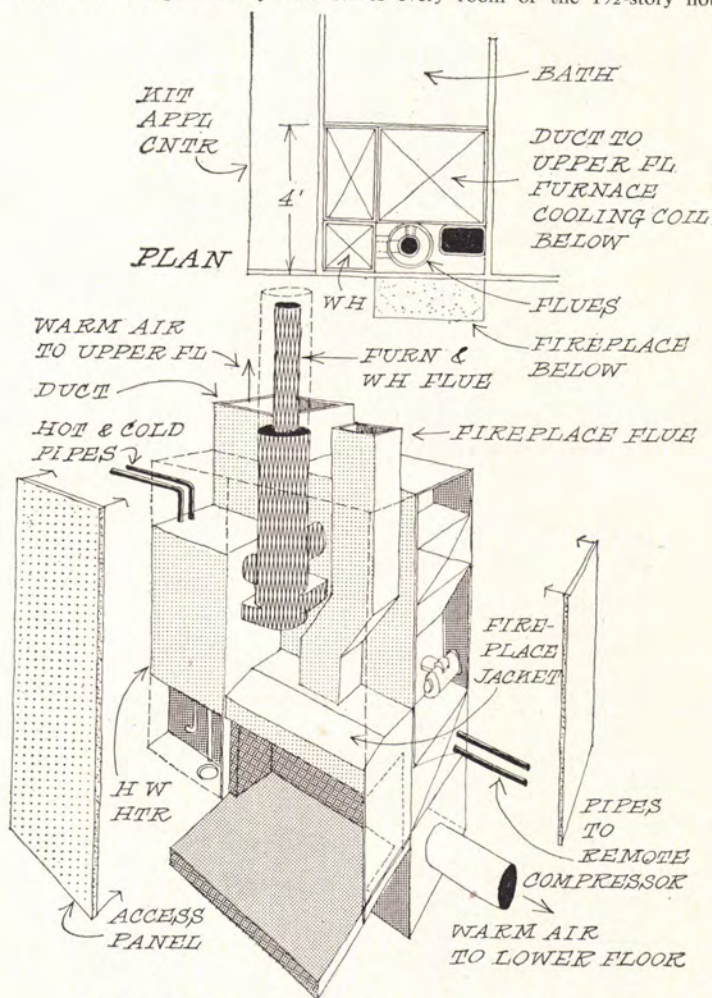
Says Rip Radcliffe of Michigan State: "The mobile homes industry has the right idea. Component parts will be getting bigger and bigger. The day is coming when component houses will be delivered on flatbeds and set up in one day. I predict that two years from now there'll be 200 of these houses, and after that they'll get thicker than flies."

Says Buckminster Fuller, perhaps America's foremost housing prophet and almost certainly the most imaginative: "I am convinced that industrialization of housing will be fully realized within the next decade."

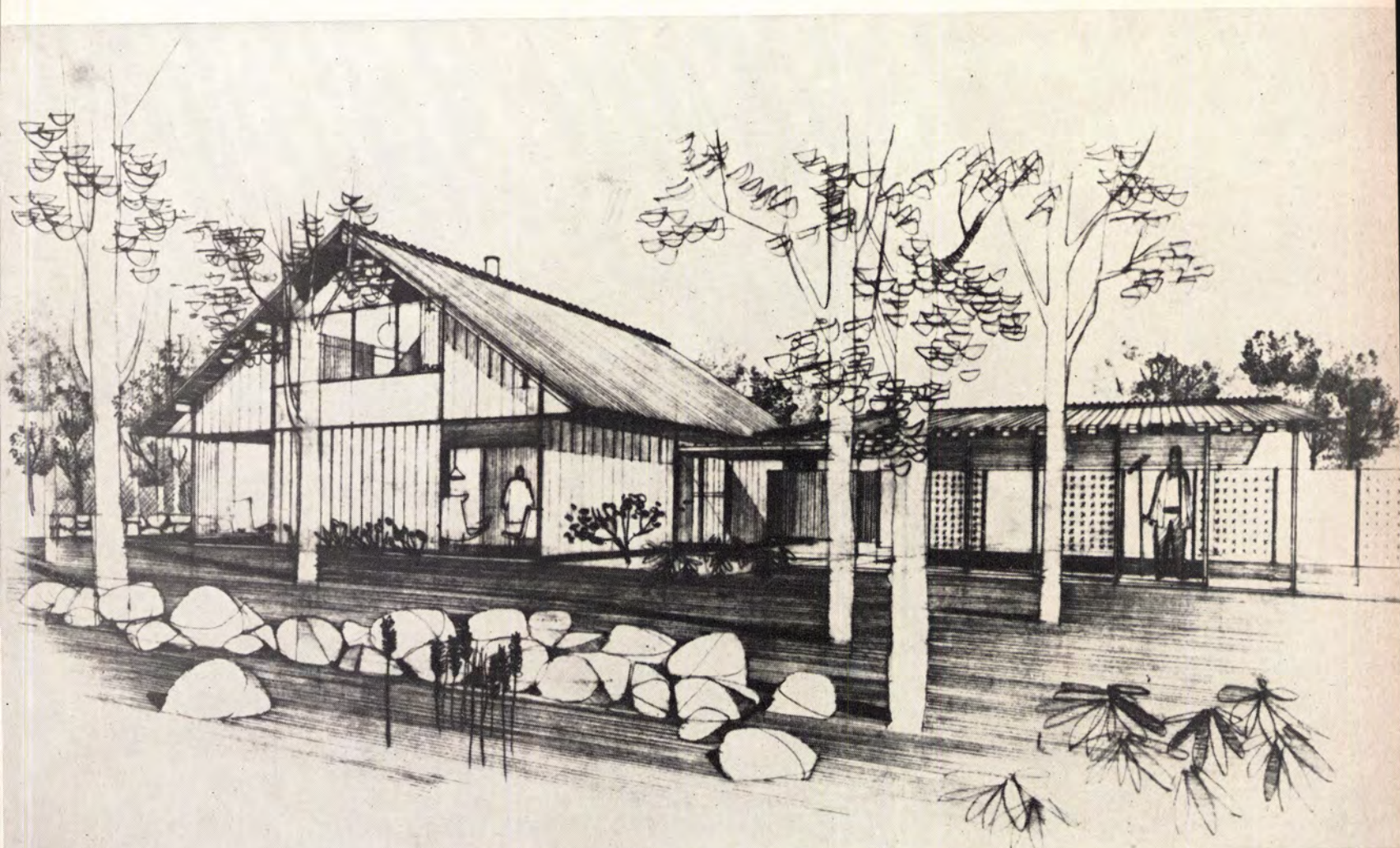
And to see what Fuller foresees for the end of the '60s and beyond, turn the page.



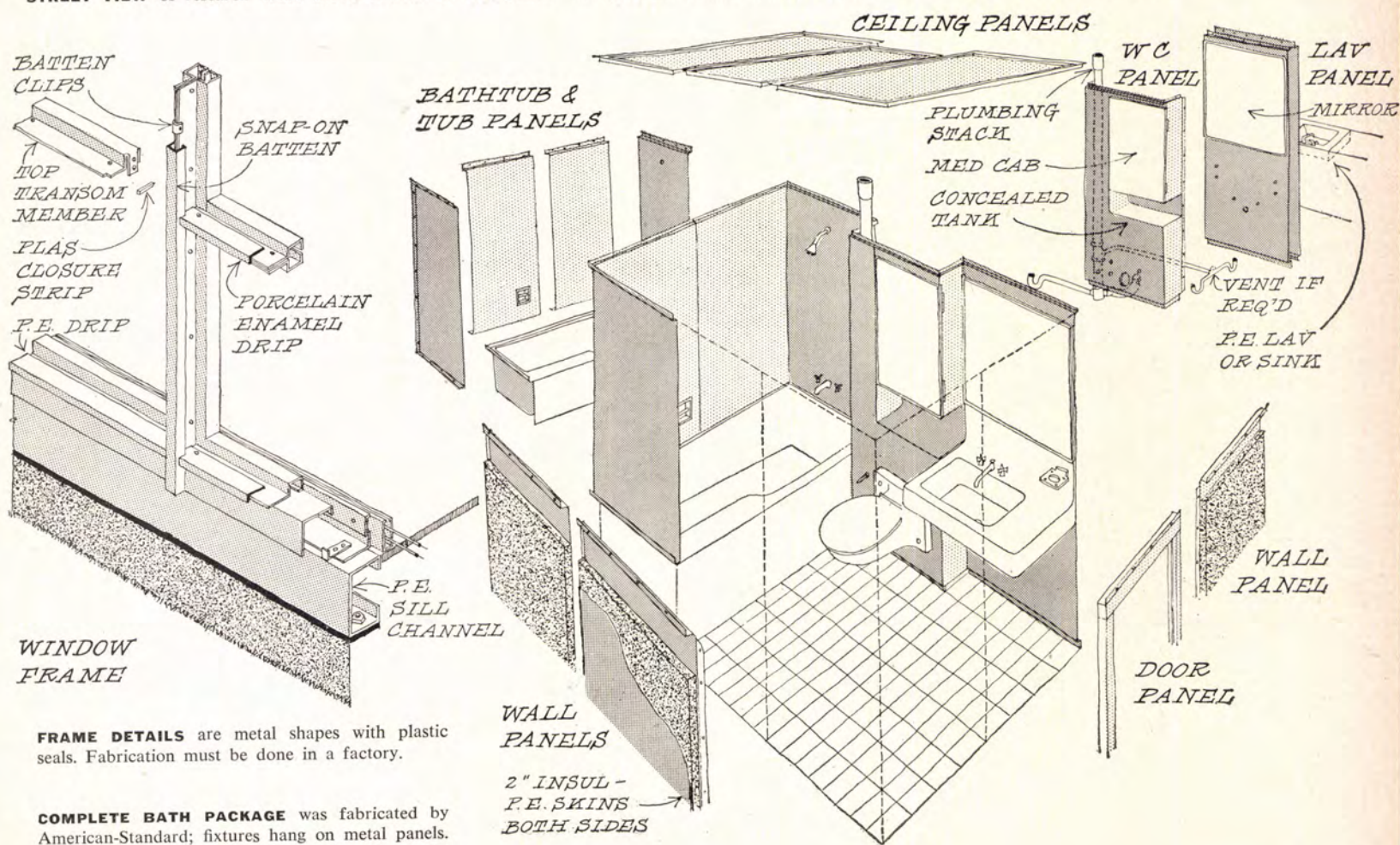
PLAN of porcelain enamel research house designed by Architect Carl Koch shows how compact utility core serves every room of the 1½-story house.



UTILITY CORE, as designed by Architect Carl Koch, has fireplace, water heater, heating and cooling unit, plumbing.



STREET VIEW of research house shows exterior of steel panels with porcelain enamel finish. Tough, easily-maintained finish can be any color.



continued

Where will industrialization lead?

Here is a look at the end of the '60s: by Buckminster Fuller

"Housing has always had a low priority in the economy of a country, but I am convinced there is going to be a complete economic switch. Russia, with its tremendous aircraft potential and high technical capability, will apply that potential to environment control. This violent reorientation of production will make the pot boil over all around the world. We will be left behind at the start, but economic survival will force us to catch up. China, I'm told, has great interest in lightweight structures, and I understand they are making aluminum like taffy.

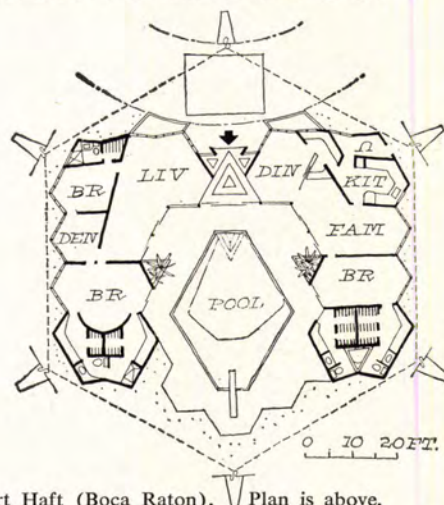
"The logical place to start is in the aircraft factory. When Sputnik went into the sky, the aircraft was obsolete—after 50 years and \$2 trillion of investment. I have read that all rocketry and additions to the jet fleets will only use 10% of existing aircraft production—leaving a 90% vacuum.

"With all the world competing in providing better housing for vastly increased populations, and with the drastic changes to industrialization, we can look for a radically new approach to housing—and housing design—in the years not far ahead." /END

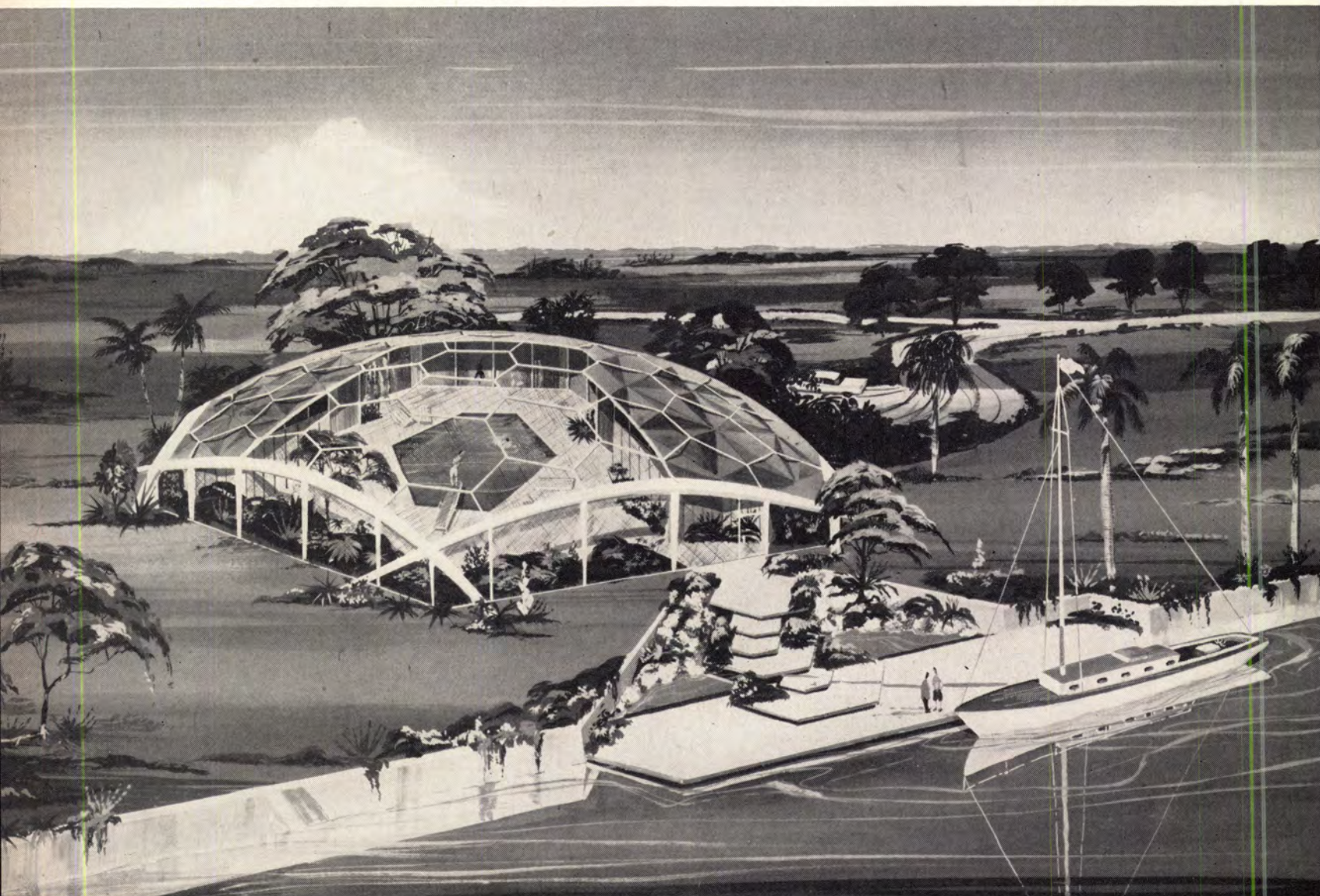


Tom Burns

PLASTIC BUBBLES were proposed as house of the future in student project.



FULLER'S GEODESIC PRINCIPLE is being used in house now under construction by Builder Burt Haft (Boca Raton). Plan is above.



NEW PRODUCTS FOR 1960:

How much of the miracle of the '60s will you see this year? You'll find part of the answer in the 20 pages of new products that follow.

- In appliances,* the miracles are familiar: washers that handle as many as 11 different laundering routines at the push of a button; refrigerators that never frost up, ranges that do everything but peel the potatoes. For 1960, the makers have made them more sensitive, simpler to use, easier to clean. *See page 166.*
- In bath fixtures,* there are new round lavatories, new wall-hung bowls, new cabinetry; and behind the clean-lined look, new leakless, dripless tank and lavatory fittings. *See page 170.*
- On interior walls,* there will be new, almost indestructible finishes with the look of hand-rubbed wood to make inexpensive plywoods and hardboards compete with luxury paneling. *See page 172.*
- For structural use,* wood and aluminum are teaming up with new plastic glues and finishes to keep the battle of materials on an even plane, make better products for today's houses. *See page 174.*
- In windows,* the package will be more complete: multi-track units make storms and screens part of the prime window. Plastic sash and plastic slides are also making news. *See page 176.*
- In electronics,* the intercom has become a top extra, and more and more it will include complete music systems. *See page 179.*
- For heating,* there are more compact furnaces and boilers that put out more heat per dollar with less smoke and odor, come packaged for one-step installation. *See page 248.*
- For cooling,* you will find new units that install through the wall, can bring central-cooling costs down to room-unit levels. *See page 252.*
- On the floor,* there's a decorative revolution, with resilient tile taking on a look of its own, no longer imitating stone and wood. *See page 256.*
- In doorways,* new doors reach from floor to ceiling in bi-folding, by-passing, and accordion arrangements. *See page 258.*

You can get more data about any of these products by circling and mailing the coupon on page 310.

KITCHENS—a quick lesson in how to make a good product better

For 1960, there are no revolutionary developments but. . . . This year's ranges are easier to control, easier to clean, and more automatic than ever. Laundry equipment handles a wider variety of fabrics at the touch of a button. Top-line refrigerator-freezers need no defrosting—and never get frosty. Dishwashers now handle everything from the dirtiest pot to the finest china.



From Hotpoint: New washers and dryers offer up to ten programmed washing cycles, three drying cycles, to handle any fabric including wash-and-wear. Equipment adds detergent, bleach, washing agents, takes out lint and sediment automatically. New refrigerators give more usable storage in smaller floor space, thanks to new insulation. Swing-out shelves include vegetable crisper. Doors seal with magnetic gasket. New pushbutton ranges have controls set to match heats most commonly called for by cookbooks for roasting, broiling, baking, or top-of-the-stove cooking. Top-line ovens have built-in rotisseries, roast thermometers that control cooking time. Deluxe models of Hotpoint appliances are offered in color.

Hotpoint, Chicago.

For details, circle A on coupon, p 310



From Whirlpool: Built-in ovens and burner tops with all the features of free-standing ranges: barbecue unit, time and temperature controls, roast thermometer, removable doors. Knob-set burners on electric ranges have continuous range. Most of the same features are found in Whirlpool's gas range line, which comes in both freestanding and built-in types. New top-line refrigerators and freezers are frost-free, have air purifying systems, automatic ice maker, magnetic door seal. New washers and dryers have automatic dispensers for all laundry aids, push-button settings to give automatic control of 11 washing cycles (including a pre-wash for very dirty clothes). A cool air fluffing cycle has been added to the drying cycles.

Whirlpool Corp, St Joseph, Mich.

For details, circle B on coupon, p 310



From Admiral: More refrigerated food storage in the same floor space as last year, frost-free cooling, odor-killing lamp, swing-out shelves, new power plant. In ranges and built-ins: bigger ovens in 30" models, removable doors with larger windows, thermostatically controlled burners. Dishwashers offer 5-cycle cleaning, hold 132 pieces.

Admiral Corp., Chicago.

For details, circle C on coupon, p 310



From General Electric: Dishwashers with "power shower" for top washing action, push-button controlled for four cycles. Ranges with temperature-sensing burners, simplified automatic timers, easy-to-clean ovens and backsplash. Refrigerators with changeable door panels, automatic ice makers, non-frosting freezing compartments, swing-out-shelves.

General Electric, Louisville.

For details, circle D on coupon, p 310



From Frigidaire: Big-selling 30" ranges with French doors, pull-out liners, infinite heat controls, sealed-in oven elements. Refrigerators with frost-proof freezing, new softened styling, more efficient storage, swing-out shelves; freezers that never need defrosting. For the laundry, Frigidaire has added four automatic gas dryers to its line.

Frigidaire, Dayton.

For details, circle E on coupon, p 310



From Norge: A laundry combination with a unique self-cleaner that washes the machine after use, flushes away the lint. Also two new electric never-defrost refrigerators, one new gas refrigerator-freezer, all with automatic ice makers. For first time, Norge is offering color—yellow, pink, copper—in appliances. New ranges come out in June.

Norge, Chicago.

For details, circle F on coupon, p 310

continued



Classic cabinets fit modern format

Newest in St Charles line are "Classic" cabinets which can be used in the kitchen or throughout the house. Classic wood fronts are available in several finishes, and vinyl inserts in colors may be added. St Charles also offers tradi-

tional and contemporary wood-front styling in several finishes and steel in almost any color. Cabinets above are custom assembled.

St Charles Mfg Co, St Charles, Ill.
For details, circle G on coupon, p 310



Caloric ovens have a new keep-warm feature which permits steady temperatures down to 140° for warming plates, left-overs, etc. Caloric also has new range hoods color-matched to line's sinks and built-ins. Double-impeller units come 30", 36", 42" wide.

Caloric, Jenkintown, Pa.
For details, circle H on coupon, p 310



Revco refrigerator-freezer fits floor space only 2'x3', yet has 11 cu ft refrigerator in the upper section (with circulated air, flexible shelving, uv lamp) and a 5.5 cu ft freezer below. Stainless steel frame holds colored door panels.

Revco, Inc, Deerfield, Mich.
For details, circle I on coupon, p 310

Preway's new ovens—both electric and gas built-in units—have wider doors, furniture-finished wooden handles. Electric oven is dual unit, gas oven is single-compartment with extra-large broiler; both are automatically controlled. Available in stainless and colors. Surface units have top-mounted controls, are 28½" wide, 21" deep, extend only 3½" below countertop.

Preway Inc, Wisconsin Rapids, Wis.
For details, circle J on coupon, p 310

Lady Kenmore dishwasher is 24" wide, holds service for 12. Revolving rack assures complete cleaning. Square corners give built-in appearance. Controls offer "normal" or "super" wash and rinse. Produced by Design & Mfg Corp, Connersville, Ind. \$210 retail.

Sears Roebuck, Chicago.
For details, circle K on coupon, p 310

New "Add-On" filter changes any Broan Dual Blower range hood to a ductless type. Aluminum and charcoal converter is only 1½" high, mounts directly on top of the regular ventilating unit.

Broan Mfg Co, Hartford, Wis.
For details, circle L on coupon, p 310

Rangaire's new range hood takes no cabinet space, can vent through wall or roof with standard 3¼" duct. 600-A model has two-speed exhaust unit, recessed lights, permanent aluminum-foil filter. Stainless steel or standard colors.

Roberts Mfg Co, Cleburne, Tex.
For details, circle M on coupon, p 310

Tappan's "Constellation" line includes a wide selection of gas and electric built-in ranges and ovens. Ovens include built-in rotisseries, automatic roast control, lift-off doors. Surface-top burners come 24" to 42" wide with built-in griddles.

Tappan Co, Mansfield, Ohio.
For details, circle N on coupon, p 310

Modern Maid double oven has "Infra-Ray" ceramic burner, said to broil in half normal time. Lower oven has "Flame Master" control for baking and roasting. Ovens fit standard 24" cabinets. New "Super-Thin" griddle top is 36" wide, only 3" deep; has two giant burners, two standard burners.

Tennessee Stove Works, Chattanooga.
For details, circle O on coupon, p 310

Roper's new drop-in cooking units have top-mounted burner controls, making installation easier. New line includes eight four-burner models and a new version of Rotis-O-Grill unit; with cluster or staggered burners, in a choice of four colors or satin chrome.

Geo. D. Roper Corp, Kankakee, Ill.
For details, circle P on coupon, p 310



Waste King has full new line of built-ins. Deluxe electric oven has large safety-glass window, 5½-hour timer, porcelain interior. Surface unit includes a speed-heat element, thermostat controlled element, 7-stage control.

Waste King Corp, Los Angeles.
For details, circle Q on coupon, p 310



Thermador's built-in electric oven has an integral exhaust blower. Unit requires only wiring hook-up. Oven fits 24" cabinet; interior dimensions 18"x18"x19½". Filter is stranded aluminum, easily removed for cleaning. Retail price: \$294.25.

Thermador, Los Angeles.
For details, circle R on coupon, p 310



NuTone's Triple-Aire hood requires no ducting, is said to eliminate smoke as well as grease and odors. Smoke filter uses glass filaments developed in Italy, filters grease ahead of the fan, and the smoke and odor filters to eliminate clogging. \$109 to \$144 list.

NuTone Inc, Cincinnati.
For details, circle S on coupon, p 310



These are new cabinets by a top furniture maker

Consider H. Willett, well known for reproductions of early American furniture, is now in the kitchen cabinet business. All Willett cabinets are being made of white birch, stained to a

Golden Beryl finish. Tops, bottoms, and sides will be dovetailed, frames will be doweled in furniture fashion.

Consider H. Willett, Louisville.
For details, circle T on coupon, p 310



Steel cabinets have textured surface

Geneva's "Impasto" line has a new finish—a subtle pattern etched into the steel surface which gives a softer texture. The finish is said to be chip-, mar-, and scratch-proof, impervious to stains, and easy to clean. Sound-dead-

ening materials built into doors and drawer fronts and nylon drawer rollers and plastisol-coated shelves eliminate noise.

Geneva Kitchens, Geneva, Ill.
For details, circle U on coupon, p 310

continued

BATHS—there's a new technology behind the new designs

New straight-line fixtures make bathrooms look more built-in than ever. New wall-hung closets leave cleaner floor areas. New oval basins give style to lavatories. Also—out-of-sight—new plastic fittings are taking the drip out of faucets and water closets (H&H, Dec '59), and temperature-sensitive controls are making comfort in the tub or shower more automatic.



Briggs has added new tub, bowl, and lavatory

Wide-seat Medallion tub has a full-width, full-length seat and a recessed toe base for easier cleaning. Flange extends upward on recessed sides to go

behind wall finish, prevent water seeping into wall. Tub comes in six colors, as do other new Briggs fixtures shown above: the wide-shelf off-center bowl

and fittings for Chaucer lavatory, and off-the-floor King water closet.

Briggs Mfg Co, Warren, Mich.

For details, circle No. 1 on coupon, p 310

Cameo tub enclosures, a new low-priced line by Shower Door, turns tubs into showers. The rollaway enclosure fits any standard 5' recessed tub, is 60" high, and lists for \$69.90. The 24"x66" shower door can be hinged at either right or left side.

Shower Door Co, Atlanta.

For details, circle No. 2 on coupon, p 310

Lawson's new vanity mirror comes with a cabinet across the bottom. The mirror is 42"x24" and framed in stainless steel; the storage cabinet is 42" wide, 7" high, and 4" deep, with glass doors. The unit is surface-mounted, lists at \$70.

F. H. Lawson Co, Cincinnati.

For details, circle No. 3 on coupon, p 310

Pre-cast shower floors by Standard Steel have a built-in 2" plated brass drain as an integral part of the unit so they can be installed with one connection. The new receptors are available in square, rectangular and corner models.

Standard Steel, Chicago.

For details, circle No. 4 on coupon, p 310



Lava-spray faucet with single-handle control now comes with a hair-rinse spray attachment. Also in new Model 570 series is a dispenser for hand cream, soaps, lotions or shampoos. The faucet fits standard mounts.

Delta Faucet, Greensburg, Ind.

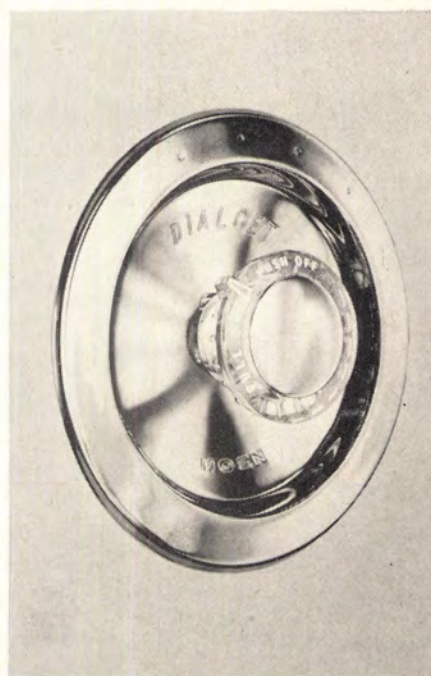
For details, circle No. 5 on coupon, p 310



Stainless steel bowl designed for powder-room use is part of Elkay's new line (H&H, Dec '59). Oval bowl can be installed in modern cabinets and countertops. Elkay sees it used in remodeling, too.

Elkay Mfg Co, Chicago.

For details, circle No. 6 on coupon, p 310



Dialcet is Moen's new valve unit to control temperature and flow for shower and tub. Extra advantage: flow may be turned off at any temperature, will still be that temperature when turned on. Unit carries a 1-yr guarantee.

Moen Faucet, Bellwood, Ill.

For details, circle No. 7 on coupon, p 310

New Mat-a-Dor vanities feature removable sliding doors and side panels for easy access to plumbing, open-back construction so pipe can run to wall, and tapered furniture legs so cabinet is 6" off the floor for easier cleaning. The series comes in a height of 31", lengths from 24" to 72", with eight Formica patterns and four colors.

Glissade, Inc, Brooklyn.

For details, circle No. 8 on coupon, p 310

Compact lavatory to fit limited space is announced by American-Standard. Called the Ledgesmere, it is available in seven colors and in three sizes (18"x15", 16"x14", 13"x13"). It can be installed as a wall-hung unit, or with metal legs and towel bars. It has a back shelf for toiletries, plus an integral soap depression.

American-Standard, New York City.

For details, circle No. 9 on coupon, p 310

Ledge-back lavatory by Eljer has a concealed front overflow. Called the Blair, it comes in seven colors and in three sizes (19"x17", 20"x18", 24"x20") and can be installed with or without legs (manufacturer recommends legs for the largest size). Integral china brackets are punched to receive the anchoring screws, give extra support.

Eljer, Pittsburgh.

For details, circle No. 10 on coupon, p 310



Bathroom cabinets for use as vanities are being marketed by Scheirich in addition to their line of wood kitchen cabinets. You can make up your vanity in almost any length because modular cabinets are available in 12", 15" and 18" widths.

H. J. Scheirich Co, Louisville.

For details, circle No. 11 on coupon, p 310



Hollywood, the latest addition to Miami-Carey's line of mirror-cabinets, has the cabinet below the mirror for easy access to toilet articles, plus convenience of a projecting shelf. Height is 32", widths from 18 1/4" to 48 1/4", depth is 4 1/2".

Philip Carey Mfg Co, Cincinnati.

For details, circle No. 12 on coupon, p 310



Kohler's round lavatory has been designed to add a touch of luxury to the budget-priced bathroom. Called the Radiant, it is 18" in diameter, has a concealed front overflow and ledge-mounted fittings. The basin is 14"x12" and 6 1/2" deep.

Kohler, Kohler, Wis.

For details, circle No. 13 on coupon, p 310

continued

INTERIORS—now they get their finish in the factory

New plywoods, new hardboards, new plastic laminates—many of them in new forms—are cutting interior finishing time to a minimum and bringing the look of fine paneling to the mass housing market. New developments in glass are also making possible fresh decorative treatment and new control of light, heat, and sound transmission.



New wall panels have a plastic face

Micarta, one of the original plastic laminates, is now combined with particle-board backing in a new wall panel system. Panel Wall comes in 16"x96" t&g sections 0.55" thick, that can be stapled directly to studs. In the test installation shown above, a 7'x12' wall went in place in 72 minutes. The pressed cellulose backing has been

treated against fire, termites, rot, etc., and incorporates a moisture barrier on the back face. Micarta faces in the introductory line include four wood grains and seven patterns. Panel Wall is priced to builders at 72¢ to 80¢ a sq ft with volume discounts.

Westinghouse, Hampton, S. C.

For details, circle No. 14 on coupon, p 310

Furniture finish on a plastic laminate is claimed as a first by Swedlow, Inc. Matte-finished polyvinyl alcohol casting film is laid over photoprinted grain, will resist boiling liquids, grease, solvents. New Kevinite wood grains include honey birch and cherry. Sheets and rolls come 30" and 36" wide.

Swedlow Inc, Youngstown, Ohio.

For details, circle No. 15 on coupon, p 310

Poly-Clad moldings, in nine styles and 12 wood grains, are now available to match the Plywall prefinished paneling. Complete line includes panels ¼" thick, in 4' widths, 8' and 10' heights.

Plywall Products, Ft Wayne.

For details, circle No. 16 on coupon, p 310

Celotex hardboard panels now come in three new shades to add to its Decorator Walnut Finish. Now available are blond walnut, russet walnut, and natural walnut to complement bleached walnut finish introduced last year.

Celotex, Chicago.

For details, circle No. 17 on coupon, p 310

Evanite Panel 4 hardboard is factory-finished in ivory. It can be used directly as a finished product, or painted in any color. Grooves are 4" or 8" oc. Shiplap panels are applied with matching color nails. Panels are 4'x8'x¼".

Evans Products, Corvallis, Ore.

For details, circle No. 18 on coupon, p 310

Flexible room divider is formed by a curtain of brightly colored steel streamers in a new accessory designed by George Nelson for Howard Miller. Ribbon is available in seven colors and in any length; track is available to your measurement. A 6'x8' curtain will cost about \$75.

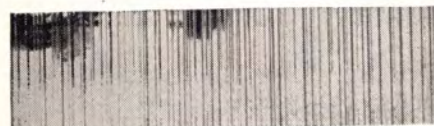
Howard Miller Clock, Zeeland, Mich.

For details, circle No. 19 on coupon, p 310

Cardenas Ring Panel is a translucent plastic panel, with insets of ring or honeycomb design. The panels can be used as room dividers, interior doors, or light-transmitting walls. The panels come in a variety of sizes, and in thicknesses from ⅞" to 4½".

Evergreen States Forest, Tacoma.

For details, circle No. 20 on coupon, p 310



New textured glass in 32 patterns designed by Paul McCobb has just been brought out by American-St Gobain. Designs include beaded, sanded, dimpled, ridged, and geometrical patterns in flat, wired, and corrugated sheets up to 60"x136" in size.

American-St Gobain, Pittsburgh.

For details, circle No. 21 on coupon, p 310



Textured laminates have a new satin finish that shows wear and dirt less readily and, in woodgrains, looks more like the natural product. Textured Textolite comes in colors, patterns, and grains from regular Textolite line in standard sheet sizes.

General Electric, Schenectady, N.Y.

For details, circle No. 22 on coupon, p 310



Laminated glass is made of two layers of plate glass bonded with a vinyl butyrate inner layer. Decorative imbedments are held in the sandwich. Vinyl butyrate not only prevents shattering but in special formulations can act as light, heat, and sound insulation.

Dearborn Glass, Bedford Park, Ill.

For details, circle No. 23 on coupon, p 310

Barcwood wood-grain paneling is impervious to most kinds of household damage: it will not chip; it resists heat, moisture, and stains; and it is quickly cleaned with a damp cloth or sponge. Hardboard-backed plastic laminate panels are available in seven wood grains, 4'x8' size, with matching moldings.

Barclay Mfg Co, New York City.

For details, circle No. 24 on coupon, p 310

Lamidall AC is a new fire-safe plastic-laminate wall panel. The plastic surface, bonded to 1/8" asbestos-cement board base, comes in a variety of decorative patterns, woodgrains, and marbles, in 4'x8' and 4'x10' sizes. They install with adhesive on any smooth surface. Matching mouldings are also available.

Woodall Industries, Skokie, Ill.

For details, circle No. 25 on coupon, p 310

Knotty pine squares for walls or ceilings are available to give an old-fashioned look to interior walls when used as wainscoting. The panels are 16"x16", 3/4" thick, with a beveled edge, are installed in the same way as other ceiling tile. Also available in maple, or unfinished for painting or staining.

Yield House, N Conway, N.H.

For details, circle No. 26 on coupon, p 310



Formica Tidestone is a new plastic laminate pattern created by Raymond Loewy Assoc, one of 16 new colors and patterns being introduced in 1960. The pebble pattern comes in natural colors—tans, browns, olives—in irregular stone shapes.

American Cyanamid, Cincinnati.

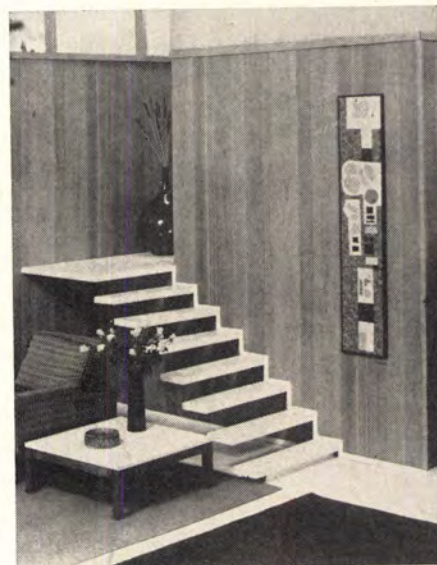
For details, circle No. 27 on coupon, p 310



Nickey Naturalwood Walls are a new hardwood plywood paneling. "Heritage Hewn" is random-matched veneer in 48"x96" sheets. "Vee Forty-8" is random grooved in 48"x84", 96" or 120" sheets. Both have a low sheen, penetrating vinyl finish.

Nickey Brothers, Memphis.

For details, circle No. 28 on coupon, p 310



Masonite 400 Series is a new group of wood-finish interior hardboards. First release—early this month—will be cherry-grained board in three shades. Patterns will be varied plank-to-plank to simulate natural paneling. Panels are t&g, 1/4" thick, 16"x96".

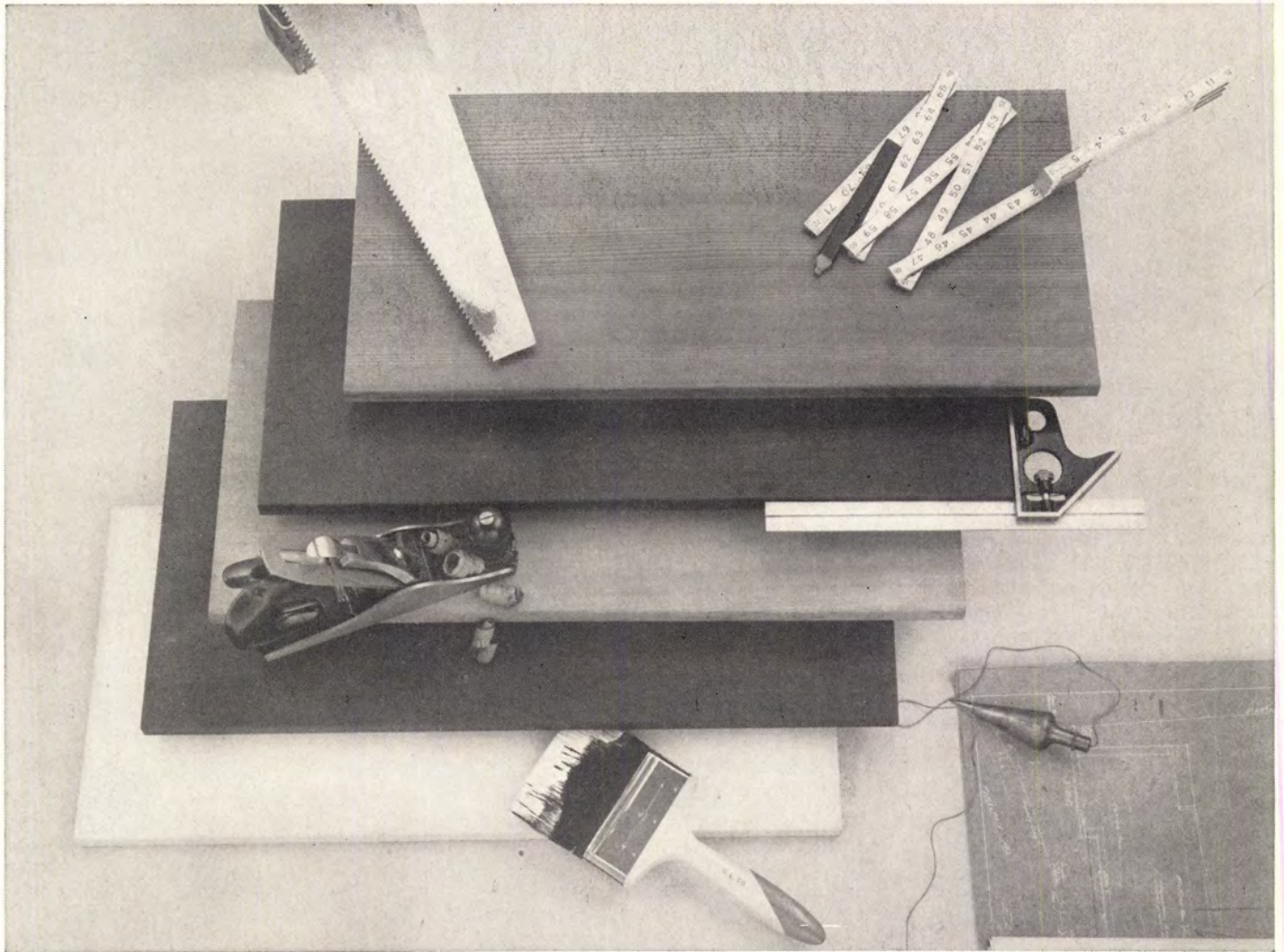
Masonite Corp, Chicago.

For details, circle No. 29 on coupon, p 310

continued

STRUCTURAL PRODUCTS—more “pieces” become “parts”

In the strong trend to component manufacture (see p 150) more and more products are doing multiple jobs: sidings combine finish and sheathing, decking combines structure and insulation, insulation products combine all three. Aluminum is being fabricated into more and more house parts, but wood and wood products are answering with new technology to extend their uses.



Now redwood sliding comes pre-primed, prefinished

California redwood now comes in a variety of factory-applied finishes. Above, top to bottom, are white prime, autumn brown, driftwood gray, sequoia red, clear water repellent. New Life-coat process is claimed to save up to

40% in finishing costs. Also new from Simpson are plywoods with resin-impregnated overlays. Medium-density Crezon overlays eliminate sanding, sealing, patching, speed painting. High-density Kimpreg overlays give tough, glass-

smooth surfaces for heavy-wear uses like formwork, worktops, shelving, laundry chutes. Decorative plywoods are also prefinished with plastic laminations.

Simpson Logging, Seattle.

For details, circle No. 30 on coupon, p 310

Alside foil is a special, thick reflective insulation. It is deeply embossed so that cells of air are trapped under the sheet. Small breather slots in the foil allow moisture to escape, preventing condensation problems. Foil's rigidity is claimed to make it easier to handle for use on exterior walls.

Alsides Inc, Akron.

For details, circle No. 31 on coupon, p 310

Upson Trim-Belt is a combination of two $\frac{3}{8}$ " laminated wood-fiber boards for use in fascias, trim, and rakes. It is white primed on both faces and edges at the factory; one or two field coats complete painting. Trim-Belt comes in 12' to 16' lengths in 6", 8", 10", 12" widths without grain or knots.

Upson Co, Lockport, N.Y.

For details, circle No. 32 on coupon, p 310

Bestile has a new line of aluminum panels for patio or porch roofs. New panels are made from Kaiser's Diamond-Rib sheet or embossed corrugated roofing. Lower faces are finished in colored baked plastic; outer surface has green pre-paint treatment. Diamond Rib comes 50.3" wide, 8', 10', 12' long.

Bestile Mfg Co, Ontario, Calif.

For details, circle No. 33 on coupon, p 310

Dow's Scorbord now comes in thicknesses of 1", 1¼", 1¾", 2" to meet the new FHA-MPS requirements for perimeter insulation. Boards 2' wide are scored at 4", 12" and 18", cost 11¢ to 15¢ a bd ft.

Dow Chemical, Midland, Mich.

For details, circle No. 34 on coupon, p 310

New Hines siding combines the good painting surface of hardboard, the dimensional stability of plywood, and the longitudinal strength of lumber. Precision-cut rabbet makes boards self-aligning, together with 11½" exposure cuts installation time. On studs 16" oc, All-wood Allweather siding can be used without sheathing.

Edward Hines Lumber, Chicago.

For details, circle No. 35 on coupon, p 310

Keystone soffit and fascia is assembled from interlocking batten-type panels with built-in, screened, ventilating louvers. Chemically treated aluminum assembly is painted any of 12 colors.

Keystone Alloys, Derry, Pa.

For details, circle No. 36 on coupon, p 310



Reynolds soffit and fascia are new units in "House of Ease" package. Gutters and downspouts, siding, shutters, and screens on this house, as well as shingles, windows, ductwork, flashing, thresholds, and hardware are all included in the program.

Reynolds Metals, Richmond, Va.

For details, circle No. 37 on coupon, p 310



Redwood siding is now made in a reverse board and batten, smooth on one side, resawn on the other. Textured face takes paint better, resists weathering, hides scuff marks. Boards are ¾" thick, battens ⅜" thick, to give more coverage per board foot.

Calif. Redwood Assn, San Francisco.

For details, circle No. 38 on coupon, p 310



Ceiling tiles have appeared in a great variety of plain, perforated, fissured, and decorated styles during the past year and more are being introduced now. Because it is impossible to show all of these products, many of which are of comparable quality, we have listed the major manufacturers below. You can get more information about these tiles by checking on the coupon, page 310, the number which appears after the manufacturer's name:

Armstrong Cork, Lancaster, Pa. 39A
Barrett, New York City. 39B
Bestwall Gypsum, Ardmore, Pa. 39C
Philip Carey Mfg Co, Cincinnati. 39D
Celotex Corp, Chicago. 39E
Flintkote Co, New York City. 39F
Insulite, Minneapolis. 39G
Johns-Manville, New York City. 39H
Kaiser Gypsum, Oakland, Calif. 39I
Keasbey & Mattison, Ambler, Pa. 39J
National Gypsum, Buffalo. 39K
Owens Corning, Toledo. 39L
Simpson Logging, Seattle. 39M
US Gypsum, Chicago. 39N
Wood Conversion Co, St Paul. 39O



Rilco decking is laminated with face plies of Idaho white pine or inland cedar in nominal 1" thickness. Boards are end-matched to make strong joints midspan. Deck comes 3x6, 4x6, and 4x8. Moisture content is held to 12%.

Rilco, St Paul.

For details, circle No. 40 on coupon, p 310



Ruberoid has added a wood-grain texture to its Vitramic asbestos-cement siding. Vertical lines in the vitreous ceramic surface suggest smaller shingles, conceal joint lines. White and six colors.

Ruberoid Co, New York City.

For details, circle No. 42 on coupon, p 310



Potlatch decking is made of new glued-up lumber that can be made in almost unlimited lengths. Stock now being made (used above) is 1¾" thick, 22" wide, 16' long. Plylumber can span 8' between trusses.

Potlatch Forests, Lewiston, Idaho.

For details, circle No. 41 on coupon, p 310



Carey siding has a new colorstyle textured shingle. Styletex comes in seven colors and white, protected by an organic resin finish. Shingles can be washed with detergent and water.

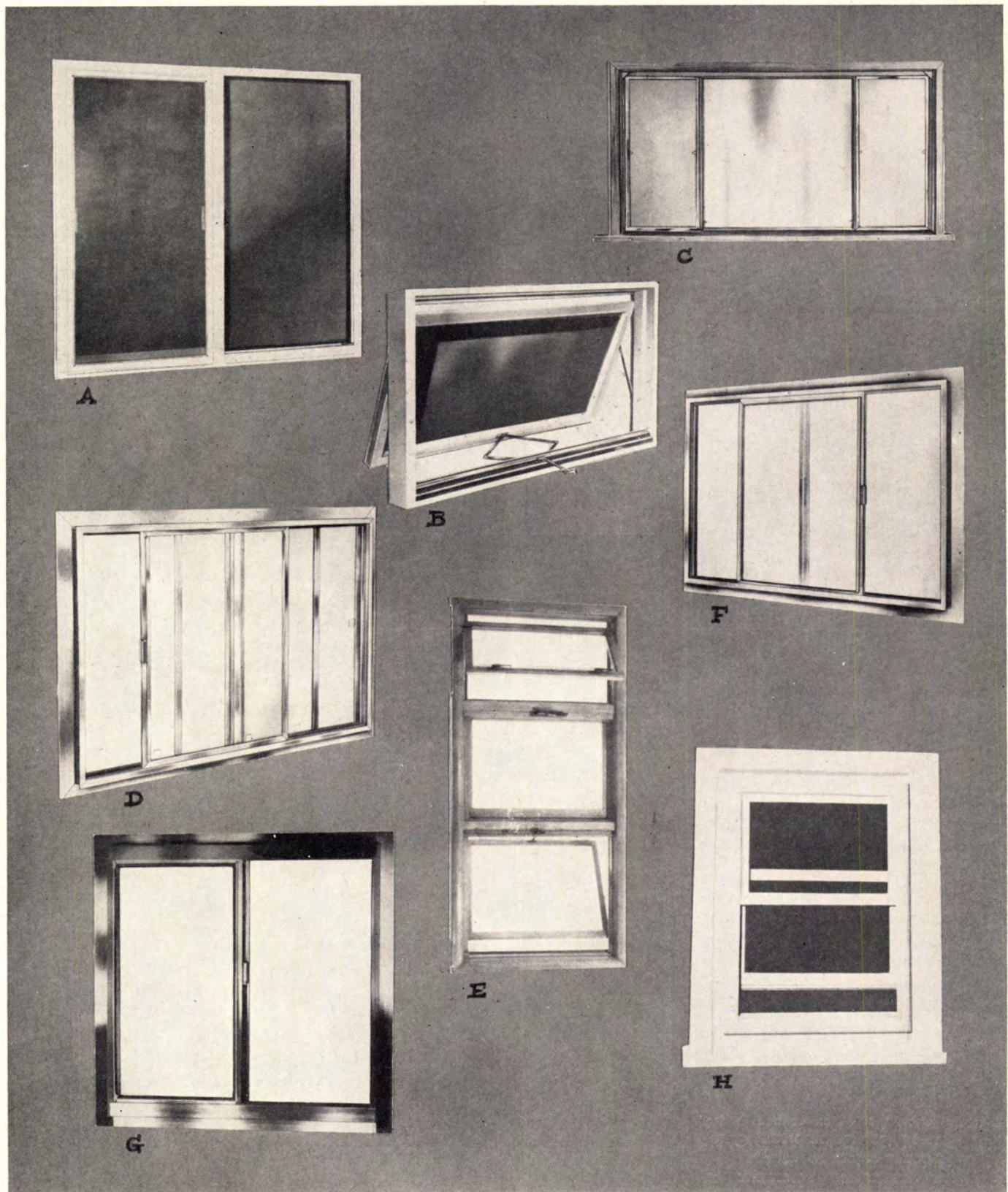
Philip Carey Mfg Co, Cincinnati.

For details, circle No. 43 on coupon, p 310

continued

WINDOWS—more sliders, more use of plastics lead the trends

And more use of multiple track makes self-storing storm sash and screens a part of the prime window. Rigid vinyl and similar plastics are being used for both low-friction tracks and for the whole sash. Sliding assemblies, both vertical and horizontal, as well as fixed pane and awning-vent combinations are a popular answer to demand for more glass area.



← **A**

Rusco doors and windows are now available in white, grey, black, or any of 19 stock colors. Colored finishes are baked enamel on aluminum or steel. Additional colors to order.

F.C. Russell Co, Columbiana, Ohio.
For details, circle No. 44 on coupon, p 310

← **B**

Biltwell's new awning has sliding hinge, in new gold-tone finish, that allows easy sash removal. New hinge is fully concealed when sash is closed for extra protection against prowlers.

Caradco Inc, Dubuque, Iowa.
For details, circle No. 45 on coupon, p 310

← **C**

Plyco is adding four new styles and sizes to its Plastiglide sliding window line. New sliders have a center fixed light, with flanking operating sash. 25 sizes now available.

Plyco, Elkhart Lake, Wis.
For details, circle No. 46 on coupon, p 310

← **D**

Capitol four-track slider houses both window and storm sash. Vinyl strip in the center bar prevents rattles. All panels are inserted from inside, can't be removed from outside. Both window and storm sash have full vinyl weatherstripping.

Capitol Prods, Mechanicsburg, Pa.
For details, circle No. 47 on coupon, p 310

← **E**

Vistarama windows are a new line of single frame units, combining fixed and ventilating sash with awning, hopper, or casement windows. Featured are neoprene weatherstripping, nylon awning hinges with adjustable tension, and removable grids for casement windows.

Wabash Screen Door, Chicago.
For details, circle No. 48 on coupon, p 310

← **F**

Truscon Series 700 has a new, low-cost horizontal slider with fin trim, extruded aluminum sections, stainless steel slide channels, and vinyl weatherstripping. Latch handle drops into a locking channel for protection.

Truscon Steel, Youngstown, Ohio.
For details, circle No. 49 on coupon, p 310

← **G**

Ualco aluminum slider has silicone-treated pile fabric around each ventilator. Series 60 slider has fin trim plus a deep-stepped sill extrusion, with weep holes for drainage.

Southern Sash, Sheffield, Ala.
For details, circle No. 50 on coupon, p 310

← **H**

Hide-a-Screen door and windows have Vylar plastic frames which are light, strong, inexpensive. Vylar does not contract or expand with temperature changes. It is extruded with the color impregnated, and will not pit, corrode, chip, crack or peel.

P. H. Lauer Co, Akron.
For details, circle No. 51 on coupon, p 310



New wood awning units vent or insulate

R-O-W's Vista-vent is a fixed window with roto-gear operated awning unit, comes with ½" double glazing or prime window plus storm. The line has a complete range of sizes, with three basic widths, and heights that can be

used anywhere from the tight spot over a sink to the ventilating section of a view-window (above). The inside screen is part of the basic package.

