How to make money in the growing market for the right kind of new apartments
Celebration... Sellebration...
now an INLAID VINYL flooring with
Sellsational home selling features!

AMERICANA

Congoleum-Nairn proudly introduces a Flor-Ever® Vinyl floor that for the first time gives your homes every selling “extra”—with no extra in cost!

Flor-Ever Vinyl, you know, has been the quality symbol in millions of homes. Now, “Americana” offers three new features.

1. Flor-Ever in a luxury design with decorative “chip colors” in the newest style—to correlate with today’s color trends in appliances, top coverings, paints and wall coverings.

2. A blend of Flor-Ever’s famous features (the non-porous quality that defies household staining and gives easy-care glow) with a beautiful new sateen finish that disguises scuffs, hides underfloor irregularities and resists indentation… a magnificent vinyl by the yard for a virtually seamless expanse of beauty.

3. A pricing policy that fits EVERY home selling budget—plus Congoleum-Nairn’s great “Model Home” policy and promotional selling helps.

“...will help SUN RAY sell luxury and comfort—at sensible prices”
says James R. Murphy, sales manager of Sun Ray Estates, the highly successful development created by R. A. Watt. And to Mr. Murphy’s shrewd appraisal of Americana Vinyl’s value for smart builders need be added only the fact that Sun Ray’s color coordinator, Mel Grau, also selected Americana for his sales-excitng interiors.
Some of the sales program material provided by B&G for builders' use.

**How Builders Use Hydronics**

To Create Sales-Making Traffic Through Their Homes

The B&G Builder Sales Program is a tested and proved method of using hydronics\* to help sell homes. It recognizes the fact that to make sales, a builder must create traffic through his model homes by means of some distinctive feature which identifies them favorably to the prospect!

The B&G Builder Sales Program presents an outstanding traffic-creating plan and provides all the necessary sales tools. It enables the builder to demonstrate to his prospects that the comforts, conveniences and extra benefits of B&G Hydro-Flo Heating—a hydronic system—are far superior to any other kind...definitely a distinctive feature!

The B&G advertisements shown here are evidence that hydronic Hydro-Flo Heating helps sell homes. Each ad is a case record of a builder’s success.

Write today for your copy of the "B&G Sales Promotion for Builders."

---

\*Hydronics: The science of heating and cooling with water.
Why buy a lock with less...

ONLY WESLOCK gives you all four big benefits you demand on the doors of your apartment houses. A lock by any other name will not! Take a good look below.

Measure any other lock you wish against this yardstick! You'll soon discover that only Weslock has designed the lockset that best suits your building requirements.

1. Up to 100,000 different keying combinations
2. 5-pin tumbler security
3. Panic and lockout proof
4. Operation without knob during construction.

WESLOCK® opens the finest apartment doors in the country

Western Lock Mfg. Co., 2075 Belgrave Ave., Huntington Park, California
THE MAGNIFICENT NEW

MATADOR

BY INLAND HOMES

Dominate the $10,000 home market

(INCLUDING LOT)

(or the $11,000 market including bath-and-a-half, garage and lot)

MATADOR FEATURES THAT ASSURE VOLUME SALES

12 distinctive Matador designs by the industry's
top designers: Colonial, Contemporary, Ranch,
French Provincial and Swiss Chalet. Choice of
slab, crawl space, or full basement. Single car
garage available.

Over 1,000 sq. ft. with outstanding traffic pattern.

Unique family area and spacious kitchen, 3 roomy
bedrooms, and a large living room.

1½-baths or 1-bath and walk-in closet in base-
ment and garage floor plans.

Plenty of storage space. Big closet in every bed-
room, guest and linen closets, handsome birch
wood kitchen cabinets.

2" x 4" construction throughout. Cedar shakes fac-
tory applied, double coursed. Horizontal siding
also available, or sheathing only for brick.

Finest brand name materials and unexcelled
craftsmanship throughout.

MODEL HOME FINANCING AT NO COST

Inland Mortgage Corporation will supply complete
construction financing for a Model Home in your sub-
division . . . at no cost to builder-dealers.

Contact Inland Homes today! Write, wire or phone (PR
3-7550). Neal B. Welch, Jr., Vice President—Sales, De-
partment H-10, Piqua, Ohio.