R-O-W Sales Co, Ferndale, Mich.
For details, circle No. 52 on coupon, p 310

Fleetlite sliding windows have 1¾" space between interior sash, self-storing storm sash, and Fiberglas screen to serve as insulating blanket of air. Both sash are set in a four-channel aluminum frame. The line now comes in multiples of two light units in sizes up to 14' wide.

Fleet of America, Buffalo.
For details, circle No. 53 on coupon, p 310

Alsco's new triple-track storm-screen window is designed for new construction. It is extruded from heavy aluminum, weatherstripped with Goodrich vinyl. Spring-loaded latches allow fingertip operation, rigid vinyl tilt lugs are used for long wear. Sill expander allows for custom fitting.

Alsco, Akron.
For details, circle No. 54 on coupon, p 310



Stanley single-hung window features removable lower sash for cleaning and an integral nailing fin for quick installation. Window is completely weatherstripped, comes assembled and glazed in 25 standard sizes.

Stanley Bldg Specialties, N. Miami.
For details, circle No. 55 on coupon, p 310



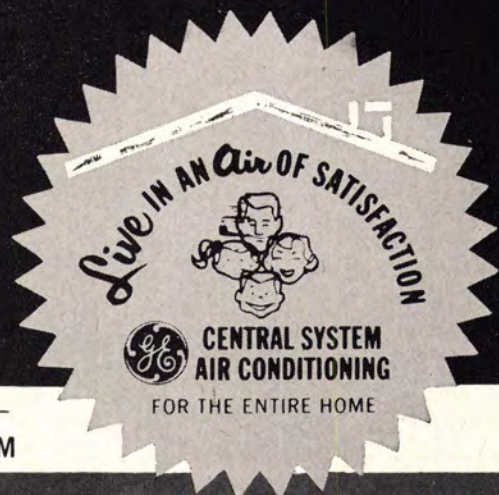
Penguin aluminum sliding windows now come with diamond-light or criss-cross muntin bars. Lead-type tape is applied between the double glazing so that the windows are still easily washable on both sides.

Peterson Window, Fernadale, Mich.
For details, circle No. 56 on coupon, p 310

continued on p 179

BUILDERS! THIS LABEL REALLY SELLS HOMES!

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To team up with General Electric's powerful "Air of Satisfaction" program, call your General Electric Heating and Air Conditioning dealer now (he's listed in the yellow pages)—or mail coupon.

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Tyler, Texas

HH-1

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DON'T MISS THE GENERAL ELECTRIC EXHIBIT AT THE NAHB SHOW—BOOTH #55

INTERCOMS get bigger, better, more complicated, more common

You may see the big NuTone stereo outfit shown below in only the finest homes in 1960, but you will see more and more monaural systems in quality houses at all levels. With one-time luxuries like dishwashers now standard equipment, intercoms are a top "extra" to talk about. Intercoms now available run from simple talk-listen systems to fine high-fidelity music systems.

Trade-Wind intercom is combined with a 7-tube AM-FM radio. The basic set includes three 2-way room speakers and a door speaker. As many as eight substations can be handled. Deluxe speakers with tweeter cones are available. Master panel is 15¼"x10¼", brushed chrome or antique copper.

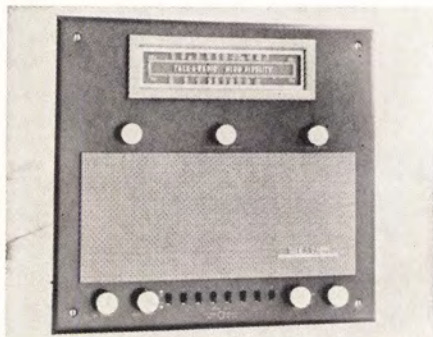
Trade-Wind, Pico Rivera, Calif.

For details, circle No. 61 on coupon, p 310

Masco Econicom is a new low-cost ten-station intercom that will work as master to remote, master to master, master to master to remote in various installation combinations. Power consumption is only 30 watts. Unit fits between studs, meets all building codes.

Mark Simpson Mfg Co, Long Island City, N.Y.

For details, circle No. 62 on coupon, p 310



New Talk-A-Radio combines high-fidelity AM-FM radio with intercom. Room speakers are 8" dual-cone units with individual tone control, master speaker is 6"x9". Radio has automatic frequency and gain control. Intercom will handle up to eight substations. Finish is copper enamel and gold mesh.

Talk-A-Radio, Dallas.

For details, circle No. 63 on coupon, p 310



New NuTone stereo system offers the works

Among its components: an 8-station intercom with a 30-w stereo amplifier, an AM-FM stereo radio tuner, stereo record changer, paired 8" coaxial speakers, back and front door speakers, an electronic door chime, a record storage cabinet, indoor and outdoor remote-control panels, and, coming in Febru-

ary, a tape recorder deck. The system is designed as a new-house built-in: all components fit between studs 16" oc. Case frames are walnut, metal parts are anodized aluminum, speaker grilles are Saran. Price: \$450 to \$1,000.

NuTone, Cincinnati.

For details, circle No. 64 on coupon, p 310

Product Show continues on page 248

And on the following pages:

Technology

Shell assembled with clamps and held together by adhesive tape . . . New uses for sprayed-on fiberglass . . . New crawl-space plenum cuts operating costs . . .
see p 211

What the leaders are doing

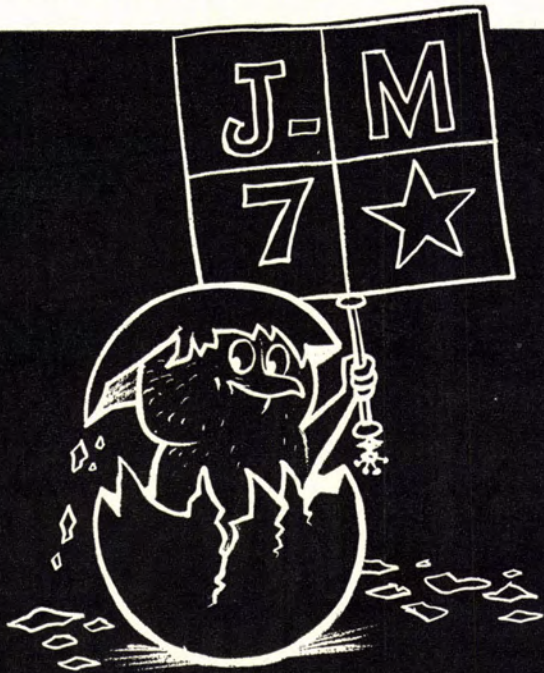
Road paver that could save \$25,000 a mile . . . Outdoor living for the apartment market . . . 21 other tips for apartment house builders . . .
see p 221

Publications

Guides to planning kitchens, bathrooms . . . Technical data on wiring, roof decking, skylighting . . . Catalogs of lighting fixtures, plastics, adhesives . . .
see p 301

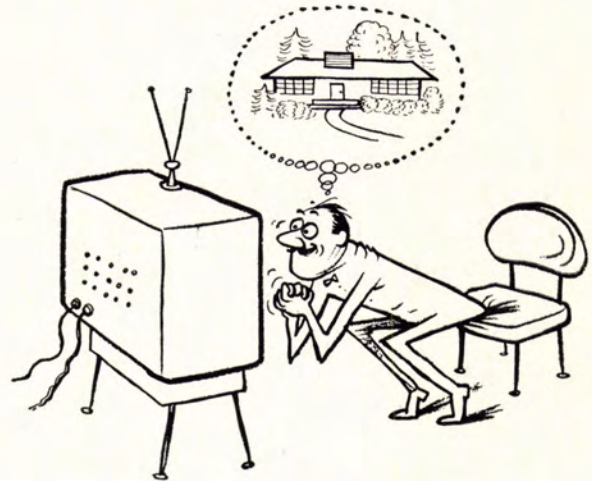
MERCHANT BUILDERS! The Johns-Manville

1



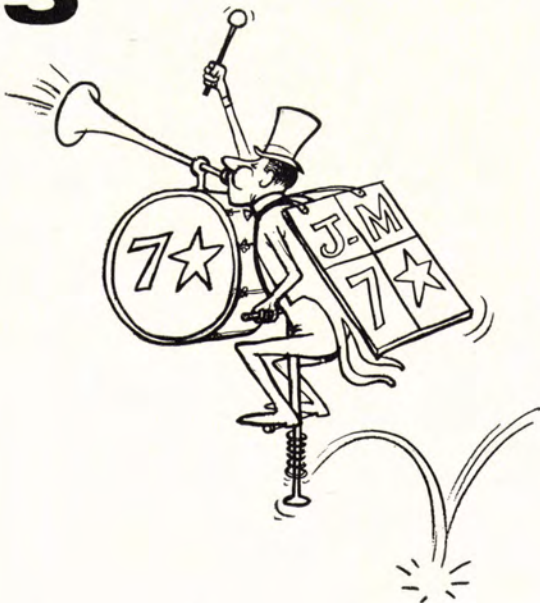
ALL-NEW! A bigger, more exciting advertising-merchandising plan to help you sell even more homes through Johns-Manville 7-Star Values.

2



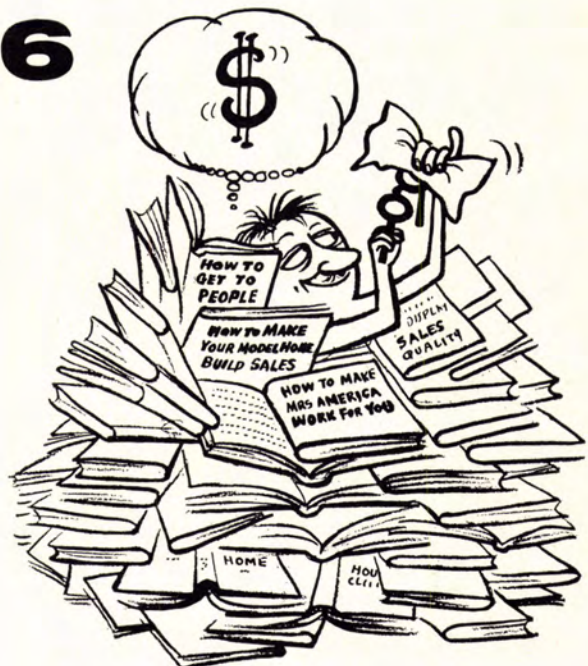
NEW! A "first" in the field! Network television with a BIG name star pre-sells your prospects on 7-Star Value Homes.

5



NEW! Improved FREE advertising and publicity in your local newspaper to direct more traffic to your 7-Star Model Home.

6



NEW! A "How To Do It" merchandising kit based on the experience of over five hundred 7-Star Builders.

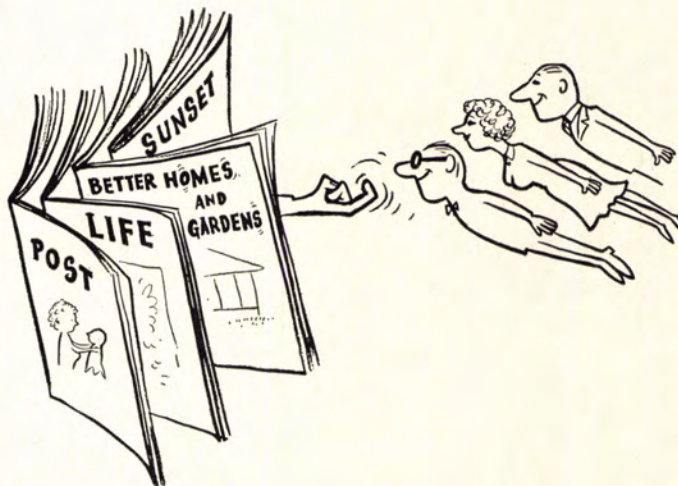
All-New 7-Star Value Program for 1960

3



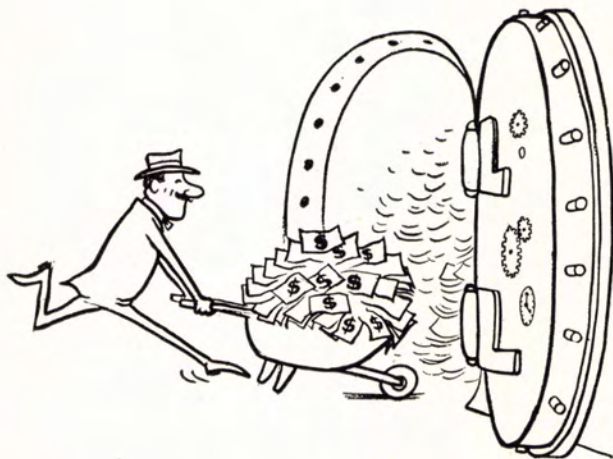
NEW! Another "first"—a "Housewarming" Gift Offer that builds traffic . . . brings prospects to your 7-Star Model Home.

4



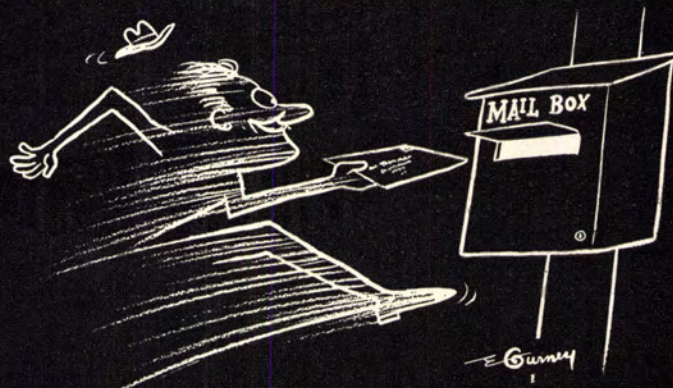
NEW! National magazine advertising "spectaculars" that publicize YOU as a 7-Star Value Home Builder featuring quality.

7



NEW dollars and profits for you—when you take advantage of this exciting, sales-proved program featuring 7-Star Values.

For Further Information, Mail Coupon Below—TODAY!



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P.S. Visit J-M Booth at N.A.H.B. Show in Chicago

LIFE tells the story of the "SILVER LINING HOME"

"WISE PEOPLE
LOOK FOR THE
SILVER LINING!"

"an important
find, as many
builders will
tell you."



When you're new-home shopping, look into the double-hung wood windows for the "Silver Lining"! Here is the silvery Zelite finish of Dura-seal Aluminum Weatherstrip and Sash Balance. Beautiful—this Zelite finish greets you with its distinctive silvery gleam at every window opening. It has lasting beauty, too, good for the life of your home! And Zelite is exclusive with Dura-Seal, the snug weatherstrip that cuts fuel and air conditioning costs as much as 30% to 40%!

Look for the "Silver Lining", always marked Zegers Dura-seal. Here's another feature making today's new home your finest investment.

*C. W. Jones, Kentucky Hills Project, Kansas City builder: "It's smart to look for the Dura-seal 'Silver Lining'. Attractive—and a sure sign of a weathertight home!"

ZEGERS, INCORPORATED
8090 S. CHICAGO AVE., CHICAGO 17, ILL.

MANUFACTURERS OF DURA-SEAL, DURA-GLIDE, TAKE-OUT, LUSTERLINE, SIMFLEX

ZEGERS

LOOK AT THE LIFE AD ABOVE! There's business in it for you. It tells 32,000,000 people all about Zegers new Zelite... the "Silver Lining"... a special finish that both beautifies and protects the entire aluminum area. Thus, Dura-seal with this and the other important features listed below, assures lifetime beauty plus weatherstripping efficiency and easy window operation.



SEND for new booklet, "Look for the 'Silver Lining'". Completely describes Dura-seal's important NEW selling feature!

ZEGERS

ZEGERS, INCORPORATED, 8090 SOUTH CHICAGO AVE., CHICAGO 17, ILL.

MORE ZEGERS DURA-SEAL PLUSES

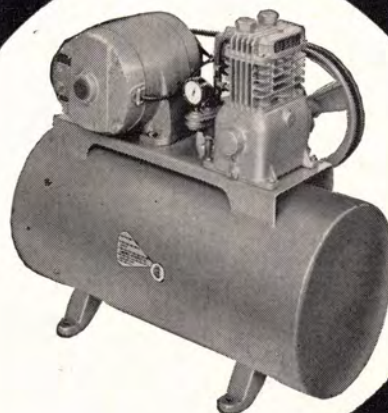
Snap-Clips—Dura-seal Snap-Clips let you remove and replace both window and sash at any time during construction.

Self-Adjusting Jamb—Dura-seal's flexible, concave-back surface keeps windows air-tight even when sash expands or contracts from atmospheric conditions.

Si-Vel "Flocked" Springs—balances at either side of the window, "flocked" for absolutely silent operation.

NEW RUGGED Campbell-Hausfeld

HIGH PRESSURE TANK UNITS



... ideal for paint and building contractors, rental, maintenance, or other hi-volume air power requirements!

- Rugged twin cylinder air compressor (2 1/4" bore x 2" stroke) ... delivers 5.4 CFM at 45 psi.
- Up to 100 psi continuous, 150 psi intermittent.
- 1 HP electric motor with automatic pressure switch, or 3 HP gasoline motor with constant speed unloader.
- 20 gallon tank. Stationary, or mobile with 10" rubber tired wheels.

Offers years of trouble-free high volume air delivery for fast sales, satisfied customers. Write for Bulletin HP 100 today!

"Whatever your paint spray needs ...

Campbell-Hausfeld has the unit for you."

The Campbell-Hausfeld Co., 305-M Railroad Ave., Harrison, Ohio

CAMPBELL-HAUSFELD



HOW TO DO IT for the home builder RESIDENTIAL CONSTRUCTION MANAGEMENT

BY ERNEST L. BUCKLEY

Senior Designer, Convair-Fort Worth.

Smart management is the key to profit and to growth for the home builder. This is the book to give you all the practical details: organization • land development • project preparation • scheduling processes • materials control • sales promotion • sub-contracts • accounting. Actual control forms are also shown. Everything is laid out so that you can use as is or adapt it easily. A real "right-hand man" for every builder.

1959. 193 pages. \$7.95

CHECK IT OVER FOR 10 DAYS FREE—write

JOHN WILEY & SONS, Inc.
440 FOURTH AVE., NEW YORK 16, N. Y.

Panel a kitchen in Weldwood and you give your whole house a quality "look"



She can feel the difference the Weldwood finish makes—an eighteen step process matched only by the makers of the finest furniture. Yet a 12-by-8-foot wall of Weldwood prefinished cherry costs only \$78, retail.



This eye-catching room paneled in Weldwood® prefinished cherry appears in ads running in Life, November 16, Better Homes & Gardens, January, and House Beautiful, February.

A *real wood* paneled kitchen! Can you think of a better place to convince a housewife that you've taken extra pains to give her the quality house she wants?

For housewives know there's a big difference between *real wood* and wood-grain substitutes. Or cheap panels with inferior finishes. In fact, when housewives enter a kitchen paneled in prefinished Weldwood,

they usually run their hand over the *real wood* to feel the quality their eye tells them is there.

The kitchen above is in cherry. But if she prefers birch—or any one of some 70 panelings—show them to her at your nearest Weldwood branch showroom or at your lumber dealer's. Samples are available for model home use, too.

WELDWOOD WOOD PANELING Softwood and Hardwood Plywood
Doors • Lumber • Finishing Materials

Product of United States Plywood 124 branch showrooms in the United States and Canada



Send for free books on paneling HH 1-60

United States Plywood
55 West 44th Street, New York 36, N. Y.

Please send me:

"Weldwood Prefinished Paneling For Fine Interiors." Shows woods, installation photographs, specifications.
"Family Rooms In Beautiful Weldwood—100 Interesting Ideas For The Room Your Family Lives In."

Name.....

Firm.....

Address.....

City..... Zone..... State.....



Regardless of the price range of your homes, you can give them the stamp of quality with built-in appliances by Westinghouse. They come in the most complete selection of models on the market today and in a wide variety of colors and finishes. When handsomely set off by Westinghouse Steel or Heirloom Maple Wood Cabinets, they create the kind of kitchen every woman wants. If you have not discovered the big consumer swing to Westinghouse, try these products in your next homes. See how your customers respond to the excitement of Westinghouse built-ins . . . to the assurance of the Westinghouse name.

Nothing helps sell **any** home faster than

WESTINGHOUSE BUILT-INS AND CABINETS



WESTINGHOUSE REFRIGERATOR-FREEZERS BUILD IN EASILY. Deluxe Refrigerators have no coils on back . . . 90° door swing within cabinet width. All models can be built-in on the job with accessory trim kits. Frost-Free automatic defrosting in refrigerator and in the freezer plus efficient Cold Injector System are featured. (RBA16)

COMPLETE BUILT-IN HOME LAUNDRY IN FOUR SQ. FT. Exclusive Space-Mates Laundromat® and matching Dryer can be built-in vertically or installed side by side, under-counter. They wash and dry 18 lbs. of clothes at the same time . . . are completely automatic. (L & D-125)



UNIQUE OVEN HAS SIDE-MOUNTED CONTROLS out of the heat zone, at eye-level. Deluxe models have Rotisserie and Serv-Temp Roast Guard. Lift-Off Doors and Plug-Out Oven Heaters on all models make cleaning easy. Available in both built-in and stack-on versions. (OAA30)



ONLY DISHWASHER THAT HEATS ITS OWN WATER TO 140°. The hotter the water the cleaner the dishes. Westinghouse Hot Water Booster provides 140° water for wash and final rinse periods. Holds service for 10. Choice of 8 front panels. (SUA24)



WATCH "WESTINGHOUSE LUCILLE BALL-DESI ARNAZ SHOWS" CBS-TV ALTERNATE FRIDAYS

Westinghouse also makes Built-In Range Platforms • Electric Water Heaters • Home Freezers • Food Waste Disposers • Automatic Appliance Centers • Room Air Conditioners.

Westinghouse
TOTAL ELECTRIC
gold medallion home



HEATING • COOLING • LIGHTING • APPLIANCES

Where everything is done electrically
. . . even the heating.

YOU CAN BE **SURE**...IF IT'S **Westinghouse**

... Send coupon for complete information on Westinghouse Appliances and Cabinets. ...

Westinghouse Electric Corporation, Contract Sales Dept.
246 East Fourth St., Mansfield, Ohio
Please send the Westinghouse literature checked:

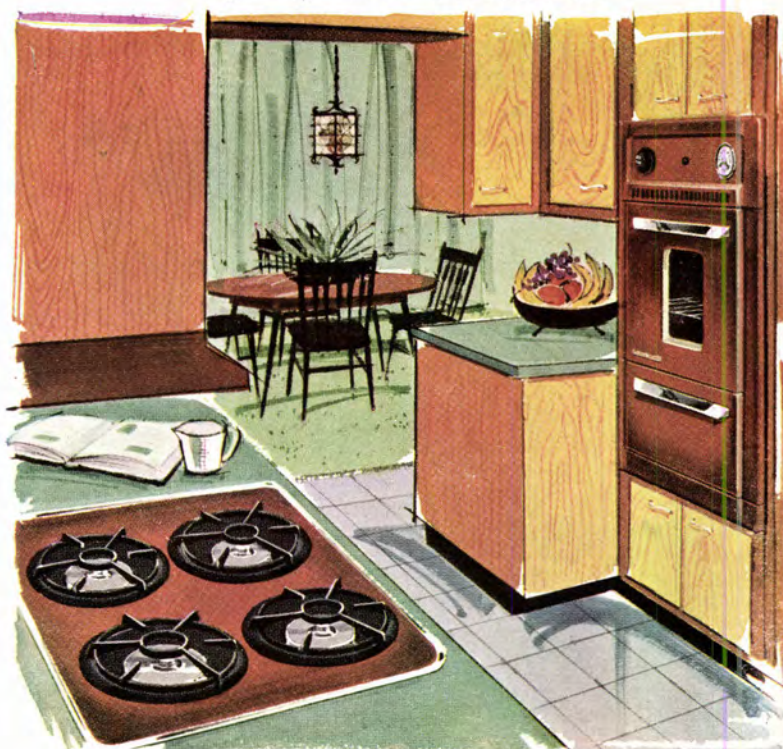
☐ Full Line Appliance Catalog ☐ Steel Cabinet Spec Sheet
☐ Heirloom Maple Wood Cabinet Spec Sheet
☐ I wish to have a representative call

Name _____ Title _____
Company _____
Address _____
City _____ Zone _____ State _____ HH1

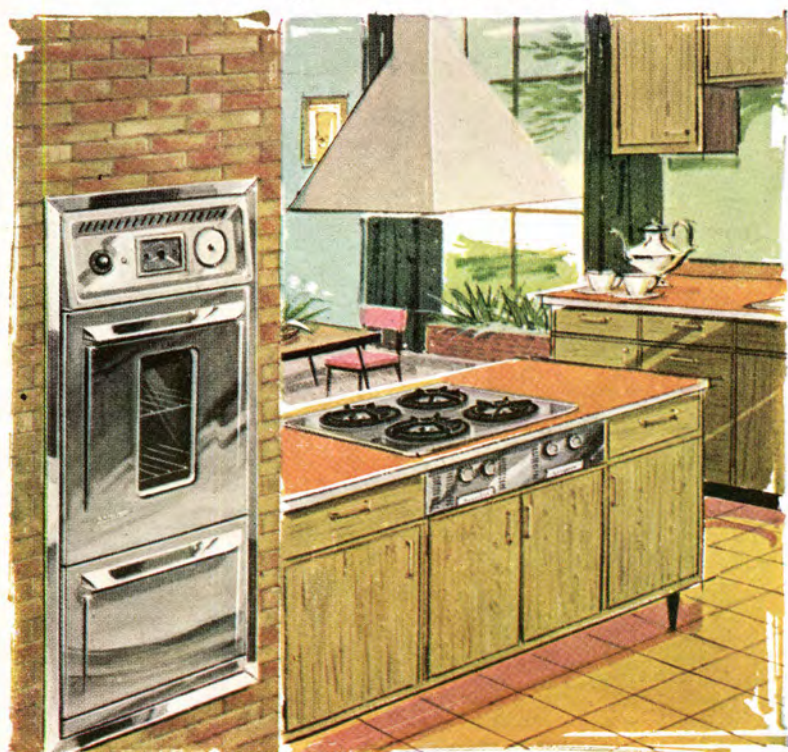
FOR \$10,000 HOMES



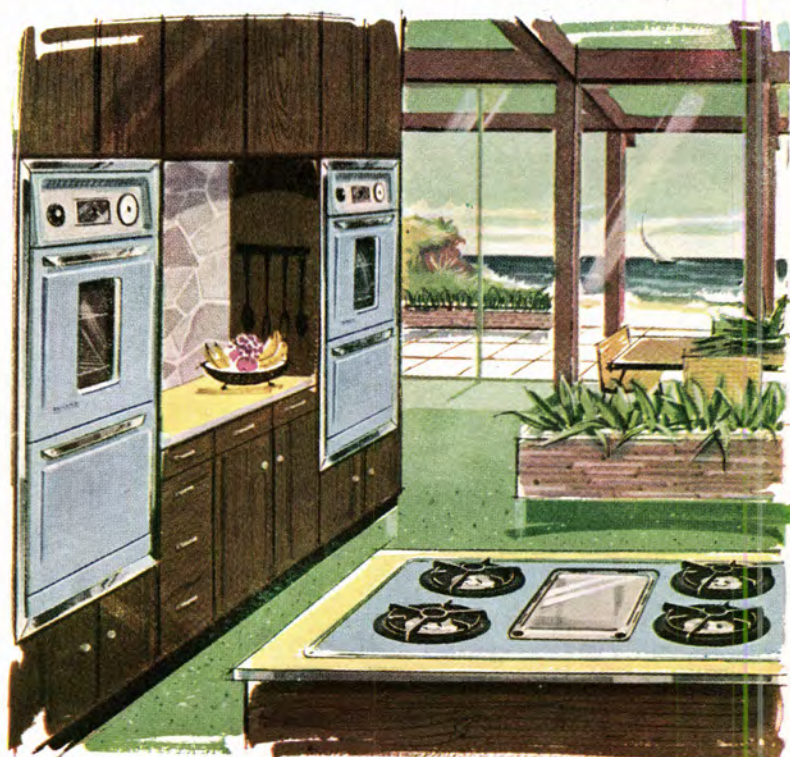
\$14,000 HOMES



\$18,000 HOMES



AND HOMES OVER \$20,000



suburban[®] BUILT-IN RANGES

GAS OR ELECTRIC—BEST VALUE AT EVERY PRICE LEVEL

Regardless of the price homes you build, you can include the sales power of Suburban and offer prospects all 36 of the features most women want in a built-in range. Here's real quality at a price you can't beat! Plus—models available in both gas and electric to fit same size cabinet opening—interchangeable.

Get your value-packed price from your local distributor. Send coupon today!

Free Color Literature!

Samuel Stamping and Enameling Company
Dept. HH-10 — Chattanooga, Tennessee

Send me complete information on Suburban Built-in Ranges ☐ Gas ☐ Electric

Name _____

Address _____

City _____ State _____





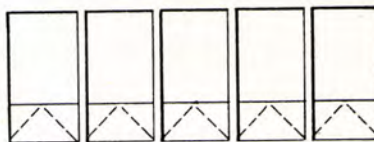
WOOD TWINLITE WINDOWS

add glamour to rec room and patio

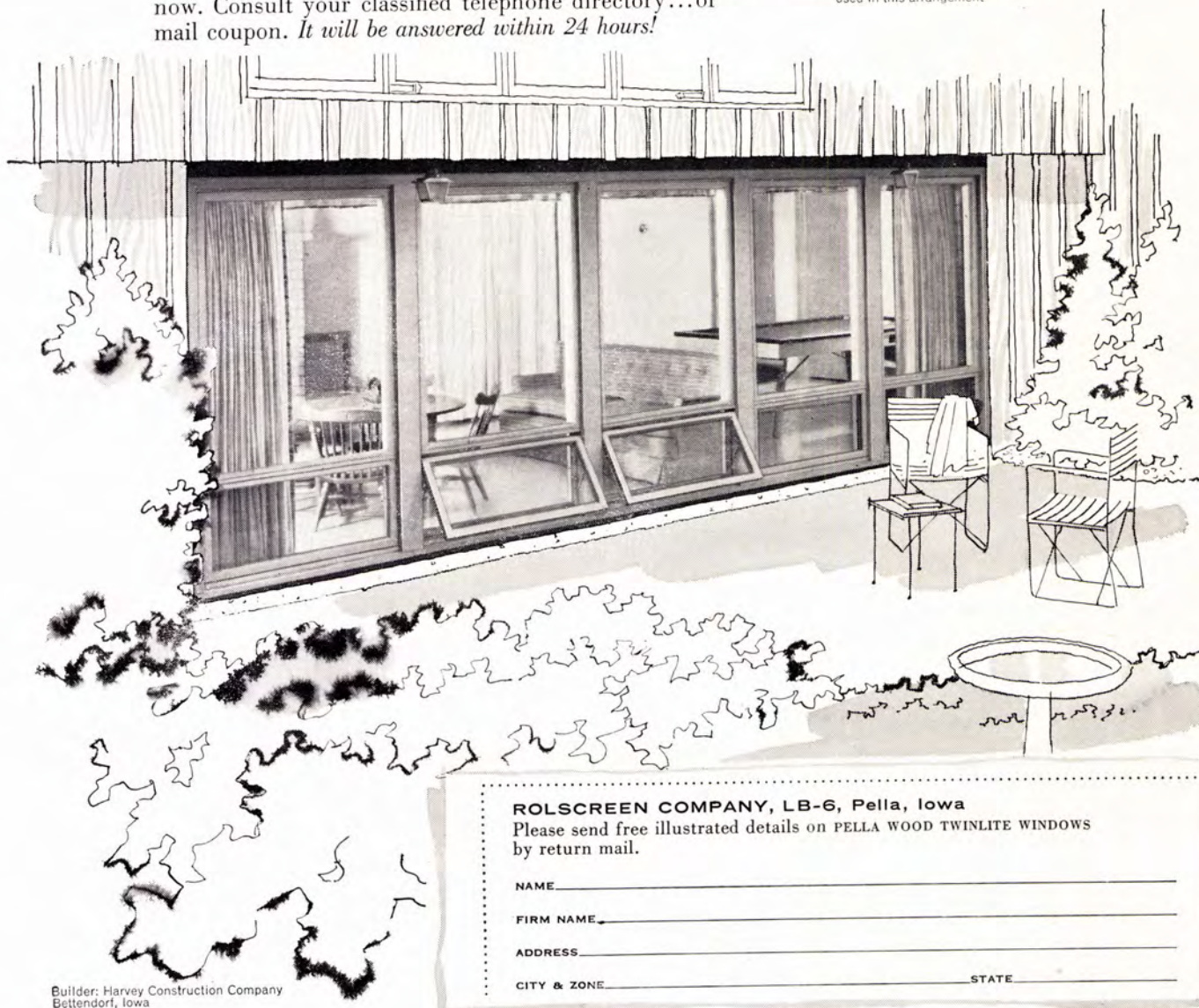
Next time you want to "dress up" a lower level rec room and patio...do it with a string of economical PELLA TWINLITES! These wood windows will always be *right* and in style.

Aside from their good looks, their convenience and quality construction can be demonstrated. It's done by simply showing prospects PELLA's exclusive GLIDE-LOCK® underscreen operator...and how it holds in 10 positions...Self storing screens and storm sash...Solid aluminum and stainless steel hardware. Removable muntin bars make painting and cleaning easier.

Put the good looks and features of PELLA WINDOWS to work on your next jobs. Call in the PELLA distributor now. Consult your classified telephone directory...or mail coupon. *It will be answered within 24 hours!*



Five No. 476 PELLA TWINLITE UNITS used in this arrangement



Builder: Harvey Construction Company
Bettendorf, Iowa

ROLSCREEN COMPANY, LB-6, Pella, Iowa

Please send free illustrated details on PELLA WOOD TWINLITE WINDOWS by return mail.

NAME _____

FIRM NAME _____

ADDRESS _____

CITY & ZONE _____ STATE _____

SEE OUR EXHIBIT . . NAHB CONVENTION EXPOSITION . . CHICAGO . . JANUARY 17-21 . . SPACE 18-19



Harris BondWood Flooring — Par Oak

Many combinations of Oak, Maple, Walnut and Cherry are available.

ADDS HAND-CRAFTED RICHNESS AT NO EXTRA COST

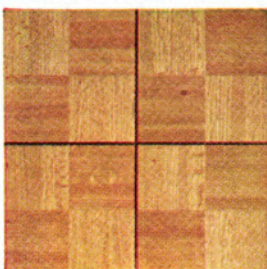
and sometimes at less cost than ordinary parquet.

All the centuries — old tradition of expert parquet craftsmanship is exemplified by Harris BondWood in gleaming expanses of pleasing geometric patterns. Sturdy Oak . . . durable Maple . . . fashionable Walnut . . . and distinctive Cherry. Easily and permanently installed in adhesive on concrete or wood sub-floor. And the beauty is deep — a lifetime of service — slats

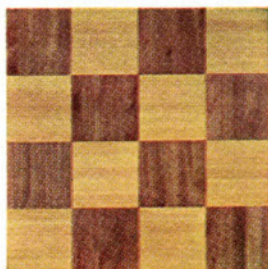
are 5/16" of solid hardwood, not tongued and grooved.

Write for color booklet illustrating the sales possibilities. HARRIS MANUFACTURING COMPANY Dept. HH10, Johnson City, Tenn. The Finest in Flooring since 1898. See our catalog in Sweet's.

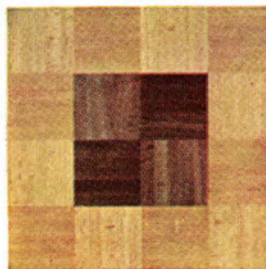
WITH DIVIDER STRIPS



CHECKERBOARD DESIGN



INSETS



HARRIS
BondWood Hardwood Floors

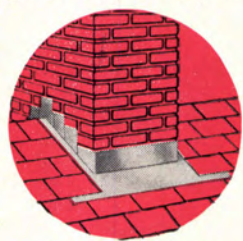
A new concept of flooring beauty

FOLLANSBEE

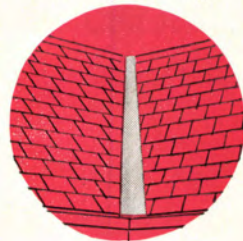
Seamless TERNE



gutter and downspout



chimney flashings



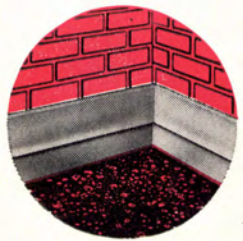
valley



window and door flashing



copings



flashings

Follansbee Terne . . . a complaint-free roofing and weathersealing metal

Every builder is aware that even minor complaints aren't good for future business—and good business is the best reason for using Follansbee Terne in the areas where inadequate materials frequently cause complaints from home owners. There are many reasons why Terne is a superior roofing and weathersealing metal . . .

First, when a roofer paints Terne, the bond between the paint and Terne's coating is excellent.—Home owners will appreciate the fact that they will not have to paint nearly as often.

Second, Follansbee Terne will last as long as the house stands. There are Terne roofs which have been in service for well over 100 years.

Third, in comparison to non-ferrous metal accessories, Follansbee Terne can be painted—a real advantage because home owners like color in such things as gutters and downspouts. Terne also gives them the opportunity to change the color of house trim to harmonize with other exterior colors.

Fourth, Follansbee Terne allows the roofer to do a better installation job.—It's easy to work with, solders perfectly because of its tin-lead alloy coating.

Fifth, Follansbee Terne requires fewer expansion joints than necessary with non-ferrous roofing metals—only one every 30 feet as compared to 8 for one metal and 3 for a second.

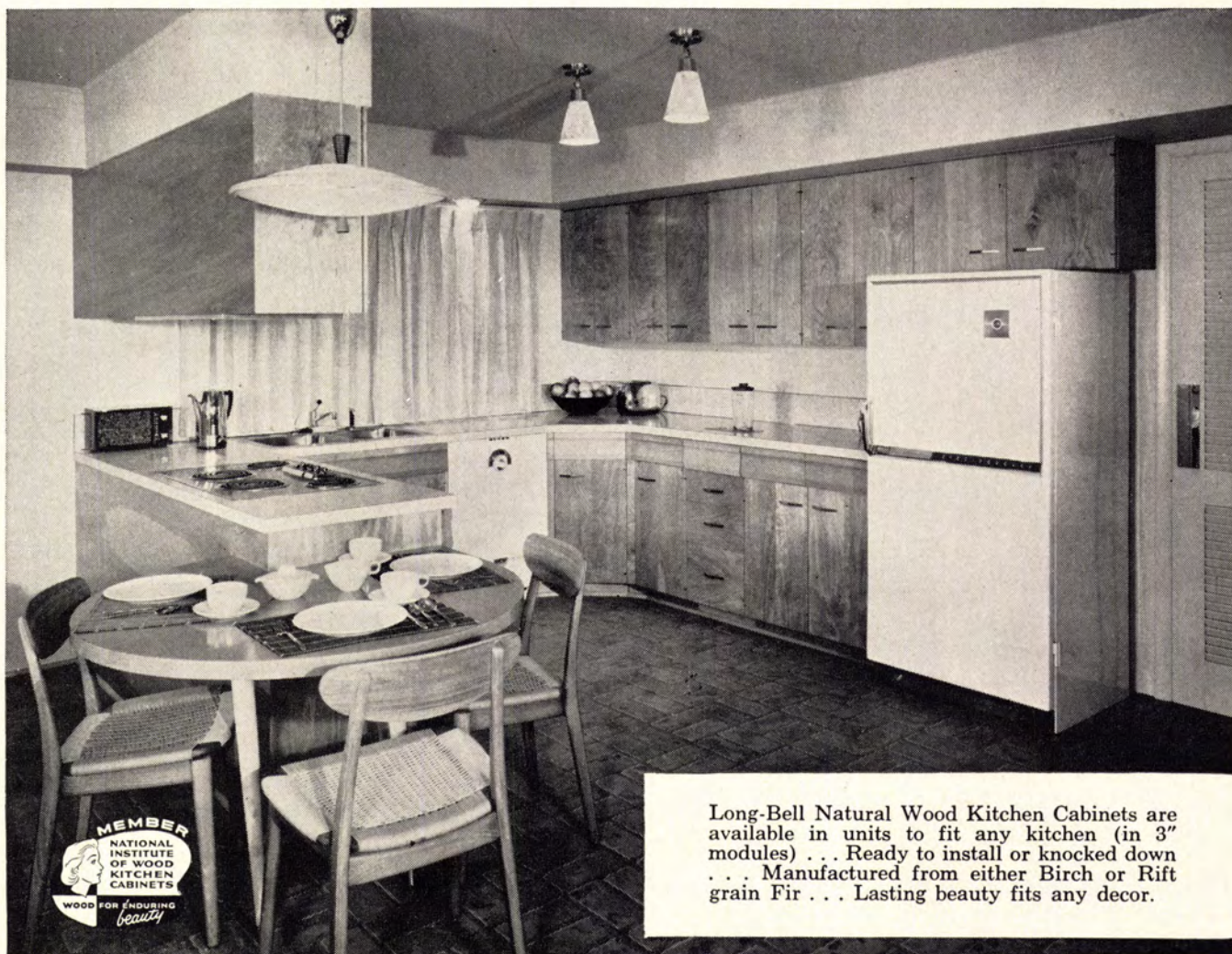
Sixth, Follansbee Terne, whether used for the complete roof or only for accessories, has advantages that your salesmen can point to in selling prospective buyers.

Using a competitively-priced, quality material like Follansbee Terne is good business—and helps make other sales possible. Ask your roofer or sheet metal contractor about Terne, or write

FOLLANSBEE

STEEL CORPORATION

Follansbee, West Virginia • Sales Offices in Principal Cities



Long-Bell Natural Wood Kitchen Cabinets are available in units to fit any kitchen (in 3" modules) . . . Ready to install or knocked down . . . Manufactured from either Birch or Rift grain Fir . . . Lasting beauty fits any decor.

Give her more kitchen for the money ...and clinch more high-volume profits

The "extra" features neatly tucked into Long-Bell Kitchens are *sales clinchers*.

These are just a few of the quality features—made by Long-Bell—to give you "Extra" profits:

Slide Out Shelves—no fishing nor groping

Utility Rack—holds all flat items

Removable Shelves—makes cleaning easier

Bread Board—at sit-down height

Food Grinder Mount—place on any L-B drawer

Elevated Oven Cabinet—for stand-up convenience

"Bar End" Shelves—stylish and utilitarian

Vegetable Bin—for better preservation

"Lazy Susan"—items never out of sight

Automatic Towel Rack—for positive convenience

Breakfast Bar—makes snack serving easy

Desk—office for Mrs. Homemaker

Money-Saving News! The new "Super Microseal" process is now applied to all Long-Bell Natural Wood Kitchen Cabinets (set up or knocked down). This revolutionary process gives the true brilliance of hand-rubbed wood . . . yet saves you 75% of the completed finishing job. Low-cost "Super Microseal" needs no additional sanding . . . no sealer coat . . . no preliminary finish coat.

INTERNATIONAL PAPER COMPANY
Long-Bell
DIVISION

Kansas City, Mo.

Longview, Wash.

see our exhibit booths 577-78-79





“What’s
behind
the new
name...?”

WASTE KING

UNIVERSAL

ER is
build. It's the
most advertised
 disposer name, with a long history of
free performance. That's why nearly
on families own a Waste King/Universal
Disposer... more than any other make.

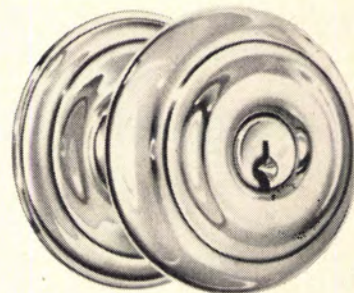


NEW FROM SCHLAGE

Colonial and Georgian
lock designs in the
traditional manner

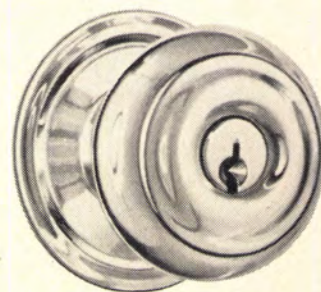


SONATA DOOR BY SIMPSON



COLONIAL DESIGN

Use: Custom entranceways
Trim: For heavy-duty CD locks
Construction: Cast
Finish: Brass and bronze
Rose: 2-9/16" diam.
Projection: 2-1/2"



GEORGIAN DESIGN

Use: Exterior and interior locking
Trim: For standard-duty A locks
Construction: Wrought
Finish: Brass, bronze and aluminum
Rose: 2-9/16" diam.
Projection: 2"

In building today there is a strong trend towards a new elegance. Rich and luxurious accents help sell homes to today's discerning buyers.

In response to this trend, Schlage has created the new traditional Colonial and Georgian designs. Use them to add a traditional touch to your entranceway and throughout the house.

For details see your Schlage representative or write P.O. Box 3324, San Francisco 19, California.

© **SCHLAGE** ©
CYLINDRICAL LOCKS

Schlage Lock Company Display Rooms in
San Francisco—2201 Bayshore Chicago—Merchandise Mart
Los Angeles—3467 W. 8th St. New York—Empire State Bldg.
Vancouver, B.C.—1290 Marine Drive

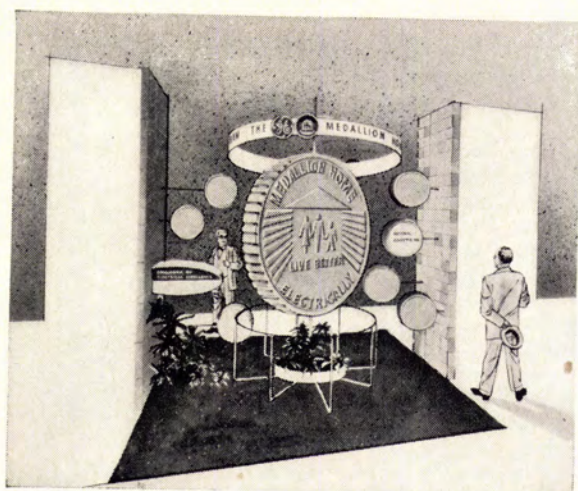
NAHB See these new designs at the NAHB Convention,
Booth #127, Conrad Hilton Hotel, Chicago,
January 17-21

The biggest news at the Builders' Show...

The New General Electric



Get the profitable facts...



At the NAHB Show, Merchandise Mart, Chicago, January 17th—get all the important facts about our plan to help you to bigger and better profits with General Electric *total-electric homes*.

A new program to aid you to plan, build and sell Gold Medallion Homes equipped by General Electric with electric heating, air conditioning, adequate wiring, light for living, major appliances for kitchen and laundry, electric housewares and electronic home entertainment.

Details for your area are being planned right now. Be sure and visit the General Electric Exhibit on Gold Medallion Homes and learn about all the wonderful benefits you can have in your Medallion home.

Gold Medallion Home Program



It opens with...

- National consumer advertising—beginning with participation in the most spectacular advertisement ever to appear in Life Magazine—9 pages in the February 8th issue.
- Trade advertising direct to lending institutions, contractors and utilities.
- Local promotional efforts to increase model home traffic and total electric home sales.
- The sales appeal of the General Electric brand name.

**GOLD MEDALLION
HOMES
EQUIPPED BY
GENERAL ELECTRIC**

Live Better Electrically

GENERAL  **ELECTRIC**



Home Sales Appeal Begins with Usable Livable Floor Space

RAYNOR *Garage-Aire*

Tailor-made to Sell Your Home FASTER

NOW — a powerful new selling tool for the homes you build . . . *usable — livable floor space* created by the addition of the exclusive NEW RAYNOR GARAGE-AIRE.

The Raynor Garage-Aire transforms the garage into new dimensions of carefree living . . . both *in and out of doors*. Complete screen enclosure eliminates bothersome summer insects.

ECONOMICAL . . . adds but a few extra dollars to the homes you build. ATTRACTIVE . . . versatile design blends harmoniously with any style architecture. RUGGED . . . frame construction of rolled aluminum rails covered with weatherproof fiber glass screen. SIMPLE and EASY TO ERECT . . . two men can install a Garage-Aire in one day or less.

MODULAR PRE-FAB CONSTRUCTION

The rugged rolled aluminum frame of the screened enclosure is prefabricated at the factory in convenient 4' x 7'6" panels, ready for installation. The complete Raynor Garage-Aire package includes Raynor garage door for rear garage wall, screened panels, access door for outside entrance to screened enclosure, by-passing screen door for front garage door opening . . . ALL components are ready for immediate "on the site" erection of the Raynor Garage-Aire.

Most Important of All

BY ADDING A 12' X 20' SCREENED ENCLOSURE ONTO A 24' X 24' TWO-CAR GARAGE, (AND REPLACING THE BACK GARAGE WALL WITH A SECOND RAYNOR DOOR), APPROXIMATELY 800 SQ. FT. OF FLOOR SPACE IS CONVERTED INTO A WONDERFUL INDOOR-OUTDOOR FUN LIVING AREA.

THE RAYNOR GARAGE-AIRE COSTS 75% TO 80% LESS THAN A SMALL ROOM OF REGULAR CONSTRUCTION. COST CAN BE REDUCED EVEN MORE IF THE GARAGE-AIRE IS DESIGNED INTO THE ORIGINAL HOUSE PLAN.



See the Raynor Garage-Aire at the Raynor Booth 428, Hotel Sherman, NAHB Show, January 17-21.

RAYNOR MFG. CO.

Dixon, Illinois

Hammonton, New Jersey

Builders of A Complete Line of Sectional Overhead Doors



NEW

 **Textured[®]**
Textolite[®] *

FOR
FLUSH
CABINET
DOORS



* a new laminated plastic finish developed by General Electric

General Electric Company
Dept. TC-1, Coshocton, Ohio

PLEASE SEND G-E TEXTURED TEXTOLITE

- ☐ Cabinet Fabrication Folder T-CDL-498T
☐ Samples
☐ Please have your representative call.

NAME _____
FIRM _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

New General Electric Textured Textolite wood-grain patterns offer a warm note of luxury to flush doors and drawer fronts of new or modernized kitchen cabinets. The soft, textured appearance eliminates glass-like glare, looks and *feels* like real wood.

Advantages in kitchen cabinet applications are: ease of fabrication on the job; show-through caused by imperfect core or glue line has been reduced; abuse resistance is high; and the textured surface reduces noticeable wear, and is easy to keep clean.

Your finish trim man can easily fabricate Textured Textolite surfaced cabinets or they can be furnished by your cabinet supplier. Mail the coupon for more

information, or contact your G-E Textolite distributor...he's listed in your yellow pages under PLASTICS. General Electric Company, Laminated Products Department, Coshocton, Ohio.

Textolite[®]

LAMINATED SURFACING



GENERAL ELECTRIC



if service land is a problem to you...

As service land becomes harder and harder to find, most of today's developers find themselves reluctantly thrown into the water business. They must dig their own wells, select their own water supply system.

The great majority of these builders choose cast iron pipe. Generally, their reasons differ—but on one important fact they all agree: cast iron pipe is built to last, to perform economically year after year.

Says Morris Glassman, chief engineer of Park Forest

Homes, Inc., Park Forest, Ill.: "If you install cast iron pipe, as we did at Park Forest, you can expect very little grief. The occasional troubles we've experienced have not been the fault of the pipe. They were normal operating experiences."

J. E. Merriam, past president of the National Association of Home Builders, agrees: "In the long run, cast iron pipe is cheaper. Sure, it adds a few dollars to the base cost per unit, but this is more than offset by the much



lower cost that maintenance and repairs require after installation."

Cement lining that assures a steady, full flow of water always...joints that remain bottle-tight through the severest pressure...and inherent ruggedness are other

reasons cast iron pipe is preferred.

Don't be fooled by pipe installation costs! Choose the pipe that will save you money in the long run...the pipe that is the choice of water works experts and consulting engineers everywhere: cast iron pipe.

Permanently yours,



CAST IRON PIPE

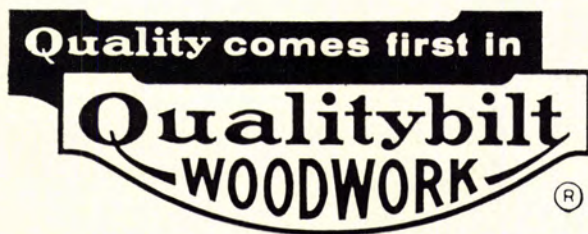
THE MARK OF THE 100-YEAR PIPE

Write for complete information to Cast Iron Pipe Research Association,
Thos. F. Wolfe, Managing Director, 3440 Prudential Plaza, Chicago 1, Ill.



**NOW ... more than
ever before ... quality
must come first!**

This is the year when your home buying prospects will demand more and more for every dollar they spend on a home. It's a year when you'll have to carefully evaluate every purchase you make to carry out your building plans. This is the year for Qualitybilt Woodwork ... because every Qualitybilt product is inherently of highest quality ... *and still competitively priced!* And, because Qualitybilt provides you with a *complete* line, you'll find additional advantages in lowered handling and shipping expenses. You owe it to yourself to get the complete Qualitybilt story NOW ... just fill out the coupon below!



Entrances • Doors • Frames • Sash • Blinds • Casements • Glider Windows • Sliding Doors • Screens
Combination Doors • Storm Sash • Garage Doors • Mouldings • Interior Trim • Sash Units • Louvers
Kitchen Cabinet Units • Cabinet Work • Stairwork • Disappearing Stairs • "Farlite" Laminated Plastics

FARLEY & LOETSCHER MFG. CO., DUBUQUE, IOWA

GENTLEMEN: Rush additional information on

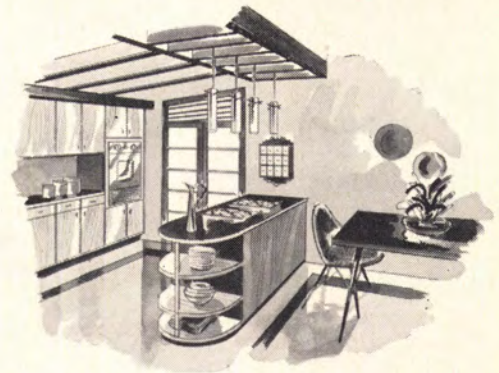
☐ KITCHENS ☐ WINDOWS ☐ DOORS ☐ OTHER _____

NAME.....

ADDRESS.....

CITY.....ZONE....STATE.....

LOCAL SUPPLIER.....COUNTY.....



BIRCH KITCHENS



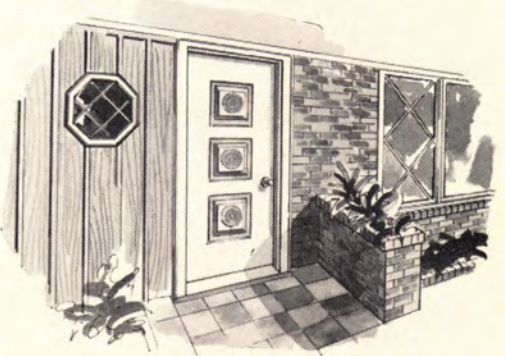
CASEMENT WINDOWS



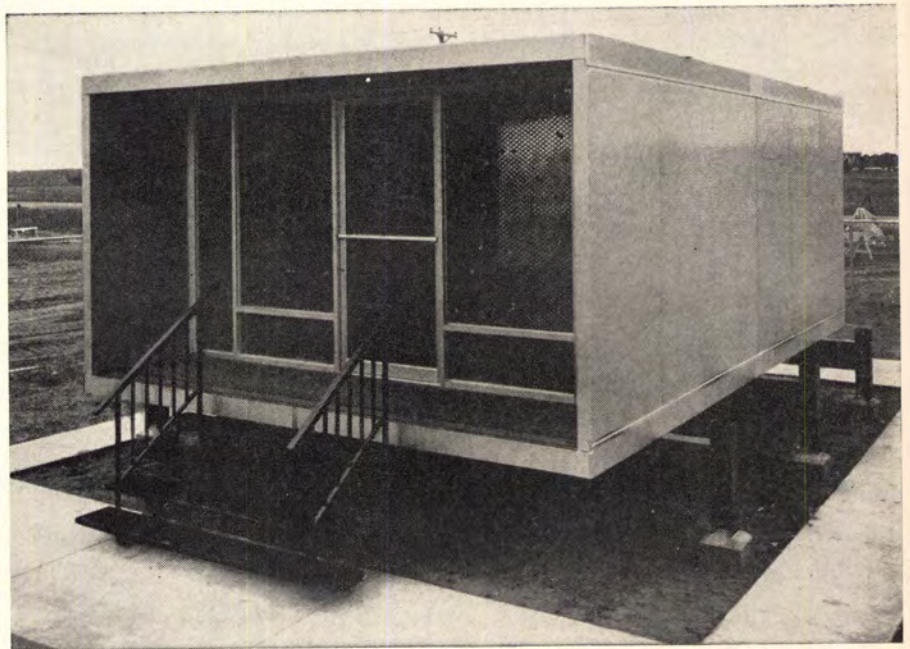
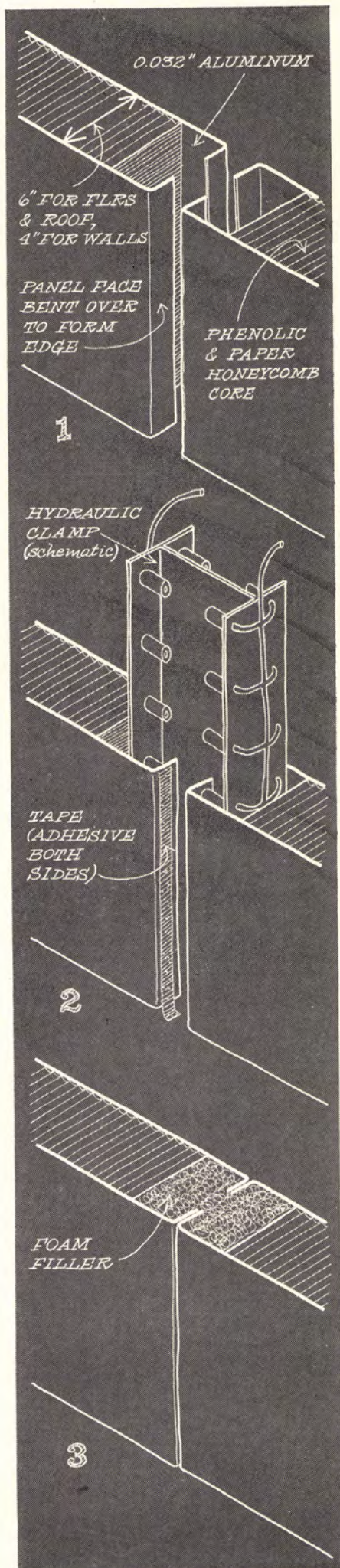
4-WAY WINDOWS



GLIDER WINDOWS



DOORS



This shell is assembled with clamps, held together by adhesive tapes

No nails, bolts, or screws were needed in the experimental shell above.

Minnesota Mining erected the building to test new adhesive panel-bonding systems. This winter, the panels and joints will get a severe test when the outside temperature drops to 20F below zero, developing a 90F temperature differential with the heated interior.

The basic construction system used is shown in the drawing at left:

1. Aluminum faced sandwich panels with paper honeycomb core are used for walls, roof, and floor. Aluminum faces are simply bent over to form a panel edge ready for bonding. (This is the cheapest way to make a good panel edge, since no special edge members are necessary.)

2. Tapes with adhesive on each side are applied to cleaned panel edges and a special hydraulic clamp—8' long with double acting cylinders every 6"—is inserted in the panel joint. (Clamp drawing is schematic, not actual.) Electric strip heaters—powered by an arc welder and integral with the clamp—provide the heat required to bond the thermosetting adhesive. Clamp was operated at 100 lbs per linear in. pressure and at 200F to 375F. Joints can be made in any weather.

3. Hydraulic clamp is removed, panels erected, and joint filled with an expandable plastic foam. There is no metal path to conduct heat through the wall. Although there are no sup-

porting extrusions, the I-beam formed by the bond makes a rigid support for the joint area. (This kind of joint could be used with any sandwich core.)

Joints between roof, walls, and floor are also simple

The building rests on three I-beams, bolted to piers which support the structure. A continuous foundation was not necessary because the whole shell weighs less than 1,000 lbs.

The shell is held down to the I-beams with plates bonded to floor panels and extending under the beam's flanges. A rubber-base sealing tape is used between the floor panels and I-beams to permit these members to expand and contract at different rates.

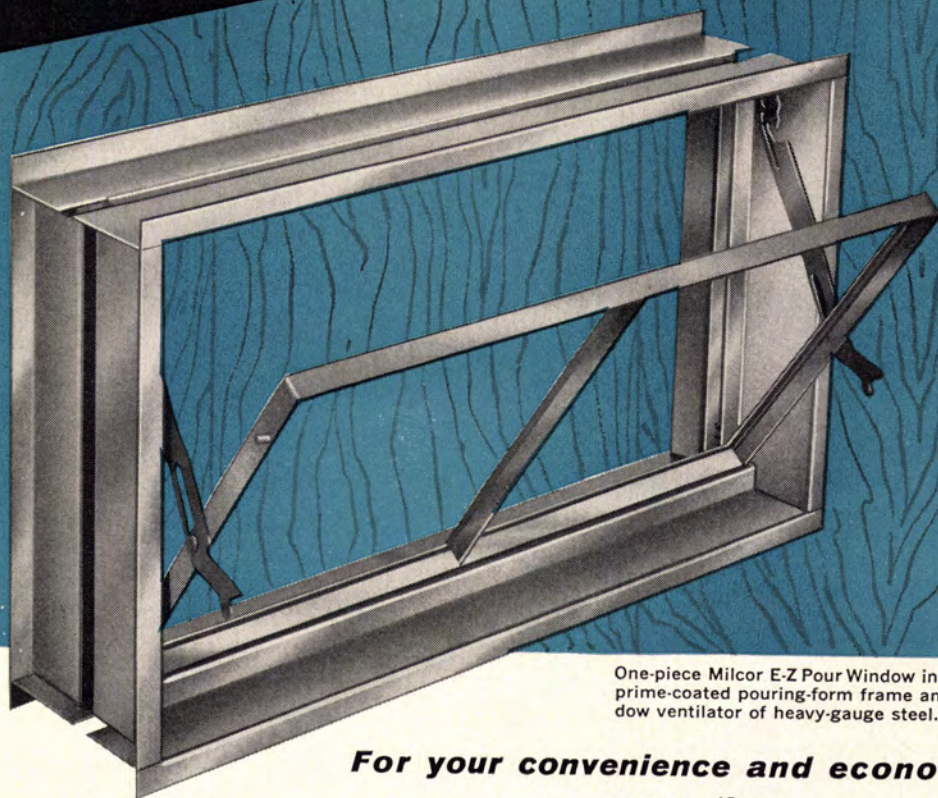
The bond between roof, walls, and floor is more a positioning bond than a structural joint. Top and bottom wall edges were fitted with a channel cap to provide alignment to floor and roof panels. An adhesive tape placed along the edge of the floor bonds the wall to the floor. There is no racking stress in the joint. The tape bond requires no additional heat, and the weight of the wall is enough pressure.

The roof simply rests on the walls with a bonding tape at the joint.

A special adhesive is used for all end-wall joints for two reasons: 1) end walls take the full racking load of the building, and 2) the cumulative effect of manufacturing tolerances in panels shows up at the end walls, so the adhesive must take up any slack.

continued on p 213

*For poured
concrete
construction*



One-piece Milcor E-Z Pour Window includes prime-coated pouring-form frame and window ventilator of heavy-gauge steel.

MILCOR E-Z POUR BASEMENT WINDOWS GO IN FAST

... cut your labor costs

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Eliminate Window Bucks — Save cost and inconvenience of cleaning, repairing, oiling, storing, hauling. No patching rough edges of openings. No caulking.

Attractive Self-Cased Opening — Neat, durable sill and frame, primed with alkyd baked enamel — adds another quality feature to your selling story.

Milcor E-Z Pour Windows can also be used in concrete-block construction. Made in three standard sizes and in frame widths to fit wall thicknesses from 5 $\frac{5}{8}$ " to 10". Available through your building supply dealer. Write for Milcor Catalog No. 260.

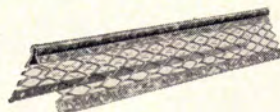
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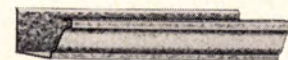
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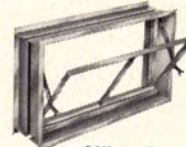
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New crawl-space plenum cuts operating costs

New ductless system, used by Fresno (Calif.) Builder Oscar Spano for heating/cooling his \$12,000 houses, saves buyers 25% to 30% operating costs.

In the new system, air is disbursed from furnace directly into the crawl space chamber. It is distributed up into the living area through floor vents sized to the air requirements of each room. Return air is handled by a single return duct to furnace.

Here is why operating costs are cut:

1. There is less heated (or cooled) air lost to the outside through pressure infiltration, because with a crawl-space plenum there is less air movement in the living areas.

2. Heating-cooling efficiency is increased because no ducts pass through non-air-conditioned spaces.

And Builder Spano points out that he gets an appreciable saving on duct work and its labor cost.

The perimeter foundation is insulated with 3" fiberglass bats. A polyethylene vapor barrier covers the ground in the crawl space. All cracks at sill and foundation and all points where plumbing and electrical services pass throughout crawl space are caulked. There are no foundation vents.

Spano claims this ductless system has made air conditioning available to customers who could not usually afford it.

Two extra bonuses: there is no noise, since there is no connection between supply air and the fan source; filter, located at the return air box, can easily be lifted out for cleaning.

Here are new rules for setting plastic wall tile

Plastic wall tile manufacturers have approved a revised appendix to their commercial standard 168-50 that sets forth these new installation rules:

1. *Temperature.* Materials should be kept above 60F for 24 hours before application, 72 hours after.

2. *Heat.* Ducts, chimneys, radiators, and ranges should be shielded when installed so that wall tile temperature will not exceed 140F.

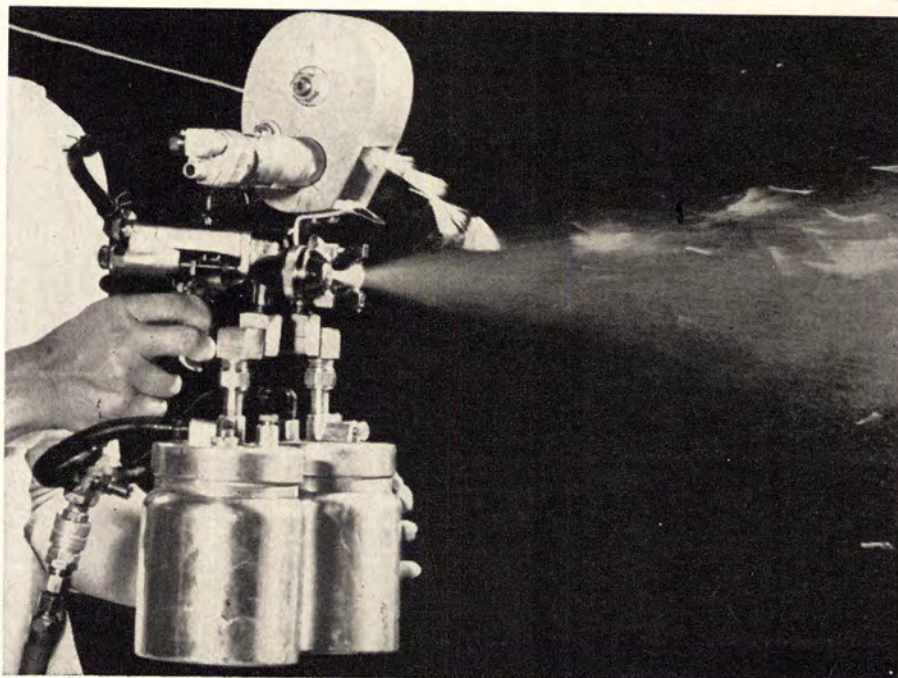
3. *Cutting.* Tiles should be cut only with guillotine-type cutters, hack or coping saws, or power-driven tools.

4. *Sealing.* All porous wall surfaces like drywall and plaster should be sealed according to adhesive manufacturer's recommendation.

5. *Application of adhesive.* Adhesive should be combed to the wall with a wavy motion of specified trowel. Tiles should be pressed into position at the four corners and the edges.

6. *Joints.* Tiles should be spaced at least .005" apart.

7. *Water.* Sinks, tubs, and shower bases should be sealed, tile must be grouted.



Sprayed-on glass fiber finds new uses in homebuilding

Developed experimentally less than a year ago, sprayed-on glass fiber and polyester plastic already is being used by builders for 1) building swimming pools, 2) making waterproof basement walls, 3) sealing skylight edges to roof surface, 4) repairing roofs, awnings, and patio enclosures. The gun can

place up to 8 lbs of reinforced plastic per minute. Plastic reaches full strength from one to four hours later. Cost of the equipment: \$1,500 and up. Guns will be available from about several companies this year, including Rand, Spraybilt, Peterson, Hupp, Sealzit, Spray Inc, and Fiberlay.



Concrete form system lets five men pour a basement a day, saves \$100

Here is how: At the start of work day, all five men strip wall forms from the basement poured the day before. Then three men place footing forms for next day's basement, while the other two move wall forms to footings poured the day before. These two men erect and

oil outside wall forms, are joined by the other three when their footing form job is done. Concrete arrives daily at 2.30 PM, is poured at 6' rise an hour rate. Above job was built by Tide Construction, Federal Way, Wash; forms made by Symons Clamp, Chicago. /END



FIBERGLAS INSULATION adds the appeal of low-cost heating and cooling when used in full thicknesses. FIBERGLAS CURTAINS AND DRAPERIES add the appeal of beauty in easy-wash, no-iron fabrics.

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THE
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FIBERGLAS PROMOTION pre-sells home buyers in Life, then sells them on the spot in a Comfort-Conditioned model home.

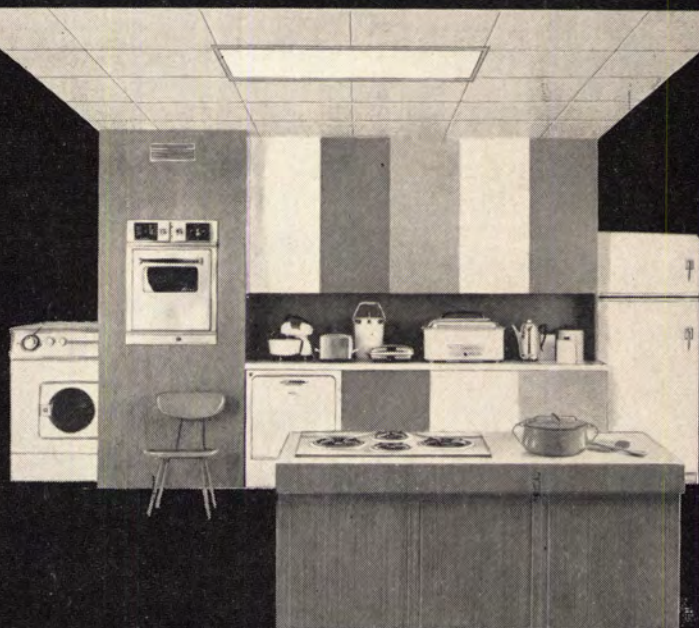
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FIBERGLAS ACOUSTICAL TILE adds the appeal of sound conditioning when installed in noisy area ceilings. FIBERGLAS POLARIZING LIGHT PANELS add the appeal of diffused lighting without glare.



FIBERGLAS SCREENING adds the appeal of insect-free indoor-outdoor living when used in screened-in patios. FIBERGLAS PANELING adds the appeal of color and weather protection.

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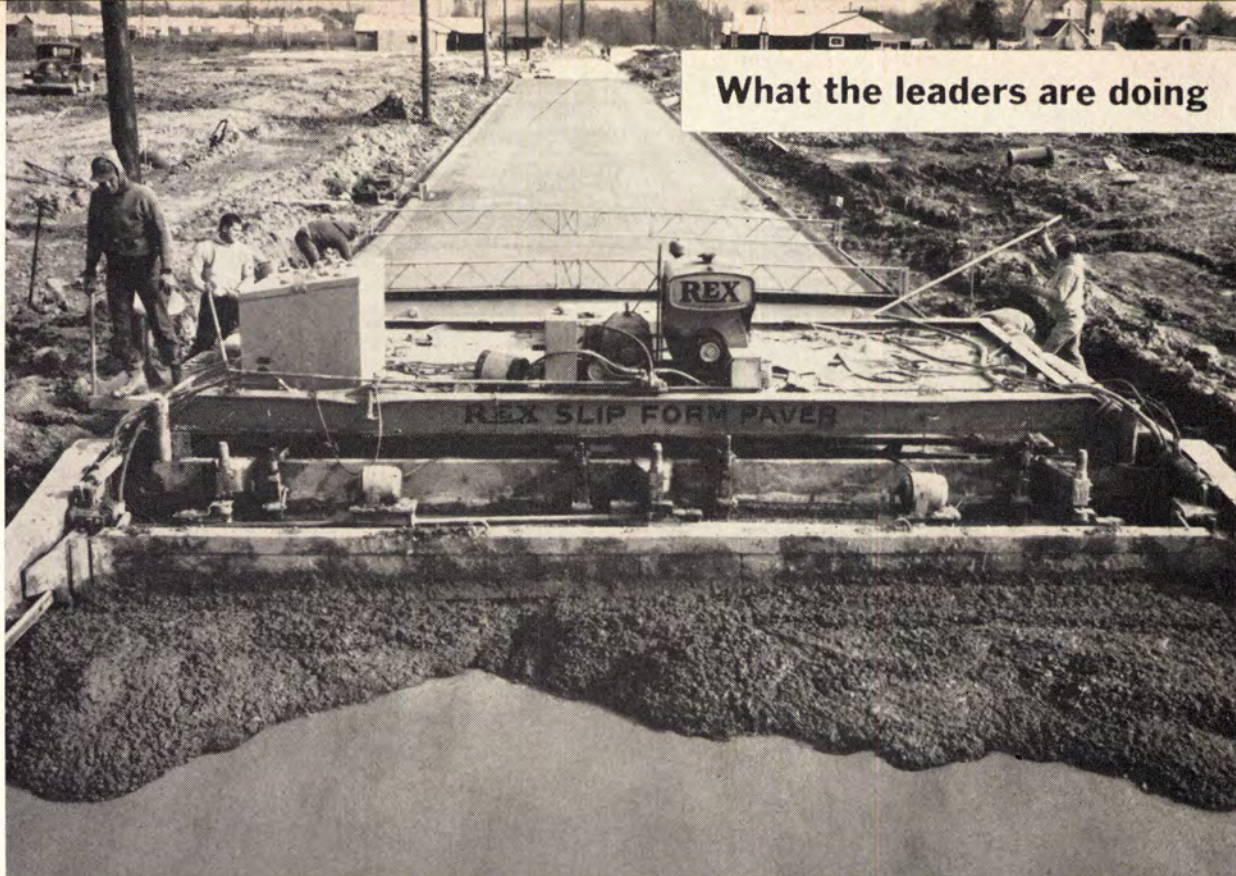
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STATE _____

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This road paver could save \$25,000 a mile



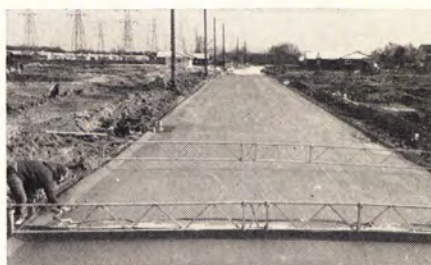
1



2



3



4

So says Bob Schmitt ex-chairman of NAHB's Research Institute who tried the machine at one of his Berea, Ohio, tracts.

Schmitt is the first homebuilder to test Chain Belt Co's \$42,000 "Rex Slip Form Paver," until now, used only in highway construction. He rented it for a month for \$5,500, used it to pave a 25' wide street (it can pave streets up to 40' wide). The tracked machine levels concrete and forms the pavement and curbs as it moves along the roadbed.

Schmitt, who builds about two miles of streets a year, figures the new paver "could save me about \$25,000 a mile under the lowest prices quoted by paving contractors."

It saves time—paves streets and forms curbs about four times as fast as by conventional methods. Average rate: 180' an hour (rate on straight streets without intersections is about twice as fast as on curved streets with intersections). And because the machine works so fast, it lets the builder take advantage of breaks in weather to pave his streets.

It saves labor—requires a five-man crew (one operator, two men to direct trucks that dump concrete, and two men to check the curbs and finishing on each side of the street). Conventional paving methods require eight to ten men.

The numbered pictures at left show how the machine paves a street

1. Concrete tracks are first laid on each side of a graded road (if ground is soft). Ready-mix trucks dump concrete in front of the machine.

2. Tracked vehicle moves forward 3' a minute, passing over the concrete and extruding pavement. Two electric motors drive vibrator to agitate the fast-drying concrete.

3. Machine, passing over the extruded concrete, forms the street's 3" crown and shapes the curbs. By the time the machine moves 32', concrete is hard enough for edges to hold their shape. Until then, edges are held by 48'-long slip forms that trail behind the paver.

4. Slip forms are held at proper width by two crosspieces. Forward crosspiece drags burlap over concrete to provide uniform non-skid surface. Two men (one shown in photo) smooth rough spots along curbs. Slip forms do not work on curves of less than 200' radius, Schmitt found. So he recommends replacing the forms with 1x12s, which can be bent and staked in place as the concrete is laid.

continued on p 224

LOW COST PRODUCTS FOR MASS-MARKET SALES



FEATURE TO DEMONSTRATE in new Truscon Series 500 Aluminum Awning Window is top vent that moves down and out, away from frame, leaves space to reach through for washing from inside. That's a big appeal to the mass housing buyer. This window is loaded with features usually found only in the higher priced merchandise. Sturdy, substantial operators. Beautifully finished. Mass production keeps price low.

See Truscon's new line of economy windows

N.A.H.B. SHOW

BOOTHS 5-6-7 CONRAD HILTON HOTEL

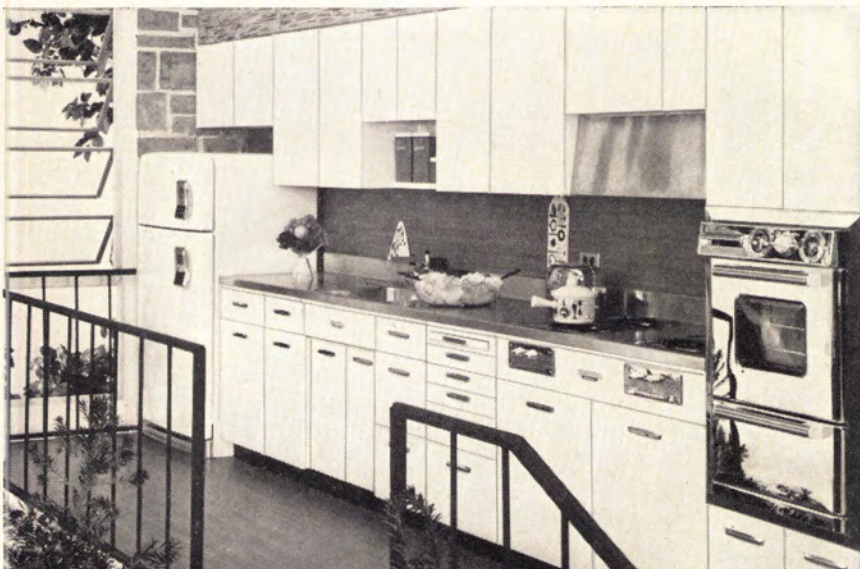
JANUARY 17-21

The \$5000-a-year man is the fellow who's going to maintain your volume in tight money times. He's the mass market. But, you've got to provide him the best possible house and still keep costs down.

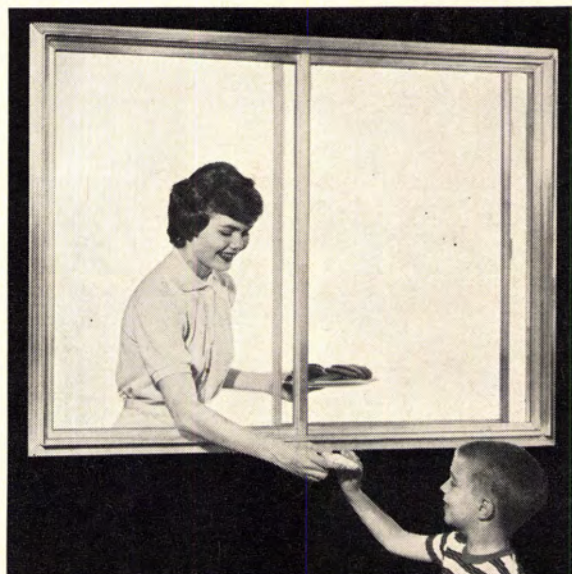
Truscon offers you an answer. Aluminum windows at prices you can live with, and quality you can point to. Windows with features you can demonstrate. Built to the needs of the mass market. Available in local warehouses for your convenience. Steel doors and frames, too, that install in 15 minutes . . . complete. On display at the N.A.H.B. Convention. Be sure to see them, and to get cost figures. You'll like product and price.



FIFTEEN-MINUTE INSTALLATION is money-saving feature of Truscon Hollow Metal Doors and Frames. That's installation complete with all hardware. No cutting, no sanding, no planing, no fitting. Frame is finish trim and serves as plaster return. Bonderized and primed. No pre-paint preparation; and one-coat finish painting does the job. You save all the way.



STEEL KITCHENS ARE BEST for the volume housing market. Best of all Republic Steel Kitchens, the big line that makes built-ins truly built-ins, with standard cabinets to build in ovens and range tops. Cabinets for popular double-bowl stainless steel sinks, too. Republic Steel Kitchens are the economical way to give the people what they really want—efficient, attractive, colorful kitchens that stay new because they're so easy to clean, so damage-resistant. On display at the N.A.H.B. Convention. Look up your Republic Steel Kitchens distributor, or send coupon for facts.



SLIP-OUT SASH is feature of new Truscon Aluminum Horizontal Sliding Window, Series 700. Ideal for low-cost contemporaries. And, nothing flimsy about it. It's rugged, as well as graceful. Glides easily, weathers wonderfully. It's a window you'll be proud to demonstrate as evidence of quality construction. And, low cost puts it into your homes.



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Company _____

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BALCONIES AND PATIOS are separated from each other at Palm Springs apartments designed by

Architects Frey & Chambers. All units are grouped around central terrace and swimming pool.

Outdoor living: key to today's apartment market

If you want your garden apartments to rent fast, be sure they have outdoor living on both upper and lower levels.

That's the advice of successful apartment builders from coast to coast.

"And be sure your outdoor areas are private," says Dave Bohannon, ex-NAHB president who builds in San Jose, Calif. Dick Price of Price & Reynolds, Sacramento, agrees: "Balconies should not only face a view but also provide privacy for each renter—you don't want him to feel that he

is sharing the porch of a resort hotel."

How do you get outdoor privacy when apartments are stacked one above the other? Price & Reynolds' answer: Put ground-floor patios beneath a public balcony on one side of a building, private balconies for the second story on the other side.

George Gross of Gross Bros, New York City, adds a note on balconies' size: "Make them big enough to be usable. FHA requires a balcony to be at least 6' wide and 12' long to qualify for a half-room count."



HIGH SCREEN helps provide privacy for upstairs balcony and downstairs porch in apartment by Architects Buff, Straub & Hensman, Los Angeles.



PLENTY OF SPACE around this apartment opens up broad views from balconies. Apartment is by Los Angeles Architect-Builder Carl Maston.



ROOF DECK OVER GARAGE serves as second-floor patio of another apartment by Architect-Builder Maston. High sides screen deck from street.

Here are 21 other tips for apartment builders

The tips are from Gross Bros, builders of big, high-rise apartments (Cannon Point North and Cannon Point South) in New York City. But they apply equally well to garden-type apartments.

1. Put in enough electrical capacity to carry anticipated future loads.
2. Air condition all your units. Or at least make it easy for the tenant to put air conditioning in if he wants it.
3. Don't include utilities in the rent. Why be a collection agency at no return?
4. Put in more than FHA-required storage. Rules of thumb: put a double closet in each bedroom, a guest coat closet at the entry, a really big utility closet in the kitchen, and one general storage closet.
5. Provide rear or service entries as well as front or formal entries.
6. Put fences around patios and landscaped areas.
7. Soundproof apartments by using carpeting on the floor and by hanging wire lath from clips for sidewalls.
8. Avoid flashy "decorative" finishes that sacrifice durability for show.
9. Use high-quality doors that won't shrink out of fit.
10. Use weathertight windows that are sealed against dirt and wind as well as against rain.
11. Never use anything but the best quality brass and copper plumbing lines.
12. Make the corridors part of your air conditioning system.
13. Make sure openings to patios and balconies are especially weatherproof.
14. Use a swimming pool to tie together a great many apartments.
15. Try to get exterior kitchens but you can always use an interior bath.
16. Develop a firm, easily understood formula for re-renting cancelled leases.
17. Provide apartments with the same appliances that are being offered in the single-house market locally. If you don't provide a dishwasher and a washer and/or dryer, at least provide the space for them. Use of tabletop ranges and wall ovens can provide you with the space you need for other appliances.
18. Add a bathroom for every bedroom in luxury apartments. And put in an extra half bath for general use.
19. Carry all kitchen cabinets to the ceiling. Kitchen storage space is too much a premium to be lost.
20. Never build an apartment down to the financing.
21. Don't ever economize on construction at the expense of maintenance. /END

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See the complete TM window line, plus a new sliding glass door and unique curtain wall system. TM's aluminum building product line incorporates "plus" features that offer extra value for home owners, builders and distributors. At the TM booth you'll see an actual spectacular demonstration that will convince you of the outstanding "plus" values that the TM complete line offers you.

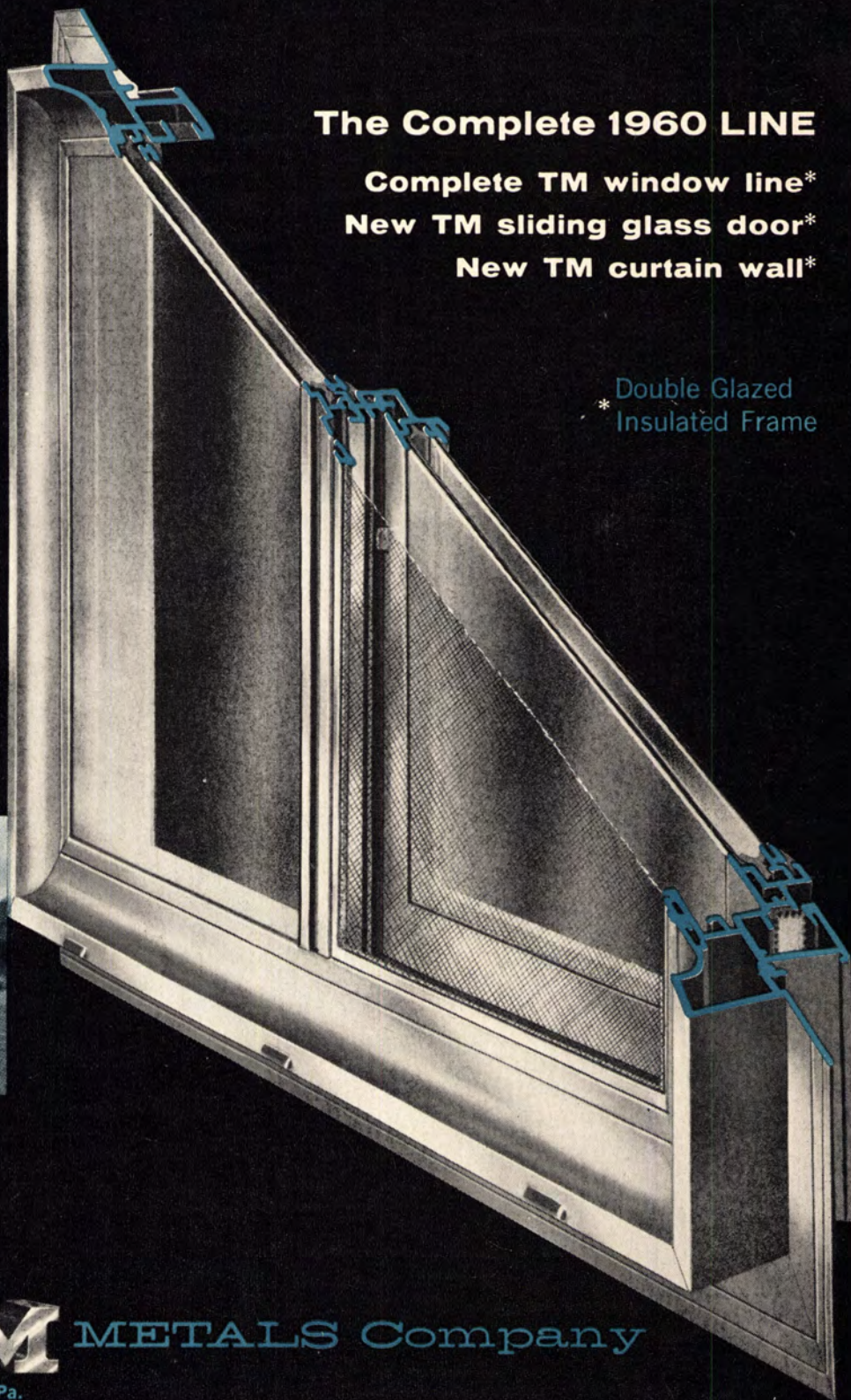



New modern plant in Pottsville, Pa., serving a network of building distributors throughout the country.

The Complete 1960 LINE

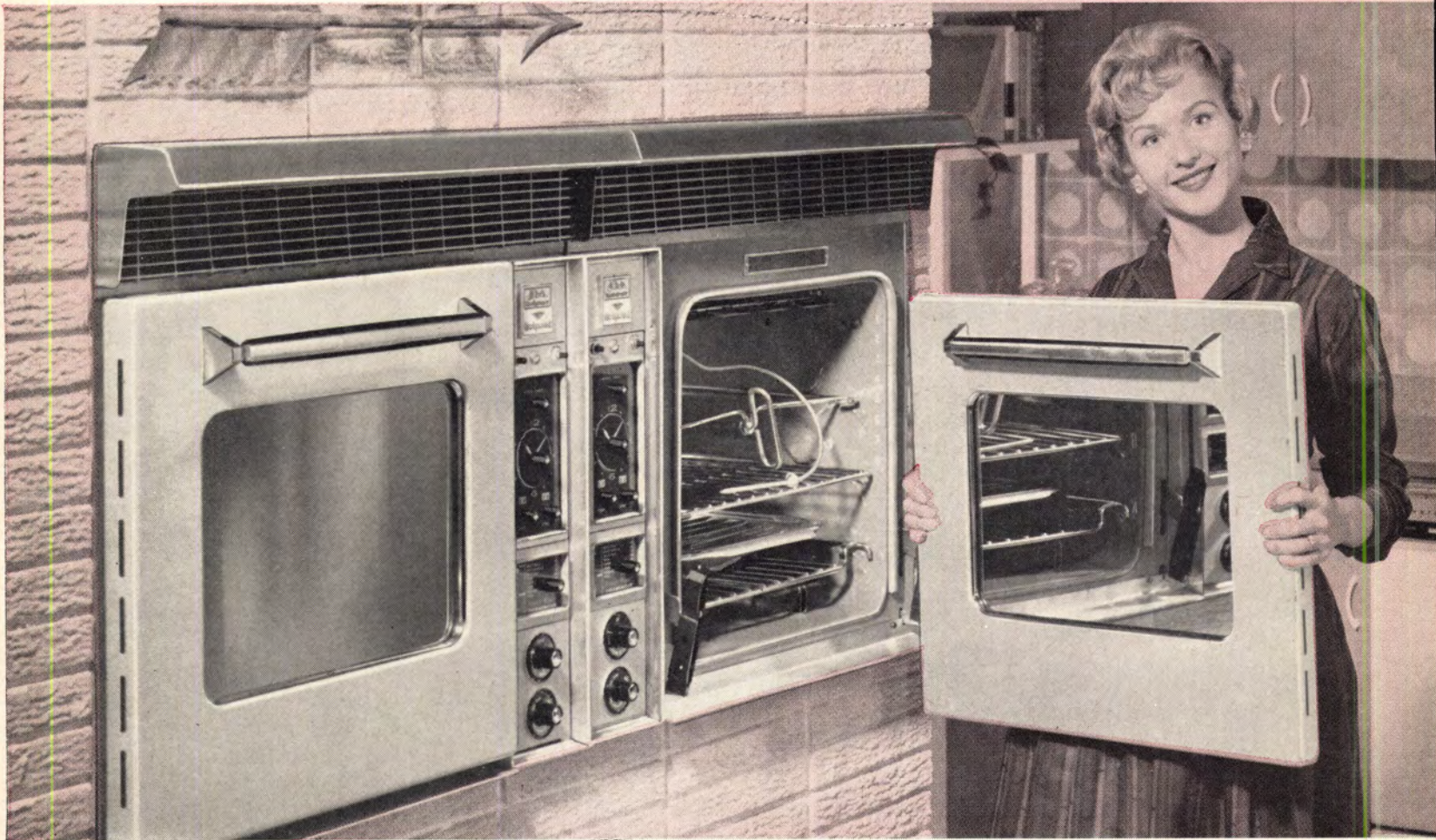
Complete TM window line*
New TM sliding glass door*
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* Double Glazed
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Model RJ76-A right-hand control panel

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Only Hotpoint **Custom CREST** Ovens give you all of 1960's newest, most exciting features

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NEW ventilation system circulates more even heat over every inch of each shelf for better baking.

NEW mirrored window gives a clear view inside when oven lights are on, but with them off the window acts as a mirror, hiding the oven interior.

NEW full-width door lifts off; new chrome floor liner, oven units and broiler spatter guards remove for faster, easier oven cleaning.

PLUS—Rota-Grill for recipe-perfect barbecues, Roast-Right Meat thermometer for just-right roasts.

Model RU75-A



New Hotpoint **Custom CREST** Surface Section with Cook Book Controls and Calrod® Recipe Heat Units

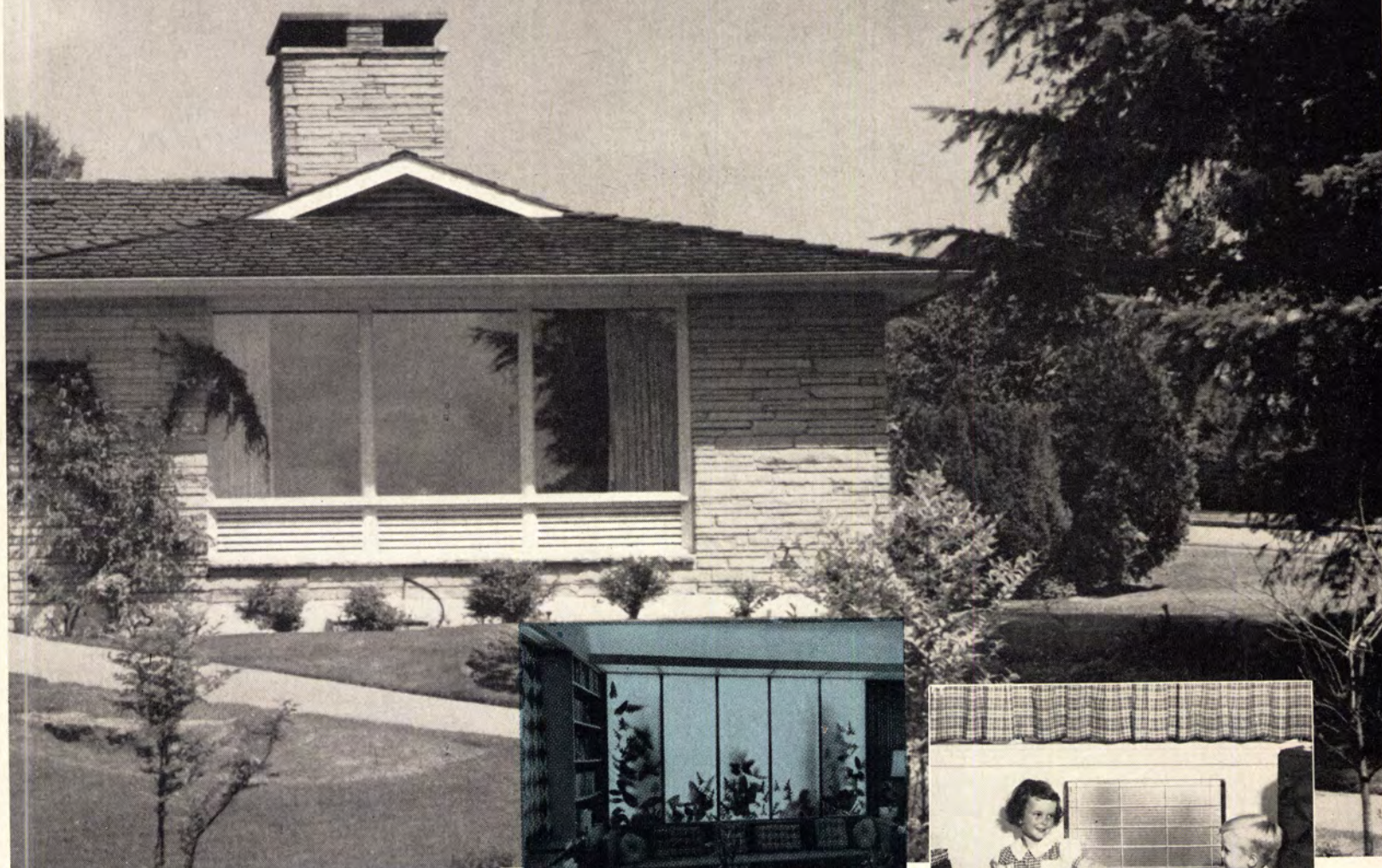
Now you can offer your prospects an end to cooking guesswork and an aid to recipe-perfect meals every time. One glance at Hotpoint's simple Cook Book instructions on the control panel shows how to enjoy the easiest cooking ever. One touch of a button lets your customers cook with Recipe Heat... heat as accurately measured as the ingredients of any recipe. And with the temperature-controlled Supermatic unit any pot becomes an automatic cooking utensil.

Home-buyers don't take glass for granted—not even first-timers. They know what it can do to bring a house to life. They can judge quality without special know-how, because it's always on display—from inside and out.

Take advantage of your prospects' interest in glass. Make sure you can point with pride to *low-distortion* basic glazing. Don't accept less than ASG LUSTRAGLASS® quality in your pre-glazed sash.

Then consider the low-cost extras that glass by American-Saint Gobain can offer. With ideas like those below, you'll get more merchandising mileage per dollar than with any other material.

For full information, call your local glass jobber or the American-Saint Gobain district office nearest you.



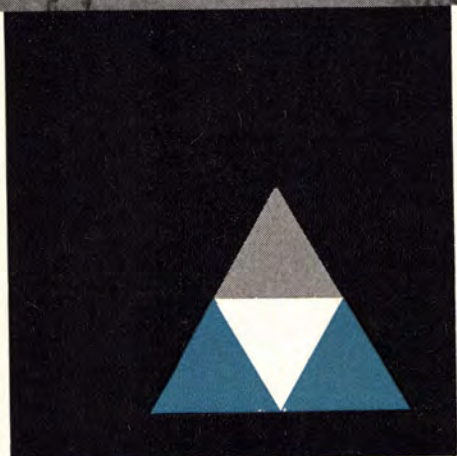
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A narrow room-divider or a whole wall—the BLUE RIDGE® patterned glasses of ASG can bring light and luxury to commonplace rooms . . . need no surfacing or decorating. Visual effects are dramatic. Separated areas share light and space. And you can offer each prospect his own choice from over 30 distinctive BLUE RIDGE patterns and designs.



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Do you have an area heating problem—in bathroom, playroom, etc.? Solve it—and sell it—with the finest in radiant heat: BLUE RIDGE RA-GRID®. This tempered glass heater plate with fused aluminum circuit is goodlooking, economical and completely safe. And RA-GRID operates at 100% efficiency, converting every bit of energy into usable heat. Call your electrical heating contractor for information.



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COATES

Let's get back to the basic cause of today's inflation, the wage-price spiral.



BOESCHENSTEIN

Unless we change some of our wasteful ways, the Soviet economy will lick the shirts off us.



BURNETT

He listened.



VIESER

Most of our national economic practices are inflationary.



BROWN

The homebuilding industry has done a very poor selling job.

Big tight-money, easy-money swings add \$ billions to housing costs

The wild and sudden swings between too-tight-money and too-easy-money make it uneconomic for homebuilding to buy the equipment, develop the organization, and make the long range plans needed to double its efficiency and streamline its costs. The use of homebuilding as a counter-cyclical device has cost home buyers billions of dollars.

In 1952 money was tight and times were bad for homebuilding. In 1954 money was so easy that homebuyers were actually being paid cash to take houses nothing down, and the heads of all the housing industry trade associations backed HOUSE & HOME in an open letter to President Eisenhower warning him that this was a scandal far worse than 608. In 1956 money was tight again and by February 1957, at the low point, homebuilding had been cut back 35.2% from the 1954 peak. In 1958 the Government primed the homebuilding pump again with easy money and special assistance loans in a frantic effort to get homebuilding to pull the economy out of the recession; starts shot up 56.5%. In 1959 money

was tight again, and once again housing is in trouble.

How can anyone expect the builders and the manufacturers who supply the builders to control and cut their costs as long as housing is kept on such a rollercoaster? In these unstable markets the big profits have gone, not to the builders who were most efficient, but to the builders who kept their overhead low, jumped in when money was easy, and jumped out when money was tight. In these unstable markets knowing how to build better for less was less important than knowing how to get money when others were strapped.

Because homebuilding was hit first and worst by tight money in 1956, you might expect homebuilding to be exhibit A of how prices can be brought down by cutting back sales by tight money. But the fact is housing prices went up instead of down as sales fell off. The high cost of discounts was added to the price; overhead per unit increased; building trades wages kept on climbing; land prices continued to soar; and material prices showed only a small decline.

Cutting homebuilding back is not much help in the fight against inflation, because:

1. There is no shortage of the labor and materials needed to sustain the 1959 volume of homebuilding.

Disemploying a carpenter or a plumber will not help the wage-price spiral in cars or textiles or steel; and other industries cannot use the lumber, the roofing, the windows, the bath tubs, the bricks, the hardware, etc., that will go unsold in housing next year because of tight money.

2. Most of the skills and materials used in homebuilding are not needed in other industries.

Homebuilding may well be the most dynamic of all America's industries, because the home is the heart of the American market and better homes stimulate the sales of many other products and services. But almost the only point where homebuilding competes with other industries is money.*

America's need for savings in the next decade will exceed anything we have ever known

It will take an enormous capital investment to provide homes and schools and churches and roads and clothes and cars for 35 million more Americans in the next decade—almost as many *more* Americans as today's *total* population of France.

It will take an enormous capital investment to create at least ten million more jobs to support those 35 million more Americans.

Other nations have paid for population growth by lowering the standard of living, with a lot more families dividing a little more production into smaller pieces. But on top of add-

ing 35 million more people to our population:

1. We still hope and expect to go on raising our standard of living faster and faster, expanding our gross national product from \$480 billion a year in 1959 to \$750 billion by 1970.

2. We hope to achieve this enormous increase in production with a shorter work week; ie, with the labor force doing less work.

The only way this can be done is by an enormous investment in mechanization and automation. Already it takes an investment of over \$12,000 of somebody's savings to create one new job in industry. It will take a still bigger investment per job to provide the kind of mechanization and automation the next decade will require.

*Exception: Some of the labor and some of the products used in homebuilding can also be used in heavy construction; most cannot.



BASS
Savings are significantly greater where commercial banks, savings banks, and S&Ls compete.



ROUSE
All the housing industry should ask is a full opportunity to bid for more money on equal terms.



COOGAN
Tight money is ruinous for some industries, but in others it is ineffectual.



ROGG
Every time the economy starts to boom, homebuilding gets cut back hard.



HUGHES
Homebuilding gets its share of savings spasmodically. That hurts.

Housing is America's biggest growth industry, so its needs for more money are enormous

For two generations the American standard of housing has lagged far behind the breathtaking rise in the rest of the American standard of living. It will need hundreds of billions of mortgage dollars to catch up.

In the next decade the housing industry must build new homes for 35 million *more* Americans; ie, just to keep pace with the population explosion the housing industry must build almost as many new homes as all the homes west of Kansas City in 1950. But building more homes for more families is only the smaller part of the demand the housing industry will soon need mortgage money to meet. A bigger demand will come from the need of replacing most of today's housing inventory, half of which is already obsolete or obsolescent and much of which is clearly substandard; ie, is dilapidated or lacks a private inside bath. Out of 40 million-odd family-sized, non-farm units today, hardly half are the kind of homes anyone will want to live in in 1980, when the average family will have a bigger income (in constant

dollars) than junior executives had right after the war.

In England today five new houses out of six are built, not to keep up with population growth, but to replace existing homes that are no longer good enough for today's standard of living. In like manner, here in America the trading-up market and the replacement market will soon be bigger than the population-growth market.

Even today the average family could qualify FHA to buy almost twice as good a home as it now occupies (see front cover). From now to 1970 *more* than the whole net increase in population will be families who can afford at least \$17,500 for a better home. By 1970 there will be 16 million *more* prospects for a \$17,500 house; there will be 2 million *less* families who cannot afford a \$17,500 house. By 1970 America will have an enormous surplus of cheap housing to replace; but America will have a shortage of quality housing as acute as the shortage of shelter right after the war.

Today's high interest rates cannot all be laid to Federal Reserve policy

The Federal Reserve says it would be glad to see interest rates lower. Interest rates are high today because:

1. The Federal Government has had to make a draft of \$23 billion on the capital market in the past year and a half—\$12.5 billion to finance the 1959 fiscal deficit, \$6 billion to finance a seasonal deficit, and \$5 billion to re-finance savings bonds that were cashed in.

Treasury competition in the bond market has levied a particularly heavy draft on savings that would ordinarily go into mortgages. The magic fives hit the mortgage market hard, and the likelihood of a second issue of magic fives is immobilizing further savings and taking many savings institutions completely out of mortgage commitments.

2. The \$4 billion deficit in our international balance of payments has raised fears abroad about the soundness of the dollar.

3. Lenders have lost 9% of the value of their savings since 1955; they are afraid of further inflation, so more and more of them are putting their money into inflation hedges like land and stocks. Those who are still buying fixed-interest obligations are demanding higher yields to compensate for the anticipated loss in the purchasing power of their principal.

4. Interest rates tend to be higher when times are good. Low interest rates have always been a depression phenomenon, except in pegged markets like 1945-51.

Tight money can do nothing about the inflationary farm give-aways

All Federal give-away programs are inflationary, including the great and growing give-away program for veterans, who are now earning better-than-average incomes.

Most inflationary of all the give-aways are the farm subsidies. These are inflationary twice over; first they raise the price consumers must pay for food; second they unbalance the Federal budget by taking out billions of tax dollars to pay farmers to produce less instead of more.

All of us recognize that the small farmers needed temporary help to ease the impact of the mechanical and chemical revolutions which have raised farm productivity nearly 100% since the war and thereby made it possible for half as many farm workers to raise all the food we need. But the present farm give-aways go far beyond what is needed, and today they are making the problem worse instead of better.

Most of the give-away dollars are now being paid, not to

continued on p 232



ENSLEY

We haven't placed enough emphasis on how to get more savings.



STRUNK

If they save more money today they'll have more money for a down payment tomorrow.



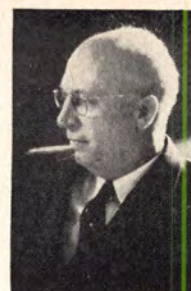
CONSER

A big problem is the suddenness with which the mortgage market changes from easy to tight.



SUMMER

The changes in the FHA interest rates have been too little and too late.



LYON

The Treasury's magic fives have immobilized billions of savings.

small farmers in need of transition-period relief, but to big mechanized farmers richer than most of the people who are taxed to subsidize them.