INLAND HOMES CORPORATION Executive Offices: Piqua, Ohio
Plants in Piqua, Ohio; Hanover, Pa; Clinton, Iowa
MANUFACTURER OF AMERICA'S FINEST HOMES

© 1960 Inland Homes Corporation
For your gas built-ins these famous twins mean

FULL CONTROL

FLAME MASTER™ ... the unmatched low temperature oven control system

Robertshaw FLAME MASTER
- full temperature control down to 140° ... for warming, defrosting, food keeping
- no w-i-d-e temperature swings
- no buttons to push
- cool, complete modern cooking
- longer service-free life

... only from Robertshaw ... the name that MEANS temperature control!

FLAME SET™ ... the newest “burner with a brain”*

Robertshaw FLAME SET
- no more burned pans
- no more scorched food
- small flame for small pans
- BIG flame for BIG pans
- simplest to operate

... and these superior features are important to all homemakers. For greater value and full satisfaction, insist on both these exclusive controls ... only from Robertshaw ... the name that MEANS temperature control. Write today for more details. Robertshaw Thermostat Division, Robertshaw-Fulton Controls Company, Youngwood, Pennsylvania.
Exciting news for architects, builders, plumbing wholesalers and contractors is the revolutionary new Brian vitreous china counter-top lavatory ... another “first” in style and design from Eljer. Exclusive “Uni-Rim” design eliminates the costly metal rim between lavatory and counter top ... unique “J” clip assembly permits fast, economical installation without tools! More than 1,850,000 homeowners and prospective homeowners (your customers) are being “sold” on the new Brian lavatory through distinctive full-page, four-color advertisements in leading national magazines.

New Brian "Uni-Rim" design eliminates conventional metal rim. Lavatory is available in color or snowy white.

New Sorrento 5' enameled iron recess bath with exclusive modern apron design with straight floor line ... in snowy white or choice of six soft pastel colors.
Sensational... Sellable

Sensational new finish, Traditional — a vinyl of beautiful and natural grain inseparably bonded to Republic Steel Kitchen door and drawer fronts.

Sensible...the charm of yesteryear with all the conveniences of tomorrow. An all-steel kitchen with an exciting new finish that blends dining and living areas into centers of gracious living.

Sensational...Sellable... just what the homemaker ordered. So sensational, so sensible, the buyer doesn’t have to make a choice — just a decision.

Send for complete information and color sample.

CUSTOM KITCHENS... for profit builders

REPUBLIC STEEL

REPUBLIC STEEL KITCHENS, DEPT. C-9537-B
1028 BELDEN AVENUE • CANTON 5, OHIO

Please tell me more about the advantages of Republic's Traditional Finish and send color sample.

Name:

Title:

Firm:

Address:

City:

State:

Zone:

1028 BELDEN AVENUE • CANTON 5, OHIO

Please tell me more about the advantages of Republic's Traditional Finish and send color sample.

Name:

Title:

Firm:

Address:

City:

State:

Zone:

HOUSE & HOME
22 ways to build more house for the money with DFPA-QUALITY TRADEMARKED FIR PLYWOOD

5 ways to save with one-step siding-sheathing
5 ways to cut sheathing and subflooring costs
6 ways to build better, faster with components
6 new ways you can use fir plywood box beams
Why spend time and
Exterior plywood.

Typically, T 1-11 is nailed to studs 16" o.c. Edges are shiplapped. Standard millwork is available to fit. Insulation can be applied between studs if needed. For more information on fir plywood siding-sheathing, write Douglas Fir Plywood Association, Tacoma 2, Washington.

Eichler Homes saves $200 a house with Texture One-Eleven® siding-sheathing

Eichler Homes of Palo Alto, whose handsome project houses have won most of the country's top awards, is cost-conscious as well as style-conscious. Since switching to Texture One-Eleven® (vertically grooved) fir plywood as siding, Eichler has shaved $100 a house off his siding costs, and has virtually eliminated callbacks due to faulty siding. By nailing T 1-11 directly to studs without sheathing, Eichler gets the strongest possible wall, while saving $75-100 per house in sheathing materials and 20 man-hours in labor. Cost of let-in bracing is eliminated too; plywood combined siding-sheathing has ample bracing strength and fully meets F.H.A. requirements.
money on siding and sheathing? does both jobs in one step

Exterior plywood siding styles vary from Japanese panel-and-batten to traditional lapped

Panel-and-batten wall on Eugene, Ore. home was simply built with standard ⅜" Exterior fir plywood nailed to studs with battens at joints, and stained. With weathering, plywood checks and acquires a pleasantly textured surface. One-step wall method meant low cost: $8.75 psf. For the smoothest siding, use overlaid fir plywood, painted.