In the 15 years since the war more than a third of the 1945 farmers have moved off the land and found better-paying work elsewhere; more than a third of those who remain have taken jobs in industry and continue farming only as a part-time or after-hours employment. Farm income per capita has been climbing at least as fast as income per capita in other lines. Now is the time to taper the subsidies off instead of making them bigger year after year.

The farm relief program has degenerated into a political boondoggle to buy the farmers' votes. The Democrats would be as glad as the Republicans to escape from the dilemma,

because a Democratic victory next November would make the farm problem as big a headache for the Democrats from 1961 to 1965 as it has been for the Republicans since 1953. So most of us think 1960 offers a real chance for bipartisan agreement to start closing out the subsidies.

Today's farm program costs the federal taxpayers nearly \$2,000 per farm. More importantly, it costs every penny of income tax collections over and above the minimum 20% rate.

If the billions of dollars now being wasted on the farm boondoggle were available for savings and investment the economy could grow much faster, inflation would be much less of a problem, and there would be no need at all to cut homebuilding back with tight money today.

Tight money can do little to check the inflationary wage-price spiral

The most critical upward pressure on prices comes from those labor unions who:

1. demand higher and higher pay each year whether productivity keeps pace or not;
2. defend obsolete work rules, featherbedding practices, and apprenticeship restrictions that make it difficult or impossible to increase productivity;
3. discourage capital investment in more economical plants and tools by demanding that most of the savings earned by the investment be translated into bigger wages instead of bigger profits or lower prices.

Labor now gets so large a share of the sales dollar that there is little or no cushion left to increase wages without either a parallel increase in productivity or a parallel increase in prices. When prices go up, labor demands another wage in-

crease to pay them and so the wage-price spiral goes on and on.

The only way tight money alone could check the wage-price spiral would be to create massive unemployment. Nobody wants massive unemployment; the voters would not stand for it, as the 1958 election clearly showed.

So some other way must be found to get labor and management to agree on a program for sharing the increased profits of increased productivity that will not push inflation further.

Until recently most employers have been able to translate higher wages into higher prices, but those days are almost over, as the steel companies have so loudly proclaimed.

In tomorrow's far more competitive business climate new competition from abroad and new competition from new plants at home will make it harder and harder to pass wage increases on to consumers.

Tight money can do nothing to change the inflationary Federal tax bias

Some Federal tax policies are highly inflationary.

Specifically:

1. The 52% corporation income tax is inflationary because, in effect, it penalizes equity financing and subsidizes borrowing.

A corporation can deduct close to 52% of whatever interest it pays from its tax bill. A corporation with \$7 million operating profit could cut its Federal tax from \$3,633,250 to only \$513,250 and almost double its after-tax net from \$3,366,750 to \$6,486,750 just by changing its capitalization from 100% equity to include \$100 million of 6% income bonds!

2. While corporation taxes are encouraging borrowing, individual income tax rates are taxing away money that would otherwise go into savings; in fact, they were conceived for that very purpose during the depression, which popular economists then blamed on "over-saving".

Many tax experts (eg, Roswell Magill) believe the personal income tax would actually raise more revenue rather than less if the rates were cut from the present 20%-91% down to 16%-64%. And most of us believe a 10% tax on value added by each corporation would raise more revenue with less inflationary impact than the present debt-stimulating corporation income tax.

continued on p 236

HOUSE & HOME

IDEAS FROM BOSTITCH FOR BUILDERS— TO SPEED YOUR WORK, CUT YOUR COSTS



Fastest way to install insulation, ceiling tile, metal lath, Cornerite, low-voltage wiring, screening, paneling—**Bostitch T5 Tacker.** Takes staples of five leg lengths. Just a squeeze triggers the T5's powerful spring and drives the staple into the work. Permits placement of staples with great accuracy—even in tight quarters. Builders find dozens of jobs for the T5—and save time and money on every single one!

Install batt and reflective insulation, vapor barriers and many other materials with the medium-weight **Bostitch H2B Stapling Hammer.** Fastens securely with every blow. More than twice as fast as hammer and tacks. Pays for itself in just a few jobs.



For light tacking jobs—where there's room to swing and long reach is an advantage—the **H5 Stapling Hammer** gives you fast fastening action. Light—yet strong enough to drive staples with $\frac{3}{16}$ ", $\frac{1}{4}$ " or $\frac{5}{16}$ " leg lengths into soft materials or wood.



Most rugged Bostitch Stapling Hammer of them all—H4 Heavy Duty Model. Cuts asphalt shingling time on new roofs by half or more, say builders who wouldn't be without it. Every swing drives a $\frac{3}{4}$ " galvanized staple into the work, spreads the staple legs for greatest holding power.

Every job you find for Bostitch staplers is another money-making idea. Switch to modern Bostitch staplers and staples now. Build better for less. See Bostitch staplers at your building supply dealer's. Try them on your next job.

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STAPLERS AND STAPLES

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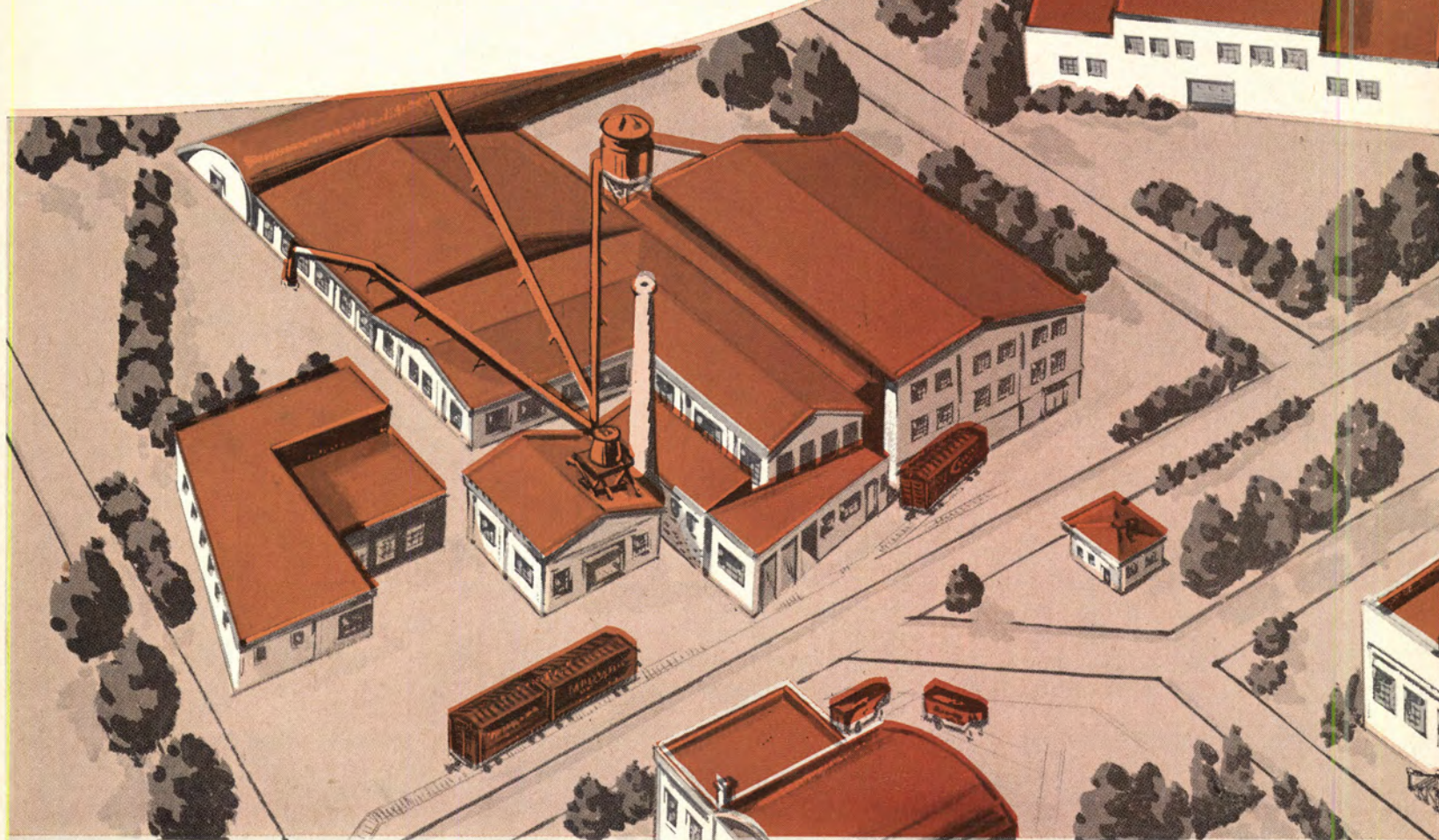
With the acquisition of two additional plants, Colonial Products Co. (manufacturers of nationally known Yorktowne Kitchens) now occupies more operational facilities than any other company in the entire kitchen-cabinet industry. This increased capacity enables Yorktowne to fulfill the unprecedented demand for these modern kitchens—Kitchen Classic by Yorktowne and Yorktowne Natural Birch. It assures the needed service for all the building trades. It means prompt deliveries of any and all models and sizes.

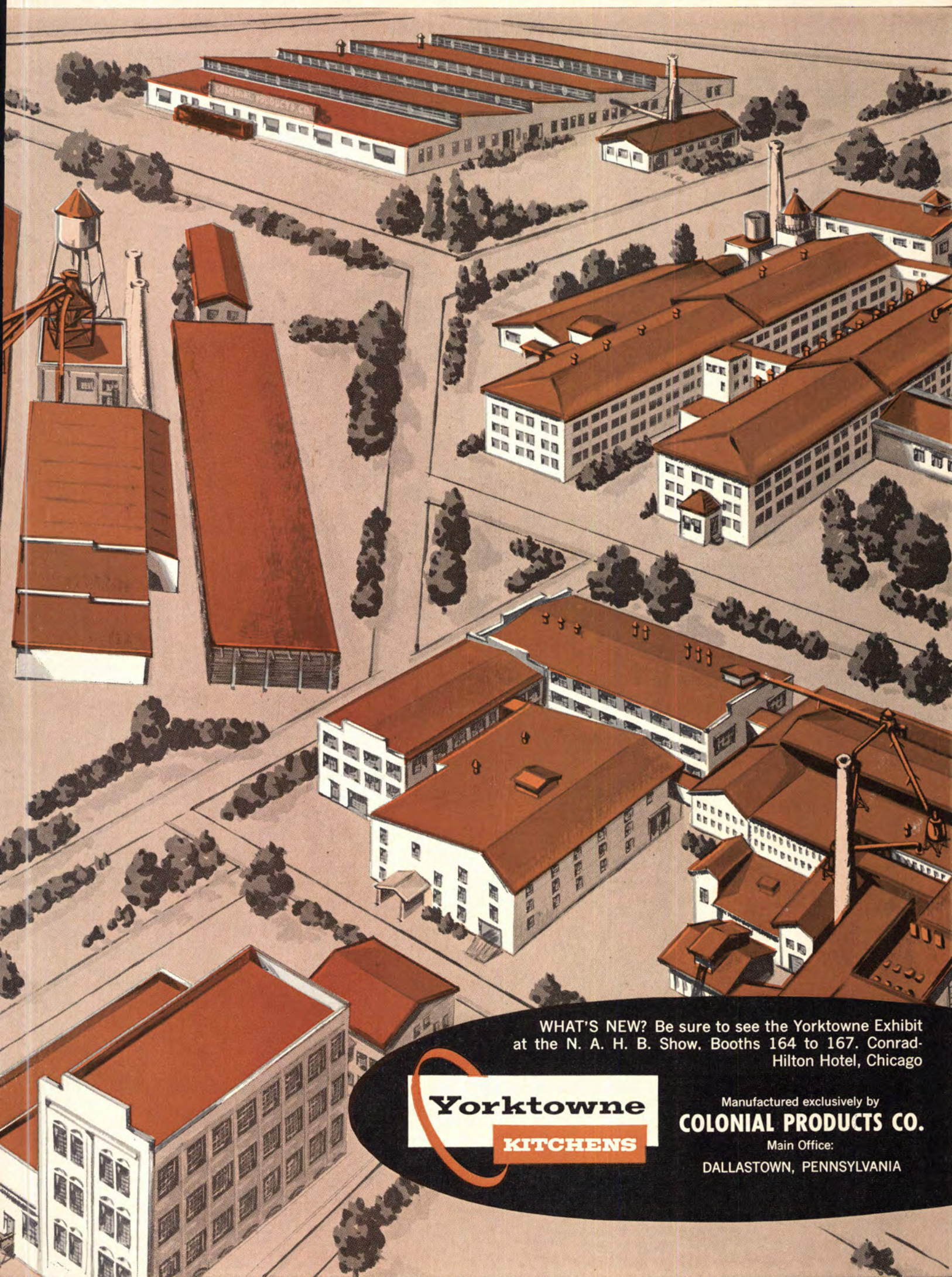
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- ... chosen by more home buyers
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Hilton Hotel, Chicago

Yorktowne
KITCHENS

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COLONIAL PRODUCTS CO.

Main Office:
DALLASTOWN, PENNSYLVANIA



WALLICH

The best way to increase the amount of savings is to increase the GNP but then the more savings you get, the more you need.



WALKER

We have run a net budgetary deficit of \$32 billion since 1951.



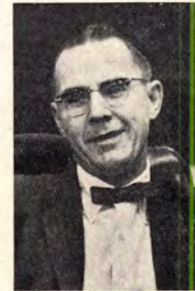
PARADISO

The rate of growth in our economy has been a bit more than 3% a year.



McFARLAND

What would a central mortgage bank do that Fanny May does not do now.



FOX

He listened.

Tight money can do little to curb inflationary consumer credit

Consumer credit extravagances have done much to stir up talk and fears of inflation. Retailers push easy credit for the bigger mark-up it gets them. Banks push easy credit for the high interest (10% and more) it earns. Millions of families eat on credit, dress on credit, travel on credit, die on credit, and live on credit—with nothing down and four years to pay for goods and services that are quickly gone.

"Buy now—pay later" is the No. 1 theme of bank advertising, store advertising, car advertising, travel advertising.

Actually, consumer credit has not expanded much faster than the growth of the economy; but almost all of us feel

the time has come where a ceiling should be set on the term of consumer credit.

Tight money is a poor tool to restrain consumer credit, for consumers seldom care or know what interest they are paying and the 10%+ rate is so high that banks will keep consumer credit flowing long after mortgage money at 6% dries up.

But Congress could give the Federal Reserve sufficient authority to control consumer credit by means other than tight money any time Congress decides such restraint is needed.

Tight money cannot change what is inflationary in housing legislation

There is nothing inflationary about building 1,400,000 good new homes a year. Our industry can build 1,400,000 without straining its available manpower and materials, and America will need more good new homes than that each year from now to 1970 if the American standard of housing is to catch up with the rest of the American standard of living.

But some of today's housing legislation is unnecessarily inflationary. Specifically:

1. Federal land-write-down subsidies under urban renewal Title I are unnecessarily inflationary in two ways. They threaten to add \$300 million a year to the Federal deficit, and they inflate the price of slums by buying out slumlords at bootleg prices. Two years ago the HOUSE & HOME—ACTION Pittsburgh Round Table on how to make rental housing work said:

"There is no more excuse for asking Federal taxpayers to buy up slums at prices based on the outrageous profits of overcrowding, under-maintenance, filth, and misery than for the asking them to buy up a red-light district at a price reflecting the profits of prostitution. . . . One big reason slums are so profitable and slum land prices are so high is that slum lords pay such small taxes per unit. . . . Higher land taxes are just about the best way to hold down land prices."

2. Public housing is unnecessarily inflationary. It is contributing \$130 million to this year's Federal deficit; it costs far more than the same housing would cost private enterprise to build; it houses the poorest families in units whose price runs up to twice as high as the average taxpayer's home; it is an anodyne and a substitute for doing something about the

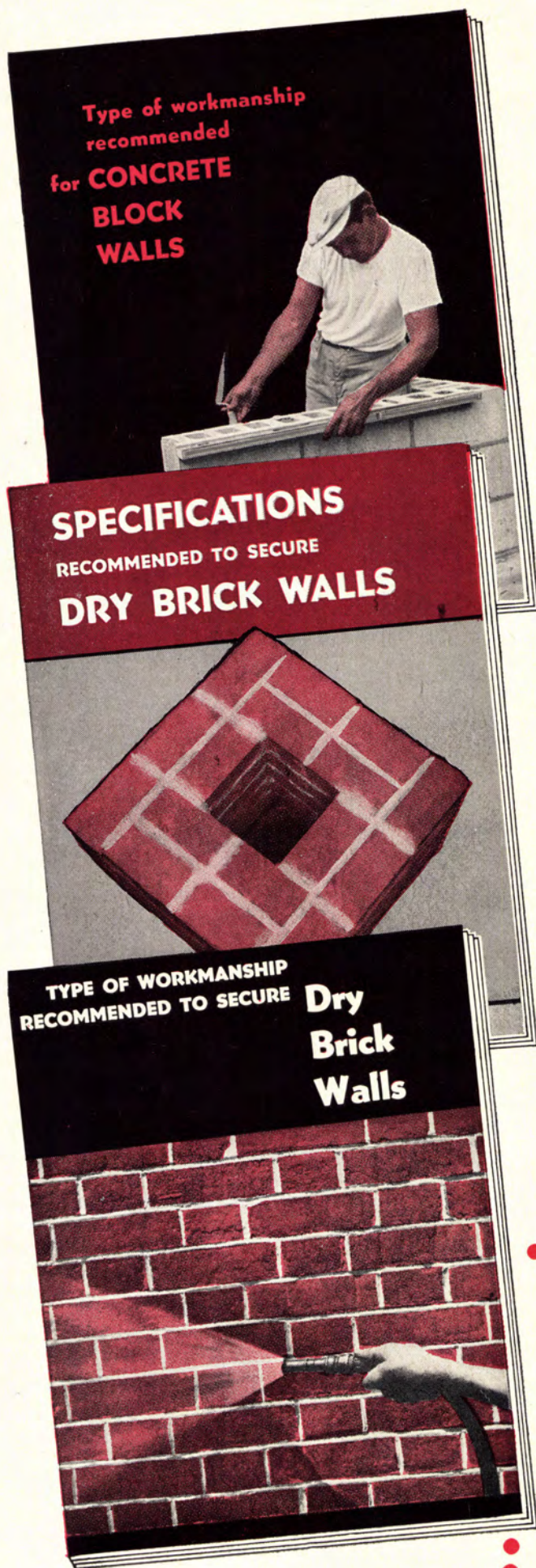
inflated land prices, the code-enforced waste, the labor featherbedding, and the racial problems which make it impossible for private enterprise to meet the need of good lower-income housing in our largest cities.

3. Special assistance loans from the Treasury are inflationary. They may well be necessary at times to compensate for the discriminatory impact of tight money on housing, but it is high time a better solution was developed to even out the flow of money into FHA-VA mortgages. The housing industry does not want subsidies or relief loans. What it wants is an even break to compete for funds in the free market.

4. Too-easy mortgage terms are unnecessarily inflationary. Twenty-five years of FHA have proven the safety and soundness of small down payments, but most of us believe a home buyer who gets a \$15,000 home for only \$630 cash should pay off more than \$200 a year on the mortgage. No one can buy even the cheapest car without paying off at least \$600 a year, which is more than three times the starting amortization now required on a better-than-average house on a 30-year FHA loan. Paying off the mortgage used to be one of the principal sources of savings; but by the time the average FHA house is sold and re-financed (eight years), the pay-off on a 30-year mortgage is only 12%. This is less than half the pay-off on 20-year terms. It is hardly enough to cover even the cost of trading the house in; without inflation it creates no equity at all that could be used for the down payment on a better home.

No. 1 reason builders clamor for longer and longer terms with less and less amortization is that FHA penalizes faster pay-offs in its credit standards, requiring \$500 to \$1,000

continued on p 238



GET THESE IMPORTANT BOOKS!

THE three books at the left are a "must" for anyone who is interested in good masonry construction. One describes the type of *workmanship* recommended to secure dry brick walls. The second describes the *specifications* recommended to secure dry brick walls. The third describes the type of workmanship recommended for *good concrete-block walls*.

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TURNER

The question is whether tight money actually keeps prices from going up.



GAFFNEY

Many government policies are still inflationary—at a time when the government is trying to impose a deflationary credit policy.



SOLOMON

The free market is very discriminatory, and right now it is discriminating against housing.



COLEMAN

We haven't developed the devices necessary to tap all of the current areas of investment.



MCKINLEY

If I were a builder I would say it is up to me or to my industry to develop a private exchange to make more mortgages volatile, sensitive, and exchangeable.

more income to buy a house with a 20-year mortgage than it requires to buy the same house with a 30-year mortgage; FHA disqualifies thousands of buyers just because their mortgage would make them put a little more money into

savings. If FHA would base its income requirement calculations on 40-year depreciation regardless of whether the amortization is 20-year, 30-year, or 40-year, the builders would have no reason to oppose faster pay-off schedules.

Tight money can do little about land price inflation

Steepest price inflation of all has been the price inflation in land, but nobody is doing anything to stop it and nobody except the builders who must pay these inflated prices seems to realize how great and how wasteful this land price inflation has been.

The builders know all too well what is happening, because the price of the land they need has risen far faster than the price of the materials they buy or the wages of the labor they employ. The price of big city slum land has soared so high that private enterprise cannot meet the need for low-income or even middle-income housing without a big land-write-down subsidy. The price of suburban land has soared so high that in some projects the land seller gets almost as many dollars for his acreage as all the manufacturers get for all the building products used in the houses. And Frank Cortright has warned that before long there may be no profit left in homebuilding after the land speculators have taken their profit out first.

One reason why rural land prices have been climbing 8% a year in the face of falling farm prices is that Federal farm subsidies are being translated into higher prices for farm land. This land price inflation tends to nullify the hope that farm relief payments could speed and ease the abandonment of marginal farms, and it helps to raise capital costs so high that some authorities say it now takes a \$20,000 investment to create one new job on a good farm.

Another reason why land prices are soaring is that the expanding highway programs are skyrocketing land prices along the right of way and enriching the owners of that land with a windfall that may be bigger than the total cost of the highway. (No. 1 reason the Federal highway program is costing so much more than anticipated is that, unlike many other countries—for example, Holland—the US has no land policy designed to keep land prices stable.)

But the principal reasons for land price inflation have been:

1. We are concentrating an unprecedented population explosion on a very small area. In the past decade we have added 30 million more people to the population of our 162 metropolitan areas; ie, we have crowded more people than the total 1950 population of California, Washington, Oregon, Arizona, New Mexico, Nevada, Utah, Idaho, Montana, Wyoming, Colorado, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Minnesota into an already-heavily-populated area the size of Connecticut.

2. We have no land policy designed to bring the land needed for this population growth into the market when it is needed. On the contrary, we make it easy for land speculators to hold their land off the market in anticipation of still higher prices later. The result has been a largely artificial and fictitious shortage of land for housing developments, an artificial shortage that is blighting thousands of acres with the familiar checkerboard pattern of development; an artificial shortage that is forcing homebuyers to seek cheap land further and further out when plenty of land is still undeveloped closer in; an artificial shortage that often doubles development and community facility costs by scattering new housing over eight times as big an area as a more orderly expansion would require, putting 300 families on a square mile that could better be used to house 2000; an artificial shortage that has pushed prices far above today's values; an artificial shortage that is almost sure to end in a bust just like the bust in land prices that has followed every past inflation in land.

The only way land price inflation can be prevented is to tax land much more heavily, shifting a substantial part of the local tax burden now carried by improvements to the land itself. Taxes are the only important costs a land speculator must pay, so taxes are the only brake on the price of land, which reflects the capitalized margin between the rent the land can be expected to earn and the tax burden it can expect to carry. The bigger the land tax the smaller this margin will be and the less chance of big profits in land speculation. (In much of Australia and New Zealand improvements are not taxed at all; almost the whole cost of the local government is paid by taxes on land alone.)

Incidentally, taxing land more heavily would take the bootleg profit out of slums and force many slumlords to improve their property to get enough added income to pay their added taxes. It would deflate the bootleg value of slum property and make Federal subsidies for urban renewal land-write-downs unnecessary. It would cut the cost of highway extension by cutting the land costs for the right of way. It would make the unearned increment in suburban land values pay the cost of schools and other community facilities needed to convert raw land into housing. It would let homebuilders offer better homes for less money by spending for quality the money they now waste on land inflation. It would reduce taxes on good homes by increasing the taxes on vacant and under-used land.

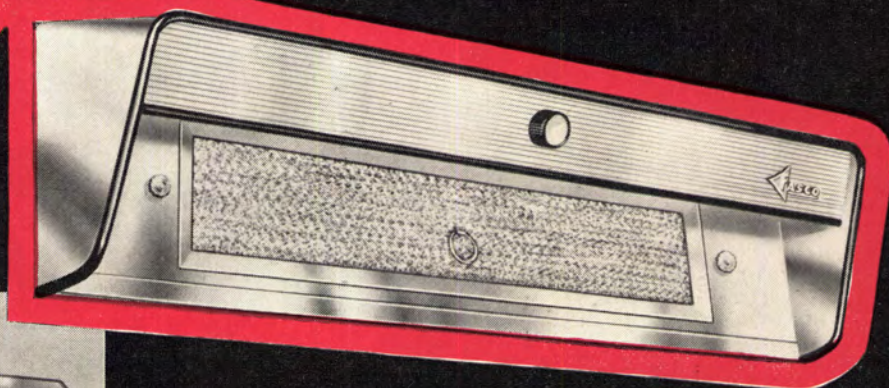
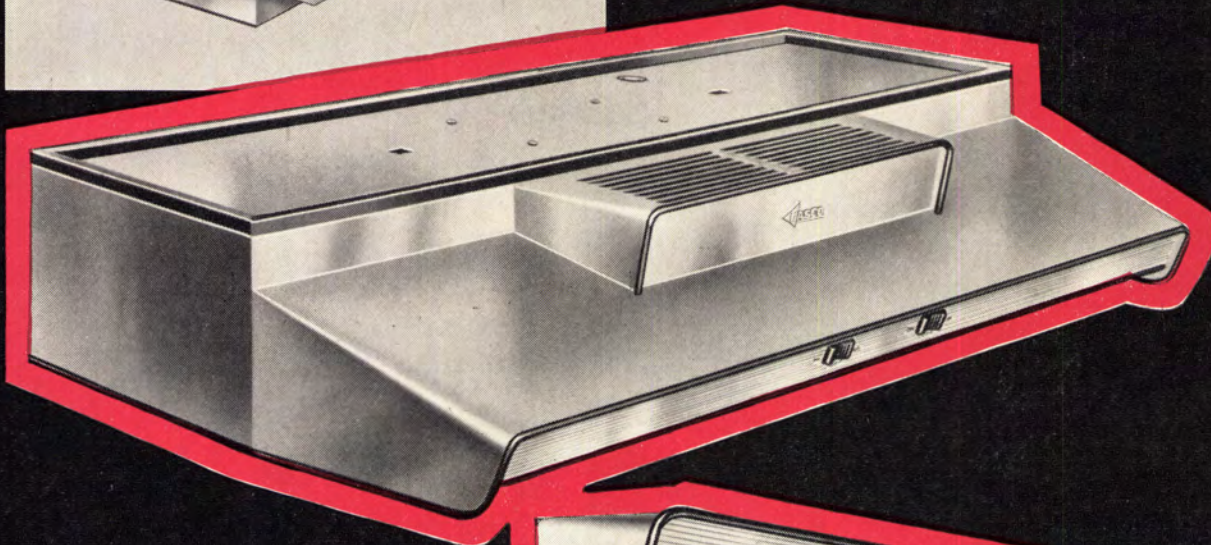
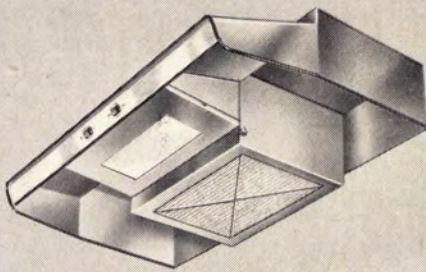
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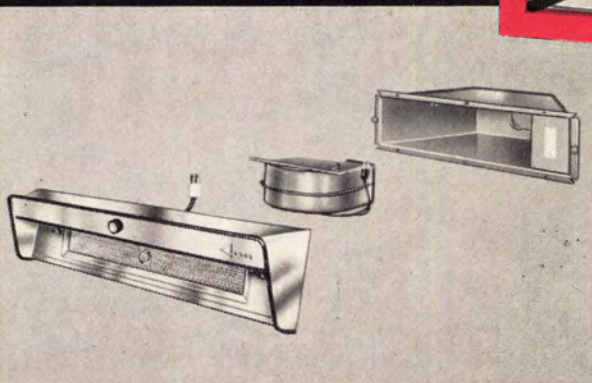
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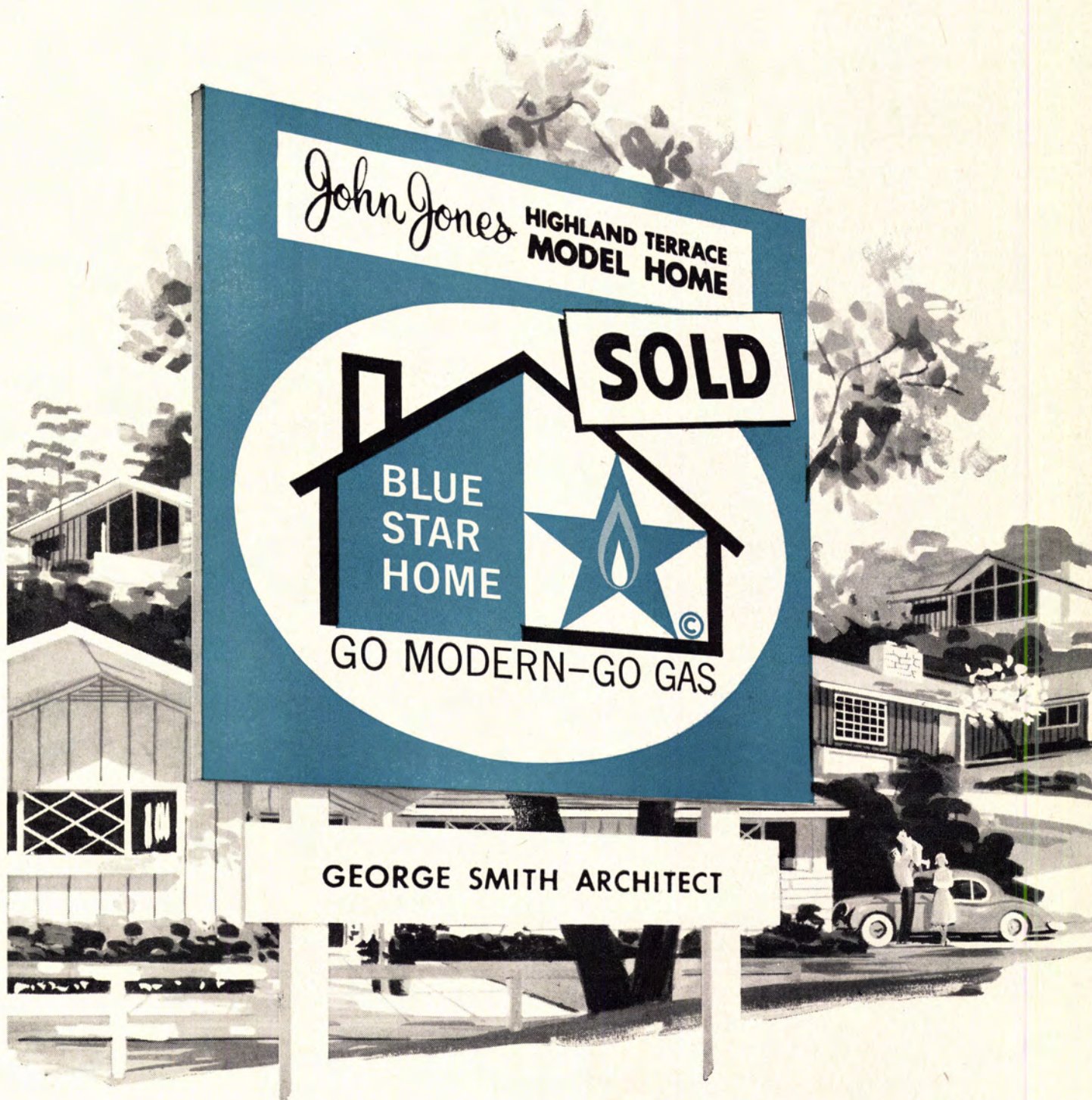
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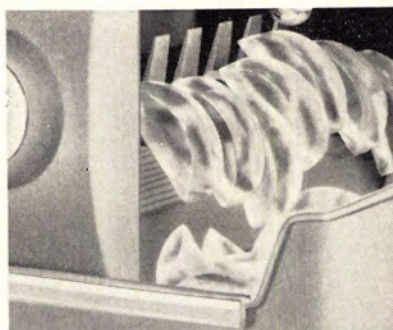
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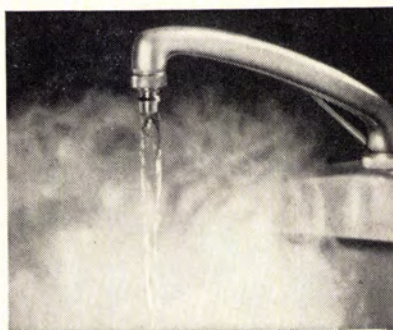
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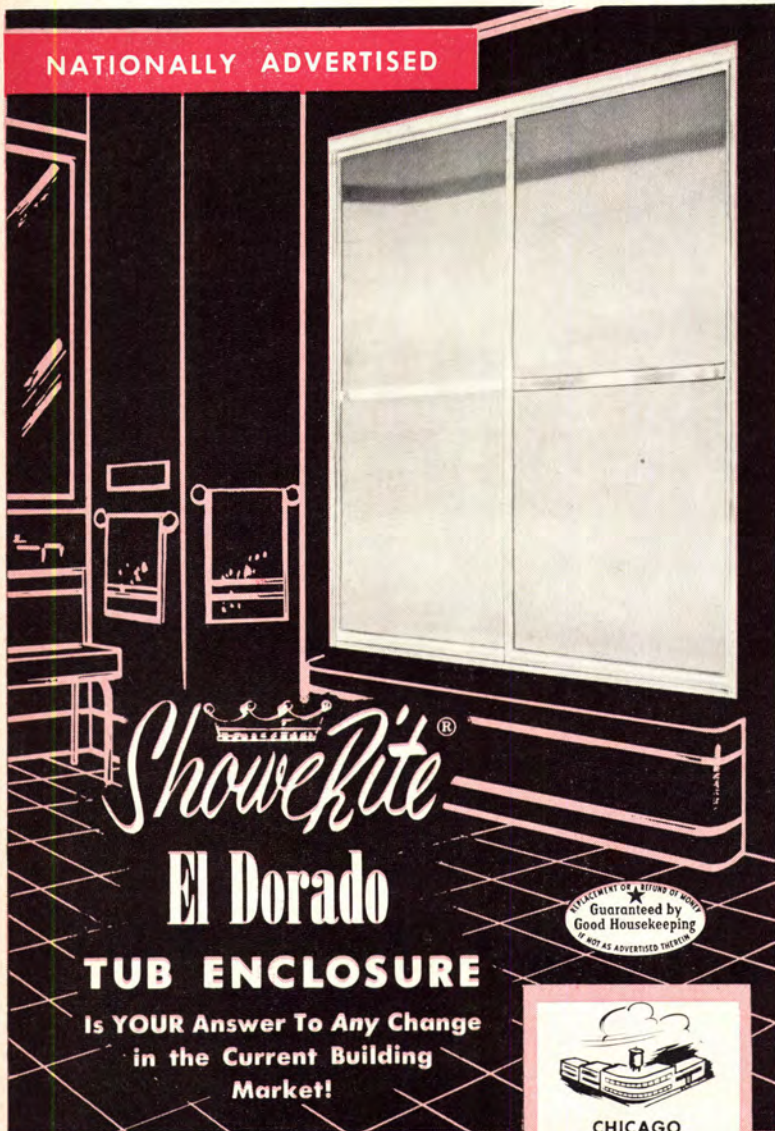


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GIANT CAPACITY
BUILT-IN OVENS
GAS and ELECTRIC

... plus our complete line
of Gas and Electric ovens
and counter top units!

Temperature
Controlled
BROILING!



NATIONALLY
ADVERTISED!

Promotional
models for
BUILDERS!



ONLY
3" DEEP!



GAS
and
ELECTRIC
COUNTER
TOP
UNITS



DEALERS AND DISTRIBUTORS
Some territories still open

EASY
TO
INSTALL!



MT. VERNON FURNACE & MFG. CO.
Mt. Vernon • Illinois
(Builders of Fine Stoves Since 1920)

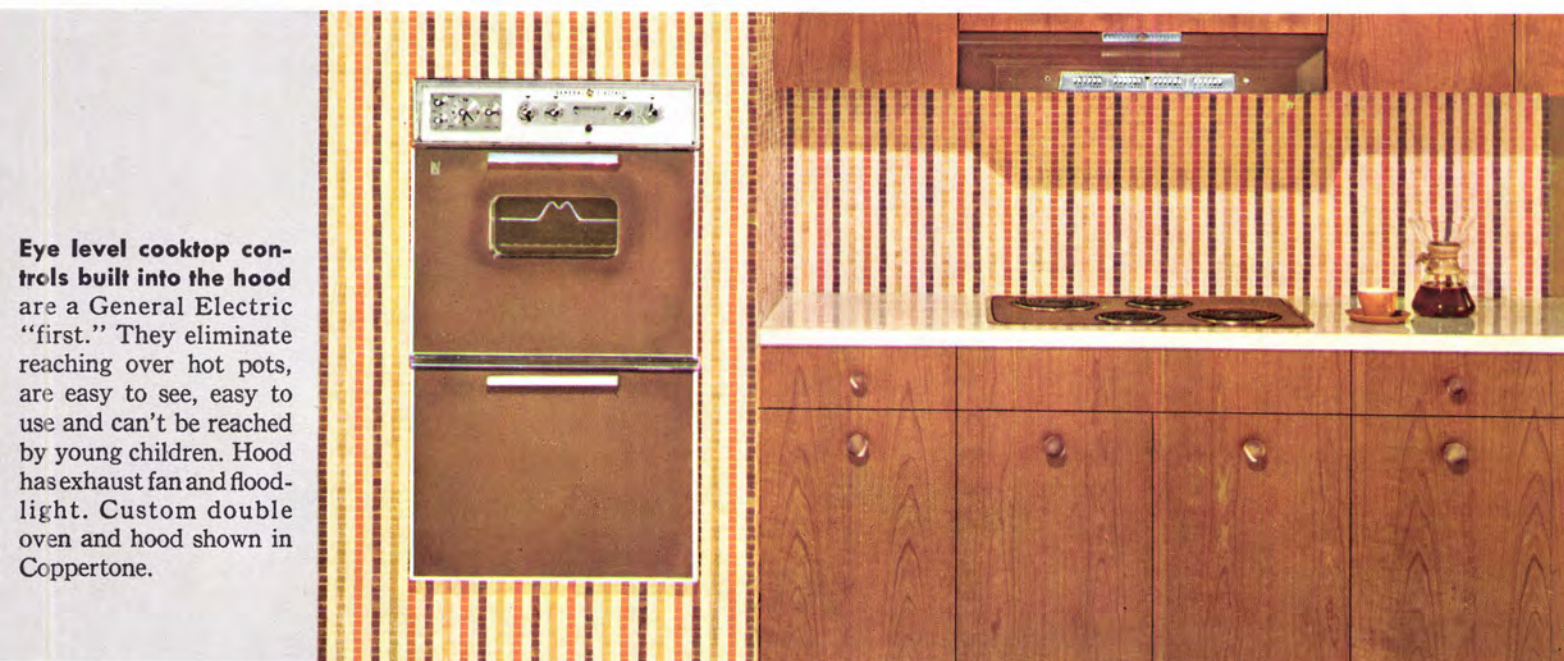
THE NEW **SENSI-TEMP** UNIT IS HERE! AND THAT'S JUST ONE OF THE MOST-WANTED FEATURES IN THE NEW LINE OF HANDSOME, EASY-TO-INSTALL

GENERAL ELECTRIC BUILDER-DESIGNED OVENS AND COOKTOPS

NEW SENSI-TEMP AUTOMATIC SURFACE UNIT MAKES ANY PAN AUTOMATIC!



Frying pans become automatic skillets, all pots and pans become as automatic as their electric counterparts on the General Electric Sensi-Temp Unit*. This new unit automatically maintains temperature dialed for any top-of-the-range cooking. No constant watching, no scorching, no burning either. Automatic griddle included. Automatic custom oven and cooktop with Sensi-Temp Unit shown here in Canary Yellow. *Sensi-Temp Unit will be available in May.*



Eye level cooktop controls built into the hood are a General Electric "first." They eliminate reaching over hot pots, are easy to see, easy to use and can't be reached by young children. Hood has exhaust fan and floodlight. Custom double oven and hood shown in Coppertone.

FREE! Plans, specifications and accessory sources for all kitchens pictured are available from: Range Department, General Electric Company, Building 2, Appliance Park, Louisville, Kentucky.

*Trademark of the General Electric Company

Progress Is Our Most Important Product

GENERAL  ELECTRIC

Single or double ovens— 2 or 4-unit cooktops

General Electric offers the features homebuyers want most

With General Electric Ovens and Cooktops you can blend with any color scheme, fit any floor plan and provide custom installations in every price class quickly and easily. Best of all, you can provide the features homebuyers want!

In this smartly styled kitchen at right, the up-front pushbutton controls on the drop-in cooktop put all controls right at the fingertips! And the oven control panel (on every General Electric oven) puts all controls at eye level where they're easy to read and reach!



Removable oven door makes it easy to reach any part of oven for cleaning. Open door, release safety latch, slide door off. Slides back on as easily.



Automatic rotisserie barbecues a 20-lb. roast to juicy perfection! Stainless steel spit. Removable, sure-grip handle lets you handle rotisserie safely, easily.

Plus all these popular features

Automatic Oven Timer that can be set simply, in seconds • Built-In Meat Thermometer in oven sounds a buzzer when meat is ready • Front panel service access . . . eliminates need to remove oven • Focused-Heat Broiler for "charcoal type" broiling • Built-in oven vent keeps door and controls condensation-free • Separate Minute Timer . . . sets from 1 to 60 minutes • Eye-level controls . . . with large, easy-to-read dials • See-through oven window lets you watch what's cooking • Extra hi-speed units for clean, safe, dependable cooking.

THEY MIX-OR-MATCH! Mix-or-Match ovens and cooktops in like or contrasting colors! Ovens in Petal Pink, Turquoise Green, Canary Yellow, Woodtone Brown, White, Coppertone and Satin Chrome. Cooktops in all colors and stainless steel.



Cooktop Model J-880 with new Sensi-Temp Unit has remote push-button control panel for cabinet or wall installation. Model J-882 (Stainless Steel).



Cooktop J-820 has integral controls, Model J-822 (Stainless Steel)



Deluxe Oven J-720, J-722 (Satin Chrome), J-724 (Coppertone)



Custom Single Oven J-750, J-752 (Satin Chrome), J-754 (Coppertone)



Custom Double Oven J-780, J-782 (Satin Chrome), J-784 (Coppertone)



Cooktop J-810 with controls built in hood, Model J-812 (Stainless Steel)



Cooktop J-850 has remote controls, Model J-852 (Stainless Steel)

New General Electric one piece built-in range: the **MARK 27**

Easy one-piece installation... adds value to any priced home

Over 1000 Builders Already Have Installed It...

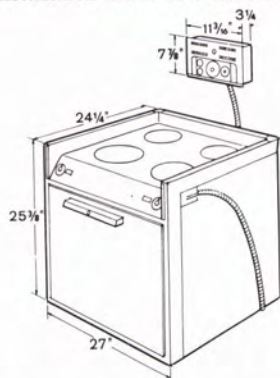


NEW MARK 27... General Electric's new one-piece built-in range... so immediately popular with builders that over 1,000 builders have installed it in the first six months of production alone!

Builders across the country find that the Mark 27's compactness of design and ease of installation make it a natural for any

priced home, any type kitchen—as well as saving them money. The Mark 27 has such famous General Electric high quality features as the big-capacity oven, removable oven door, focused heat broiler, automatic oven timer, Minute Timer and pushbutton controls—a really terrific lineup of extra selling points with prospects.

**Slides into
place easily
—saves
space, time,
and labor**



Only one unit to install, one control to connect! Mark 27 needs space only 27" wide x 24" deep. Smart between cabinets, or in island or wall installations. Leaves enough room for an extra appliance or cabinet. Control mounts wherever convenient.

Look at these savings!

Single conduit connection.....	SAVE up to \$25.00
No oven cabinet needed.....	SAVE up to \$45.00
No cooktop base cabinet needed.....	SAVE up to \$20.00
No wasted countertop covering.....	SAVE up to \$20.00
	\$110.00
Less base panel below oven of Mark 27 (optional).....	10.00
	NET SAVINGS TO YOU \$100.00

Savings approximate. They will vary with local material, equipment and labor costs.

Progress Is Our Most Important Product

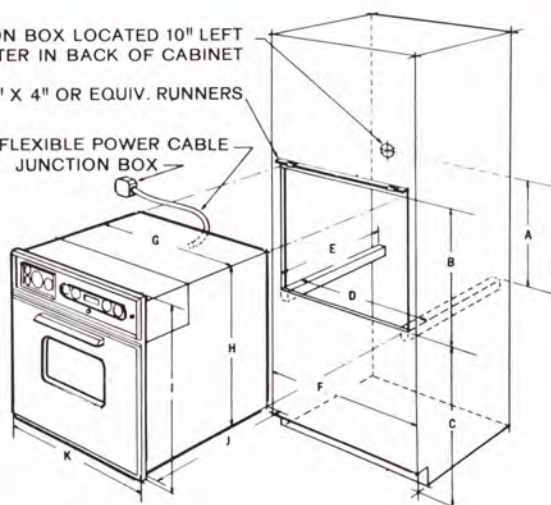
GENERAL  ELECTRIC

Designed and engineered for fast, easy installation

JUNCTION BOX LOCATED 10" LEFT OF CENTER IN BACK OF CABINET

2" X 4" OR EQUIV. RUNNERS

FLEXIBLE POWER CABLE
JUNCTION BOX

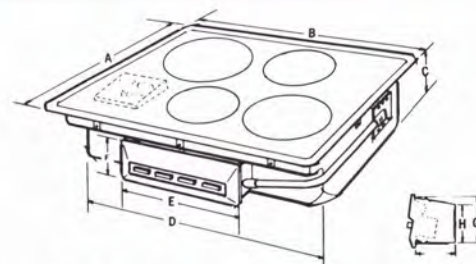


G-E
one-piece oven
installs in minutes

No assembly needed. Oven comes from the factory complete, ready to slide into wall opening or 27-inch wide cabinet. No knobs or trim to remove or replace. No time or labor needed for complicated electrical connections—just one simple conduit to attach. Installation in minutes.

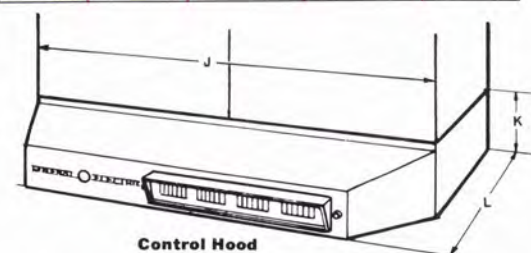
DIMENSIONS BUILT-IN OVENS AND CABINET

MODEL	J-720—J-722—J-724 J-750—J-752—J-754	J-780—J-782—J-784
A	23"	43½"
B	24¼"	44½"
C	34½"	14½"
D	25"	25"
E	23¼"	23¼"
F	27"	27"
G	24¼"	24¼"
H	24"	44½"
I	25¼"	45½"
J	22½"	22½"
K	26"	26"



COOKTOP DIMENSIONS

MODEL	J-802	J-820—J-822	J-850—J-852	J-880—J-882 J-890—J-892
A	21½"	21½"	21½"	21½"
B	16½"	30¾"	30¾"	30¾"
C	5½"	5½"	5½"	5½"
D	12¼"	26¾"	26¾"	26¾"
E	8½"	For Remote Controls	15½"	For Hood
F	47½"		4¾"	
G	4"		4"	
H	3¾"		3¾"	
I	3¾"		3¾"	
J				J 35½"
K				K 5¼"
L				L 18"

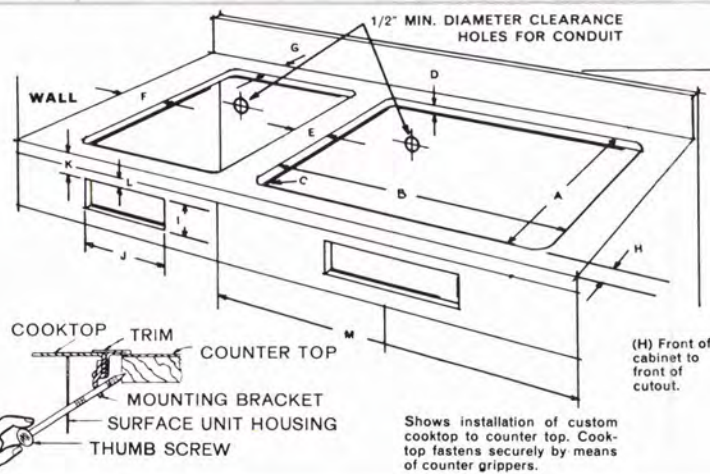


Control Hood

FOR COMPLETE SPECIFICATIONS
and installation information, contact your local G-E distributor or write Range Department, General Electric, Appliance Park, Louisville 1, Ky.

DIMENSIONS FOR BASE CABINET OPENINGS

MODEL	J-802	J-820—J-822	J-850—J-852	J-880—J-882 J-890—J-892
A	20½"	20½"	20½"	20½"
B	15½"	29½"	29½"	29½"
C	1¾" RAD	1¾" RAD	1¾" RAD	1¾" RAD
D	½" MIN	½" MIN	½" MIN	½" MIN
E	1½" MIN	1½" MIN	1½" MIN	1½" MIN
F	1¾" MIN	1¾" MIN	1¾" MIN	1¾" MIN
G	1½" MIN	1½" MIN	1½" MIN	1½" MIN
H	1½" MIN	1½" MIN	1½" MIN	1½" MIN
I	4¾"		4¾"	
J	7½"		14¾"	
K	1¾" MIN		1¾" MIN	
L	1½" MIN		1" MIN	
M	36" BASE CAB.	36" BASE CAB.	36" BASE CAB.	36" BASE CAB.



COOKTOP TRIM
MOUNTING BRACKET
SURFACE UNIT HOUSING
THUMB SCREW

Shows installation of custom cooktop to counter top. Cooktop fastens securely by means of counter grippers.

from carton to cooking in 32 minutes:



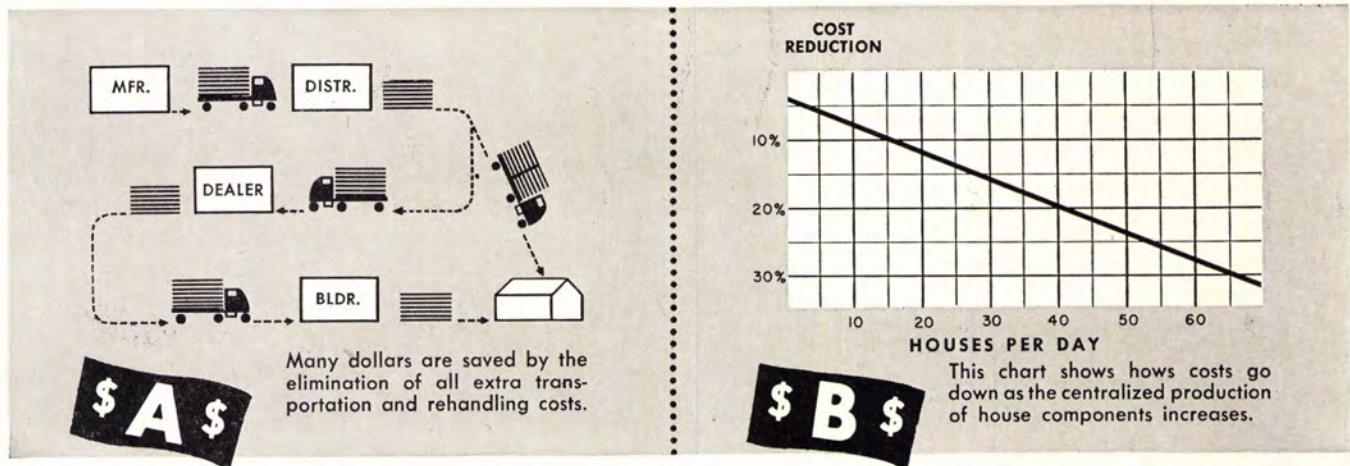
One-piece drop-in cooktop has built-in pushbutton controls . . . means no separate control panel to mount. Unit fits flush with counter top.



Six thumb screws to tighten . . . one conduit to connect . . . done! This oven and cooktop were installed by The Eagles Co., Louisville, in less than 32 minutes.



One-piece oven slides into wall opening or 27-inch cabinet. Comes from factory complete and ready to install—no knobs or trim to remove or replace.



WITH P-B COMPONENTS

Steps A and B save 15% for the Builder
—on any type or size of house

We have 24 years' experience in the building of the major house components. No other firm can offer you comparable experience. Many millions of dollars' worth of homes have been built by our method—known as Precision-Building. All this experience points to one fact...the centralized building of Precision-Built House Components—by the building materials distributor—cuts costs for everybody. To any builder—large or small—this means a saving of about 15% on wall, floor, ceiling, roof and gable components.

Two facts account for this saving.

A—When the distributor handles the fabrication, many unnecessary handling and rehandling costs are eliminated. The component parts come direct from the distributor to your site.

B—When the distributor handles the fabrication, you share in his far larger volume discounts—regardless of the volume of your activities.

Reduced handling costs and larger volume discounts on the materials are easily understood. You are saving money.

You are also increasing your selling strength—when you build with P-B Components. You are not limited to any type or size of house—any plan can be quickly detailed for P-B Components. You give the home buyer a top-quality, custom-built house—two to four months sooner than by conventional methods. You maintain a far smaller staff of skilled labor. You invest no money in expensive equipment. You are fully equipped to compete profitably with every type of prefabricated housing.

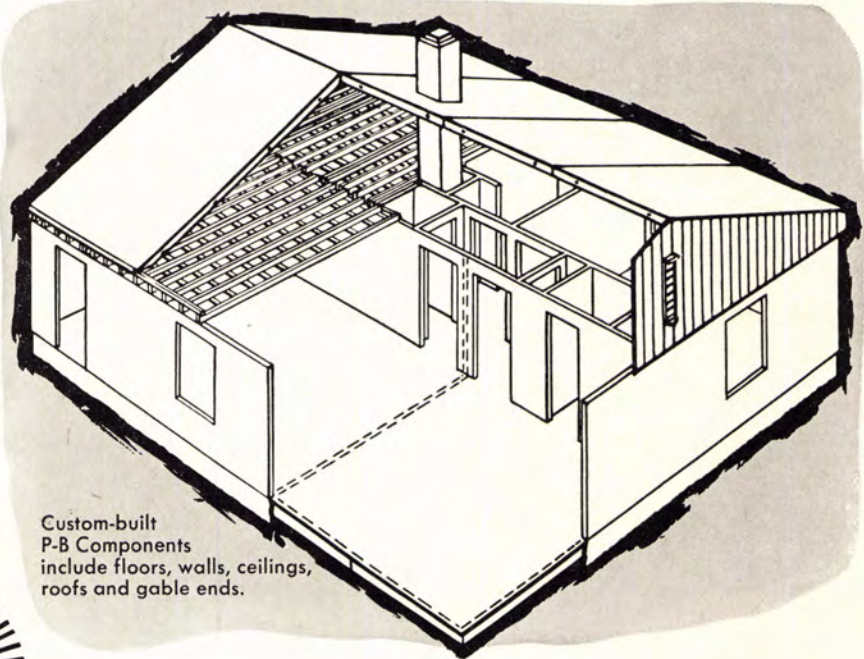
Your walls and partitions

are not of some limited arbitrary length or width, but *room-size*—with either exterior finish or sheathing applied and with the interior finish applied. They can even be wired for electricity. Floor components are built mainly 8-feet in width and of the length needed; the underflooring is insulated and the factory-finished flooring already in place. Ceiling components have the ceiling material already in place. Roof and gable components have the sheathing

already in place.

You buy your P-B Components through your local lumber dealer—custom-built to fit your plan—delivered to your site. (If he does not yet know about P-B Components, ask him to contact us.)

Take the time to get all the facts. Let us show you in detail just how this plan works for you—in your territory. Write or wire today—to Department A-11.



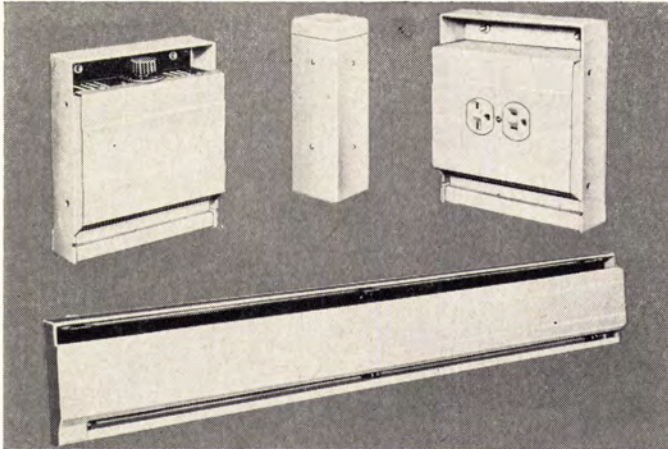
HOMASOTE COMPANY

Trenton 3, New Jersey

Homasote of Canada, Ltd., 224 Merton St., Toronto 7, Ont.

HEATING —electric heat is stirring up the industry

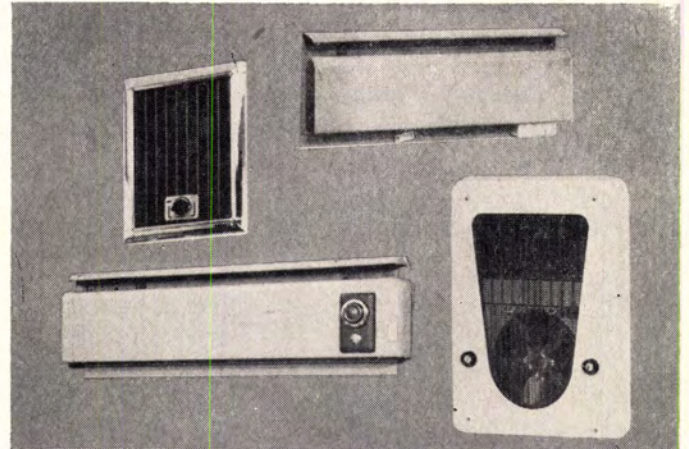
1959 started a big rush to electricity that is still continuing: More and more radiant baseboards and more blast coils for forced-air installations (see H&H, Dec '59) are available. Meanwhile new gas- and oil-fired furnace makers are answering electricity's challenge by making smaller, more efficient units, with better controls, in more complete packages.



Emerson baseboards develop 250-w per ft (about 850 Btu), enough to heat but not scorch, have a built-in thermal overload protector. Flat aluminum-coated elements operate on 240-v in stock units, 208 or 120-v on special order. Lengths come 3', 4', 6', and 8' with matching accessories.

Emerson Electric, St Louis.

For details, circle No. 65 on coupon, p 310



Carrier goes all-electric with a full baseboard and wall heater line to match or tie into its heat pump line. Five sizes of low-rise baseboards and four sizes of wall units are offered. Baseboards come 2½' to 8' long, 300 to 1250 w. Wall heaters fit between studs, put out 1500 to 4000 w.

Carrier, Syracuse.

For details, circle No. 66 on coupon, p 310

Pioneer vent heaters, that put out 28,000 to 33,000 Btuh, have sealed combustion chambers and through-the-wall vents to insure safety. New heaters for motel, cabin, or zone heat use install flush with floor, above baseboard, or under window.

Pioneer Mfg Co, Los Angeles.

For details, circle No. 67 on coupon, p 310

G-B prefabbed duct is approved by UL for heating and air conditioning. Glass fiber walls provide thermal insulation and sound absorption. Plastic vapor barrier prevents condensation. Duct comes in 6' ready-to-use sections, is easily cut and fitted.

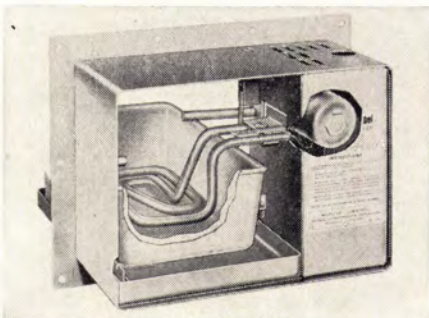
Gustin-Bacon, Kansas City.

For details, circle No. 68 on coupon, p 310

Air Control diffuser has high-impact polystyrene face for perimeter forced-air systems. Coved diffuser rounds from the floor into the wall. 18" unit gives 38 sq in. of net free area, blankets wall with warm or cold air. Units carry a list price of \$4.65.

Air Control, Coopersville, Mich.

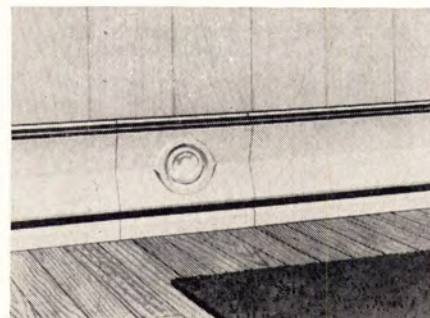
For details, circle No. 69 on coupon, p 310



Mueller humidifier will put out up to 26 qt a day. As 800-w Nichrome element evaporates water from reservoir, lightening pan moves a solenoid to admit more water. Reservoir has stainless steel outer pan, replaceable aluminum inner pan to dispose of scale.

Mueller Climatrol, Milwaukee.

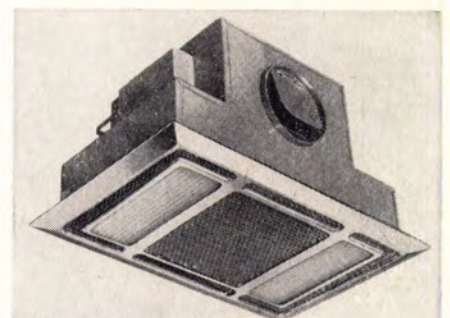
For details, circle No. 70 on coupon, p 310



Convection baseboard, new from R&M-Hunter, comes in high or low wattages. 250-w sections (853 Btuh per ft) serve small rooms in cold climates; 200-w sections (683 Btuh per ft) warm large exposed wall areas. Both types have thermal-overload cutout.

R&M-Hunter, Memphis.

For details, circle No. 71 on coupon, p 310



Trade-Wind heater is combined with light and vent for bathroom use. New model gives radiant and convected heat through central aluminum grille. Reversible fan can exhaust or blow hot air. Five-way wall switch controls function separately or in combination.

Trade-Wind, Pico Rivera, Calif.

For details, circle No. 72 on coupon, p 310

Armstrong furnaces, just announced, are exceptionally compact—25½" deep, 54" high, 12" (60,000 and 80,000 Btuh) or 20" (100,000 and 120,000 Btuh) wide. They are approved for zero clearance by AGA. Smaller units need only a 4" flue, larger models only 5" flue. New blowers come with drive options to meet air handling needs for either heating or cooling. Permanent washable filters are standard.

Armstrong Furnace, Columbus.

For details, circle No. 73 on coupon, p 310

Roberts-Gordon have added eight oil-fired furnaces and two lines of gas- and oil-fired boilers to their line. The furnaces are compact lo-boy, hi-boy, and counterflow models ranging in output from 75,000 to 160,000 Btuh. Wrap-around heat exchangers give maximum transfer. The boilers put out 111,000 to 180,000 Btuh with oil, 150,000 to 200,000 Btuh with gas. Sediment collectors in wet base.

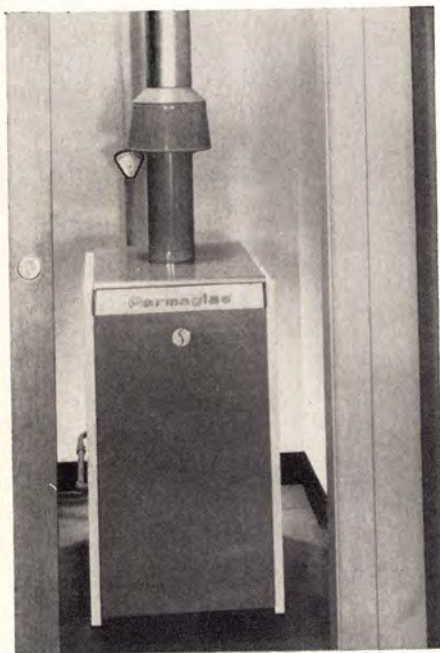
Roberts-Gordon, Buffalo.

For details, circle No. 74 on coupon, p 310

Thatcher boilers for gas or oil firing have just been introduced. Oil-fired line comes in nine sizes with net IBR ratings of 67,500 to 239,300 Btuh; eight gas models rate from 36,000 to 162,000. Both have similar cast-iron boiler sections, full automatic controls, glass fiber insulation, vertical flue travel. Both can add copper tankless domestic hot water. Oil models are ASME approved; gas models AGA approved.

Thatcher Furnace, Garwood, N.J.

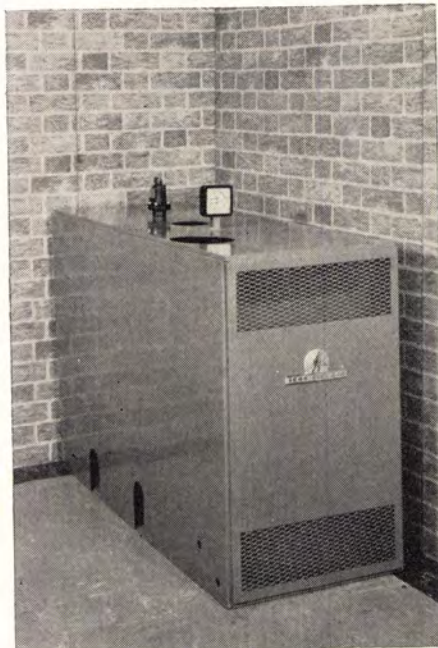
For details, circle No. 75 on coupon, p 310



Permaglas boilers come in new compact units only 34" to 45" high with a Btuh range of 110,000 to 420,000. Copper fin-tube and coil combination gives efficient heat exchange. Flame modulator varies input as demand changes, allows circulation of almost constant temperature water. All parts in contact with water are copper, brass, or bronze. AGA approved.

A. O. Smith Corp, Kankakee, Ill.

For details, circle No. 76 on coupon, p 310



Iron Fireman boiler is now available in a smokeless, sootless, odorless version to match last year's warm-air furnace. New boiler is claimed to save 25% to 33%. New oil-burner operates with sealed combustion chamber and mechanical forced draft. Where codes permit, it can be vented through an ordinary steel pipe. Built-in domestic hot water supply is optional.

Iron Fireman, Cleveland.

For details, circle No. 77 on coupon, p 310



Perfection furnaces are designed for built-in or flush-mounted use, are styled so front can be exposed to view. All connections are through the top and back; service access is through the front. Inner walls are lined with reflective aluminum to save heat. Furnace sizes run from 84,000 to 134,000 Btuh. Top-line models have draft regulators, ceramic combustion chambers.

Perfection, Cleveland.

For details, circle No. 78 on coupon, p 310

Majestic has two new furnaces: an 18" wide oil-fired model in upflow and downflow types and a basement lo-boy in gas and oil models. Combustion chambers are lined with aluminum silicate fiber for heat and sound insulation. New 18" models put out 67,000 Btuh at the bonnet.

Majestic Co, Huntington, Ind.

For details, circle No. 79 on coupon, p 310

Mor-Sun L-series gas- or oil-fired furnaces now come in two sections with the heater in front, the blower in back. Breakaway construction makes it easy to handle furnaces through doorways for installation, less expensive to change blower units when converting to year-round conditioning.

Morrison Steel, Buffalo.

For details, circle No. 80 on coupon, p 310

Payne wall furnace is 84" high, is designed to be recessed between studs 16" oc. Panelair counterflow unit has a 50,000 Btuh capacity and will deliver forced hot air in three directions. The factory-installed control system works on 24-v ac. The low-speed blower is direct drive.

Payne Co, Anaheim, Calif.

For details, circle No. 81 on coupon, p 310

Day & Night's new compact line measures only 51" high. Models will be gas-fired with a new "Slimline" heat exchanger claimed to let more air through with lower sound levels and operating costs. High capacity blowers will be available for those who want to add air conditioning.

Day & Night Mfg, La Puente, Calif.

For details, circle No. 82 on coupon, p 310

Trane gas furnaces come in a new line of downflow models with high blower capacities. New line has fans that deliver up to 1600 cfm for cooling. Oversize fans and motors assure quiet operation. New furnaces have 77,000 to 115,000 Btuh ratings, will handle 2 to 4-ton cooling units.

Trane Co, La Crosse, Wis.

For details, circle No. 83 on coupon, p 310

Big Moncrief furnaces of 175,000 to 200,000 Btuh input are now being produced completely assembled and wired. Despite capacity, units are only 54"x34"x29", will pass through standard doorway. Air handling equipment includes two 10" blowers to assure ample flow for cooling.

Henry Furnace Co, Medina, Ohio.

For details, circle No. 84 on coupon, p 310

continued on p 252

REVOLUTIONARY NEW AIR can give you the big lead



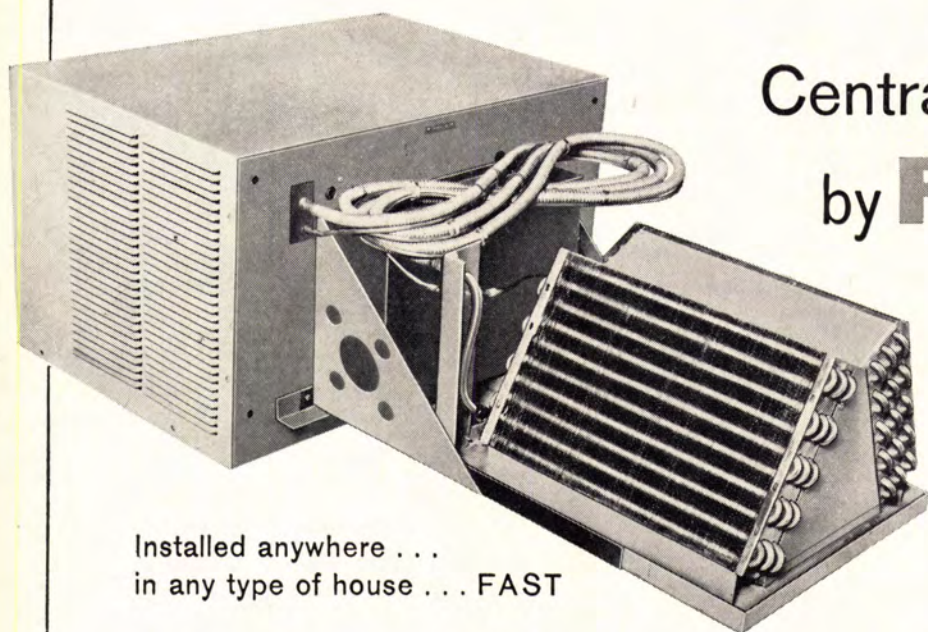
From outdoors, workmen slide FlexHermetic through steel mounting frame built into wall like window sash—then bolt compressor unit into place.



From indoors, workmen remove shipping braces to unyoke separate cooling coil.

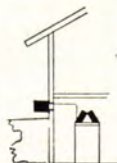
F · L · E · X · H · E · R · M · E · T · I · C

Unified Remote
Central Air Conditioner
by **FEDDERS**



Installed anywhere . . .
in any type of house . . . FAST

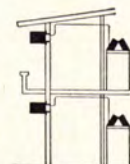
Above grade
through foundation
to basement
furnace



Under eaves
through studding
to utility room
furnace in slab
home

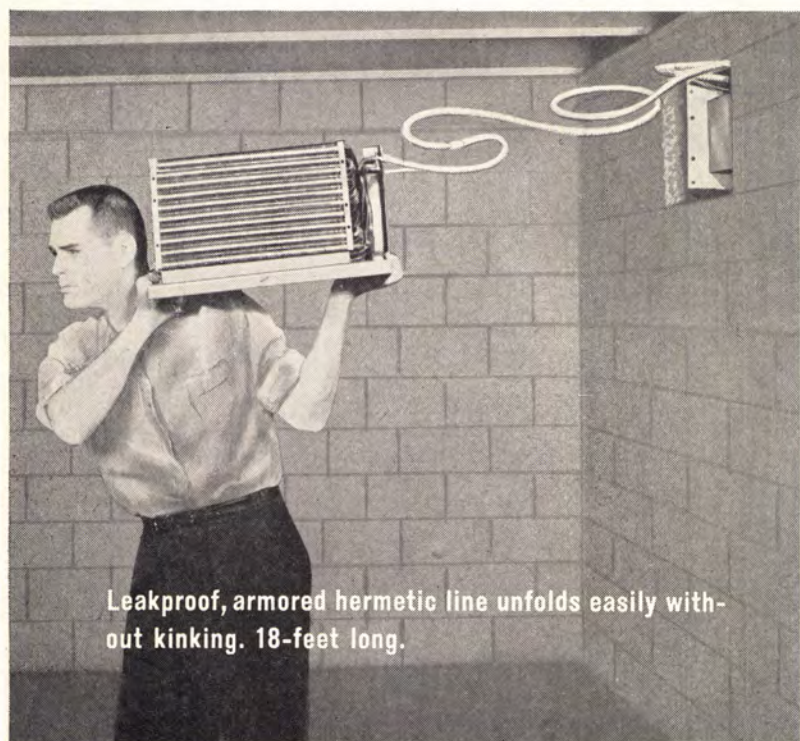


Through brick
wall to furnace in
interior closet in
garden
apartment

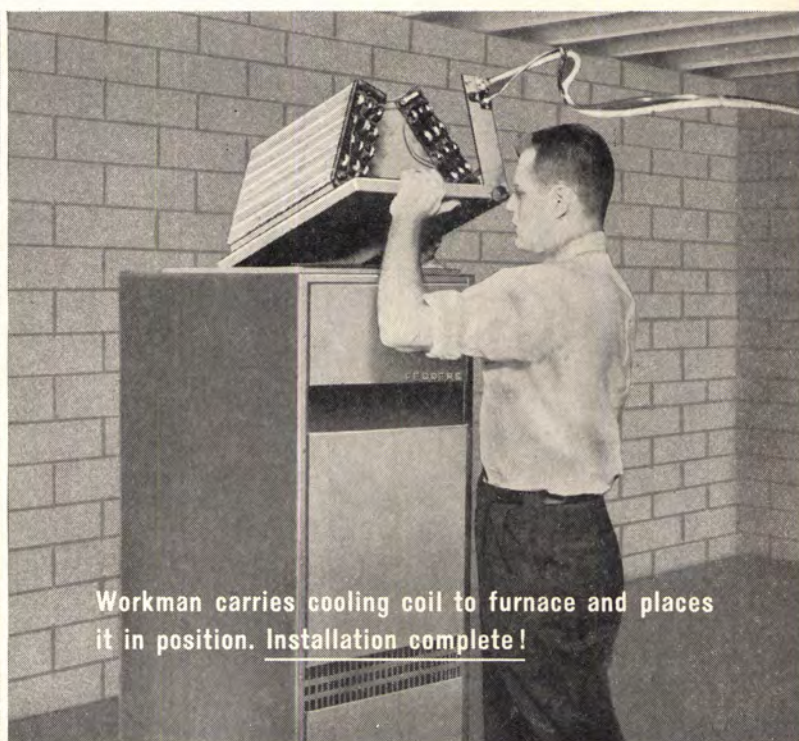


A wall-mounted outdoor compressor section . . . plus a furnace-top cooling coil . . . connected together by a factory-sealed and charged hermetic line.

CONDITIONING SYSTEM on competition — now!



Leakproof, armored hermetic line unfolds easily without kinking. 18-feet long.



Workman carries cooling coil to furnace and places it in position. Installation complete!

Builder-priced remote whole-house air conditioner installs in less than an hour... gives even modest-priced homes a dramatic selling feature... returns 4 to 5 times its cost in extra sales value!

This is the unit that will make whole-house air conditioning as essential as plumbing to new home sales. The four pictures above show you how fast and simple the installation is:

You slide the FlexHermetic through the Flex-Fit frame in your wall, bolt it into place, unyoke the separate cooling coil and carry it to its position on top of the warm-air furnace. The 18-foot armored hermetic line unfolds neatly, smoothly. It's leakproof and completely flexible.

Think of the work and time this revolutionary air conditioning system eliminates:

- No foundation slab to excavate and grade. No forms to set or pour.
- No hermetic lines to lay out, buy, bend, solder, or hang.
- No purging, charging of remote units. No valve adjustments, no gauges, no freon tanks, no scales.
- No outdoor wiring or costly local code provisions to contend with. No conduits or weatherproof cables, no outdoor disconnect switches, special fittings or junction boxes.

All this adds up to the lowest "installed" cost in whole-

house air conditioning today. Plus the finest air conditioning you can offer a prospective home buyer, because factory assembly and factory-charging eliminate all the on-the-job guesswork.

And there's still more good news. Fedders has builder-priced gas and oil-fired furnaces engineered to function perfectly with the FlexHermetic—to give you the most economical heating-cooling package available anywhere.

For more merchandising excitement, greater sales value and a bigger profit pay-off on every home you build—feature the Fedders FlexHermetic. For complete information mail the coupon below—today!

Dept. HH-160

Fedders Corp.

Maspeth 78, New York

Gentlemen: Please send me complete information on the new FlexHermetic Unified Remote Central Air Conditioner.

Name

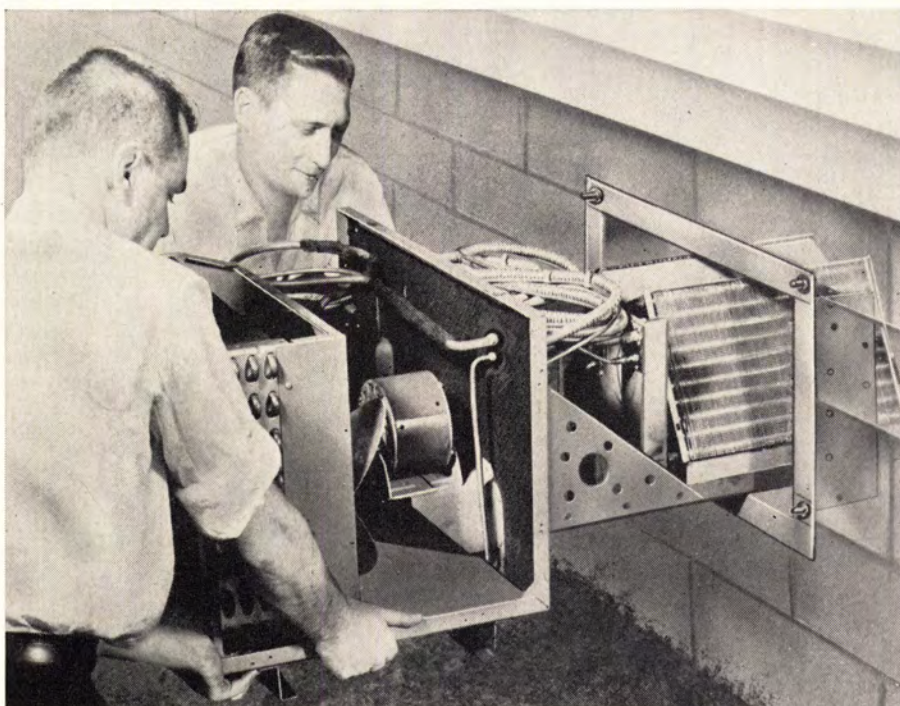
Firm Name

Address

CityState

COOLING — it is a big must for more and more of the market

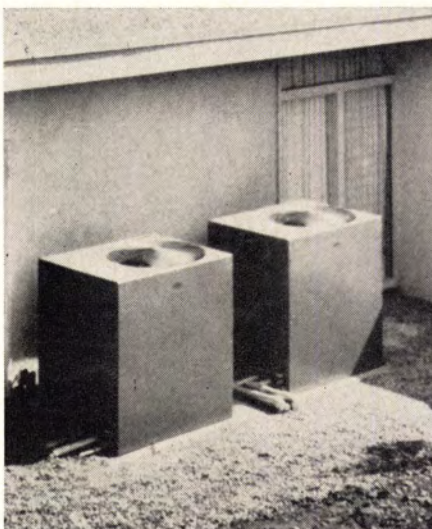
In the South and the Southwest the live news is heat pumps. In the North, where people think of heating first, the form of central cooling most widely used is add-on coils. But all over the country, self-contained room units are making a comeback in the new-house market: they are the chief type sold to apartment and motel builders and they are challenging central systems for small homes.



Through the wall cooler combines inexpensive installation of room unit with efficient duct distribution of central system. Fedders' new FlexHermetic was designed to go with Fedders' about-to-be-announced 20-furnace line but can be added to any up-flow furnace with adequate blower. New 2-hp, 22,000-btuh unit consists of pre-charged compressor-condenser unit and A-coil, connected by 18' of armored copper tubing. Unit installs through cellar window or through 23"x12" wall opening. After condenser is bolted to wall frame, A-coil is removed from shipping bracket and mounted in furnace plenum; unit is plugged in and ready to operate. No foundation pad, no hermetic lines, no outdoor wires, and no purging and charging are necessary. Condenser controls are readily accessible at interior wall face. FlexHermetic is expected to sell for less than average 2-hp room unit. 5-year guarantee.

Fedders Corp., Maspeth, N.Y.

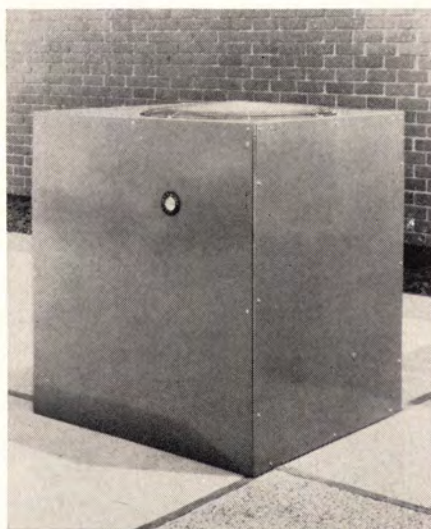
For details, circle No. 85 on coupon, p 310



Payne gas-fired system is used in San Fernando research house (above) to give year-round constant-climate control. It includes two 3-ton air-cooled absorption units for cooling, two 100,000-Btuh counterflow furnaces. Payne chillers supply cold water to cooling units, can also be used with up-flow or horizontal furnaces or fan-coil blower units.

Payne Co., Anaheim, Calif.

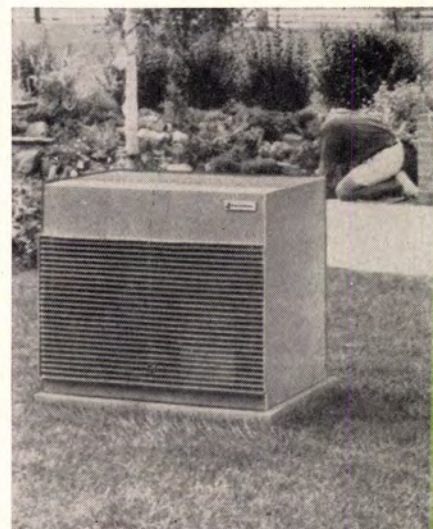
For details, circle No. 86 on coupon, p 310



Day & Night cooler is gas-fired absorption unit that supplies chilled water to central blast coils or local fan-coil units. Like household gas refrigerators, this remote unit has few moving parts, should have long life. Only wiring needed is 110-v connection. Over a year of field testing preceded the recent introduction of Oasis equipment on the West Coast.

Day & Night Mfg., La Puente, Calif.

For details, circle No. 87 on coupon, p 310



Janitrol condenser for 1960 has bigger coils placed diagonally in the cabinet for greater efficiency. New Series 52 models are made in capacities of 22,200 to 110,200 Btuh. They work at temperatures as high as 125F. Cabinet is acoustically treated, fan is rubber mounted to reduce sound. Exhaust air from the condenser is discharged upward away from plants.

Surface Combustion Corp., Columbus.

For details, circle No. 88 on coupon, p 310

New Westinghouse heat pump is a 5-ton split system. This unit has a new sensing element that regulates indoor climate from outdoor temperature. Indoor section can be assembled for up, down, or horizontal air flow, can be installed in closet, attic, crawl space, basement, etc. Outdoor section has automatic defrost, exhausts vertically to protect shrubbery. Supplementary duct heaters can be added in 6-kw steps.

Westinghouse, Pittsburgh.

For details, circle No. 89 on coupon, p 310

Admiral room units for 1960 come in four series. The 115-v Ruler and 230-v Coronet series (6,600 and 9,500 Btuh) can be installed through a wall in metal sleeves. Larger 230-v Scepter has four 360° louvers, produces 10,800 and 13,000 Btuh, effectively cools two rooms. Regency 2-hp units are capable of 15,500 and 16,000 Btuh, cool a small ranch house.

Admiral Corp, Chicago.

For details, circle No. 90 on coupon, p 310

Gibson coolers come in five new series, specified according to cabinet size. Metropolitan Series is designed for building in: all of these 1-hp models fit a wall sleeve, all have rear louvers. Capacities range from a 7½-amp, 115-v model that cools 400 sq ft to a 12-amp, 230-v model to cool 775 sq ft. Gibson's biggest model—the Texan—is a 2-hp unit that cools up to 1550 sq ft.

Gibson Refrigerator, Greenville, Mich.

For details, circle No. 91 on coupon, p 310

1960 GE room units come in 14 models running from a small 115-v window unit to a 2-hp, 16,000 Btuh model. Three all-weather heat pumps have cooling capacities of 8,000, 10,000, and 12,000 Btuh. GE built-in models have plain interior baffles and architecturally styled exterior baffles.

General Electric, Louisville.

For details, circle No. 92 on coupon, p 310

Polar Prince 2½-hp condenser, new from Coleman, is aimed to fill gap between more commonly-stocked 2-hp and 3-hp sizes so a builder can specify to his cooling needs. Other Polar Prince units come in 4-hp and 5-hp sizes.

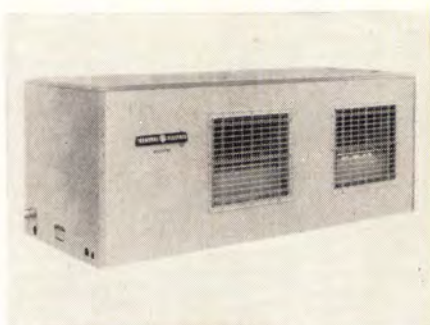
Coleman Co, Wichita.

For details, circle No. 93 on coupon, p 310

Mueller heat pumps come in 3- and 5-hp sizes. Indoor air handlers work with or without ducts, in attic, crawl space, basement, etc. The 3-ton model heats to 37,500 Btuh, cools to 34,000 Btuh, the 5-ton to 60,000 and 56,000 Btuh. Resistance heat in 8 and 12 kw packages add 27,280 and 40,920 Btuh.

Mueller Climatrol, Milwaukee.

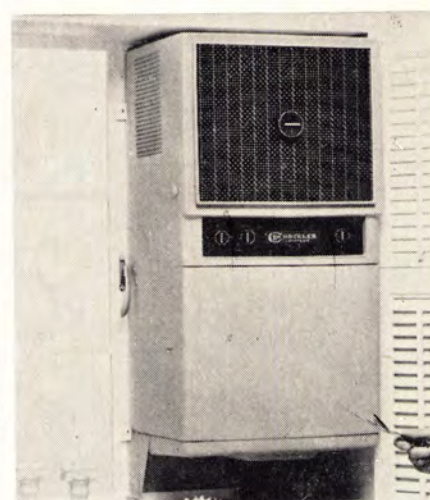
For details, circle No. 94 on coupon, p 310



GE Weathertron now comes as a 4-ton split system. Heat-pump consists of outdoor condenser section (above) and horizontal or vertical air handler. Condenser has sealed compressor, permanently lubricated blower, is automatic defrosting. Air handlers have belt-driven adjustable-speed blowers.

General Electric, Tyler, Tex.

For details, circle No. 95 on coupon, p 310



Airtemp casement units are 1-hp models of 6,000 and 7,700 Btuh capacity. All are 36¼" high, 16¾" wide, 12⅝" deep, fit same mounting holes as window screens. Royal model uses 115 volts, has automatic thermostat, 2-speed fan, fresh air and exhaust vents.

Chrysler, Detroit.

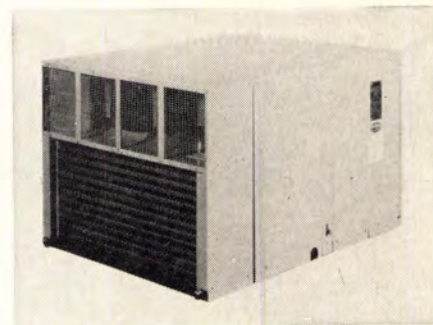
For details, circle No. 97 on coupon, p 310



Frigidaire 1960 units offer "stereo" cooling: grille directs cooled air around room occupants, not at them. New pin-fin coil speeds cooling and moisture removal. Polystyrene air guide cuts operating noise. Models come in 6,000 to 16,500 Btuh capacities.

Frigidaire, Dayton.

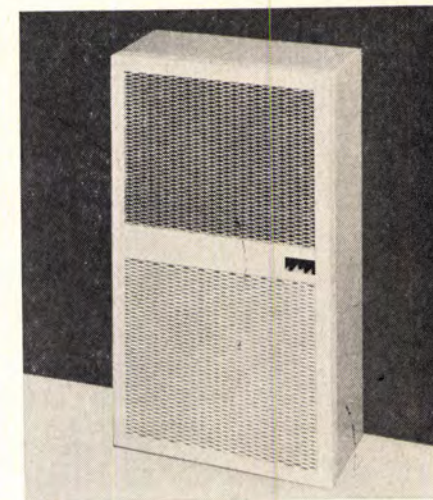
For details, circle No. 99 on coupon, p 310



Lennox heat pump is 2-hp unitary type, installs on a roof or in an attic. Turnabout blower is permanently lubricated and sealed. Compressor is resilient-mounted, suction cooled. Outdoor coil is aluminum-finned copper tube. Central wiring panel is located for easy access.

Lennox, Marshalltown, Iowa.

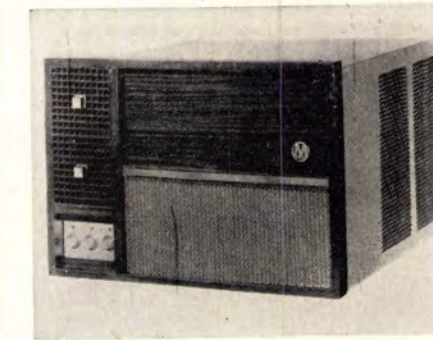
For details, circle No. 96 on coupon, p 310



Spotaire fan-coil works with central hydronic heating and cooling. VRS units range from 2,500 to 11,000 Btuh. Room controls give complete zoning, air diverter allows heating-cooling of two small rooms from one unit. Units can be recessed in a 16" stud wall.

National-US Radiator, Johnstown, Pa.

For details, circle No. 98 on coupon, p 310



Mathes 2390C is claimed to be the most powerful room cooler made. ARI-certified capacity is 23,900 Btuh, enough for 1,000 sq ft house. Automatic thermostat, permanent filter, and exceptionally quiet blower are featured. Hardwood cabinets come in five finishes.

Mathes Co, Fort Worth.

For details, circle No. 100 on coupon, p 310

continued on p 256



give every HOME a "PLUS VALUE" with a ...

NATIONAL *food waste* DISPOSER

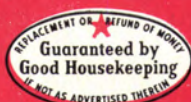
the most important appliance in the most important room in the house

A National food waste Disposer in the kitchen makes new homes more saleable, old homes more valuable. National Disposers add convenience—appeal by making the kitchen completely modern—no more garbage for busy mothers to handle, wrap and carry out.

National food waste Disposers grind all food waste, even big bones, into micro-sized particles and wash it right down the drain—before it accumulates—*before* it becomes garbage!

National's full line gives you a model for every home from the custom built to the budget remodeling job.

**NATIONAL
DISPOSERS
ARE
BETTER
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- National Disposers have full two quart capacity.
- National Disposers have full size, heavy-duty cast shredding elements (no lightweight stampings).
- National Disposers have a factory sealed Power-Pak that assures trouble-free operation.
- National Disposers have matching stainless flanges and covers to add beauty to your sink (no exposed plastic or rubber parts).
- National Disposers are backed by over thirteen years of experience in manufacturing food waste disposers exclusively.

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CUSTOM TOUCH
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**WATER
DISPENSER**



Teakettle hot water at a touch of the finger—no more "stove-top-water-heating" problem. Mounts in sink ledge or counter top. Perfect for preparing Instant Coffee, Tea, Soups, Bouillon, Frozen Food thawing, heating formulae and a host of everyday uses.

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**NATIONAL
DISPOSER** / *Instant-HOT*

PRODUCTS OF PLUMBING EQUIPMENT DIVISION • NATIONAL RUBBER MACHINERY CO. • 920 LAFAYETTE RD. • MEDINA, OHIO

Permaline Fibre Pipe house-to-street sewer in Long's 10,000-home Maryvale subdivision. Use of 10-foot lengths of Permaline saves 20% in installation time over the usual 8-foot lengths, and 30 to 50% over the nearest competitive materials. Permaline tapered couplings need no cement, no caulking, are just driven on to make a permanent, flexible, root-proof joint.

Fike Selects Permaline Fibre Pipe for Long's 10,000-Home Phoenix Project

Two men install eight 60-foot house-to-street sewers in three hours by using economical 10-foot-long Permaline

One of the country's largest subdivisions is John F. Long's *Maryvale*, near Phoenix. Already completed are 5,000 homes, schools and a shopping center. Another 5,000 homes are planned for this tract, plus a nearby golf course, three more shopping centers, and an industrial park limited to light manufacturing, warehouses, and research organizations.

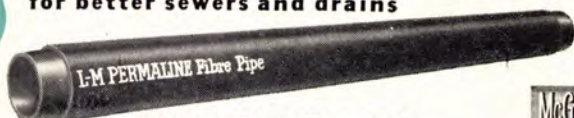
Long's subdivision has been nationally acclaimed for the outstanding values its houses offer home buyers. These values are possible because Mr. Long and his organization have skillfully used every possible economy in the selection of quality materials and in construction methods. Permaline Fibre Pipe was selected, because the fast assembly of its long 10-foot lengths saves 20% in time over the usual 8-foot lengths, and from 30 to 35% over other materials.

Long uses few subcontractors, but selected the Fike Plumbing Company to provide highly efficient, long-lasting plumbing service. The Fike Company has done all of the plumbing and sewers in the homes already completed, is expected to handle the additional homes to be erected in this subdivision.

Only L-M Permaline Offers All These Advantages

Widest range of sizes and lengths, in solid and perforated pipe • L-M Permaline comes in 10-foot lengths in 3", 4", 5", and 6" diameters; in 5-foot in 2", 4", 6", and 8"; and in 8-foot in 2", 3", 4", 5", and 6" • Most complete line of fittings and adapters, in choice of fibre, plastic, or cast iron • 76 warehouses—the largest available stocks throughout the country • 95 sales offices, and the largest number of fibre pipe specialists and sales representatives to help you sell more fibre pipe • First-grade dependable quality with all tools and equipment to handle Permaline most economically • Ask your plumbing wholesaler for information about L-M Permaline Pipe or mail the coupon for data and bulletin.

L-M PERMALINE
BITUMINOUS FIBRE PIPE
for better sewers and drains



LINE MATERIAL INDUSTRIES

McGraw-Edison Company



Long offers outstanding home values. Here's the 3-bedroom, 2-bath "Saratoga" which provides 1863 square feet of living area, sells for \$11,495.



Aerial view shows home area and a separate industrial park, beautifully landscaped, limited to light construction such as laboratories, warehouses.

LINE MATERIAL INDUSTRIES, Milwaukee 1, Wisconsin
Please send information on Permaline, free. HH-10

Name _____
Company _____
Address _____
City _____ State _____
Type of business you are in, please: _____

FLOORING —every week more patterns, colors, styles, gauges

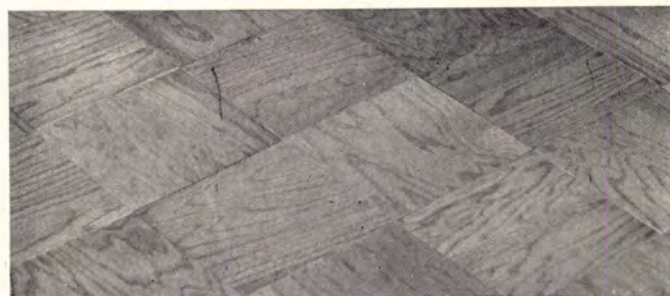
Resilient-tile manufacturers are giving the housing industry all the choice in flooring materials it can use. 1959 saw the development of translucent vinyls, metallic chips, crystalline overlays. 1960 is showing an early swing to metallic thread patterns and terrazzo styles in both tile and sheet goods.



Congoleum Nairn Gala is a new terrazzo style in 1/16" gauge vinyl asbestos. It comes in 21 colors including four patterns with gold metallic chips. Except for metallics, the line sells at prices competitive with other vinyl-asbestos.

Congoleum-Nairn, Kearny, N.J.

For details, circle No. 101 on coupon, p 310



Plyfloor now comes with milled edges to eliminate dirt cracks and irregular joints. Edges are slightly eased to prevent splintering. Plyfloor blocks are finished with vinyl, can be laid in mastic for 50¢ to 60¢ a sq ft.

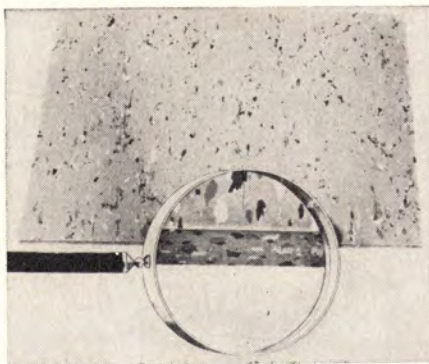
Plyfloor Inc, Hattiesburg, Miss.

For details, circle No 102 on coupon, p 310

Kentile asphalt is made in a marbling that simulates wood. Various tones of maple and cherry, packed in random shades, are used to give the warmth of wood where wood cannot be used, as on slabs at or below grade. Woodgrain comes in 9"x9" tile, 1/8" gauge.

Kentile Inc., Brooklyn.

For details, circle No. 103 on coupon, p 310



Azrock Vina-Lux 800, a new vinyl asbestos series, will have color-chip styling through the full thickness to give better wear without loss of pattern. The tiles are 1/8" thick, 9"x9", and come in six colors.

Asrock, San Antonio.

For details, circle No. 105 on coupon, p 310

B.F. Goodrich has two new stair treads: "Safety-strip" has inlaid strips of abrasive grit; "Safety-design" is embossed for extra gripping surface. Both come in four lengths and nine colors, including two browns, two greys, and two greens.

B.F. Goodrich, Watertown, Mass.

For details, circle No. 106 on coupon, p 310

Matico has added wood hues to its asphalt and vinyl asbestos lines. In asphalt, the colors are rock maple and cherry; in vinyl asbestos, cypress and fruitwood. The company has also extended its Confetti metallic chip from the Aristoflex vinyls to the vinyl asbestos line. All come in 9"x9" tiles in 1/8" and standard gauges.

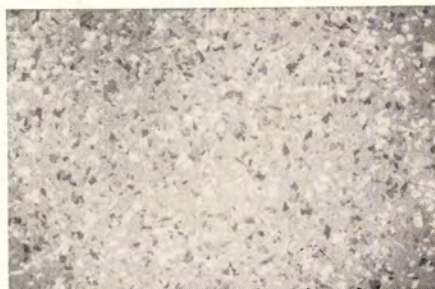
Mastic Tile Corp, Newburgh, N.Y.

For details, circle No. 104 on coupon, p 310

Ceramic scored tile is a new flooring product from American Olean. Scored tile is a 4 1/4"x4 1/4" tile with straight grooves cut in the surface to reduce the scale. The tile is finished with a hard crystalline glaze to give it long wear. The 4 1/4" units have self-spacing projections on the sides to assure straight joints and even spacing.

American-Olean, Lansdale, Pa.

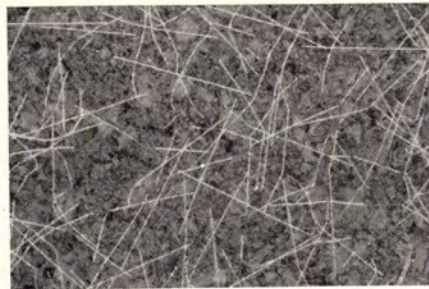
For details, circle No. 107 on coupon, p 310



Armstrong Cork has a new vinyl sheet flooring, called Futuresq Supreme, to install below grade. It comes in 6' wide sheets and six patterns, will retail at about 90¢, installed.

Armstrong Cork, Lancaster, Pa.

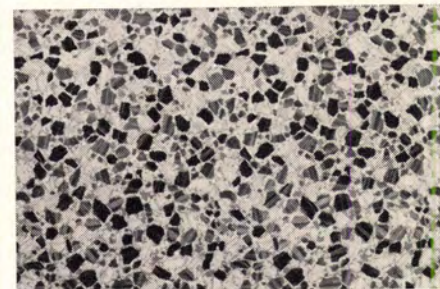
For details, circle No. 108 on coupon, p 310



Dodge Vinyl-Cork now comes in dark tones with silver and gold thread or green and gold chips in clear vinyl surface. Also new, Decorlite, a 3/32" vinyl cork tile for about 60¢ a sq ft.

Dodge Cork, Lancaster, Pa.

For details, circle No. 109 on coupon, p 310



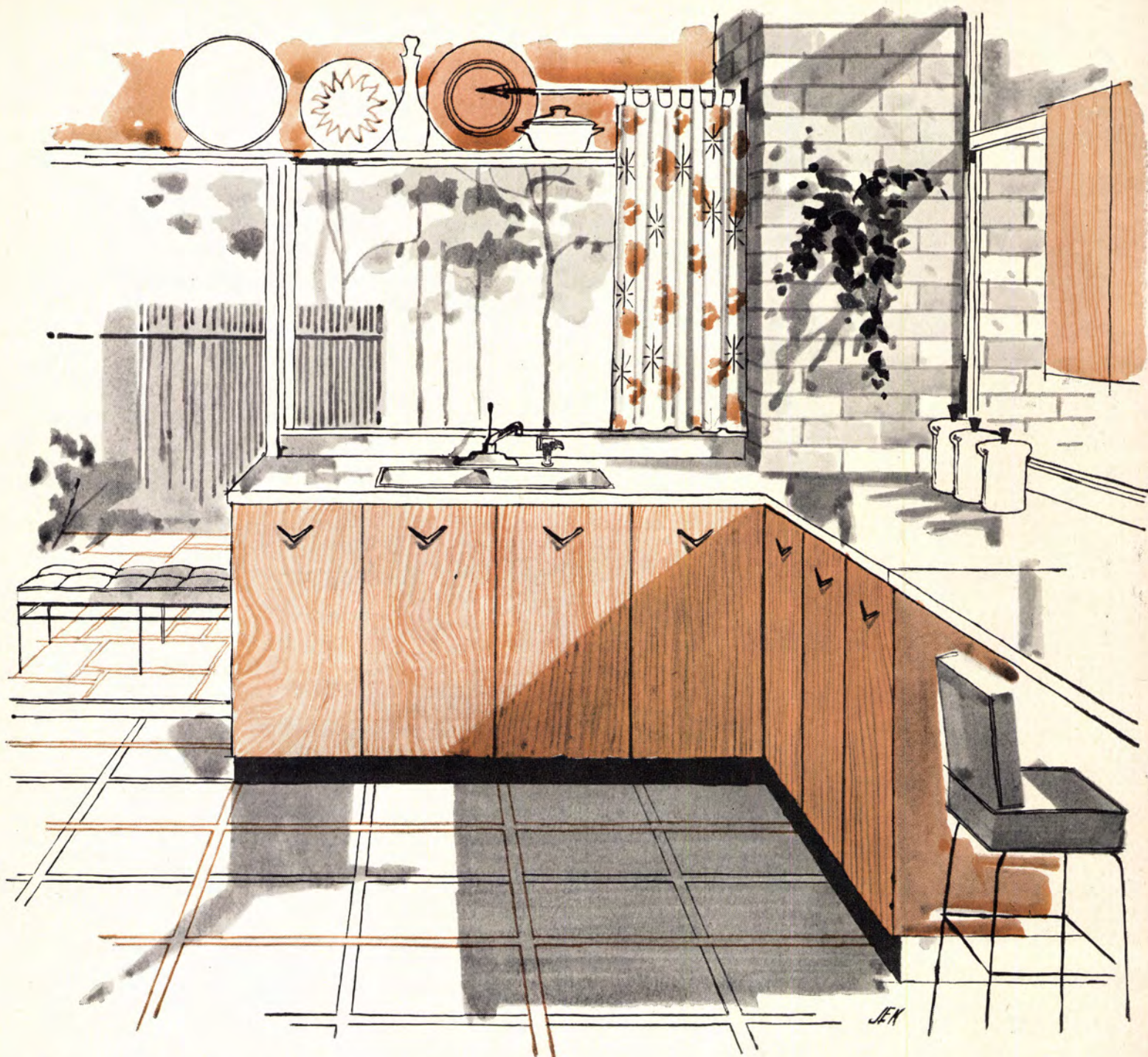
Sandran Terrazino is a new sheet vinyl that comes in 6', 9', and 12' widths, in eight varied background colors with silver, gold, or multicolor chips. Prices start at \$1.49 per sq yd.

Sandura Co, Jenkintown, Pa.

For details, circle No. 110 on coupon, p 310

continued on p 258

HOUSE & HOME



NEW IDEA FROM YOUNGSTOWN KITCHENS "UNI-PAK"

Specially-designed large base, sink and storage units give builders modular flexibility...new ease of installation...huge installation savings. FHA and MPS requirements fully accommodated. 5 sizes available and 3 colors: Honeywood, Monterey Beige, White.

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AMERICAN-Standard

YOUNGSTOWN KITCHENS DIVISION

DOORS —bi-folds and sliders take the spotlight

Today's favorite closure for closets is the folding door, particularly bi-fold types and new ceiling-high models, with or without louvers. Accordion doors are finding more favor for passageways. Outdoors, new materials—fiberglass, aluminum, steel—and more decoration are showing up in garage doors.

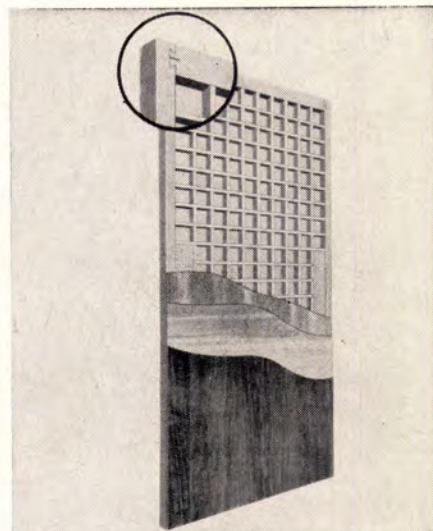


Ideal bi-fold doors have full-mortise hinges, can be used between rooms as well as on closets. Units are jamb-mounted. Top guide hangers and top and bottom pivot brackets are spring-loaded, self-squaring, and have self-lubricating nylon bushing. Units fit openings 6'8" high and 3', 4', 5', and 6' wide.

William Cameron & Co, Waco, Tex.