Reverse board-and-batten effect is achieved by Smith & Kline Construction Co., Castro Valley, Calif. A single thickness of ¼" overlaid fir plywood serves as siding and sheathing. Inch-wide, shallow vertical grooves in the plywood, 8" o.c., look like battens under joints of board siding. Overlaid plywood permitted elimination of primer paint coat.

Lapped plywood siding makes a rigid wall without sheathing. On this Olympia, Wash. home, 16"-wide courses were nailed to studs, with wedges at joints. Plywood may be regular or, as used here by designer-builder Charles Sten, overlaid for a premium paint job. It may be ripped, or purchased precut (beveled or plain) in several widths.

Board-and-batten effect on this Portland, Ore. home is Exterior fir plywood doubling as sheathing. Builder Harold Stroberger applied panels directly to studs, with battens 16" o.c. Overlaid Exterior fir plywood gave an ultra-smooth paint job. With same method and unsanded Exterior, allowed to check with weathering, a rustic board effect results.

Look for the DFPA-quality trademark on all plywood you buy (CONTINUED)
California builder’s plywood roof decking makes attractive exposed-beam ceiling

A switch to fir plywood roof decking from car decking cut labor costs 15% for a volume builder in northern California. He uses tongue-and-groove ½” A-D Interior plywood with the “A” face down. Ceilings are given a planked effect by V-grooving the plywood 12” o.c. Instead of building soffits, he uses a starter strip of Exterior fir plywood at the beam overhangs, with furring strips to bring its level up to the insulated roof. The plywood roof system saves labor, takes less framing, practically eliminates scrap, and gives a tight, strong roof. There are no loose boards to open up, and plywood is uniform and lightweight, hence easy for workmen to handle. Two men can cut, install and nail the average roof in a day.
and subflooring help you build at lower in-place cost

New tongue-and-groove 2·4·1" plywood cut labor 37% for Tacoma, Washington builder R. H. Wegner. The 1½” subflooring-underlayment is now available with t&g edges to eliminate blocking. Two men can lay 1,000 square feet in four hours, handling 60% fewer pieces than with conventional joist construction.

Fir plywood subfloors have cut floor installation costs in half for Andy Oddstad, big-volume builder in northern California. Using ⅝-inch PlyScord®, one man can install the average floor in one day. It used to take two men the same time to do the job. Waste is negligible and DFPA-inspected PlyScord makes a solid base for finish flooring.

Tilt-up fir plywood walls mean savings of $525 per house for Smith & Kline Construction Co., Castro Valley, Calif. They fabricate entire 40-ft. second-story walls, then tilt them up into place. This eliminates the time and cost of erecting scaffolding, and plywood's structural strength makes bracing and blocking unnecessary.

Mechanized handling of fir plywood roof sheathing helps cut roof construction costs. H. M. Gorelick of Long Island uses a mobile crane welded to a war surplus vehicle to lift sling loads of plywood, ceiling joists, and roof framing. Shapland Homes, Champaign, Ill., gets plywood to second-story roofs with a belt conveyor.

Look for the DFPA-quality trademark on all plywood you buy
This house was assembled with big plywood components, not built with thousands of small pieces.

Methods used on this Seattle custom house today will be standard practice on tract houses tomorrow. Floor, walls and roof were quickly erected with stressed skin fir plywood panels on simple post-and-beam supports.

Floor panels took only 7 1/2 man-hours to install. All components were 4 x 8 fir plywood "sandwiches" containing insulation and with lumber framing and stiffeners. Plywood type and lumber dimensions varied with application. Panelbild Systems of Lynnwood, Wash. was fabricator and installer.

Wall components, also plywood panels, took 17 man-hours to install. Outer skins served as siding; inner skins, paneling. Plywood was of two types: vertically grooved Texture One-Eleven®, which was stained; or medium-density overlaid, smoothly painted.