For details, circle No. 111 on coupon, p 310

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Mengel's "700" series has $\frac{3}{8}$ " fiber-board grid cores on 3" centers. Joints at four corners are dove-tailed. Rails are $2\frac{1}{2}$ " wide; stiles $1\frac{1}{4}$ " wide. Veneers of three-ply face panels are cross-banded to control expansion and contraction. Doors come with or without lights and louvers.

Mengel Co, Louisville.

For details, circle No. 112 on coupon, p 310

New Stackdoor comes in 18 sizes from 2'8"x6'6" to 4'x8', can be paired for openings up to 16' wide. Intermediate headers are available in door size widths for non-standard heights. Doors have steel frames, nylon rollers, fabric-backed vinyl covering. Retail prices start at \$26.95.

American Accordion-Fold Doors, Jamaica, N.Y.

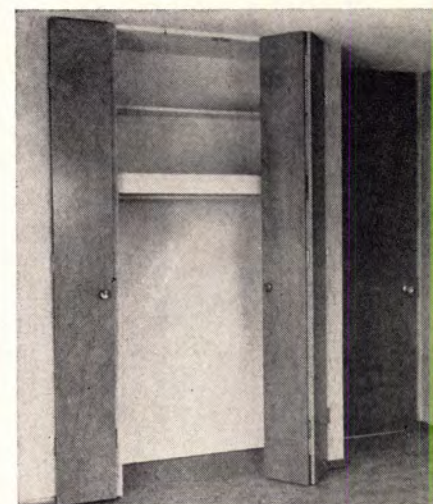
For details, circle No. 113 on coupon, p 310



→
"Surfaset" hardware now works with bi-fold closet doors. Open doors lie back flat against wall, leave entire opening clear. Hardware for any height door comes in two sets: for doors $\frac{3}{4}$ " to 1", 1" to $1\frac{3}{8}$ " thick. Decorative wooden pull is packed with each set.

Stanley Works, New Britain, Conn.

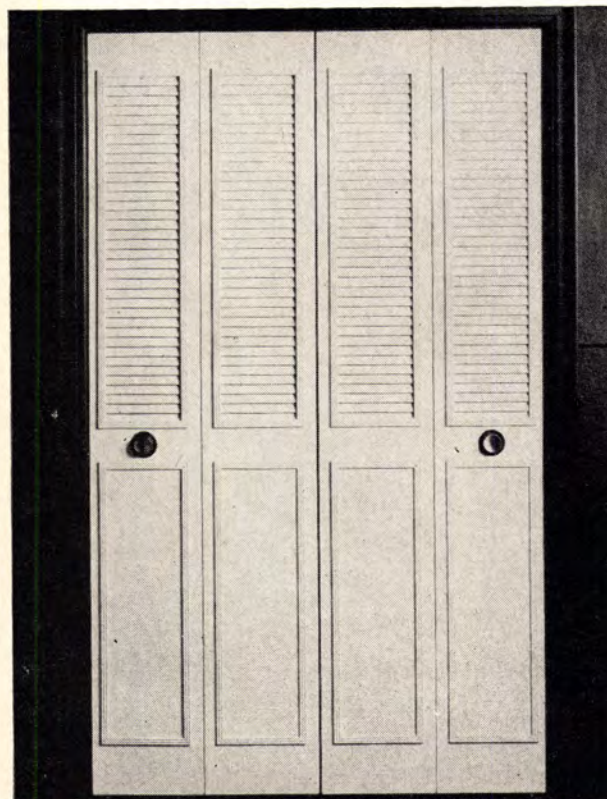
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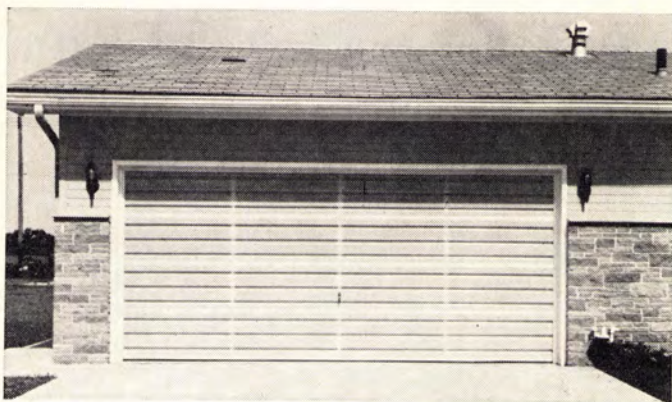


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Fenestra has new line of room-high bi-fold doors that combine louvers in a classic panel. The doors cannot warp, swell, or shrink. Nylon bushings prevent binding and track jumping. Full height cuts installation costs. Doors are factory primed.

Fenestra, Detroit.

For details, circle No. 115 on coupon, p 310



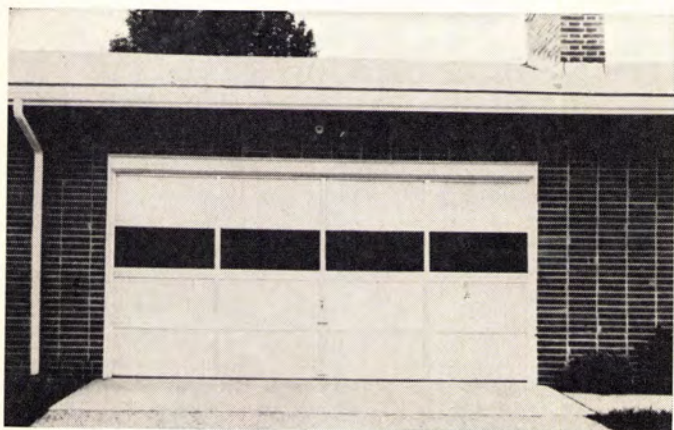


Fiberglass garage door passes 50% to 60% of outside light, diffuses light over entire garage interior. Panels overlap for tight weatherseal, are shatterproof and warpproof, need no maintenance, are one-third normal weight. Frame is extruded aluminum. Ten sizes; three colors.

Frantz Mfg Co, Sterling, Ill.

For details, circle No. 116 on coupon, p 310

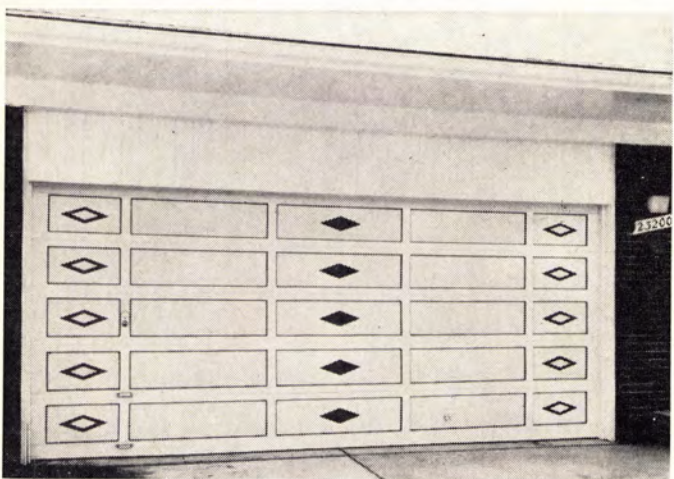
Here are three new garage doors



Aluminum overhead doors, weighing less than half as much as conventional doors, are available in many sizes and styles from this maker. Ball-bearing rollers in steel track permit quiet, easy operation; vinyl tubing seals out weather. Snap-in panels are easy to replace.

Barberton Aluminum Specialties, Barberton, Ohio.

For details, circle No. 117 on coupon, p 310



Wood, one-piece doors have nylon rollers, zinc-plated track, oil-treated springs, chrome-plated lock and latches. Hardboard overlays, available in many patterns, permit "customizing" for as little as \$1 extra. All overlays are pre-drilled for fast and easy installation.

Crawford Door Co, Detroit.

For details, circle No. 118 on coupon, p 310

continued on p 261



NOW...the finest aluminum siding designed for new home building!

NU-HOME ALUMINUM SIDING

■ Here, for the first time, a siding developed specifically to help you build better new homes for less money. You save on both materials and labor, with no lost time due to weather. Nu-Home Aluminum Siding goes on quickly, even with unskilled workers, and completely *eliminates painting time*. And, you'll sell homes faster, too, when you offer Nu-Home beauty with its many years of freedom from maintenance and painting costs. Mail the coupon below and get the complete story on how Nu-Home can help you build better homes for less. There's no cost, no obligation, so mail the coupon today.

- Panels bonderized and vinyl-coated front and back.
- 10-year factory warranty on finish.

- Meets FHA Standards.
- Easy, fast lock-up installation.
- Sold only to builders through building supply firms.



HASTINGS
ALUMINUM PRODUCTS, INC.
Hastings, Michigan

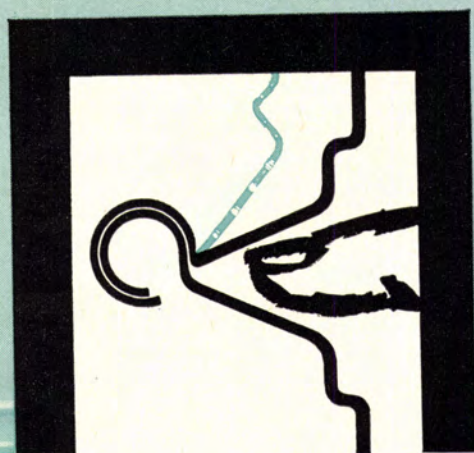
Complete details for the cost of a stamp! Get the whole Nu-Home product and profit story. Mail this coupon today and we'll rush complete information to you.

Hastings Aluminum Products, Inc., Dept. 9A, Hastings, Michigan
Please rush me additional information on Nu-Home Aluminum Siding

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____



See us at the **Conrad Hilton**, Booths **130-131-132**

At least twice a day, Berry's

pinch-proof feature

protects your reputation as a quality builder

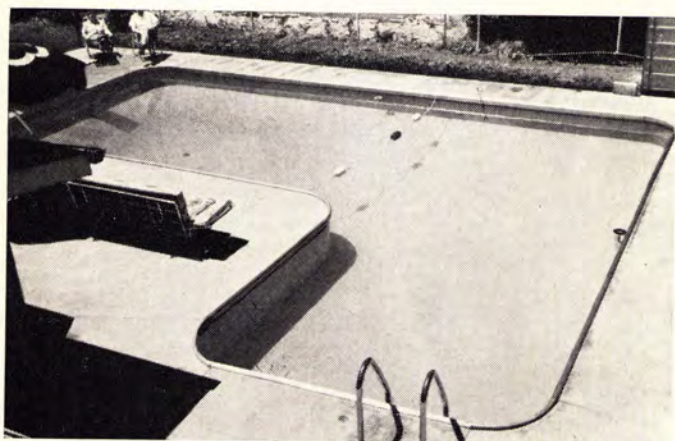
And you also feature full-width unlatching mechanism • tapered track • nylon sheaves and rollers • leveling brackets • metal stops • Paintlok-steel that won't swell, shrink, rust, check, peel

When the Berry steel garage door goes up and when it comes down, at least twice a day, you remind your customer of his good buy. You especially please parents because the rugged Berry sectional can't pinch little fingers. A special hinge design makes the

door child-safe. Protects adults, too!

Berry's other superior features are just as impressive (and just as appealing to prospects). You get them all at one low price—and you enjoy fast, easy installation. Furthermore, a full five-year guarantee protects you from callbacks. Choose now from sectional and one-piece models by the world's largest manufacturer of residential garage doors. See your distributor or write: Berry Door Corp., 2400 E. Lincoln, Birmingham, Michigan. In Canada: Berry Door Co., Limited, Wingham, Ontario.



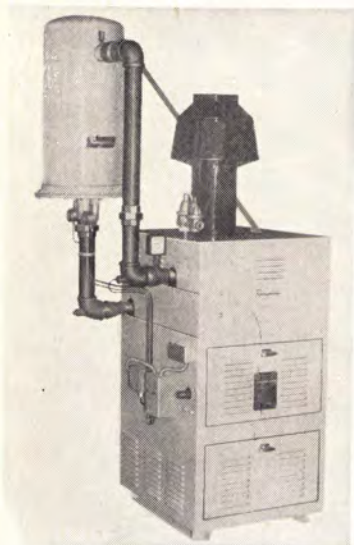


New L-shaped pool is said to be easy to construct and maintain. Made of fiberglass panels bolted together and reinforced with galvanized steel, pool is installed in three days without use of forms or rigs. Concrete floor is poured below frost line. Walls are crack-proof.

Swim Queen Pool Co, Glenview, Ill.

For details, circle No. 119 on coupon, p 310

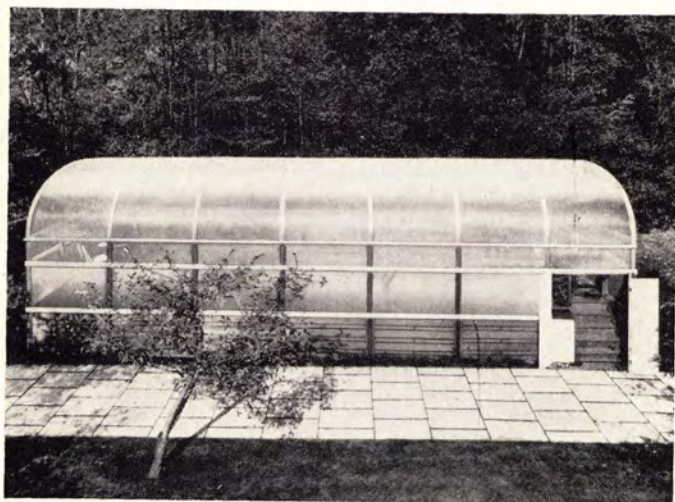
Swimming pools and accessories



Swimming pool heater handles 30 to 40 gpm flow rate, produces temperature rise as low as 7F to 10F without condensation; recirculation system is said to prevent corrosion, scaling and electrolysis. "Lifelong" heater carries a 20-yr guarantee.

Raypak Co, El Monte, Calif.

For details, circle No. 120 on coupon, p 310



"Solarroof" pool cover for Esther Williams pool is made of aluminum extrusions and several layers of plastic. Unit has been tested under heavy snow conditions, extreme temperatures. Installation takes two to four days. In summer, owner can remove plastic panels, insert screens.

International Swimming Pool Corp, White Plains, N.Y.

For details, circle No. 121 on coupon, p 310

continued on p 266

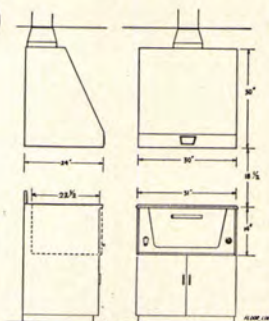
Puts more life
in the home
than any other
built-in



New 1960

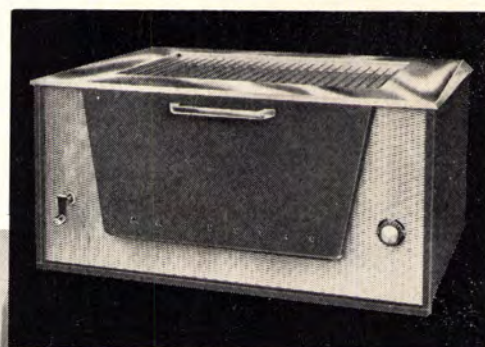
Majestic®

CHAR-GRILL® barbecue grilles



New Models —
New Features —

Gas model approved by the American Gas Association. Electric unit listed by Underwriters' Laboratories.



Today's growing families like to live big. They want a house plan with lots of life built in. Majestic's Char-Grill satisfies that desire better than any other built-in appliance. It's the perfect focal point for parties, snacks or regular family meals in kitchen, recreation room or patio.

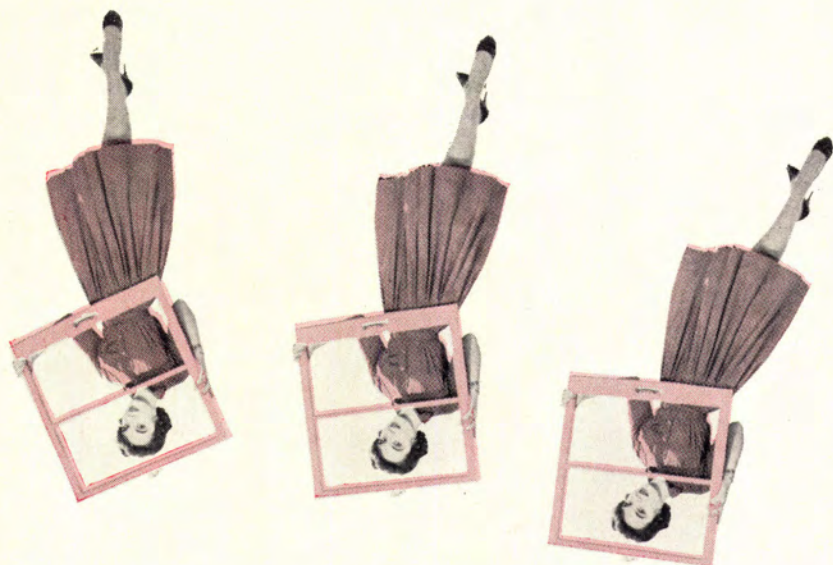
The newly styled Deeptone grey enameled unit is accented with stainless steel and expanded metal trim. The Majestic line includes gas, electric and charcoal-fired models and deep, large vent-hoods in black, grey or coppertone enamel or stainless steel. Hoods are high-volume for adequate venting of any indoor cooking area. Included in a big selection of grilling and barbecuing accessories are electric rotisserie spits for cooking everything from shish-ke-bab to the largest roast or fowl.

Send for full specifications. See how logically the Char-Grill goes with modern planning, how beautifully it builds into modern living.

As Advertised in: LIVING FOR YOUNG HOMEMAKERS • HOUSE BEAUTIFUL • HOUSE & GARDEN • HOUSE BEAUTIFUL'S BUILDING MANUAL • HOUSE & GARDEN'S BOOK OF BUILDING • BETTER HOMES & GARDENS' KITCHEN IDEAS • HOME MODERNIZING • NEW HOMES GUIDE

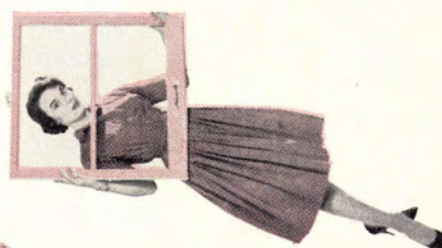
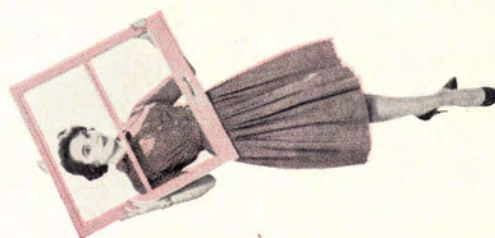
The **Majestic** Co., Inc.

413 Erie St., Huntington, Indiana



Removability

*makes the big difference
in windows*



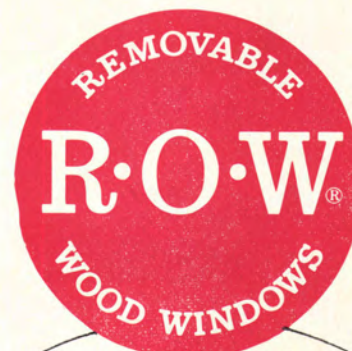
NAHB SHOW

Booth 104 • Conrad Hilton

Booth 538 • Sherman Hotel

Builders need "extra" features to sell homes *profitably* in today's competitive market. Your prospects know the advantages of windows that lift out for safe and easy cleaning. You know that installation time and on-the-job damage can be reduced by removing sash before installation. You save on painting time, too. Removability *does* make a big difference.

R-O-W and LIF-T-LOX are the registered trade-marks of the R-O-W Sales Company



R-O-W SALES CO. • 1365 ACADEMY AVE. Dept. HH-160 • FERNDAL 20, MICHIGAN

ONLY

Chambers®

OFFERS A COMPLETE PACKAGE OF
MATCHED BUILT-INS
(GAS OR ELECTRIC)

In luxury finishes, colors and
prices for Every Kitchen Plan!

NAHB Show — Booth 431, Hotel Sherman

ONLY
Chambers®

OFFERS 7 MATCHING OVEN MODELS
Including Famous **Retained Heat**
Ovens with 4 times more Insulation
than conventional units.

Vista View Twin Ovens with Rotisseries! Completely Automatic...
Separate Thermostat Controls permit simultaneous use for different types of cooking.



ONLY
Chambers®

OFFERS A COMPLETELY
AUTOMATIC
DISHWASHER-DRYER with
New "SWIRL-A-TRAY"

Rated "tops" among 10 in Laboratory tests! • Power Washes
• Power Rinses • Power Dries
Just load . . . set . . . forget!



ONLY
Chambers®

OFFERS CLASSIC QUALITY
REFRIGERATOR-FREEZERS
with Unique "Uni-Temp" System

A superb achievement in fine refrigeration. Choice of 21
matched models from 12 cu. ft.
to "The Presidential Twins"
31 cu. ft. in 72" wall space.



ONLY
Chambers®

. . . offers Built-ins completely
matched in design and size for any kitchen plan . . . Ovens
and Surface Ranges (Gas and Electric) . . . Refrigerator-
Freezers . . . Dishwasher-Dryers . . . Kitchen Hoods and Dis-
posers, each a famous Chambers Quality product . . . NO mis-
matches, NO mis-fits, NO "off" colors . . . with **One** call to
order, **One** call for service and **One** sales policy! Mail Coupon
For Complete Details!

Chambers®
BUILT-INS

DEPT. HH-160
2012 N. Harlem Ave.,
Chicago 35, Ill.

rush:

- ☐ Specifications on all Chambers Built-In units.
☐ Have representative call.

Name _____

Address _____

City _____

Zone _____

State _____

"Love the luster of
our Craftwall. I'm glad
we didn't fall for
'bargain' paneling."



Roddis **CRAFTWALL**
genuine wood paneling
is "forever"...

Its beauty is guaranteed for the life of the home

The difference in cost is only "pennies" a year! All wood paneling is not alike! Builders know that. And so will your home buyers when they see this Craftwall advertisement in *Better Homes and Gardens*. It helps point up the superiority of this famous wood paneling in your homes. Superiority that helps sell your prospects—and builds good will and stature for you.

Craftwall's special beauty and authentic hand-rubbed look are protected by an exclusive Roddis finish. That's why Craftwall resists scuffs, stains and dirt . . . never needs waxing.

All 9 Craftwall woods will keep their original beauty for the lifetime of your homes. Roddis guarantees that, *in writing*.

Roddis
does wonderful
things with wood

Roddis Plywood Corp., Dept. HH-160, Marshfield, Wis.

Please send me the Builders' Fact File on
Craftwall wood paneling.

Name _____

Firm _____

Address _____

City _____

State _____



Dr. R. H. Door's ULCER-O-NO

A High Potency Specific for
BUILDERS & CONTRACTORS

Shook up by
**SHRINKING
PROFITITIS**



and
*Swelling of the payroll on Saturday... Mistake in algebra...
Building with pieces instead of components it is...
High door hanging cost obia... Workman's shipnausea...
Sluggish House Movements.*

SYMPTOMS: Shrinking Profititis produces bilious red splotches on the year-end statements, irritation to the stockholders, and acute pain in the area of bill collectors. Considerable inflammation results from high door hanging cost obia. The builder's office is congested with salesmen bleeding all over the place due to sluggish house movements. Assets run off freely.

DIAGNOSIS: Shrinking Profititis is the advanced stage of an organic disorder of the builders and contractors infected with building with pieces instead of components it is. It is most prevalent among patients having a chronic record of high resistance to change and continued swelling of the payroll on Saturday produced by high site labor cost obia.

THERAPY: ULCER-O-NO brings quick relief due to two active ingredients — a soothing analgesic to relieve headaches and gripes and a new decongestant (Bulldozerine) to knock down mental blocks to positive thinking. The patient's own calm thought will show him that, like other preassembled components which save money and make building easier, Ready Hung Doors which install in less than 20 minutes, will save money by reducing door hanging labor 65% or more while simplifying and speeding construction. Dr. Door's new hormone, DOITNOW, is prescribed for sufferers from Rip Van Winkle's disease, medically known as will consider it next year.

CURATIVE THERAPY

Complete cure is effected by one simple exercise: grasp the nearest telephone firmly in one hand and exercise jaws to order Ready Hung Doors for the next house. Repeat as often as houses are ready for doors. This therapy reduces the excess flow of door hanging labor from four days per house to one half day per house, allowing large amounts of green matter to cling normally to pocket linings instead of being sloughed off through payroll tubes.



© Ready Hung Door Corp., Fort Worth 2, Texas

PAT. NO. 2489029

Write the Ready Hung Door Manufacturer nearest you for a free sample of ULCER-O-NO:

AKRON, OHIO
Dayton-Akron Sash & Door Co.
ALBANY, N. Y.
Iroquois Millwork Corp.
BILLINGS, MONT.
Building Service, Inc.
BIRMINGHAM, ALA.
National Woodworks, Inc.
BOSTON, MASS.
A. W. Hastings & Co., Inc.
Somerville, Mass.
BUFFALO, N. Y.
Iroquois Door Co.

BUFFALO, N. Y.
The Whitmer-Jackson Co.
CHARLOTTE, N. C.
Miller Millwork Corp.
CHICAGO, ILL.
Morgan Sash & Door Co.
CINCINNATI, OHIO
Acme Sash & Door Co.
CLEVELAND, OHIO
The Whitmer-Jackson Co.
DAYTON, OHIO
Dayton-Akron Sash & Door Co.
DECATUR, ILL.
Morgan Sash & Door Co.

FLINT, MICH.
Flint Sash & Door Co.
GRAND RAPIDS, MICH.
Porter-Hadley Co.
GREAT FALLS, MONT.
Building Service, Inc.
GREENVILLE, S. C.
Southern Sash & Door Co., Inc.
HOUSTON, TEXAS
Southwest Sash & Door Co.
HUNTINGTON, W. VA.
Iron City Sash & Door Co.
INDIANAPOLIS, IND.
Midland Bldg. Industries, Inc.

JOHNSTOWN, PA.
Iron City Sash & Door Co.
KANSAS CITY, MO.
Rust Sash & Door Co.
LOS ANGELES, CAL.
Ready Hung Door Mfg. Co.
Burbank, Calif.
MARION, IND.
General Millwork Corp.
MASSILLON, OHIO
The Whitmer-Jackson Co.
NEW YORK, N. Y.
Bailey-Whalen Co.
West Orange, N. J.

NORTHAMPTON, MASS.
Hastings, Inc.
OAKLAND, CAL.
Ready Hung Door Mfg. Co.
PITTSBURGH, PA.
Iron City Sash & Door Co.
PORTLAND, ME.
A. W. Hastings & Co., Inc.
ROCHESTER, N. Y.
The Whitmer-Jackson Co.
SAGINAW, MICH.
Flint Sash & Door Co.

ST. LOUIS, MO.
Imse-Schilling Sash & Door Co.
ST. PAUL, MINN.
Minnesota Wood Specialties, Inc.
St. Paul Park, Minn.
SEATTLE, WASH.
Building Products Wholesale, Inc.
SPRINGFIELD, MO.
Southern Supply Co.
SYRACUSE, N. Y.
Iroquois Door Co.

TOLEDO, OHIO
Imse-Schilling Sash & Door Co.
CANADA:
KINGSTON, ONT.
C. Lloyd & Son Ltd.
OTTAWA, ONT.
C. Lloyd & Son Ltd.
TORONTO, ONT.
C. Lloyd & Son Ltd.
WINCHAM, ONT.
C. Lloyd & Son Ltd.

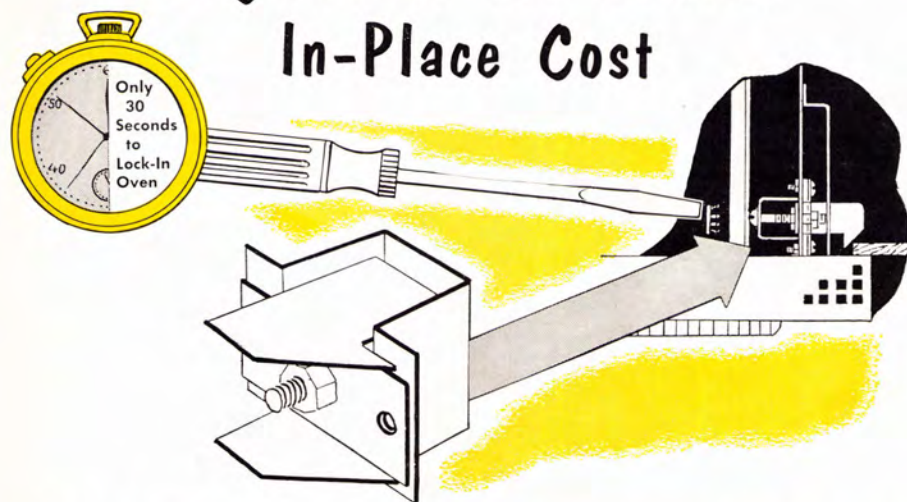
READY HUNG DOOR CORP., FORT WORTH 2, TEXAS

PREWAY provides the *BIG PLUS** in Bilt-Ins

Designed
with
the *Look*
of *Luxury*
women want



Engineered for Lowest In-Place Cost



In the building industry, labor time means money. That's why any time-saving, work-saving invention, like Preway's new patent-applied-for Expansion Lock, is important to builders. It reduces to 30 seconds or less, the "locking-in" time of a Preway gas or electric oven. Only one tool, a screw driver, is needed to turn the lock on either wall and mount the oven in place. Removal — if ever required — is just as easy.

Here is a time saving of from 15 minutes to a full hour over that required by other built-ins — and any apprentice worker can do the job. The builder who analyzes his In-Place Cost will use Preway!

PREWAY

Inc. 2160 Second Street, North, Wisconsin Rapids, Wisconsin

*** ALL PREWAY BILT-INS
MEET NEW FHA REQUIREMENTS**

Alert, successful homebuilders don't spend more on their kitchens than others — but many of them do get more **SELLING VALUE** for their appliance dollar with Preway Bilt-Ins. A Preway installation — fully color matched — provides the climate for a prestige kitchen, gives you the look of luxury that women instantly respond to. It's a great point of difference to get away from commonplace names and designs. And it's a great story of **UP-GRADED QUALITY** to tell — and demonstrate . . . because Preway has the finish, the features, the firsts in construction that spell-out **SUPERIORITY**.

Why not put these very solid advantages to work for you, why not bring women your way with Preway — the pioneer leader in built-in appliances with the most complete line to draw on. Everything you want and need from one source with one individual responsibility behind it. There is a Preway distributor near you to serve you. Write for full information.

at the
NAHB Show
Space 807-808
The Coliseum

Full Color Advertising

To help you sell, to help you merchandise your prestige kitchens, Preway provides major full color ads in these influential magazines.



Your kitchen can look like this...
paneled in the right-for-color woods
of the **WESTERN PINE REGION***

Western Pine Region woods brighten any interior. Kitchen paneled in Ponderosa Pine, Fuego Flame finish.



ONE IDEA CAN SELL A HOUSE

Everybody loves wood. Everybody loves color. So give your model home the double appeal of natural wood . . . and contemporary color. Install a room like this . . . paneled in Western Pine Region woods . . . finished in color. You'll stop shoppers cold. Chances are their appetites will have been whetted by our advertisements in American Home and Better Homes & Gardens. But to really sell them . . . there's nothing like the real thing . . . an actual room paneled in one of the right-for-color woods of the Western Pine Region.

For more information on color finishing Western Pine Region woods and a sample package of **HELPFUL HOME MERCHANDISING AND SALES AIDS**, write to: Western Pine Association, Dept. 430-V, Yeon Bldg., Portland 4, Oregon.

Western Pine Association



member mills manufacture these woods to high standards of grading and measurement . . . grade-stamped lumber is available in these species

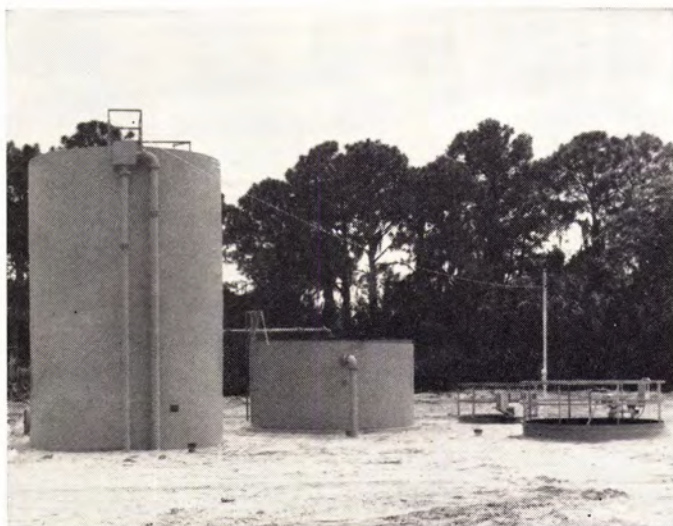
***Idaho White Pine • Ponderosa Pine • Sugar Pine
White Fir • Incense Cedar • Douglas Fir • Larch
Red Cedar • Lodgepole Pine • Engelmann Spruce**

Today's Western Pine Tree Farming Guarantees Lumber Tomorrow

New products

continued from p 261

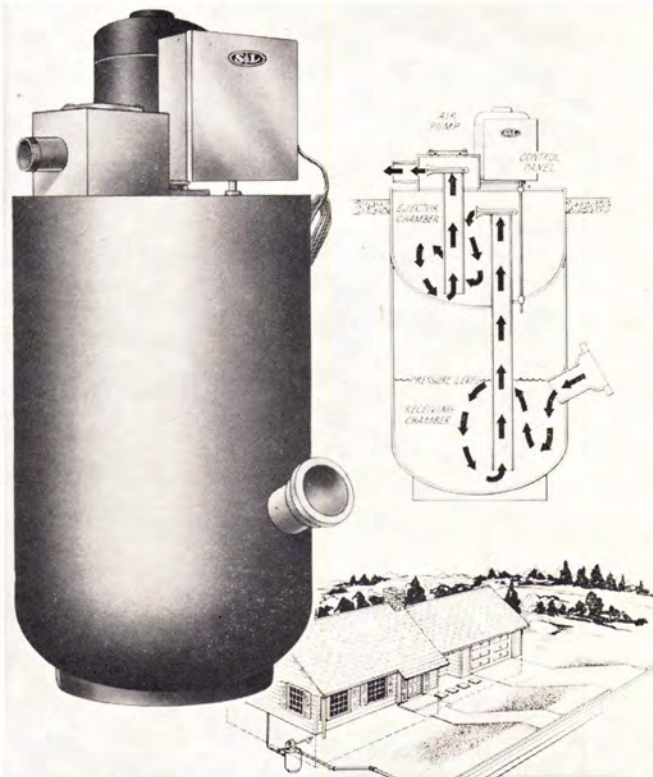
New ways to handle sewage



Complete treatment plants, designed and installed by Municipal Service Co, go in place for a unit cost of \$350 a house in small developments to \$100 a house in bigger tracts. Suburbia epoxy coated, steel-tank systems can handle populations of 200 to 2,000. Installation shown serves 120 Florida homes, costs just over \$24,000.

Municipal Service Co, Kansas City.

For details, circle No. 122 on coupon, p 310



Pneumatic ejector gives downhill houses the advantages of public sewers by providing a low-cost automatic lift station. Complete factory-built unit will lift 15 gpm up to 20', permits gravity inflow without danger of sewer back-up. Sewage is raised to ejector chamber by atmospheric pressure, is d'scharged to sewer by pressure-operated air pump.

Smith & Loveless, Kansas City.

For details, circle No. 123 on coupon, p 310

continued on p 268

Why Schlegel
Woven Pile
Weatherstripping
seals so
silently

For sheer soundlessness, nothing matches Schlegel Woven Pile Weatherstripping. Its dense, soft pile won't squeak (like plastic), screech or rasp (like metal). Windows and doors won't bang or rattle—even in a storm. Seals weather out, seals heat and conditioned air in.

SMOOTH ACTION. Doors and windows ride smoothly on Schlegel Woven Pile Weatherstripping, under *all* weather conditions. They never stick or bind. Schlegel Woven Pile is friction-free.

GIVES SURE PROTECTION. Schlegel Woven Pile compresses, is truly resilient. It cushions doors and windows snugly and compensates for irregular metal or wood surfaces.

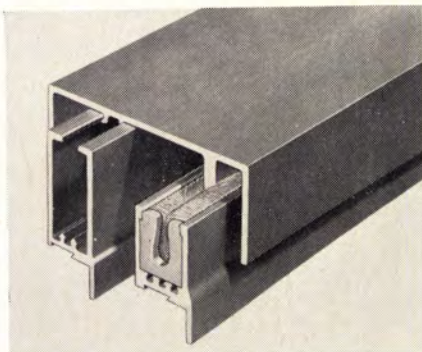
WEATHERPROOF. Neither air, rain, wind, nor dust can seep in. Only Schlegel Woven Pile is silicone treated to insure complete weather-proofing. Schlegel performance has been proven by rigid FHA tests for air infiltration.

For a comprehensive list of manufacturers using Schlegel Weatherstripping, write for our new booklet, "Your Guide to Windows—Doors—Screens."

Cross-section view showing Schlegel Woven Pile Weatherstripping installed in the aluminum frame head section of Arcadia Sliding Doors, Arcadia Metal Products, Fullerton, Calif.

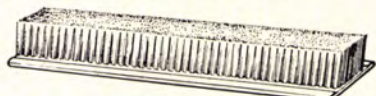
SEE US AT:

THE NAHB SHOW—BOOTH 442
THE HIP SHOW—BOOTH 412
THE NERSICA SHOW—BOOTH 226



for protection that's **silent, smooth and sure**

Schlegel



WOVEN PILE WEATHERSTRIPPING

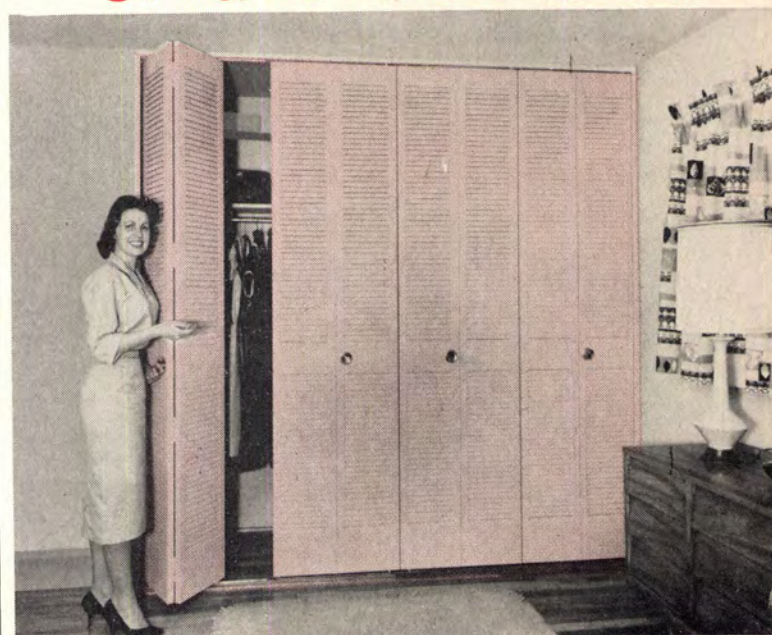
SCHLEGEL MANUFACTURING COMPANY

P. O. Box 197, Rochester 1, New York • In Canada: Oakville, Ontario

you save the cost



of this wall area



with float-away doors

Here is how one builder estimates his savings by using Float-Away doors. Substitute your own figures for the area in which you build and see how much you can save.

6'0" WIDE CLOSET	This Builders cost	Your cost
Framing lumber	\$ 4.61	.....
Sheet Rock	2.78	.....
Tape and Joint Cement	1.45	.....
Luan Doors, Hardware and Jamb	18.70	.....
Trim	1.38	.....
Carpenter (all labor)	15.00	.....
	TOTAL	
	Float-Away door 6'0"x8'0" complete	29.75

THIS BUILDER SAVES \$14.17 PER CLOSET
OR \$70.85 PER HOUSE. WHAT DO YOU SAVE?



Phone or wire collect,
TR 3-3111, or write for
complete information and prices.

FLOAT-AWAY DOOR CO.

1173 Zonolite Road, N.E.
Atlanta 6, Georgia

FOR SHOW
OR FOR
SHADE...

CANVAS AWNINGS



■ The sight of smartly-tailored canvas awnings in a pretty pastel or a gay new stripe says a lot to a prospective home buyer. It suggests comfortable living that can begin right now—with rooms free from harsh glare and sizzling sun heat.

Smart shoppers know, too, that canvas awnings make a home easier to cool without air conditioning, cheaper to cool with air conditioning. Get the latest on the new acrylic paints and vinyl coatings

that make canvas awnings a better-than-ever feature to attract new customers and keep home buyers happier.

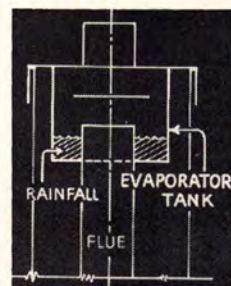
See our catalog 19e/Ca in Sweet's Architectural Catalog or write for a free copy. It contains original and practical ideas plus helpful information for specifying canvas.



CANVAS AWNING INSTITUTE, INC. and NATIONAL COTTON COUNCIL
P. O. Box 9907/Memphis 12, Tenn.

New products

continued from p 266



Evaporator tank fitted inside new Vitroliner prefab chimneys catches rainfall, eliminates rain cap, assures free flow of combustion gases so soot does not form on the roof or chimney. Tank will hold 14" of rainfall. Water is evaporated by sun in summer, heating system in winter. Standard 19"x19" housings are available. Condensation Engr Corp, Chicago.

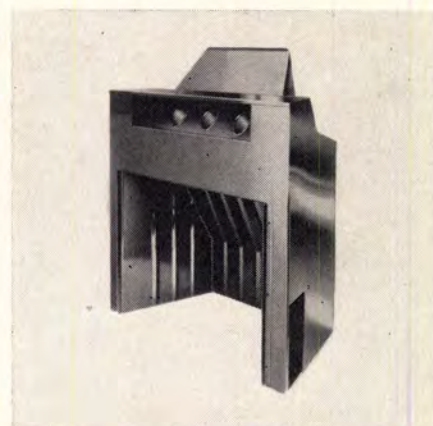
For details, circle No. 124 on coupon, p 310



Steel cupola needs only to be nailed to the roof as it comes from carton, can be installed by one man in a few minutes. Extra flashing is needed if it is used as a vent housing. Several styles of weathervane are available as an optional extra. Basic unit is 30" square, 32" high (without vane), lists at \$39.75.

Bert R. Huncilman & Son, New Albany, Ind.

For details, circle No. 125 on coupon, p 310



Circulating fireplace units come in models to fit raised hearth, Swedish, and open-side fireplaces. New features are rustproof smoke shelf, ribbed reinforced firebox, teardrop flues, air-tight damper. Light-gauge angle at side conceals insulation. Entire unit is insulated.

State Steel, Anaheim, Calif.

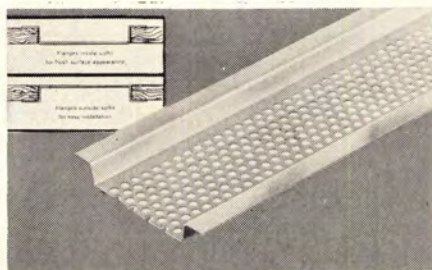
For details, circle No. 126 on coupon, p 310

continued on p 271

HOUSE & HOME

New products

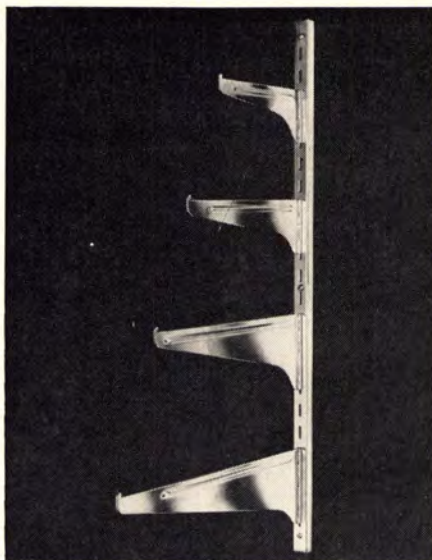
continued from p 268



Continuous soffit vent can be nailed or stapled in place, is readily cut with a saw or tin snips. Aluminum vent has $\frac{1}{8}$ " perforations that eliminate the need for screening. Perforations give 52.8 sq in of net free area per 8' length.

Leslie Welding Co, Chicago.

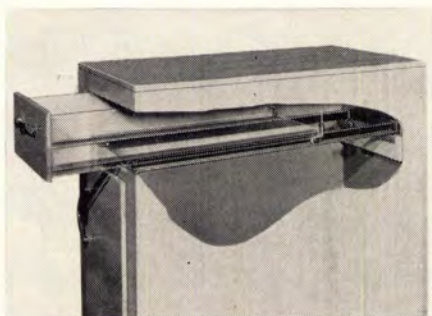
For details, circle No. 127 on coupon, p 310



New shelf accessories in M-D line include a wide variety of standards and brackets. Standards are furnished in bulk in 2', 3', 4' and 6' lengths; brackets come ten to a box in 6", 8", 10", and 12" widths. Both units are finished in bright nickel plate. System gives fully adjustable shelf storage.

Macklanburg-Duncan, Oklahoma City.

For details, circle No. 128 on coupon, p 310



Bottom-mounting slides allow full drawer capacities with free-rolling convenience. Only $\frac{1}{8}$ " clearance is needed at the sides, $\frac{5}{16}$ " vertically. Track is made of heavy-gauge ribbed steel with heavy zinc plating. Drawer travels on four nylon rollers. Elongated holes in brackets allow easy adjustment. Standard sizes fit 17", 20", 22" and 24" drawers, cost \$1.89 a set retail.

Amerock Corp, Rockford, Ill.

For details, circle No. 129 on coupon, p 310

BRIKCRETE

*GUARANTEED TO CONTAIN NO CLAY

MODERN MASONRY

for the GREAT MASS MARKET

B-22

Millions of Brikcrete have gone into the building of homes, apartment units, motels, schools, churches—all types of residence and commercial construction. Not only because of economy, but for the more important reasons of beauty, comfort and modernity.

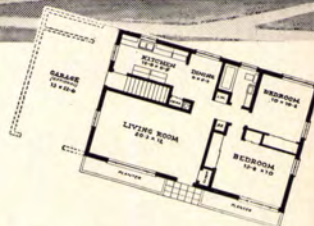
Brikcrete is the world's most modern masonry, with size, design, proportion and color range in line with today's style trends. Yet — material for material — it usually costs less than lumber. Far below that of ordinary brick. For example:

\$452¹⁰* Buys all Brikcrete for the "Brikadier"



*National average, including planters, excluding garage. May vary by locality.

Basic Brikadier is 36' x 24'; 912 sq. feet; 2 bedrooms and denette. Blueprints, \$15.00 per set.



The "Brikadier" is only an example of how little Brikcrete costs. The same low price per square foot applies to any houses you may be planning to build. Local manufacturing explains why Brikcrete can give more value for less cost. Local plants, using local raw materials enable factory-to-builder contacts. Eliminate costly freight and distribution costs. Ask for Brikcrete Book No. 1.

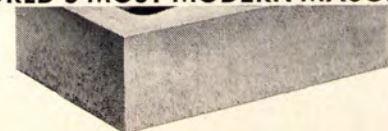
Growing demand for Brikcrete demands more local plants. Building contractors are in exceptional position as plant owners, not only for their own projects but also to supply other needs of the community. High profit-potentials are open to men alert to latent opportunity. Plants operate in franchise-protected territories. We supply all equipment, giving responsible operators up to 5 years to pay. If interested, ask for Brikcrete Book No. 2.

BRIKCRETE ASSOCIATES, INC.

416 W. 25th Street

Holland, Mich.

WORLD'S MOST MODERN MASONRY



PALCO

THE PACIFIC LUMBER COMPANY

Mills at Scotia, Eureka, and Elk, California

100 Bush St., San Francisco 4, Calif.

35 E. Wacker Dr., Chicago 1, Ill.

2185 Huntington Dr., San Marino 9, Calif.

Member of California Redwood Association



Save \$26 to '60 FORD

That's your first saving—but not your last! Save again with over twice the front tire life! Again with 25.2% greater gas mileage! And it's all certified in tests by independent experts!

We're talking about big money . . . real money . . . *your* money! And there's no question about saving it! Of all the leading makes, Ford Light- and Medium-Duty Trucks are the lowest priced, straight across the board! But initial price savings are just the start!

TRUE TRUCK-TYPE SUSPENSION CUTS TIRE WEAR

Ford Pickups are mustang-tough—built for the roughest going, with the proven truck-type front suspension. However, some 1960 trucks use a soft-type independent suspension which wears out front tires twice as fast. Certified tests by independent research engineers* have proved this. And the difference in wear, over the life of a pickup truck, can amount to \$300 in tire savings; even more on a medium-duty truck!

*Names on request. See your Ford Dealer.

HIGHEST IN GAS MILEAGE!

1960 Ford Pickups are gluttons for *work*—not for gas! That's proved by certified economy tests of Ford's modern six-cylinder engine! It's the same dependable cost-cutter that scored 25.2% more gas mileage than the average of all competitive makes in Economy Showdown U.S.A.!

SIGNED, SEALED CERTIFIED SAVINGS!

Yes, this year, if you buy a Ford instead of a competitive truck, you can be sure to save—Ford's economy is certified! Check the certified records yourself in your Ford Dealer's "Certified Economy Reports"...see and drive the new Ford Trucks . . . check the price tags . . . *and you'll save for sure!*

FORD TRUCKS

\$246 on a Truck!

PRICED BELOW ALL OTHER LEADING TRUCK MAKES**



HALF-TON PICKUPS

FORD SAVES YOU

F-100 CLASS.....\$33 TO \$181



HALF-TON PANEL

F-100 CLASS.....\$40 TO \$161



THREE-QUARTER TON PICKUPS

F-250 CLASS.....\$32 TO \$185



TON-AND-A-HALF STAKES

F-500 CLASS.....\$26 TO \$246



TWO-TON STAKES

F-600 CLASS.....\$33 TO \$141

**Based on a comparison of the latest available manufacturers' suggested retail delivered prices, including Federal excise tax, excluding dealer preparation, conditioning and destination charges.

COST LESS ...LESS TO BUY... LESS TO OWN...
BUILT TO LAST LONGER, TOO!

put a **PLUS** in your plan



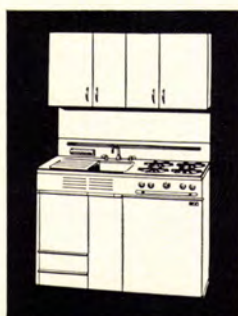
Dwyer

**SNACK
BARS**

help sell
homes faster

Today's home buyers look for "extras" in convenience and design features. Dwyer Snack Bars offer both. The convenience of kitchen or refreshment facilities for the game room, enclosed in a compact and smartly designed built-in bar. Sealed-in-porcelain kitchen unit is complete with electric range, refrigerator, oven, sink, storage, lock-up beverage keeper, utensil drawer, sandwich board. (Cooking facilities optional.) The bar front comes paneled in a choice of fine woods or in unfinished fir for decorating on the job... adds the custom touch that pleases discriminating buyers. Dwyer Snack Bars are available in sizes from 57" to 89" in length, each with stain and mar-resistant top. Fast, economical installation. *Make Dwyer the "extra" in your next home!*

Dwyer also makes a complete line of compact kitchens 39" to 69" in length, gas or electric, for standard or recess installation.

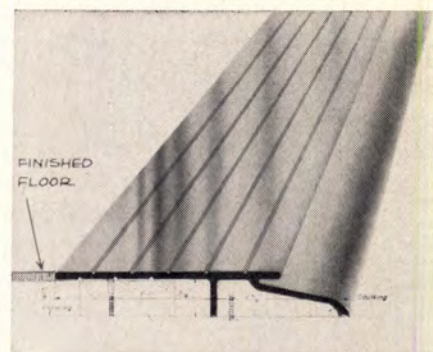


Dwyer Products Corporation
Dept. K-1501 Michigan City, Indiana
Gentlemen: Please send complete information on Dwyer Snack Bars.

name _____
company name _____
address _____
city, state _____
☐ Also send information on full line of Dwyer Compact Kitchens.

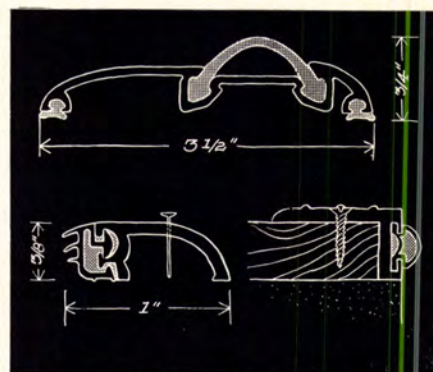
New products

continued from p 271



Non-trip saddle for out-swinging doors comes in extruded bronze or aluminum, can be fitted with a flexible hook or extruded rigid interlock. Other units provide weatherstripping for sliding doors and windows, lightproofing, soundproofing, and saddles for regular and floor-hinged doors.

Zero Weatherstripping, New York City.
For details, circle No. 130 on coupon, p 310



Duraflex door seals cover all doorway weatherproofing needs. Thresholds are extruded aluminum with a flexible vinyl sealing strip (top). Weatherstripping (left) and step seal (right) have a flexible vinyl insert in a rigid vinyl frame. Step seal can be fastened to a wood sill, as shown, or imbedded in concrete. Thresholds come in various heights and widths.

Duraflex, Miami.
For details, circle No. 131 on coupon, p 310



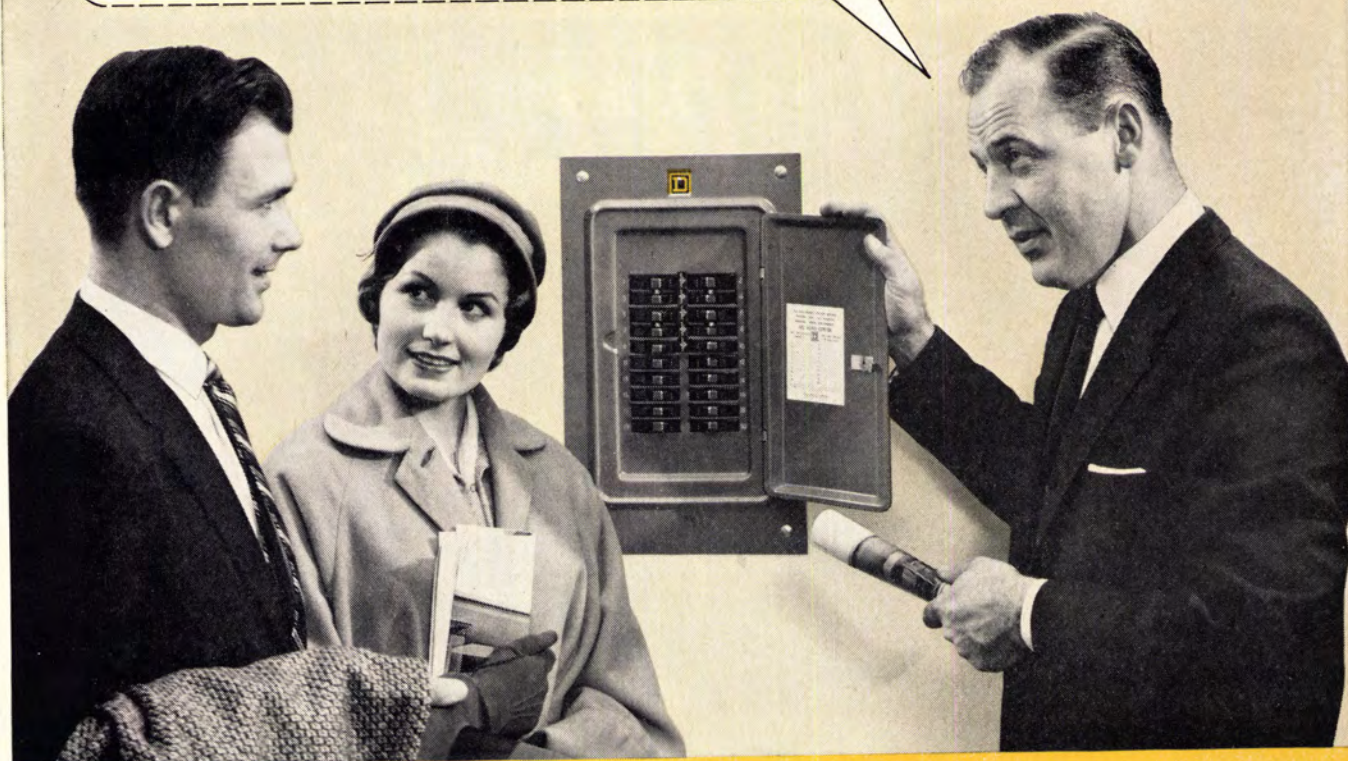
Two-piece threshold will accommodate a 1/4" variation in sill and floor heights. Aluminum extrusions interlock beneath flexible vinyl insert which provides weather and dustproof seal. Hi-Seal model allows for thick carpeting; Lo-Seal is used with linoleum or resilient tile. Both come in 36", 42", 48", 60", 64", and 72" lengths.

Wahlfeld Mfg Co, Peoria.
For details, circle No. 132 on coupon, p 310

continued on p 278

HOUSE & HOME

YOU CAN LIVE BETTER...**ELECTRICALLY.**
THIS HOME IS EQUIPPED WITH **QO**
—THE FINEST CIRCUIT BREAKER EVER BUILT!



It's very easy to prove that Circuit Breakers help sell homes!

• Today's home buyers are "housepower"-conscious. The "LIVE BETTER ELECTRICALLY" and "MEDALLION HOMES" programs have focused attention on the home's electrical system. Electrical equipment and appliances now are being provided and promoted as an integral part of the home. It takes adequate wiring to provide for these "built-in" electrical features and others that will be used later on.

When you install **QO** "qwik-open" circuit breakers in your homes, you have a potent selling feature. You're providing far more than just adequate wiring. You're providing convenience. There are no fuses to replace. Even a child can restore service, quickly and safely. You're provid-

ing modern protection against overloads and "shorts." And—you're providing for extra circuits as they're needed in the future.

You put a proven selling feature to work for you when you install **QO** — finest breaker ever built!

THIS MAY BE FOR YOU

Square D has a "packaged" plan that helps sell homes. If you're interested, clip this panel, attach it to your letterhead and mail it to S. C. Hunt, Square D Company, 1601 Mercer Road, Lexington, Kentucky.



SQUARE D COMPANY

wherever electricity is distributed and controlled

**let it rain...
let it snow...**



**what's a little moisture, to
INSULITE SHEATHING!**

Stack it outdoors, uncovered... save time, work and money!

When you're building houses with Insulite Sheathing—either Bildrite or Graylite—you just send a truckload in and stack what you need alongside each foundation. Or, make a handy central stock pile like the one in the picture at left.

Even in fair weather, this no-fuss storage speeds up the work in a big way. But think how much trouble and expense you save in case of rain or snow, with Bildrite or Graylite. No tarps or covering needed. This sheathing is asphalt *impregnated*. Sheds water perfectly. And, if a few sheets do get wet by prolonged expo-

sure, they dry out amazingly fast. No long delays... no warpage... no waste.

To refresh your memory, Bildrite is our 25/32" sheathing. Graylite is our 1/2" sheathing. New XXX Graylite is a special, extra-density board, for use without corner bracing—same as Bildrite. All three are available 4'x8', 4'x9', and in other sizes.

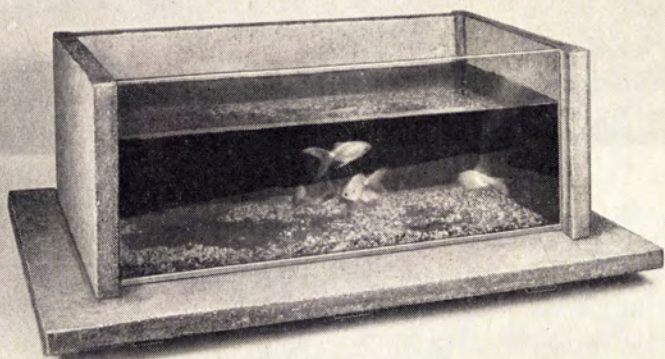
Want to save yourself time, work, money... and build better homes? Talk to your lumber dealer about Insulite Sheathing. And for special literature, write us—Insulite, Minneapolis 2, Minnesota.

build better, save labor, with **INSULITE** *Bildrite and Graylite Sheathing*



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

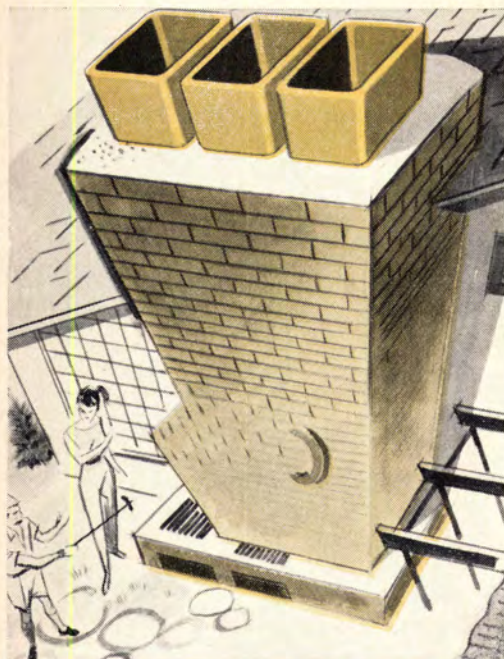
INSULITE, BILDRITE AND GRAYLITE ARE REG. T.M.'S. U.S. PAT. OFF.



We built a Bildrite goldfish bowl to prove the point that Insulite sheathings are really water-resistant. And yet, it's a remarkable fact that moisture vapor *passes through* these asphalt-impregnated boards—helping to maintain dry walls and excellent insulation.



Easy sawing, easy nailing are two more great virtues of Bildrite and Graylite. You will actually save one or two sawblades on an average house, because Insulite has no lumps or gummy spots. Application time, compared to lumber, is up to 40% faster.



100% Fireproof CLAY FLUE LINING

best protection against
dangerous chimney and flue fires

Only Clay Flue Lining is adaptable to all fuels—coal, oil, gas and wood. With Clay Flue Lining, conversion to any new heating system, no matter what fuel it burns, is safe. Multiple purpose flues of Clay Flue Lining are safe for fireplaces, grills, incinerators. Clay Flue Lining is 100% fireproof... won't melt under heat. Chemically inert, it's unaffected by chemicals and gases... does not rust, rot or corrode. Specify and install Clay Flue Lining with confidence... it never wears out!

Write for free fireplace folder and data-filled booklet on safe chimney construction.

CLAY FLUE LINING INSTITUTE

161 Ash Street, Akron 8, Ohio

CONTACT AN INSTITUTE MEMBER WHEN YOU WANT THE BEST

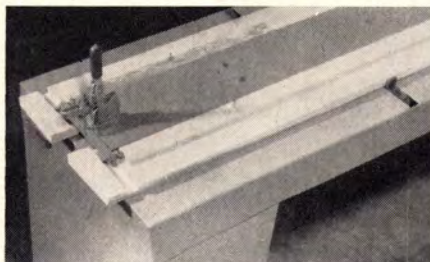
Alliance Clay Product Co. Alliance, Ohio
American Vitrified Products Co. Cleveland, Ohio
Dee Clay Products Co., Inc. Bloomingdale, Ind.
The Evans Brick Co. Uhrichsville, Ohio
Grand Ledge Clay Product Co. Grand Ledge, Mich.
The Kopp Clay Co. Malvern, Ohio
Larson Clay Pipe Co. Detroit, Mich.
Malvern Flue Lining, Inc. Malvern, Ohio
Mill Hall Clay Products, Inc. Mill Hall, Pa.
Natco Corp. Pittsburgh, Pa.
Owensboro Sewer Pipe Co. Owensboro, Ky.
Peerless Clay Corp. Toronto, Ohio
Thos. Somerville Co. Washington, D. C.
Straitsville Brick Co. New Straitsville, Ohio
Western Clay Products, Ltd. Regina, Saskatchewan, Canada
Worthington Ceramics Worthington, Pa.

Plants and branches strategically located to serve the nation.



New products

continued from p 274



Jamb and stop table holds both sides of jambs in accurate alignment with edge and ends of stops. Millwork is placed on table, an automatic clamp positions the work precisely parallel and at a predetermined distance from the stop edge. Air-powered stapler nails pieces together. Turn-A-Bore, Fort Worth.

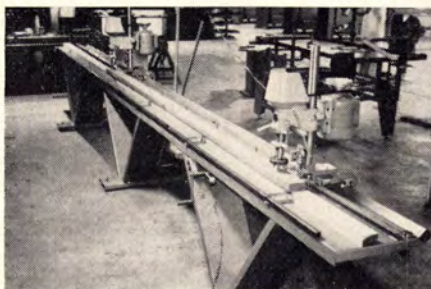
For details, circle No. 133 on coupon, p 310



Hydraulic 5-ton vise is a high-speed fabricating tool for a wide variety of bending, shearing, punching, or holding jobs. Vise produces up to 10,000 psi. Jaws are 4½" wide, 3½" deep, open to 6". Pipe jaws hold up to 4" pipe; pipe bender will make 45° bends in ¾" pipe; shear will cut ⅝" stock.

Warn Sales Co, Seattle.

For details, circle No. 134 on coupon, p 310



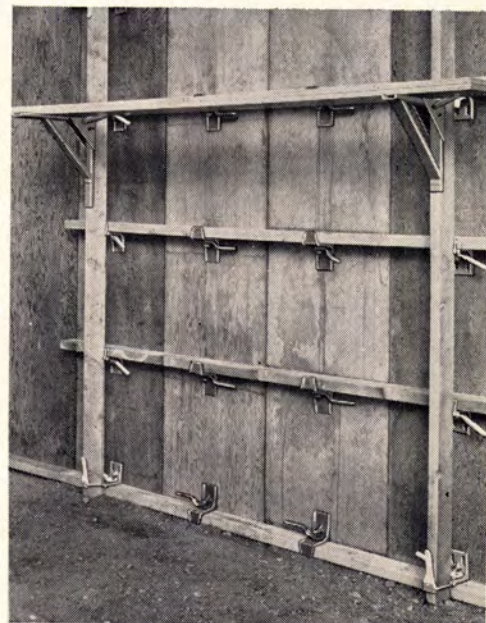
New truss fabricator can be used to make Teco trusses for any pitch from 4-in-12 to 7-in-12, any span from 20' to 36'; can be changed from one to another in seconds. All dimensions are set by the machine; two drill presses and three saw guides are automatically positioned. Two men turn out a truss in ten minutes. Timber Engineering Co, Washington.

For details, circle No. 135 on coupon, p 310

new CAM-LOCK Forming System by Gates

now gives you...

"A Gates System for
Every Forming Need"



The newly patented CAM-LOCK Concrete Forming System expands GATES' applications to include all types of construction, from light to extremely heavy. In addition to greater versatility, however, are many other advantages, including:

- **Increased rigidity** that makes the system especially desirable for high wall forming
- **Greater simplicity** that increases man-hour production
- **Lower materials cost** since only half as much dimension lumber is required with no additional ribbing, which allows on-the-job tooling of forms from materials purchased from local sources
- **Easy integration with present Gates Systems**, which allows for reuse of flexible, inexpensive forming materials

Information on the Cam-Lock System or any other Gates Forming System is available now. See the "yellow pages" for your local dealer or write direct.

No obligation, of course.



Gates & Sons, Inc.

SEE OUR CATALOG 80 S. Galapago Denver 23, Colo.



Branches in
Spokane, Rochester, Calgary,

HH 1-60

continued on p 282

ALLWOOD ALLWEATHER SIDING

See the Hines Exhibit at These Important Trade Conventions:

Northwestern Lumbermen's Assn., Minneapolis, Jan. 12-13
National Assn. of Home Builders, Chicago, Jan. 17-21
Kentucky Retail Lumber Dealers' Assn., Louisville, Jan. 18-20
Southwestern Lumbermen's Assn., Kansas City, Jan. 24-27
Northeastern Lumbermen's Assn., New York, Jan. 25-27
Michigan Retail Lumbermen's Assn., Grand Rapids, Feb. 2-4
Middle Atlantic Lumbermen's Assn., Atlantic City, Feb. 3-5
Illinois Lumber Dealers' Assn., Chicago, Feb. 9-11
Western Pennsylvania Lumber Dealers' Assn., Pittsburgh, Feb. 10-11
Wisconsin Retail Lumbermen's Assn., Milwaukee, Feb. 16-18
Nebraska Lumber Merchants' Assn., Omaha, Feb. 17-19
Ohio Retail Lumbermen's Assn., Columbus, Feb. 23-25

SEE THE DIFFERENCE



NEVER A BEND "We use Hines Allwood Siding almost exclusively. It's so rigid there's never a bend...and no splitting. Once it's on we're through with it. We've never had a single call-back with Allwood Siding. The customers like the way it looks and the men like to work with it. You don't need a trim saw to cut it. There's much less waste and I notice big savings in labor. That helps me give the owner a better product."

W. D. Sanders, builder of illustrated house in Glen Ellyn, Ill.

Send for free samples today! **HINES**
Just call or write the man from

Edward Hines Lumber Co. Sawmills at Hines, Westfir, Dee and Bates, Oregon.
Other plants: Plywood, Westfir; Hardboard, Dee; Millwork, Baker and Hines, Oregon.
Engineering and Development Division: Hood River, Oregon.

Edward Hines Lumber Co.

HH 1

200 S. Michigan Avenue, Chicago 4, Illinois

Please send me free samples and information about Hines Allwood Allweather Siding.

Name _____

Title _____

Company _____

Address _____

City _____ Zone _____ State _____

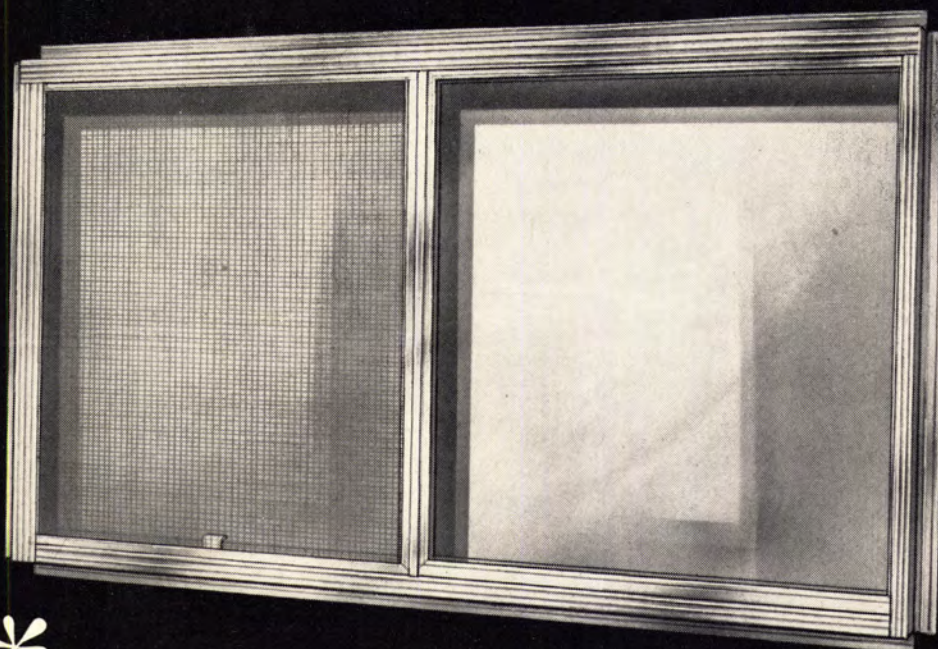


NOW...



F.F.F.

IN OUR WINDOW!



FROST FREE FEATURE

AVAILABLE

ON ALL



HORIZONTAL ROLLING ALUMINUM PRIME WINDOWS

manufactured by

IDA PRODUCTS CO.

1909 E. FOREST / DETROIT 7, MICHIGAN

Write for full particulars



New products

continued from p 278



Aro airless spray atomizes paint by hydraulic pressure, provides heavier coats with less overspray. Pump works at 20:1 ratio to give 30 to 200 psi. Unit delivers 1/4 gpm at 20 cycles through two spray guns. Unit comes in 7 1/2-gal portable (illustrated) or 55-gal stationary models, with or without filters. Model shown is \$890 to industrial users.

Aro Equipment Corp, Bryan, Ohio.

For details, circle No. 136 on coupon, p 310



Four new power shovels have been added to the Case rubber-tired line for 1960. Smallest unit is 2-wheel drive, 1-cu yd model with a 3000-lb capacity. Other units are 4-wheel drive, carry 5,500 to 9,000 lb. Optional fittings include pallet forks, block forks, dozer blades, brush stackers, snow plows.

J. I. Case Co, Racine, Wis.

For details, circle No. 137 on coupon, p 310



Reverse-mounted loader is designed for stock-pile work, has a self-loading 1-cu yd hydraulic bucket. Bucket is self-leveling. RL-400 mounts on utility tractors, has a lifting capacity of 3000 lbs, break-away capacity of 4,500 lbs.

Henry Mfg Co, Topeka.

For details, circle No. 138 on coupon, p 310

continued on p 286

HOUSE & HOME

the
count-down
has
begun ...

Ride with
LOCKWOOD
in '60!



The sky's the limit . . . the target's the moon.
Exciting things are happening to keep Lockwood geared
to the requirements of the building industry of
America. 1960's first big launching will take place
at the N. A. H. B. Convention in Chicago,
Lockwood Booths 488-489, Sherman Hotel.
You are cordially invited.

LOCKWOOD HARDWARE MANUFACTURING COMPANY, FITCHBURG, MASS.

At the
N.A.H.B.
show in
Chicago

Coliseum
736-737-738



For the
most
beautiful
kitchen
of them
all...



BRONZEGLOW® BIRCH

AS SEEN IN *House Beautiful*

Stocked by 55 distributors
across the country -
see telephone book
Yellow Pages, or write us.

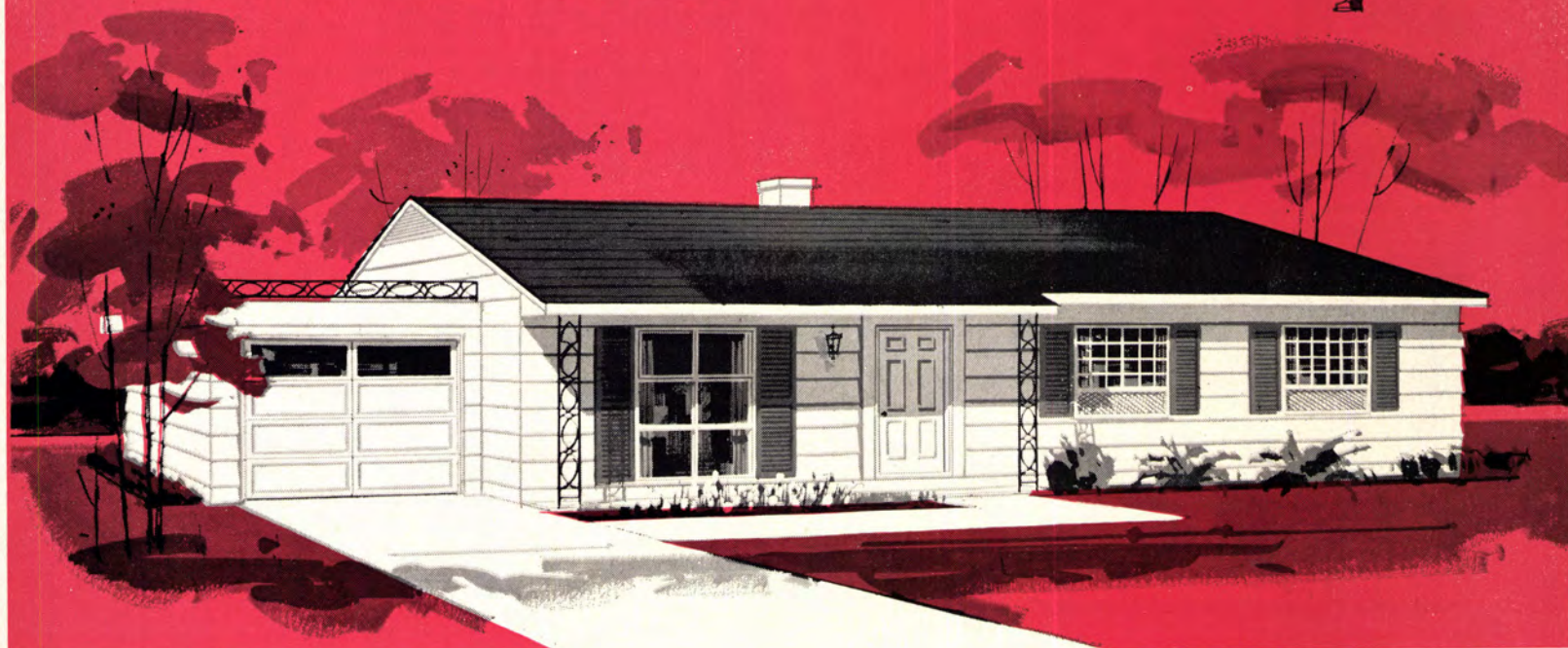
Construction and finish
of exceptional quality -
hollow core doors,
nylon roller drawer guides.



H. J. SCHEIRICH CO., LOUISVILLE 9, KENTUCKY



The house the **MASS MARKET** can afford!



The bold and beautiful

NEW *Mustang*

*was planned to qualify
the huge house-hungry
mass market of America!*

Designed to sell with attached garage for **\$8070** plus mortgage financing and lot. The monthly payments for the Mustang are less than rent. For the first time a truly low-cost home with beautiful and varied designs. The Mustang is available in 12 models . . . Colonial, Contemporary, French Provincial, Ranch and New Orleans Colonial. Air conditioning can be included for less than \$300.

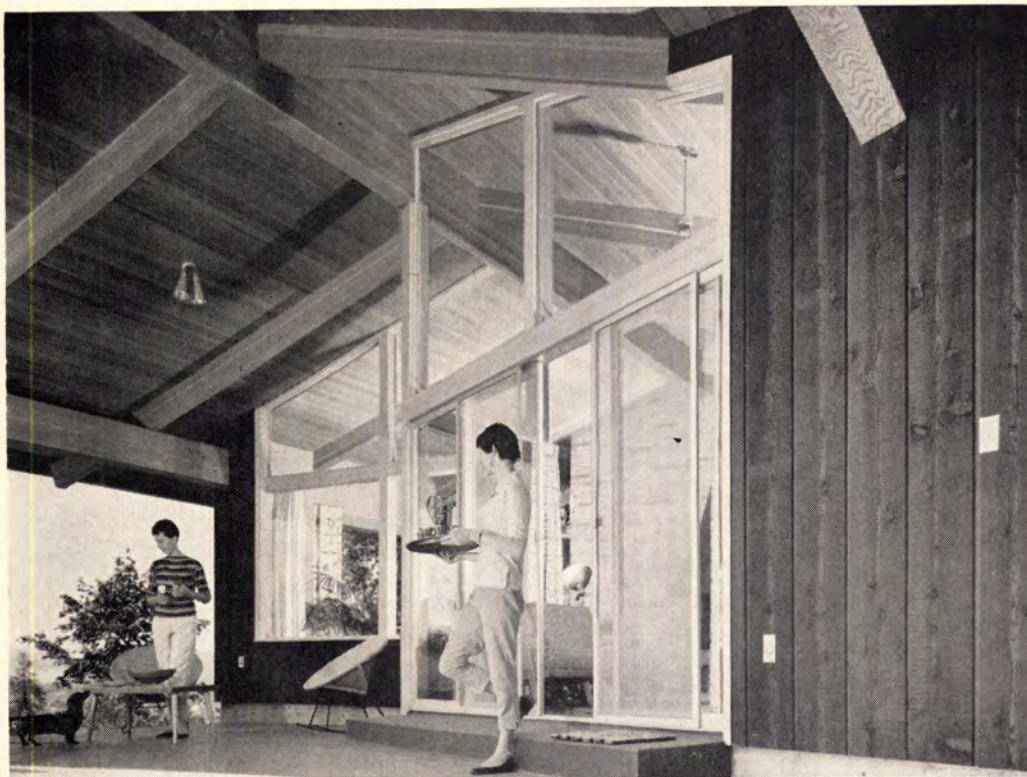
Get all the details about the hot new Mustang that you can sell to the mass market! Write! Wire! P. R. Thompson, Vice President, Sales, Department H-1, or phone PProspect 3-7550, Piqua, Ohio.

**INLAND[®]
HOMES**



INLAND HOMES CORPORATION

Plants in Piqua, Ohio; Hanover, Pa.; and **NOW CLINTON, IOWA**



William Robertson residence, Longview, Wash. Glued laminated ridge beam is 7" x 17 $\frac{7}{8}$ " in section, 5 $\frac{1}{4}$ " x 8 $\frac{1}{2}$ " rafter beams are spaced 8' o. c., add spaciousness and natural beauty to this home.

Rilco Adds Natural Wood Beauty to Any Interior

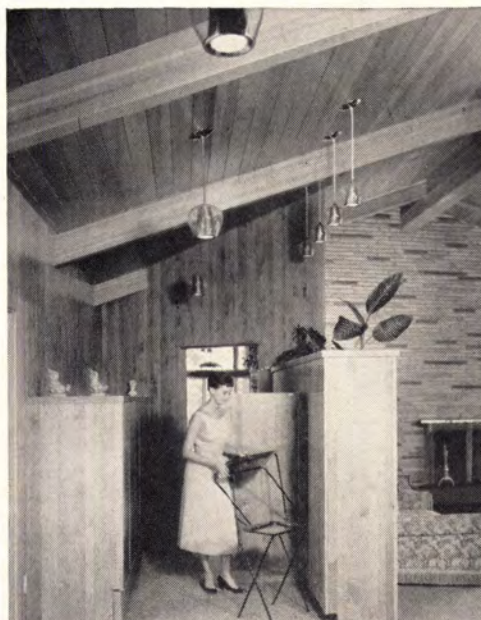
Blending with any style architecture, Rilco laminated wood beams add the rich, natural beauty of wood to enhance the decor of almost any home.

You will be pleased with the fine workmanship of Rilco laminated wood beams. Produced from top quality Douglas Fir, they reflect Rilco's ability to combine structural and decorative advantages in a most economic manner.

Kiln-dried and graded lumber carefully laminated offers you a wood beam which resists warping and splitting - retains its beauty indefinitely.

Another important inherent characteristic is the fire resistance of Rilco laminated wood beams. In addition, Rilco structural members are economical . . . no special skill is required to erect them.

Whether it's residential, church, school, commercial or industrial building, economical Rilco beams, arches or trusses add natural beauty . . . enable you to build better, for less.



Interior of William Robertson home shows the inviting richness of exposed laminated wood beams. Rilco structural members add interest and distinction to any interior.

RILCO
works wonders with wood

RILCO LAMINATED PRODUCTS, INC.

W 843 1st National Bank Bldg., St. Paul 1, Minn.

DISTRICT OFFICES:

Tacoma, Washington; Fort Wayne, Indiana;
Newark, New Jersey

Visit the Rilco Exhibit, National Association of Home Builders' Exposition,
Booth 564, Hotel Sherman

New products

continued from p 282



Hi-lifter fork truck has a new attachment: a combination lift arm and pallet fork. With it the hydraulic unit will lift a 2,000-lb palletized load up to 35'. Attachment will deliver brick, block, or stone to a third story.

Kwik-Mix Co, Port Washington, Wis.

For details, circle No. 139 on coupon, p 310



6,000-lb fork lift comes with standard 10' or optional 7' mast. Unit will work in rough terrain on-site or in a warehouse. Short wheelbase and oscillating rear axle give high maneuverability. Engine is 73 bhp, transmission is torque converter, steering is by power.

American Road Equipment, Omaha.

For details, circle No. 140 on coupon, p 310



High-lift portable crane will lift 750-lb loads to 14'. Mast and brace telescope as a unit, are easily raised by mast-mounted hand winch. Maximum lift is 1,250 lb to 8'8". For outdoor use, crane has 10" wheels in front, 6" casters in rear.

Thern Machine Co, Winona, Minn.

For details, circle No. 141 on coupon, p 310

continued on p 294

HOUSE & HOME

*Two
ways
to say
quality*

Your prospects can tell a great deal about a home—and its builder—by the level of quality they see used on the exterior. That's one of the reasons so many fine new homes feature cedar shingle roofs and cedar shake walls. Cedar says quality. Those three, long-lasting layers of cedar shingles on the roof... the unmistakable thickness of a double-coursed cedar shake wall... make a lasting impression on quality-conscious customers. This is the season to put the quality of genuine cedar on your selling team!

CEDAR CEDAR



For complete application details, see your Sweet's File, or write...

RED CEDAR SHINGLE BUREAU

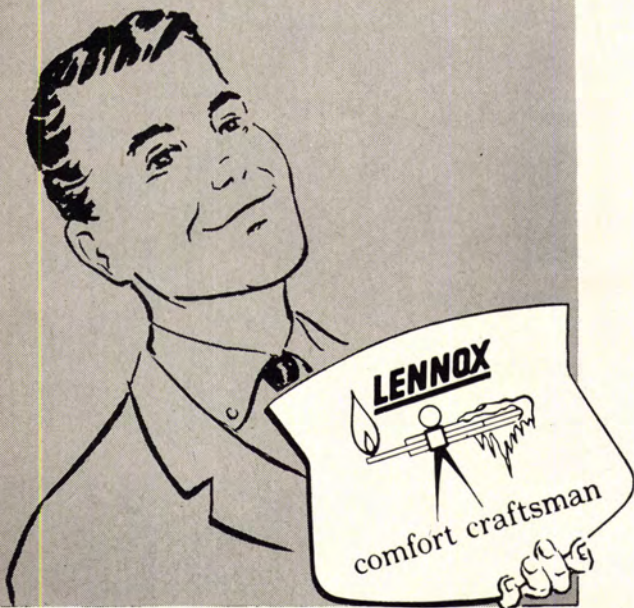
5510 White Building, Seattle 1, Washington
550 Burrard Street, Vancouver 1, B. C.

NO MATTER
WHAT FUEL
YOU USE...

THE ONLY WAY TO INDOOR COMFORT

6000 Lennox Comfort Craftsmen

work hand in hand with contractors, builders and architects throughout the U. S. and Canada. From the "talk" stage of planning until your tenants have been in occupancy for many months—and are 100% pleased with the installation—your Lennox Comfort Craftsman is devoted wholeheartedly to giving you the finest in individually planned, custom installed heating and air conditioning.



Your age-old heating problems such as hot-ceilings-with-cold-floors, to name only one, are aggravated by modern building design and construction. Moreover, new problems are being added by new developments almost month by month. Multiply them all by the latest factor, *air conditioning*, and you really have your hands full. And Lennox has the one and only solution with or without zone control: *Constant Air Circulation!* No wonder that contractors, builders and architects welcome the Lennox Comfort Craftsman! He is factory trained at true engineering level in the application of constant air circulation to all your heating and air conditioning problems. He is backed by the world leader in indoor comfort for homes, business, schools. He is qualified to work with you whether you lean toward electricity, gas or oil as fuel. He is a good man for you to know!

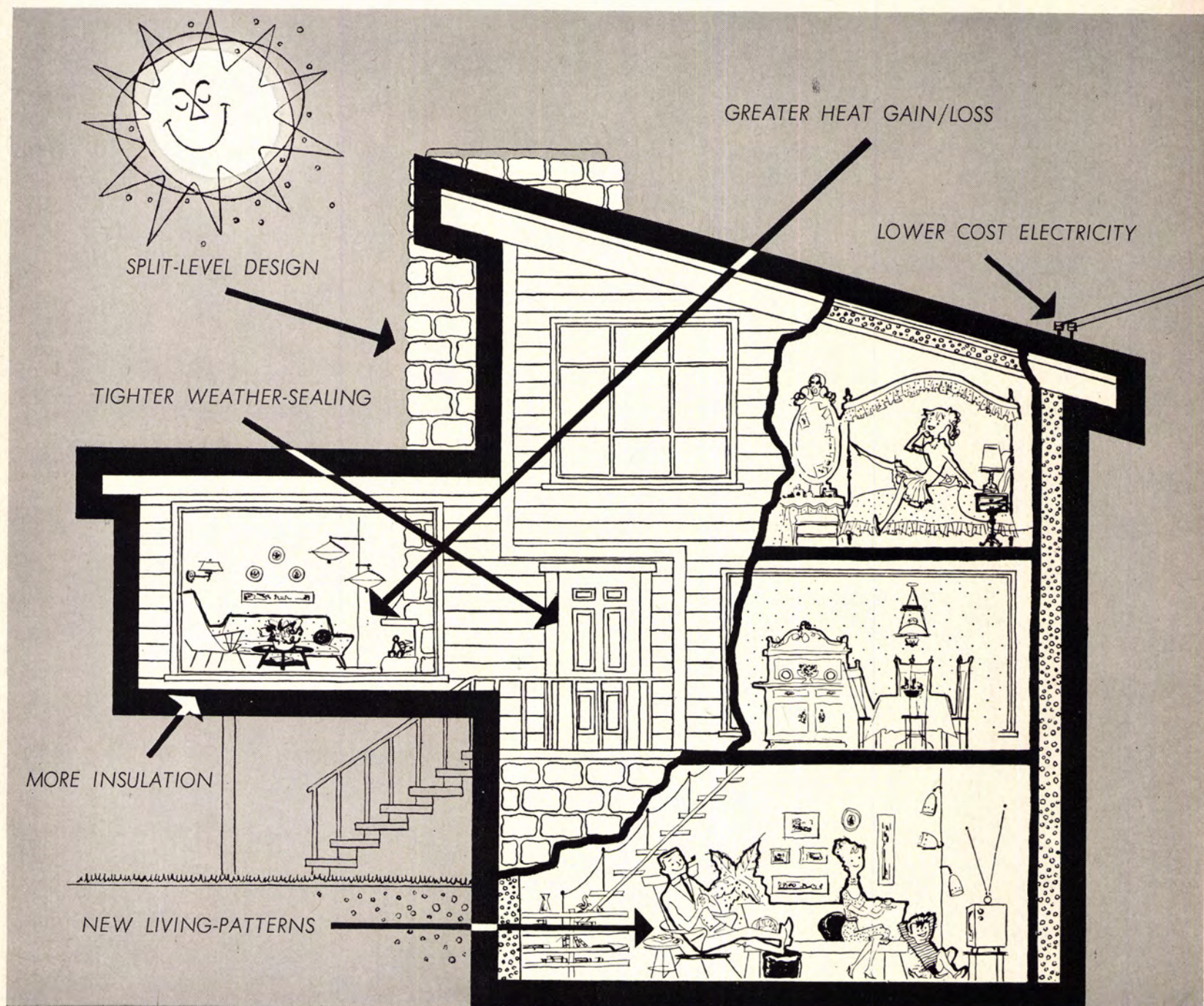
Update your thinking! Discuss new factors in heating and air-conditioning with a Lennox Comfort Craftsman. See Yellow Pages or visit Lennox display, NAHB Show, Chicago, January 17-21.

LENNOX



WORLD LEADER IN INDOOR COMFORT FOR HOMES, BUSINESS, SCHOOLS

IS CONSTANT AIR CIRCULATION!



HEATING AND AIR CONDITIONING

©1960 Lennox Industries, Inc., founded 1895; Marshalltown and Des Moines, Ia.; Syracuse, N.Y.; Columbus, O.; Decatur, Ga.; Ft. Worth; Los Angeles; Salt Lake City. In Canada: Toronto, Montreal, Calgary, Vancouver, Winnipeg.



Strong selling point of this home is a roofed-over patio featuring laminated wood beams continued from inside the house. Beams support extended roof and, with

For beautiful home exteriors in a variety of designs...

built of WOOD means built to sell

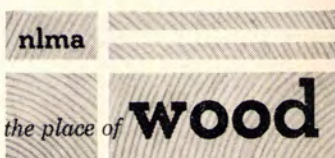
In home buying, first impressions count; that's why wood siding helps make the sale. Tongue and groove, board-and-batten, bevel, drop . . . whichever *kind* you use, wood siding offers the beauty and friendly warmth to which home buyers instantly respond. And the *variations* possible with each kind—horizontal or vertical, rough or smooth, stained or painted, alone or with other materials—enable you to create an unlimited number of effects, which insulate as well as decorate.

You save money, too. Wood's economy of cost and construction keeps the price down, gives customers a greater home

value. Tract homes or custom jobs, you sell more houses and make *more dollars per house* when you build with wood! For more information on better homes of wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION

Wood Information Center, 1319 18th St., N.W., Washington 6, D.C.

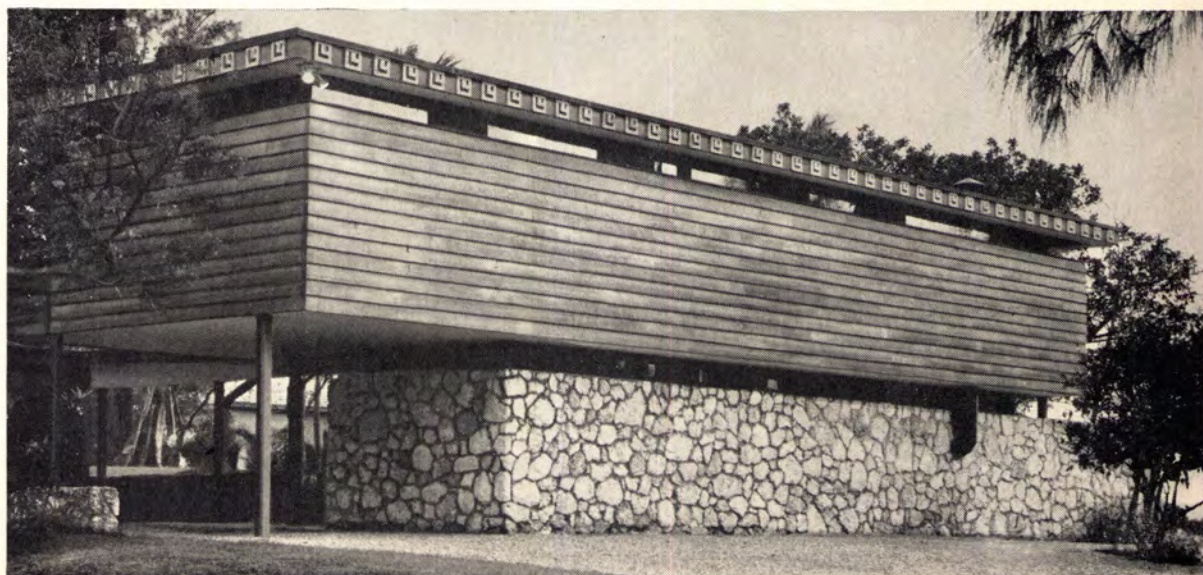


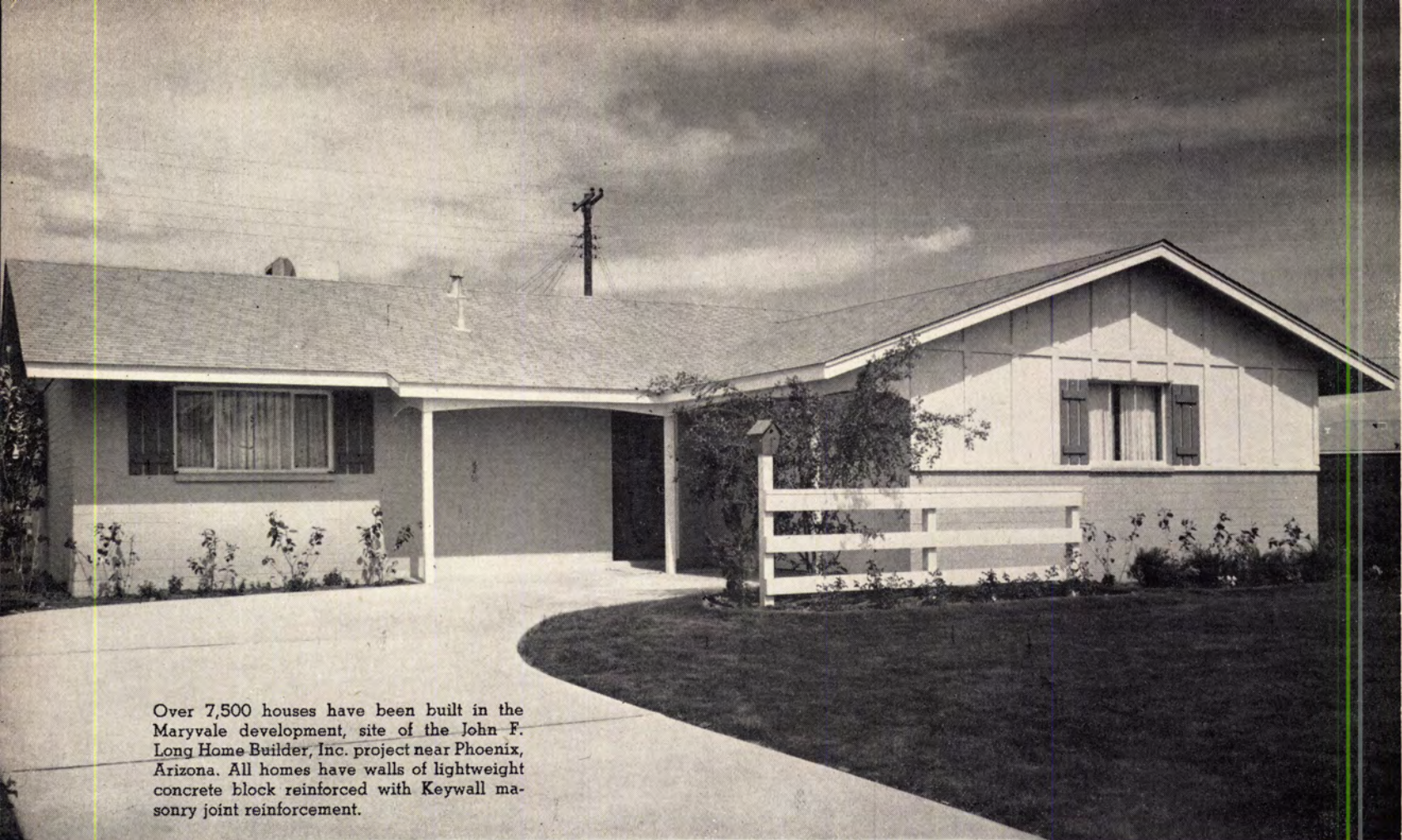
This Massachusetts home uses butt vertical siding in keeping with dramatically simple design. Flush doors pick up lines and shading of siding. Windows are recessed. Architects: D. H. and M. K. Hunter.



On this handsome traditional home, horizontal bevel siding is combined with vertical board-and-batten siding for a novel effect. Here elements are painted in the same color for visual unity. Architect: Favrot, Reed, Mathes and Bergman.

Traditional bevel siding is handled in a distinctively modern manner to accent horizontal lines of this Palm Beach home. Good use is made here of wood's compatibility with other building materials. Architect: Robert B. Browne.





Over 7,500 houses have been built in the Maryvale development, site of the John F. Long Home Builder, Inc. project near Phoenix, Arizona. All homes have walls of lightweight concrete block reinforced with Keywall masonry joint reinforcement.

"I give a one-year guarantee
against cracks in masonry walls
reinforced with

KEYWALL

GALVANIZED MASONRY REINFORCEMENT



says

JOHN F. LONG

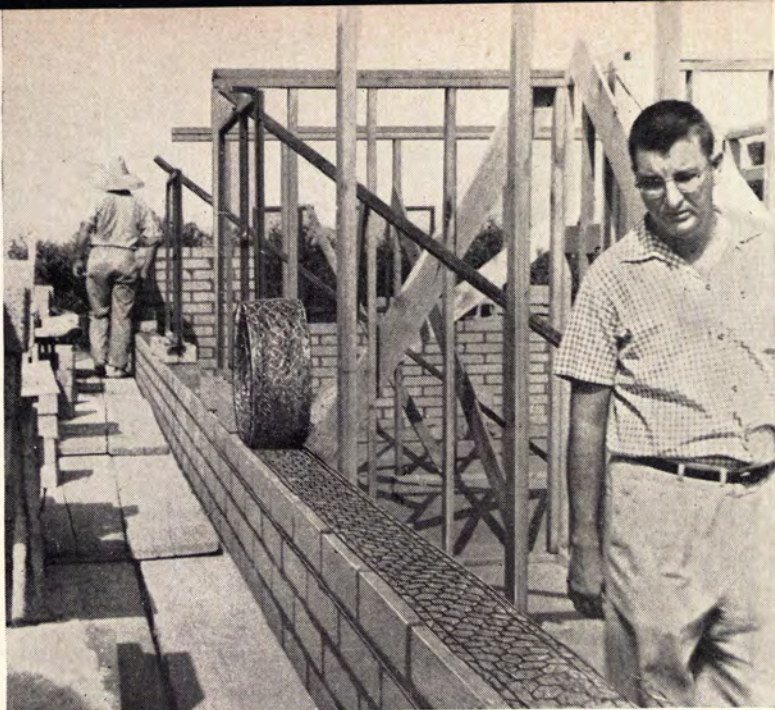
one of the nation's
top ten home builders.

The featuring of hidden values, together with exciting merchandising techniques and cost-saving installations, has helped John F. Long, Arizona builder, skyrocket to the top of the nation's home-building industry. Keywall masonry joint reinforcement has been one of Long's sales-boosting hidden values.

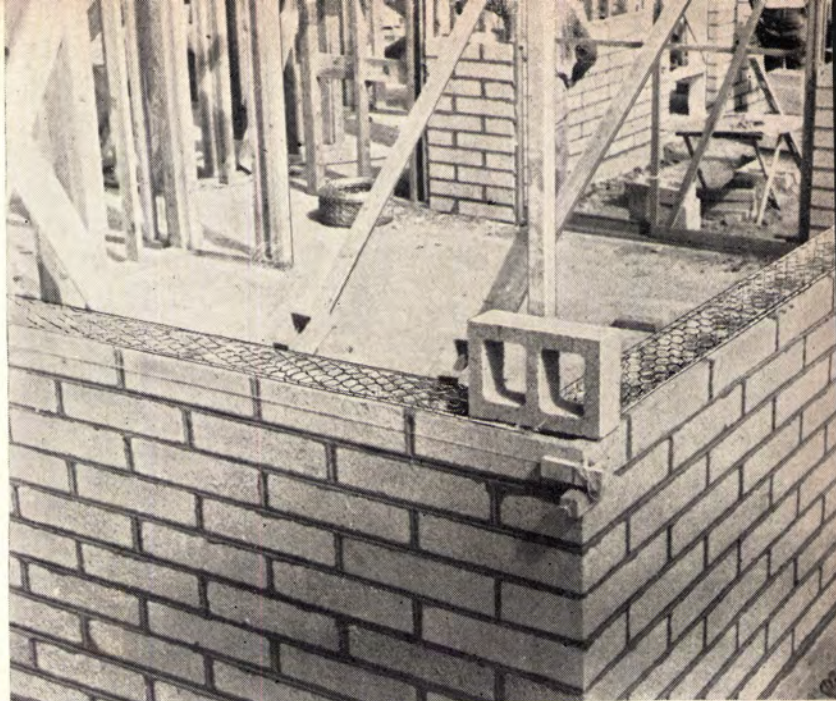
"Keywall enables me to build a more substantial wall at a minimum cost," says Long. "Its cost per house is negligible. I can guar-

antee no cracks in masonry walls . . . and save repair costs for both myself and my customers."

Cracks in un-reinforced masonry walls within a year's time started the use of Keywall on the John F. Long Home Builder, Inc. project near Phoenix. Long, who has been exceeding local building codes by reinforcing the masonry, has found the hidden quality feature of Keywall pays off.

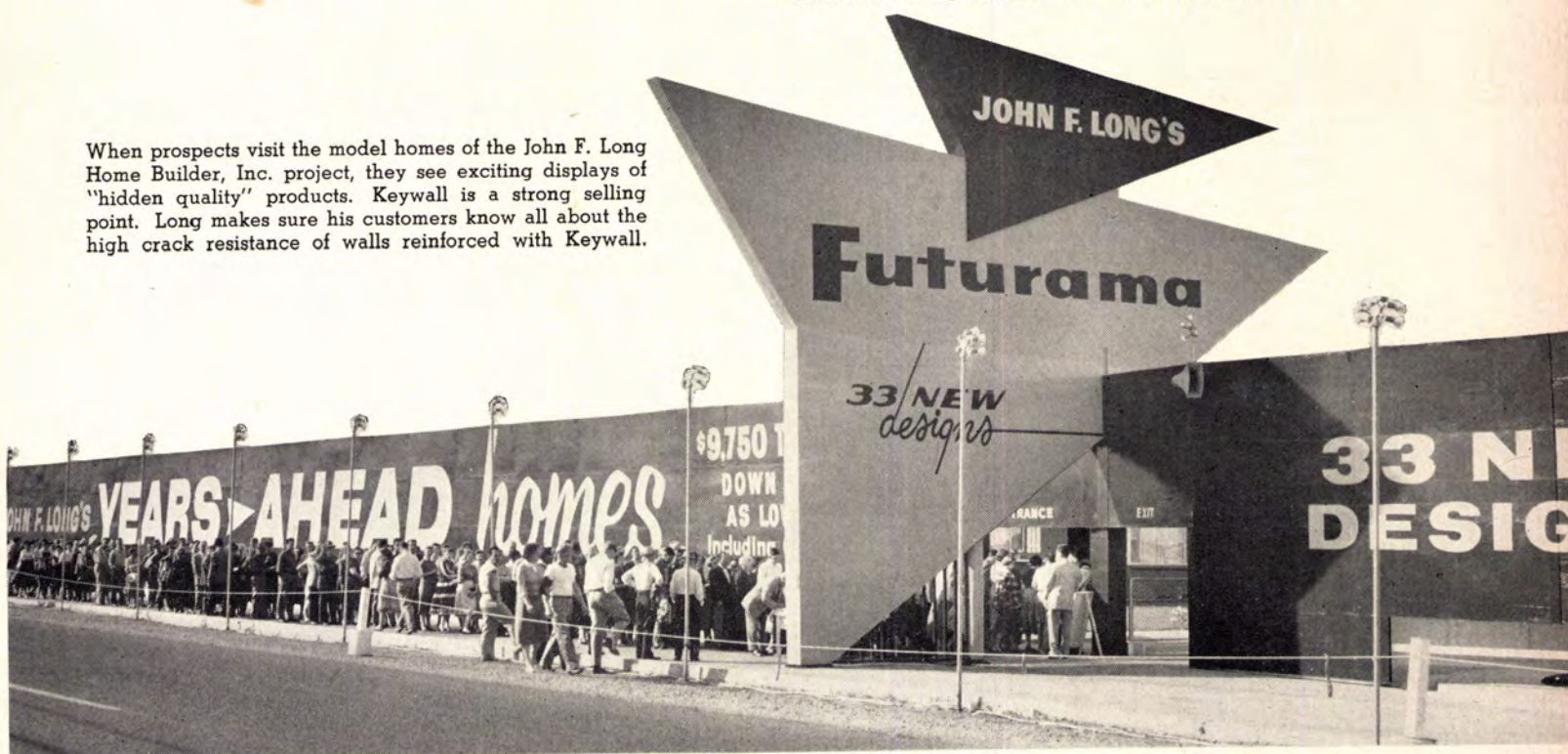


Long's crews find Keywall easy to handle and store on the job. Installation is quick and low in cost. It takes only minutes to unroll Keywall in place on a wall. The smooth-edged wire won't cut or tear hands.



With the brick-sized concrete units, Long has found that cracks are eliminated by using Keywall in the 10th course above the footing and in two mortar joints above and below windows and doors. With a story-pole system, Long can control Keywall-reinforced wall heights within $\frac{1}{8}$ ". Even when lapped at corners, Keywall gives full embedment without increasing thickness of the masonry joints.