Roof panels, too, cut labor because they covered 32 sq. ft. at a time, providing ceiling, roof decking in one component. Man-hours required for roof: 15. Total cost of the house was $13,000, or $12.50 psf. Contractor was G. A. N. Company; architect, Charles Metcalf.
cut on-site labor up to 80%, house with closer cost control

Stressed skin panels can be used for roofs of every design: folded, flat or curved.

14 This unusual folded plate roof brought crowds to Wedgwood Homes' model house in Portland, Ore. Its quick erection was as remarkable as its looks. Five men put up posts, beams, and pre-fabricated roof panels in five hours. A comparable conventional roof would take 12 man-days. Roofs like this, made of big stressed skin fir plywood panels leaning against each other in a series of rigid corrugations, are strong, speedily built, and permit long clear spans. Needing fewer supports, they are actually stronger than flat roofs using the same amount of material.

Flat panels can also be used on roofs of more conventional design, like this slightly pitched one in Denver. Builder Robert Harlan used 2 x 8-foot sandwich-type fir plywood panels for a 2,560-sq. ft. roof. The double-duty panels were strong, yet light enough for workmen to handle easily. Top and bottom skins were 3/12" Exterior fir plywood; framing and stiffeners were 2 x 4's. Aluminum insulation was placed inside the panel. The "A" face of the bottom skin was left exposed and painted to serve as the finished ceiling.

Vaulted roofs like the one on the Redi-Gas building in Parkland, Wash, are being adopted by more and more builders for home construction. Components were four-foot-wide arched stressed skin panels of Exterior fir plywood with paper honeycomb core. Lightweight, easily handled, each spans 16 feet. Component construction helped keep total cost of the building to $8.10 psf.

For more information on fir plywood components, write Douglas Fir Plywood Association, Tacoma 2, Wash.
Case study house proves plywood beams "best and cheapest way to do the job"

This Altadena, Calif. house was sponsored by Arts & Architecture magazine to demonstrate new ways to build better. Fir plywood box beams as roof supports were key components. Made and installed by Berkeley Plywood Co., beams were amply strong, yet light enough for easy handling. Webs of medium density overlaid Exterior fir plywood provided a superior paint base. Since beams extend from inside to outside, durability as well as appearance of finish was important. In-place cost with this premium plywood was about what heavier lumber beams would have cost and far less than glue-lams. Architects were Buff, Straub & Hensman of Los Angeles.

Floor supports in custom houses of Robert Kronenberg, Hinsdale, Ill. builder, are fir plywood box beams. He finds them strong, stable, shrink-proof. He gets longer spans than with available lumber beams.

Door lintels of these small aircraft hangars in Tacoma, Wash. are peaked fir plywood box beams. Strong, economical beams span 40 ft. and support 375 lbs. per lin. ft. Other logical applications for similar beams: garages, marinas and warehouses.
are low in weight and cost, strength, looks and stability

Plywood box beams can be fabricated in any length or shape, for any load or span.

Plywood box beams for garage door openings are low-cost and good-looking. Because of plywood's high strength-weight ratio, they are easy to handle, yet amply stiff for long spans.

Ridge beams and exposed ceiling beams of fir plywood are smooth and attractive. Long-span beams make sense in home building because they permit maximum design freedom.

This warehouse illustrates use of low-cost, strong plywood beams to create a 40' x 80' clear area free of supporting posts or walls. Four peaked beams, spaced 20 ft. o.c., span 40 ft.

INSIST ON DFPA GRADE-TRADEMARKED FIR PLYWOOD

In building, you stake your reputation on the quality of every one of your houses. You can't afford to take chances with inferior materials. In plywood, you can make sure of quality by always insisting on DFPA grade-trademarked fir plywood.

DFPA grade-trademarked plywood is backed by an industry-wide quality control program. It's guaranteed by the integrity of the producers of 90% of the country's fir and Western softwood plywood. Continual factory inspection and rigid testing in DFPA's laboratories work together constantly to insure quality. If a mill's plywood doesn't measure up, use of the grade-trademark is withdrawn until it does.

That's why today, as for more than a quarter of a century, the DFPA stamp is your assurance of quality plywood. Look for it on every panel.

DOUGLAS FIR PLYWOOD ASSOCIATION
TACOMA 2, WASHINGTON

—a non-profit association of over 125 manufacturers of fir and Western softwood plywood. Besides quality control, DFPA conducts product research and development to supply you with new ideas and building techniques. In addition, DFPA's national advertising presells your customers on the advantages of plywood construction.

Only plywood which bears the DFPA trademark is manufactured under the industry-wide Douglas Fir Plywood Association quality control program. Always look for the letters "DFPA".
New Caloric Compacto 30 Range

For an unusual combination of beauty and economy, base your kitchens around the new Caloric Compacto 30. This remarkable range not only looks built-in, but it saves you space and more than a hundred dollars in installation costs. It requires only one connection...no cut-outs. It is completely flexible...can be put between cabinets or even in a peninsular arrangement.

The Compacto 30 provides a maximum of cooking convenience in a minimum of space. The giant 6600 cubic inch oven (24" x 20") has a Silicone oven door seal and chrome non-tilt oven racks. There are four extra-capacity 12,000 BTU Tri-Set top burners that are guaranteed for life. Two other years-ahead features are the Thermo-Set top burner and the new Keep-Warm oven system. And Caloric is America's easiest range to clean and keep clean!

The Compacto 30 fits right into Caloric's free kitchen color planning service by Beatrice West, the famous design and color consultant. You can order it in pink, yellow, turquoise, coppertone, black or white. And you can order matching-color Caloric sinks, hoods, and splash plates to go with it...to round out your fashionable, functional kitchens. Write today, or contact your Caloric representative.
builders Build Better...Sell Sooner!

There's Big Money for YOU in the Big "BLUE STAR HOME" Promotion

You make your own selling easier when you get in on the nation-wide "Blue Star" home-building program. The "Blue Star" is the American Gas Association's award to quality new homes that feature the advantages of modern Gas. The coast-to-coast "Blue Star" promotion helps you put over a real sales campaign in your community.

The A.G.A. "Blue Star" home program includes: hard-hitting ads to put in your local papers; scripts for local radio and TV broadcasts or spots; plus all the "extras" to make your promotion successful! Everything from signs and banners, truck & bus cards, balloons, pennants, aprons and matches to bracelets, key rings, lighters and money-clips—all designed especially for "Blue Star" home-builders, to tie your program to the national one, so the national program pays off for you.

So build your sales by building with Gas. Let us help you sell your "Blue Star" homes with "Blue Star" advertising, publicity and promotion.

In the home building trade, this is the year of the "Blue Star"—This is the year you've been waiting for. Get all the facts at your Gas company, right away.

Check these "Blue Star" features and build in all you can!

BURNER-WITH-A- Brain
When the lady-to-be of the house sees the amazing Gas Burner-with-a-Brain* turn itself up and down automatically, she'll never settle for less. Clinch it by telling her the truth—9 out of 10 restaurants use Gas for cooking, and wouldn't use anything else!

ICE CUBE MAKER
All home-buyers are thrilled by the magic ice-maker, featured in this modern Gas refrigerator. No trays to fill or spill—it's completely automatic. And it can really help you make the sale.

FASTER, MORE ECONOMICAL, MORE ABUNDANT HOT WATER
She'll appreciate the constant, quick hot water supply...He'll be pleased by the money that's saved when you heat water with fast, economical Gas.

much more...for so much less!
Look what Gas is building-in for you!

This is the Gold Star of Excellence! It serves as your guarantee of Quality. To win it, each range must be better in at least 28 specifications—more advanced, more automatic, more efficient, better designed. Only the finest ranges, regardless of maker, earn a Gold Star.

Your houses will sell faster when women see this Gold Star!

**Built-in Selling Advantages**... Ranges built to Gold Star standards have the features women want: automatic roast controls, automatic burner controls, even automatic rotisseries! These features will help sell houses. Gold Star quality pays off in building your reputation, too—most women judge your whole house by details like this!

**Built-in Acceptance**... Both the manufacturers and the American Gas Association are pre-selling Gold Star award-winning ranges to millions of Playhouse 90 viewers, to millions more who see page after page of beautiful 4-color ads in top national magazines. Local advertising and promotion too. A total of $50,000,000 support.

**Built-in Cost Advantages**... Lower installation costs of Gas built-ins save you money. Lower use and upkeep costs with Gas appliances, make important savings for your home-owner-to-be...a big selling advantage. Call your local Gas Company for free help in planning better kitchens.

Look for these famous names:
- BROWN FEATURAMIC
- CALORIC
- CROWN
- DETROIT JEWEL
- DIXIE
- EAGLE
- GAFFERS & SATTLER
- GLENWOOD
- HARDWICK
- MAGEE
- MAGIC CHEF
- MODERN MAID
- MONARCH
- NORGE
- O'KEEFE&MERRITT
- PREWAY
- REAL HOST
- RCA WHIRLPOOL
- ROPER
- SUNRAY
- TAPPAN
- UNIVERSAL
- VESTA
- WEDGEWOOD- HOLLY
- WELBILT

No wonder...

Today more people than ever are cooking with GAS!
To Build Sales from the Ground Up

build
BLUE STAR HOMES
with automatic Gas Appliances!

...the next seven pages show how
Include a modern, automatic

a Gas Range
built to Gold Star Standards

With all their marvelous improvements, Gas ranges built to wonderful Gold Star standards still cost the builder less to install, the buyer less to use. Wide choice of brands, colors and metals to beautify every kitchen. Handsome free-standing models as well as built-ins incorporate features like these to help you sell:

- Burner-with-a-Brain*
- Automatic Roast Control
- Clock-controlled Oven
- Space-saving Fold-up Burners
- Automatic Griddle
- Self-lighting Oven and Broiler
- Smokeless Broiling
- Finest Oven Insulation
- Every inch a Cinch to Clean

Every Gold Star Feature is pre-sold for you each year by $30,000,000 worth of advertising and promotion material by Gas companies and range manufacturers.

a Gas Refrigerator
with features folks want most

Only a Gas refrigerator gives:

1. 10-YEAR WARRANTY! This guarantee on the sealed refrigeration system is twice as long as that on any other refrigerator.

2. IT'S QUIET! There are no moving parts in the cooling system to make noise. Silent, dependable Gas does all the work.

3. NO COSTLY UPKEEP! There is nothing in the cooling system to wear out, so there is no need for expensive repairs. Economical to use because it runs on Gas.

4. CONSTANT BALANCED COLD! Never any "on-off" fluctuation. Freezer and food compartment temperatures automatically stay at the exact degree that keeps food best. Frost never builds up in freezer or refrigerator compartments.

5. AUTOMATIC ICE CUBES! (right, inset) Makes and serves cubes without bother with trays or water.

The Gold Star Standards — Only the finest ranges from the world's great Gas Range Makers qualify for this coveted Gold Star Award. To meet new Gold Star standards, a range must have at least 28 advances in performance, automation and design.
Gas Kitchen.....

does so much more...for so much less!
Offer these instant-acting,

ONLY GAS
"clean house" Gas appliances

Gas Washer-Dryer... saving'est on the market!

No time wasted between washing and drying with a modern combination Gas washer-dryer. Gas starts drying instantly—no wasteful warm-up wait—washday chores are shortened, fuel bills are surprisingly low. An automatic Gas home laundry is a real sale-clincher—homemakers know that professional laundries use Gas, they want it too. Separate Gas dryers available, as well.

A compact washer-dryer in the bathroom or near the linen closet where it can also act as a hamper is good planning. Gas drying is so gentle there's no need to sort clothes—even the most delicate fabrics dry safely because Gas fluff-dries, never "bakes." What's more, whites stay whiter, colors brighter.

Gas Water Heater with full family-size capacity!

A Gas water heater gives instant heat. There's no waste of time while it starts warming up. The moment more hot water is needed, the Gas comes on full force—automatically—starts to heat cold replacement water as fast as it enters the tank. Then it shuts off—automatically. And Gas costs you less to install, home owners less to use. It's a fact that 8 out of 10 new home buyers insist on a Gas water heater. Economy, quick service, and the luxury of having all the hot water they want are reasons why.

does so much more...for so much less!
**Build in** a system to keep the house

**A single unit,**

**All-Year Gas Air Conditioner**

Gas air conditioning is one of your best selling features. A Gas unit has a long life and it's economical—you can assure prospects of low monthly bills. For example, you can show a five-year warranty with this Arkla-Servel Sun