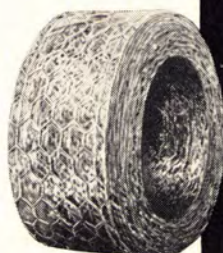
When prospects visit the model homes of the John F. Long Home Builder, Inc. project, they see exciting displays of "hidden quality" products. Keywall is a strong selling point. Long makes sure his customers know all about the high crack resistance of walls reinforced with Keywall.



KEYSTONE STEEL & WIRE COMPANY, Peoria 7, Illinois

KEYWALL • KEYMESH® • KEYCORNER • KEYSTRIP • WELDED WIRE FABRIC • NAILS

Keywall comes in easy-to-handle 200-foot rolls, galvanized for rust-free storage. Made for the following wall thicknesses: 4", 6", 8", 10" and 12".



I would like to learn more about the effective crack-resistant qualities of Keywall masonry joint reinforcement. Please send me test reports and more complete information.

Name _____

Company _____

Address _____

City _____ State _____

For *Residential* INSTALLATIONS
weil SUBMERSIBLES

See these weil Submersible Pumps operating at
 the N.A.H.B. show!

(Booth No. 470 Sherman Hotel)

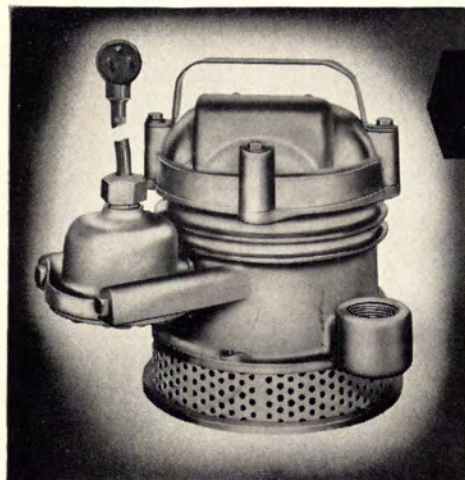
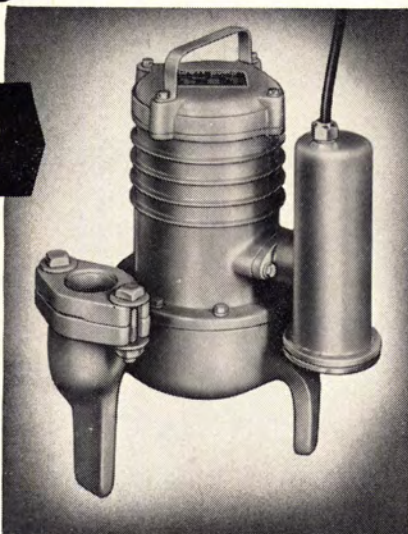
The homeowner is aware of the need for dependable
 sump and sewage pumps. Here are the pumps that
 will help sell your houses!

SEWAGE PUMP

2" Discharge

1/2 HP Capacitor Motor

This economical Sewage Pump permits installation of basement toilets and other fixtures where waste must be pumped up to sewer line.



SUMP PUMP

1 1/4" Discharge

1/2 HP Capacitor Motor

Quiet Operating
 submersible pumps
 delight the homeowner!

Automatic MICRO-SWITCH control. Provides the proper pumping cycle.

Factory assembled, ready to run, just plug in. (No expensive wiring)

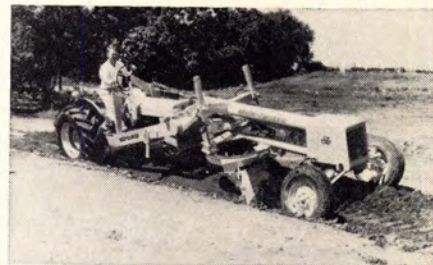
Dependable hermetically sealed motors assure performance at all times. When current fails moisture cannot damage pump or motor.

weil PUMP COMPANY

1518-A NO. FREMONT ST., CHICAGO 22, ILL.

New products

continued from p 286



Low cost grader fits Massey-Ferguson model 202 industrial tractor. Lev-L-All will work as leveler, grader, maintainer. Standard equipment includes hydraulic leaning front wheels and lateral shift. Long wheelbase and short turning circle allows close maneuvering. Unit is easily attached or detached.

Massey-Ferguson, Wichita, Kan.

For details, circle No. 142 on coupon, p 310



New bull-grader mounts on International T-340 crawler. Blade is 85 1/2" wide, can be set 11 3/4" below grade, or raised 35" above ground. It can be angled from 25° right to 25° left. High lift capacity makes it work well on slopes, banks, and shoulders. Leverage is great enough to remove trees and stumps or cut ditches.

International Harvester, Chicago.

For details, circle No. 143 on coupon, p 310



New 12-hp Ditch Witch will cut trenches to 12" wide, 5' deep. M-322 model is scaled up from popular M-3. New model will cut foundation footings, sewer laterals, drain fields, or bury utilities. Engine is an air-cooled 12-hp Wisconsin. Unit will dig 4" trench 5' deep, 12" trench 3' deep in any soil, maker claims.

Witch Mfg Co, Perry, Okla.

For details, circle No. 144 on coupon, p 310

continued on p 296

HOUSE & HOME

symbol of quality since 1906



A.I.A. 19-B-3



LOCK-DECK*

*answers demands of architects
for attractive, stable roof
decking...saves up to 50% labor.*

Potlatch Lock-Deck, a laminated roof decking, offers five distinct advantages over ordinary decking:

- * choice of attractive facings
- * reduces shrinkage, checking, warping
- * offset eliminates splines and drilling
- * increases coverage 5-10%
- * reduces installation costs up to 50%

All the high quality advantages of laminated wood are offered in this easily applied tongue and groove planking...furnished square-end or end-matched.



Certified by



kiln dried



PFI
LOCK-WALL

PFI
PANELING LUMBER

PFI
PLYWOOD

PFI
PATTY-O-PANEL FENCING

PFI
EDGE & END GLUED LUMBER

Potlatch: a name that has been associated with the finest in building materials since 1906, has at your disposal, the resources of 7 mills. These are backed up by more than 875,000 acres of timberland, managed on a sustained yield basis to assure adequate future supplies.

Annual production of Potlatch Forests, Inc., Northwest mills is 475 million feet of lumber, produced in the following species:

Idaho White Pine,
White Fir,
Douglas Fir,
Ponderosa Pine,
Cedar,
Larch and
Spruce.

Unmatched
quality
control,
mixed
carload
lot
service
and
a

wide variety of
products gives
unique facilities to
dealers all over
the nation.

Pittsburgh, Penn.
1615 Oliver Bldg.
Kansas City, Mo.
2007 Bryant Bldg.
Chicago, Ill.
1829 Pacific
Opera Bldg.
Elizabeth, N.J.
720 Dowd Ave.
Deer Park, Wash.
Deer Park Ind., Inc.

POTLATCH FORESTS INC.
LUMBER DIVISION



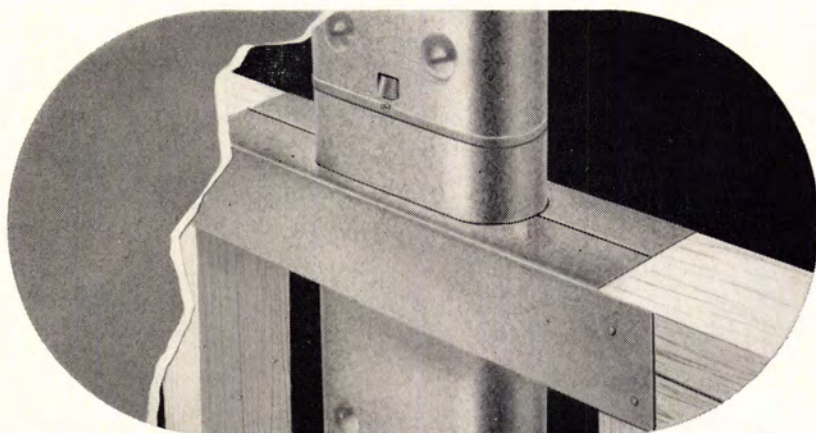
* pat. pending

Write General Sales Office for further information

METALBESTOS

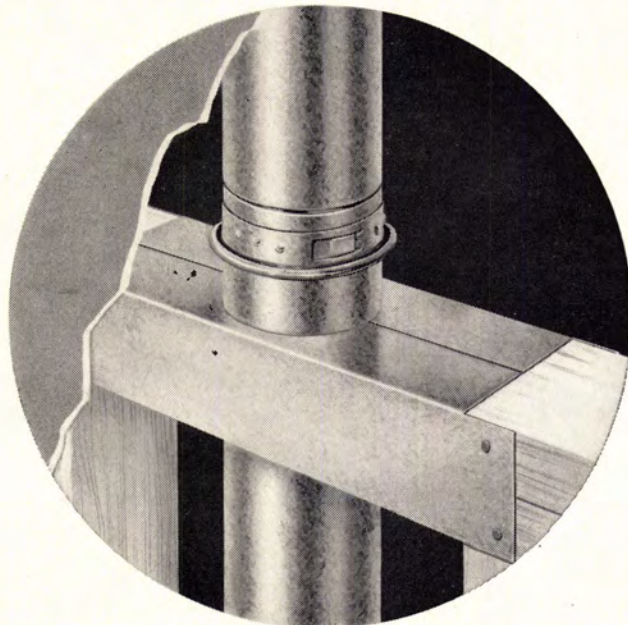
NOW LISTED FOR IN-WALL CONSTRUCTION

Metalbestos offers two complete systems for in-wall gas venting—without the necessity of expensive furring! Provides everything needed, from draft hood to "bird-proof" Belmont top . . .



In 2" x 4" Walls

4" Metalbestos WV Oval with integral "raised" and firestop spacers



In 2" x 6" Walls

Metalbestos 4" RV Round with integral "lip" and firestop spacers

A COMPLETE SERVICE



For complete product line description and installation details (Bulletin 102), contact your Metalbestos supplier. Ask him, too, for the Metalbestos Gas Vent Tables, the easy-to-use design guide for correct gas vent installation—available free of charge.



METALBESTOS

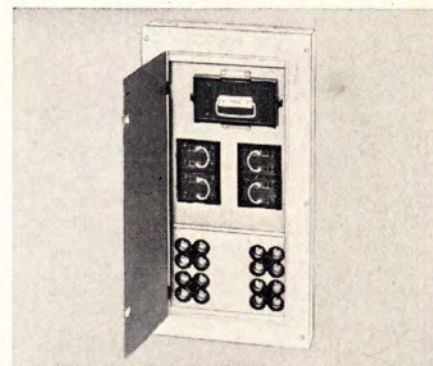
D-12 DIVISION

WILLIAM WALLACE COMPANY, BELMONT, CALIF.

MANUFACTURING PLANTS IN BELMONT, CALIF., LOGAN, OHIO

New products

continued from p 294



Fusible 100-amp entry has a single 100-amp Renu-Fuse to control all circuits, four 60-amp Renu-Fuses for range, dryer, air conditioner, workshop, etc., and up to 16 plug fuse circuits for lighting and appliance outlets. Device has a deadfront, comes in surface or flush mounting models. UL listed.

Wadsworth Electric, Covington, Ky.

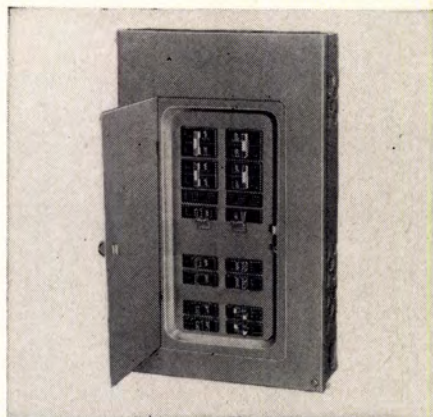
For details, circle No. 145 on coupon, p 310



Automatic lawn lamp has photoelectric switch. With the house lights on, Nytrol will turn on outside lights as dark falls, turn them off at dawn. Lights can be turned off anytime from the house. Unit fits in heavy-gauge aluminum adapter sleeve, comes in bright metal or wrought-iron finish.

Micro Balancing, Garden City, N.Y.

For details, circle No. 146 on coupon, p 310



Twin load center from GE combines single and three-phase branch circuits in the same box. The high leg of a 3-phase, 4-wire delta system is connected by a single-breaker stab unit; 120-v circuits connect to the appropriate phases. For safety, the 3-phase breaker can be padlocked in the off position.

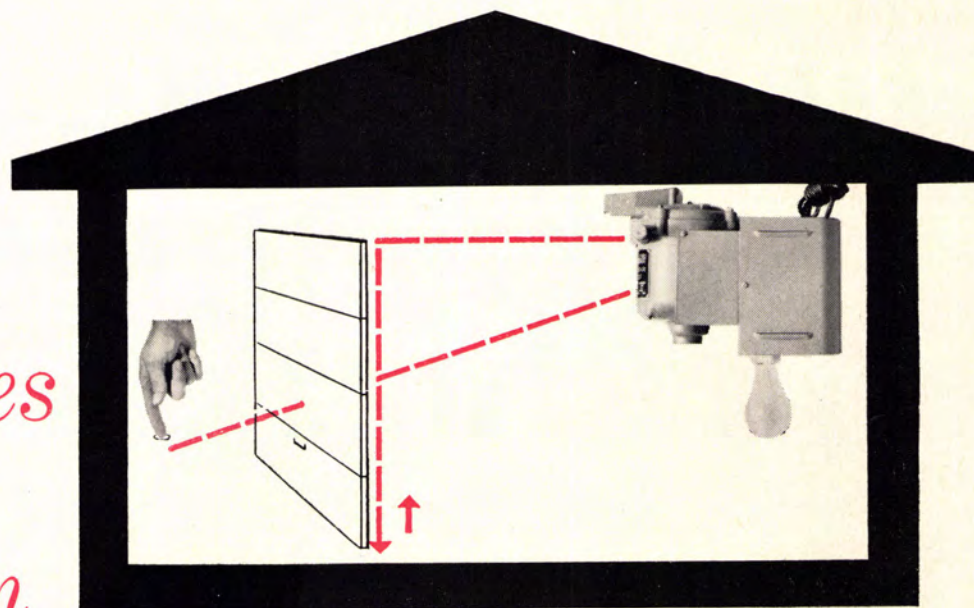
General Electric, Plainville, Conn.

For details, circle No. 147 on coupon, p 310

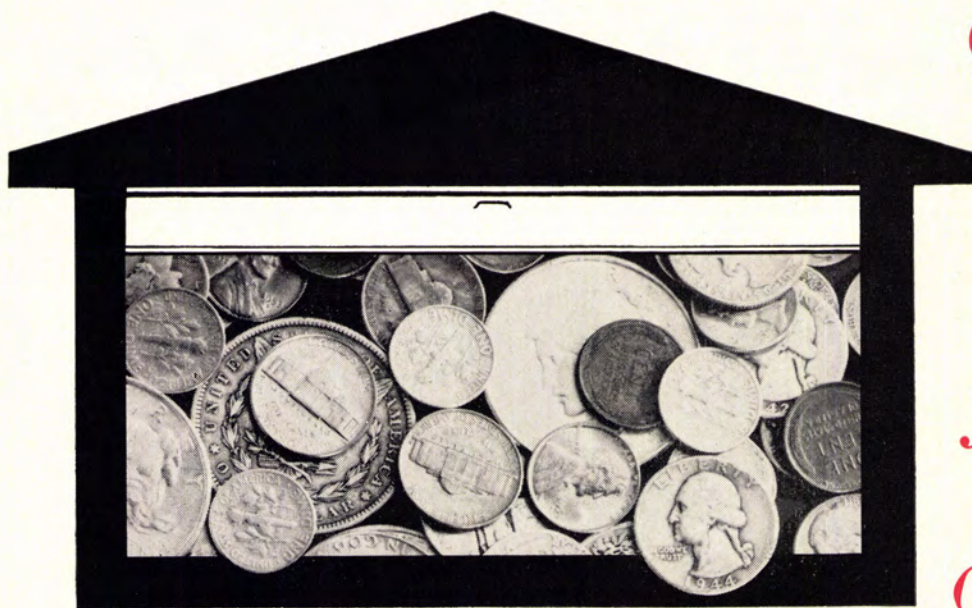
continued on p 298

HOUSE & HOME

*make
your
garages
truly
modern*



Delco-matically...



*and
make
more
profit
from
every
one!*

**DELCO
PRODUCTS**

Division of General Motors
Dept. H&H-160, Dayton 1, Ohio

Please send more information on Delco-matic Garage Door Operators.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____

"Thar's new gold in them thar deals" . . . and you'll sell more homes faster by featuring the most modern built-in convenience on the market: the all-new, all-transistor Delco-matic Garage Door Operator! Three and one-half years of testing—including a nationwide 500-home use-test—thoroughly demonstrated the all-condition efficiency of the Delco-matic to the satisfaction of General Motors' electronics specialists, the same experts who design and develop transistors for missiles, computers and pocket-portable radios. See for yourself what Delco-matic can do for your profits. Clip the coupon or call your local Delco-matic representative today for full details.

Delco-matic Garage Door Operators are sold and installed by Crawford Door Company and authorized Delco-matic distributors. Warranted and serviced by United Motors Service electronics service dealers.



Delco-matic / **DELCO PRODUCTS**

3

steps to a faster home sale with new electric *Sno-Melter!*

1

Plans call for a concrete driveway. Just before finish-coat layer is poured, electrical contractor rolls SNO-MELTER units quickly into place. Pre-spaced heater wire anchored in galvanized steel mesh, 18" wide, in 6' or 10' lengths. Pre-assembled lead wires and ground also attached. Saves installation time, cost!



2

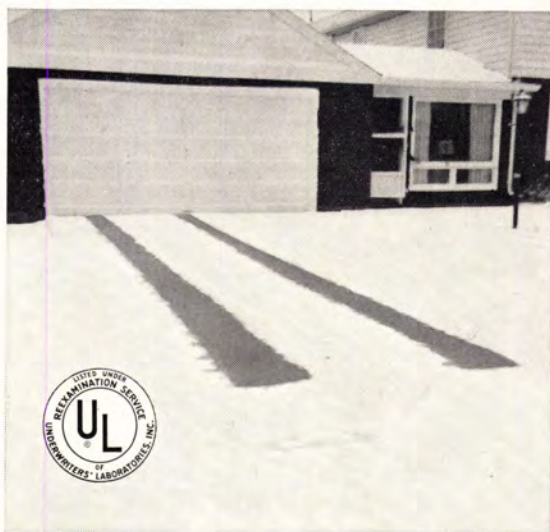
Wires *don't* float as the concrete is poured. With SNO-MELTER, designed for 42 watts per square foot, uniformly even heat is assured! At last, the builder can put a practical price on snow-free walks, tire tracks for the drive! And, homeowner will pay only about 8¢ an hour to melt tracks in the 30-foot drive.



3

With the first snowfall, SNO-MELTER will graphically demonstrate the convenience of "No more snow to shovel... no more ice to chop!" This "extra" will sell more homes in '60!

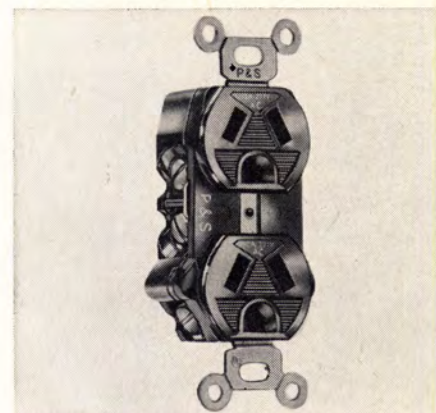
See SNO-MELTER in
Coliseum Booth 932
at the BUILDER'S SHOW



EASY-HEAT, INC., "Electric Anti-freeze Devices"
Dept. 2-H, Lakeville, Indiana

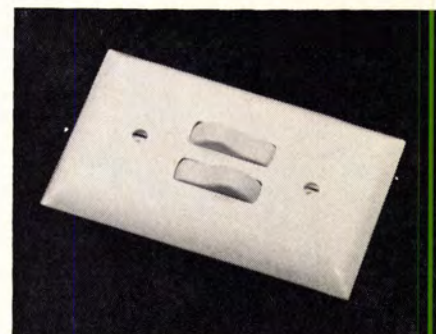
New products

continued from p 296



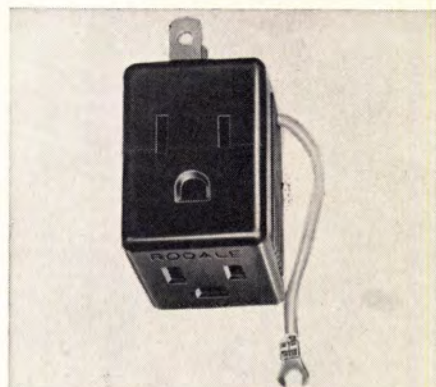
New 3-wire grounding outlet permits feeding two fluorescent fixtures from one box. Break-off terminals permit 2-circuit wiring. The back is fully insulated and all contacts are the double-grip type. Two grounding terminals are green hexagonal screws for easy identification.

Pass & Seymour, Syracuse.
For details, circle No. 148 on coupon, p 310



Feathertouch twin switch permits the installation of two single-pole switches where there is only room for one switch box and wallplate. Quiet switches have rocker-arm action and pure silver contacts. They carry a 100-year guarantee, with free replacement provision.

H.J. Theiler Corp, Whitinsville, Mass.
For details, circle No. 149 on coupon, p 310



Cube tap from Rodale allows a single grounded outlet to be converted into three. The lead wire is simply connected to the wallplate screw. Bakelite top has polarized slots, double wiring contacts, accommodates all makes of 3-wire caps, as well as standard 2-wire caps, rated at 15 amp 125-w.

Rodale Mfg. Co, Emmaus, Pa.
For details, circle No. 150 on coupon, p 310

continued on p 301

HOUSE & HOME

This is **FORMICA**[®]
FROST 15-H-1

This is **FORMICA**[®]
TIDESTONE 7-ST-1

Plan to use new **FORMICA**[®]
Laminated Plastic
CandleGlo Colors
in your next home

The new Formica CandleGlo Colors will give your home new sales appeal as the fashion trend to subdued colors gains impetus.

Details of these new "customer conditioned" colors and color sample offer on the reverse side.



This is **FORMICA®**
LIME PARFAIT 58-MZ-1

This is **FORMICA®**
CARAMEL BONBON 43-PD-87

WHY YOUR PROSPECTS WILL BE ASKING FOR THE NEW FORMICA COLOR PATTERNS BY NAME

The full impact of Formica national advertising will be behind these new CandleGlo Colors. Interesting kitchens and stimulating bathrooms will be the settings for repeated exposure to millions of homemakers in *Better Homes & Gardens*, *American Home*, *Living*, *House Beautiful*, *Saturday Evening Post*, *Good Housekeeping* and many others.

These new colors are now available from local stocks the country over.

Lime Parfait, 58-MZ-1
Almond Parfait, 22-MZ-1
Mint Bonbon, 63-PD-47
Caramel Bonbon, 43-PD-87
Mocha Bonbon, 49-PD-43
Champagne Sequin, 46-SE-87
Frost, 15-H-1
Tidestone, 7-ST-1

SOLID COLORS
Azure, 133
Celadon, 117
Champagne, 225
Cocoa, 886
Umber, 134
Signal Red, 862
Antique White, 132

WOODGRAINS
Prima Vera, 46-V-64
Teak, 32-TK-57
Rosewood, 69-BR-68
Macassar Ebony, 86-ME-68



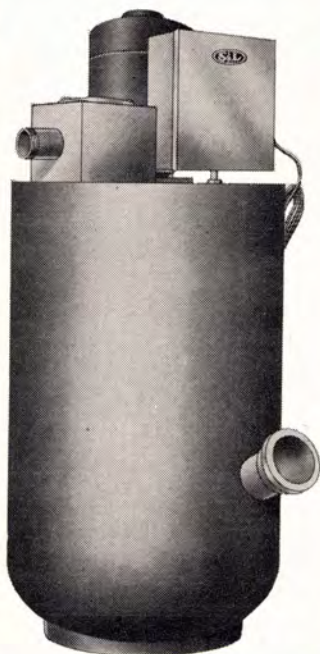
FD-2278

FREE! Write for color swatches of these new colors today.

FORMICA CORPORATION

Dept. B, Cincinnati 32, Ohio

NEW! Smith & Loveless "UNIJECT"



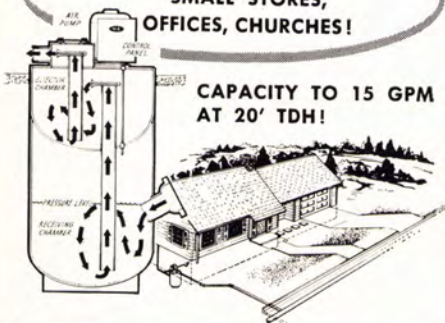
PNEUMATIC SEWAGE EJECTOR for SINGLE DWELLINGS

The low-cost "Uniject" is a small, single-dwelling pneumatic ejector, capable of efficiently handling low sewage flows and large solids. It is specifically designed for installation in a dwelling where it is necessary to raise sewage to a gravity sewer line or on-the-site treatment facility.

The "Uniject" is ideal for those few homes in a subdivision which lay below the level for economical gravity sewer service... eliminates lowering the entire sewer line and the possibility of pumping all of the sewage as a result. The "Uniject" is completely...

- AUTOMATIC • EFFICIENT
- DEPENDABLE

IDEAL FOR HOMES,
SMALL STORES,
OFFICES, CHURCHES!



CAPACITY TO 15 GPM
AT 20' TDH!

COMPLETE FACTORY-BUILT UNIT!

WRITE FOR SEE THE "UNIJECT" NAHB SHOW!
BULLETIN IN OPERATION... CHICAGO
NO. 711 and COLISEUM

By the Makers of America's Finest
Factory-Built Sewage Lift Stations



Smith & Loveless

DIVISION-UNION TANK CAR COMPANY
P.O. BOX 8884 KANSAS CITY, MO.
REPRESENTATIVES IN PRINCIPAL CITIES

Publications

How to sell houses

A new loose-leaf binder from Youngstown Kitchens has over 100 pages of merchandizing advice. The book tells how, why, when, and where to use newspaper advertising, radio and TV, direct mail, displays, tie-in ads, and many other sales promotion aids. Other sections tell how to train salesmen, conduct an open house, landscape and decorate a model home. Sample material to which you can tailor your promotion is included.

Youngstown Kitchens, Warren, Ohio.

For copy, circle No. 151 on coupon, p 310

Guide to plumbing fixtures

Kohler has a new edition of their popular 20-page guide to bathroom planning. Full-color illustrations show sample bathroom styling; floor plans show bath layouts. Fixtures and fittings for both kitchen and bath are shown.

Kohler, Kohler, Wis.

For copy, circle No. 152 on coupon, p 310

New finishes in hardboard

Hardboard in a variety of textures, pre-finished in a baked-in driftwood finish, is shown in a new folder from Evans Products. Textures include V or panel grooves or squares, perforated and smooth board. Various applications are shown in drawings and photographs.

Evans Products Co, Corvallis, Ore.

For copy, circle No. 153 on coupon, p 310

Wall-mounted fluorescent lights

Six lines of fluorescent wall and utility fixtures are shown in Lightolier's newest catalog. Lyteline and Lightolier fixtures give shielded direct or reflected light. Reflect-A-Line, Primalux, and Sightron fixtures are fitted with plastic diffusers.

Lightolier, Jersey City.

For copy, circle No. 154 on coupon, p 310

Guide to stainless steel

Union Carbide has put together a 90-page directory of stainless steel products now available. Among categories of interest to the housing industry are hardware, home building, home furnishings. Under these main categories, manufacturers are listed by specific products.

Union Carbide Metals, New York City.

For copy, circle No. 155 on coupon, p 310

Reinforced plastics in catalog

Morgan-Wightman's 184-page 1960 catalog features a new line of translucent fiberglass panels. Panels are standard 3/32" and a new nonstructural 5/128" size, in plain and imbedded types, are shown in full color.

Morgan-Wightman, St. Louis.

For copy, circle No. 156 on coupon, p 310

Plugmold engineering data

Six-page brochure from Wiremold gives detailed information on wire capacity, fastening methods, devices, and fittings. Instructions for solving most installation problems are included.

Wiremold Co, Hartford.

For copy, circle No. 157 on coupon, p 310



Just
Out...



Giant 1960 Catalog...

featuring
nationally advertised
brands—
many new styles
many new low prices

MORGAN-WIGHTMAN

Building Materials at WHOLESALE

plus

the economy
of one-stop
buying
and single
invoicing
to reduce
paper work
and
accounting
costs



write for

Free Catalog
MORGAN-WIGHTMAN

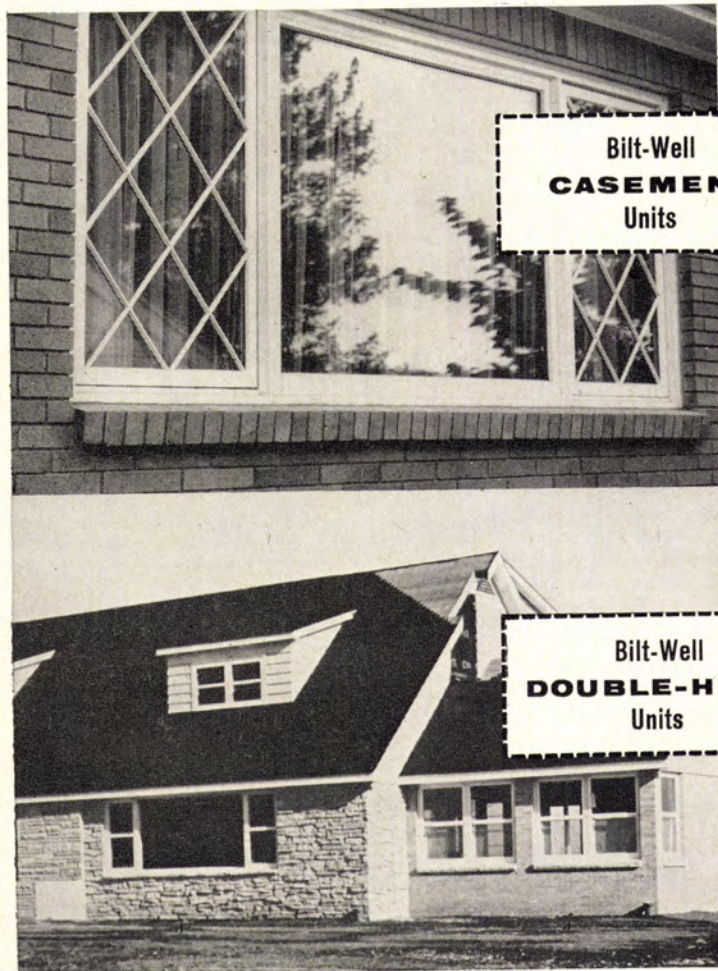
SEE OUR EXHIBIT
HOTEL SHERMAN
BOOTH 485

Dept. A 1 • P. O. Box No. 1 • St. Louis 66, Mo.

NAME _____
COMPANY _____
STREET _____
CITY _____ ZONE _____ STATE _____

continued on p 303

another first from **Bilt-Well**
by **Caradco**



Bilt-Well
CASEMENT
Units

Bilt-Well
DOUBLE-HUNG
Units

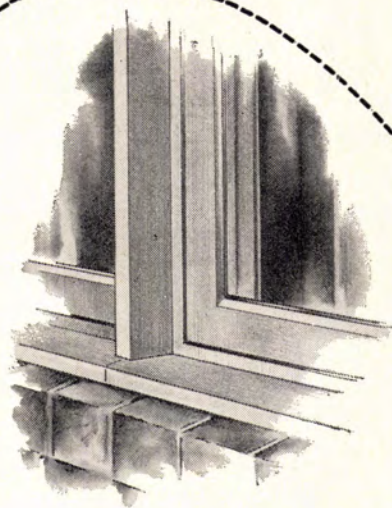
**Unitized Construction keeps
BILT-WELL Window costs low!**

This unique patented joining method results in a saving over the old continuous head and sill method—in a stronger assembly—in a permanent watertight joint—in greater latitude of fenestration.

Specify the newly engineered BILT-WELL WINDOW UNITS

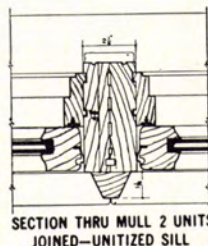
CARADCO, Inc., Dubuque, Iowa

There's more to offer with **BILT WELL**
WOOD WORK by Caradco



**Only BILT-WELL
Casements, and
Double-hung
window Units have
this exclusive
unitized sill!**

This patented feature permits an unlimited number of single units to be joined in multiple horizontal groupings.



Look for these BILT-WELL Features

1. DISTINCTIVE HARDWARE
2. EFFECTIVE WEATHERSTRIPPING
3. PRESERVATIVE TREATED
4. SURPASSES FHA Requirements
5. SINGLE or INSULATING GLASS

Specify the BILT-WELL

Line by
CARADCO

Super double-hung windows



Super-hold

with ingenious sash-holding device for budget homes.



Super-lift

with fingertip operation for medium priced homes.



Super-therm

with double insulating glass for custom built homes.

Casement Windows



Sleek, trim, double-weather-stripped casements with concealed hinges and hardware. Unitized sill permits side-by-side installation in long ribbons.

Awning Windows



New releasable hinge permits removal of sash for easy cleaning. Lever, jointed bar, rigid bar or gear operator available. Use these windows as casements, awning, hopper or fixed sash.

Kitchen Cabinets



Beautiful, streamlined cabinets of Ponderosa Pine, all water repellent treated for dimensional stability, with pine or birch doors and drawer fronts. Cabinets come in 3" modules to fit any size kitchen. Wide choice of accessories.

Storage Walls



Economical and practical arrangements of door and drawer units form complete storage walls. Easy to install in out-of-the-way corners for additional storage, too.

BILT-WELL Products

by **CARADCO, INC.**
Dubuque, Iowa

Publications

continued from p 301

New booklets on roof decks

Tectum has two new publications showing how to use insulating roof-deck components.

AIA file 37A features the use of roof decking in contemporary residences. Basic properties are described in text and tables. Detail drawings show typical construction details.

For copy, circle No. 158 on coupon, p 310

Sweet's file 2d-Te gives basic data on the full line of Tectum decks for both residential and commercial use. Design data is given on two types of plank and one tile. Erection procedures, methods of anchoring, specifications, architectural detail, etc., are all included.

Tectum Corp, Columbus, Ohio.

For copy, circle No. 159 on coupon, p 310

Home lighting film

Luxtrol has a new 24-minute film showing how home lighting can be made "more beautiful, economical, and healthful." The film shows how the principles of theatre lighting can be applied to a house through the use of standard lighting fixtures and Luxtrol controls. It also contains a short installation sequence.

Superior Electric, Bristol, Conn.

For showing, write direct to manufacturer

Industrial equipment manual

Precision Equipment Co regularly publishes handy pocket-sized guides to new products and inventions for plants and offices. Among the products covered are workbenches, adjustable steel shelving, material handling equipment. Free subscriptions are now available.

Precision Equipment Co, Chicago.

For copy, circle No. 160 on coupon, p 310

Convertible garage room

Overhead Door has a packet of ideas for converting low-cost garage space into an indoor-outdoor living area by substituting an overhead door for the back wall. The company can supply sales tools, sketches, architect designs.

Overhead Door, Hartford City, Ind.

For copy, circle No. 161 on coupon, p 310

How to use skylights

Wasco has prepared a set of Skydome Selector Tables to help you estimate the number and size of daylighting units needed for any structure. Tables are prepared for three brightness zones through the US and Canada. They give foot candles and heat gain for each type of Wasco skylight under all structural conditions.

Wasco Products, Cambridge, Mass.

For copy, circle No. 162 on coupon, p 310

Data on new adhesives

New catalog of Adhesive Products Corp reports on products to solve a wide range of adhesive problems, among them gluing vinyl to wood, foamed styrene to wood or metal, polyethylene to leather, urethane foam to a wide variety of materials, etc. Other products listed include molding latexes, marking inks, fabric paints, etc.

Adhesive Prods Corp, New York City.

For copy, circle No. 163 on coupon, p 310

INCREDIBLE BUT TRUE!

4

BATHROOMS TILED PER MAN PER DAY



MIRACLE MA-266

BEST ADHESIVE FOR PRODUCTION WORK!

Right now in Levittown, as well as in developments all over the nation, one mechanic is installing tile in four bathrooms in just one day. Certainly it takes a special material to do the job. That's Miracle MA-266. Truly the mechanic's mastic. Made by Miracle Adhesives Corporation, who introduced the 'thin-set' adhesive method of setting clay tile more than 20 years ago, and has been the pacemaker to progress in setting tile ever since. And, Miracle has engineered MA-266 in accordance with the mechanic's own specifications. All over the country tile mechanics have told us what they wanted. In economy, in coverage, in long open time and in real waterproofness. All are combined in MA-266, finest and most economical tile adhesive in Miracle's entire 20 year history. Really long lasting, too! Try it. You'll be delighted with the way it speeds installations to achieve important savings.

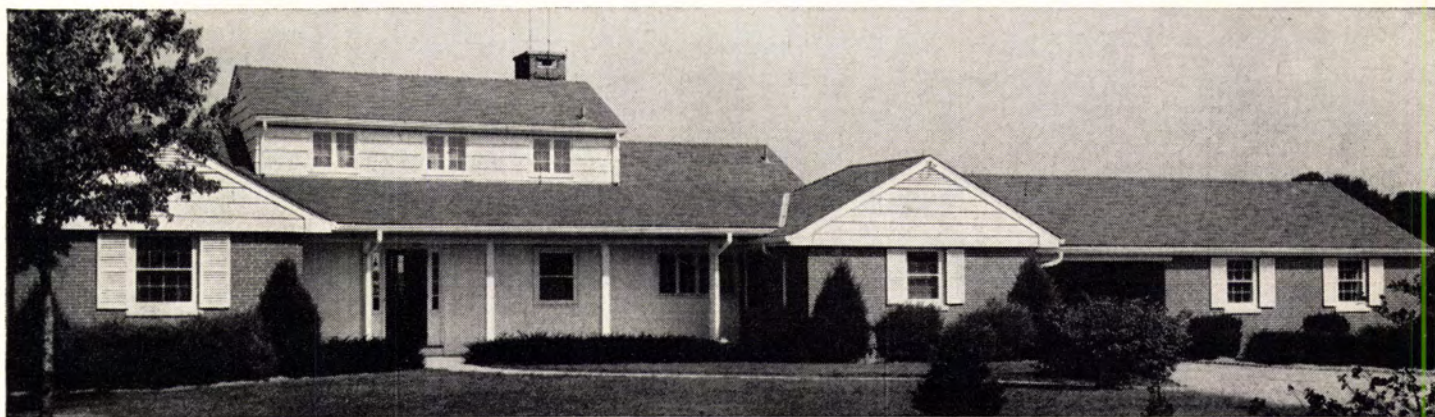


MIRACLE ADHESIVES CORPORATION

250 Pettit Avenue, Bellmore, L. I., N. Y.

roofing

If roofing is your business then you should know more about CAREY... the source for all asphalt composition roofing products

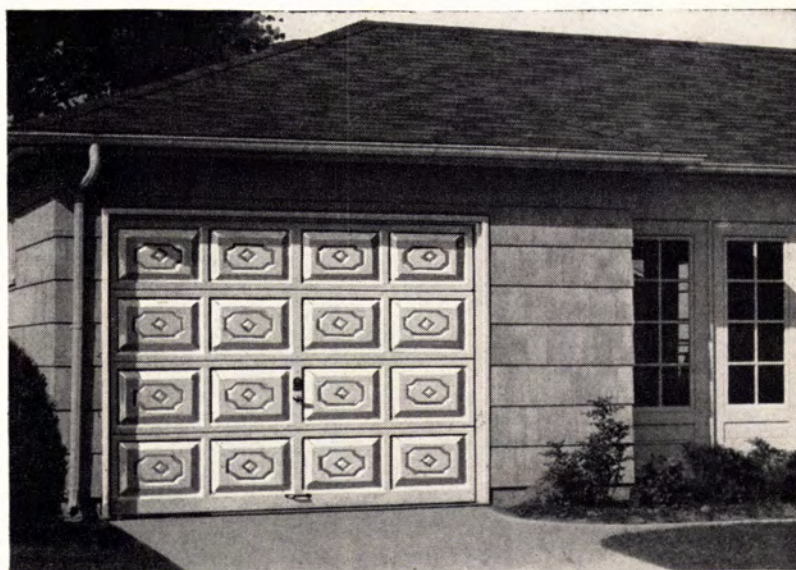
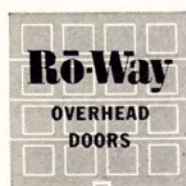


RO-WAY

the
easy-does-it
overhead
garage doors
for your homes

there's a Ro-Way for every Doorway!

RESIDENTIAL
COMMERCIAL
INDUSTRIAL



With handsome, rugged RO-WAY overhead garage doors, it's always easy-up, easy-down, smooth and quiet operation. Never any sticking, jamming or freezing shut. Specially designed RO-WAY track, free-running ball bearing rollers, and power-metered springs to see to that. And it's something home buyers really appreciate.

RO-WAY overhead garage doors, alone, won't sell your houses—but they *will* help convince your prospects you build *quality* homes. For full details, call your experienced, helpful RO-WAY distributor.

ROWE MANUFACTURING COMPANY
1116 Holton Street • Galesburg, Illinois

is our business

CAREY FIRE-CHEX '325* SHINGLES ... trend roofing for trend homes

Carey Fire-Chex® '325 Shingles were designed specifically with the contemporary home in mind. Fire-Chex '325 *tasteful, two-tab styling* gives every home that long, low look which so typifies modern living. Lovely Fire-Chex "Shadow Blends"—true "works of art"—were developed by Howard Ketcham, Inc., leading American color consultant, to fulfill the desires of home-buyers everywhere for *full-color living*. Each Fire-Chex roof-top is an exciting experience in rich color.

Indestructible Carey asbestos fiber, combined with Carey thermoplastic asphalt, has resulted in the toughest, strongest roofing shingle ever developed. This unique composition has won for the Fire-Chex '325

Shingle the UNDERWRITERS' LABORATORIES CLASS "A" FIRE SAFETY RATING. Fire-Chex '325 Shingles also seal *INSTANTLY* on pressure contact, and *stay sealed* under the most adverse weather conditions, thanks to the exclusive *STA-SEAL®* tab. No anxious waiting for the sun to do the sealing job!

Fire-Chex '325 Shingles "have it" in so many ways . . . *Class "A" Fire Safety Rating . . . tough, strong composition . . . rich "Shadow Blend" colors . . . contemporary two-tab styling . . . immediate protection against the elements*. Why not write for the full-color Fire-Chex Bulletin No. 6418, Dept. HH-160.

*U.S. Patent No. 2,326,723 (and others).



Carey®

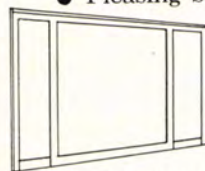
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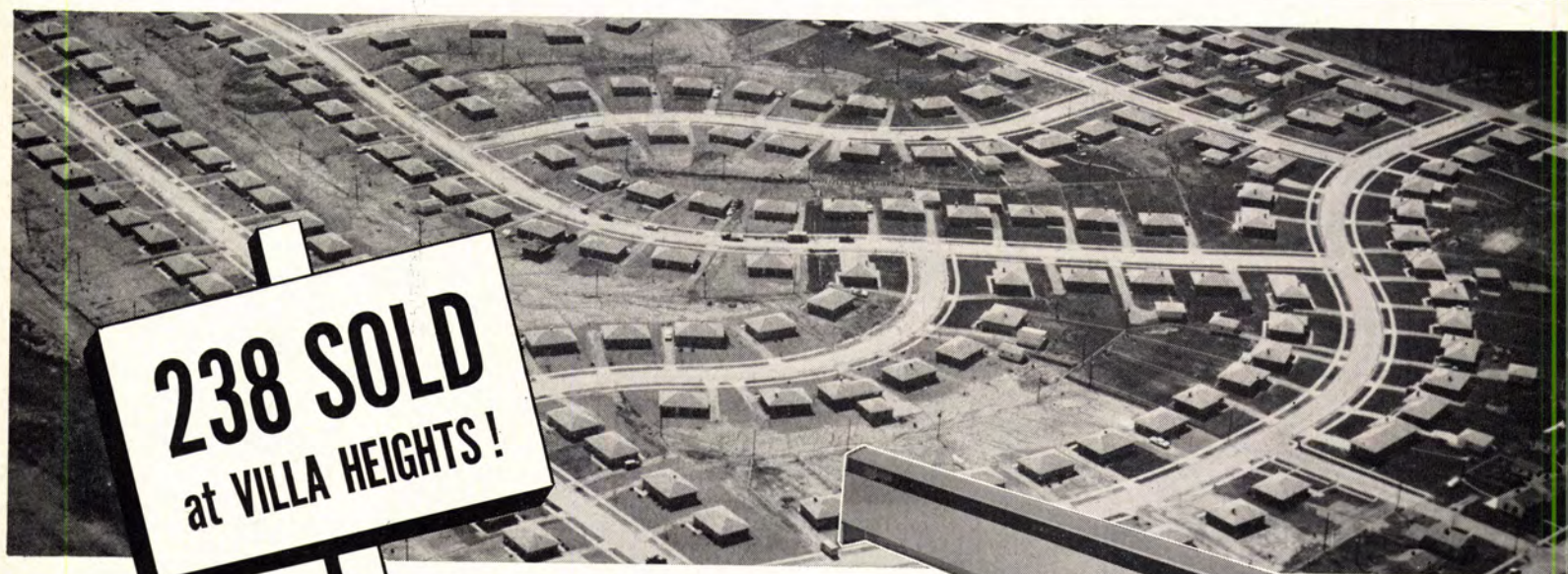
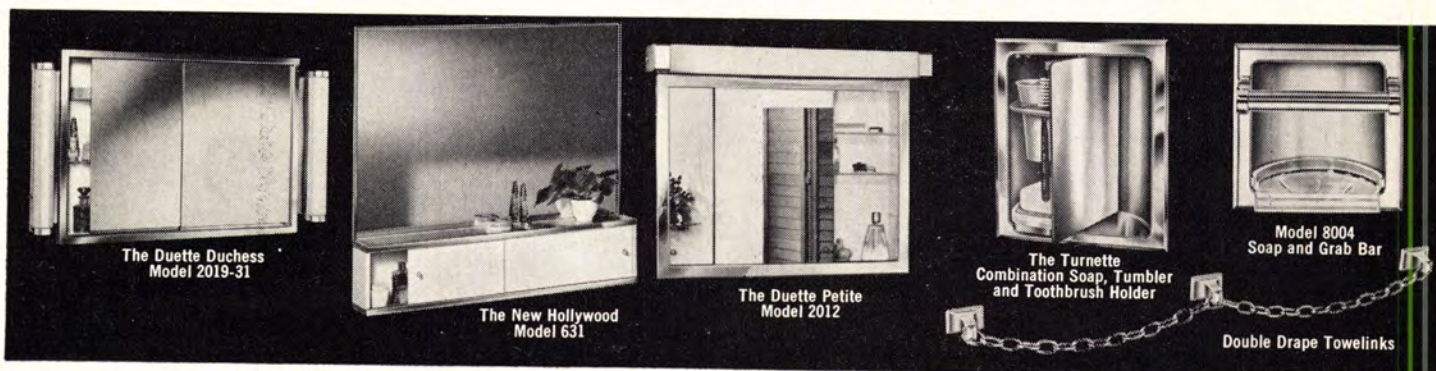
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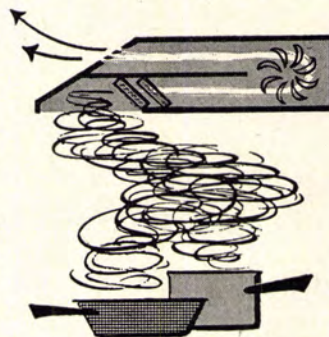
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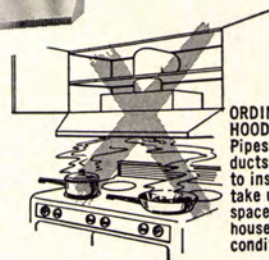
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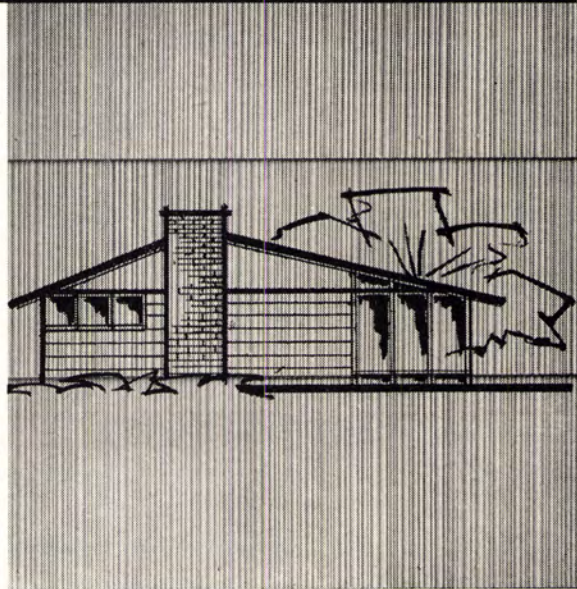
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newest and most colorful siding for quality homes

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Carey **STYLETEX** is described in a new publication, Form No. 6421. Write Dept. EX-160.



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Austin Industries, Austin, Tex.
For copy, circle No. 164 on coupon below

Specs for hardwood floors

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Ideas for lighting

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John C. Virden Co, Cleveland.
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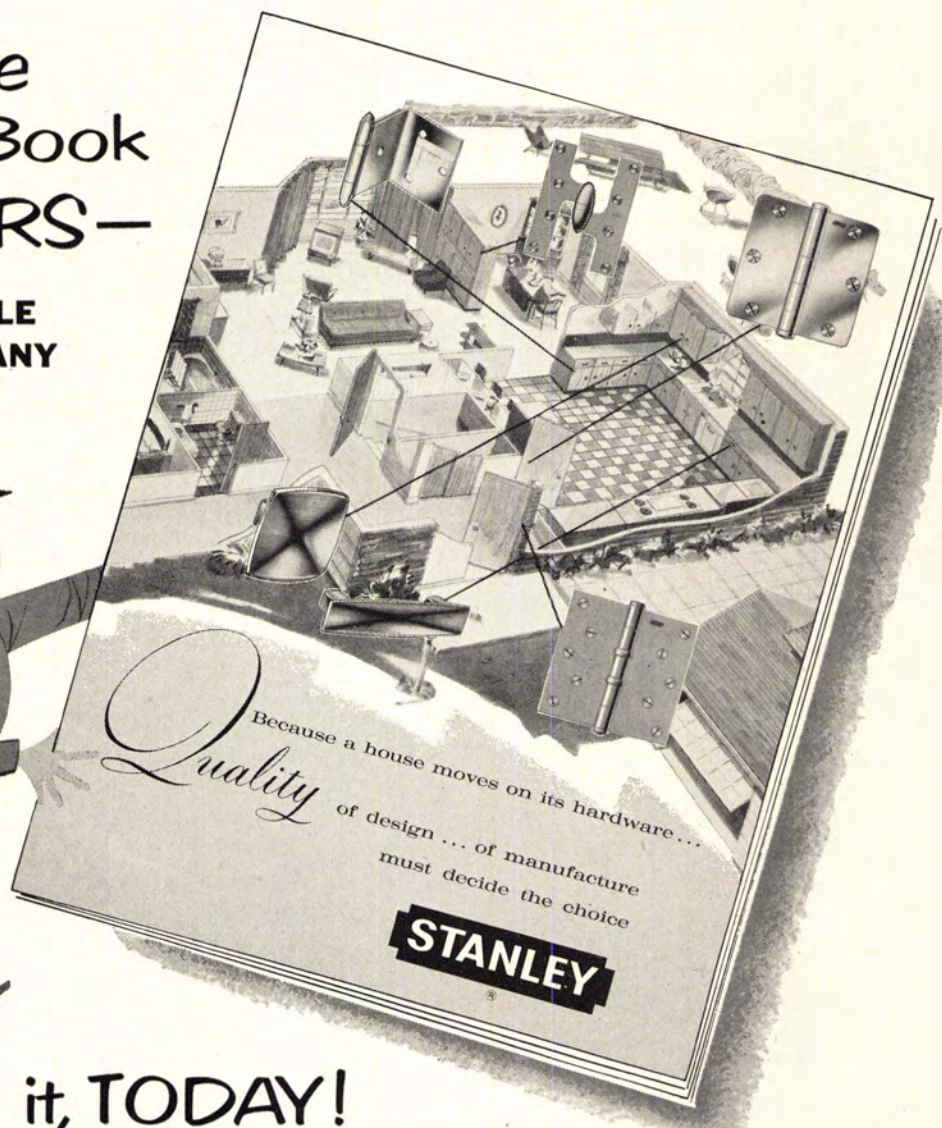
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It's the best pipe for downspout runoffs, house sewer lines—all underground drainage problems. Orangeburg's long, light lengths are easy to handle and install. Taperweld® Joints require no cement, no calking or compounds. A few hammer blows seal joints root-proof, watertight. *Look for the Silver Band** and make sure you get the genuine Orangeburg Root-Proof Pipe and Fittings.

ORANGEBURG SP® Plastic Pipe

It pays to specify Orangeburg SP Plastic Pipe for apartment or home swimming pools, underground sprinklers, and all cold water service. Slit-proof, extremely light and flexible, Orangeburg SP is backed by 20 Year Guaranty Bond. Application for Bond is easy—no work for you. SP is available in sizes ½" to 2". Lengths to 400'. Approved for drinking water by National Sanitation Foundation.

ORANGEBURG Perforated Pipe

For foundation drains, septic tank filter beds, land drainage, it's Orangeburg Perforated Pipe. Light, easy to handle and install, Orangeburg Perforated Pipe is scientifically designed to increase drainage capacity—create uniform seepage. Unique Snap Coupling maintains alignment, gives permanent joint cover, permits seepage at joints. *Look for the Silver Band** and get the real thing.

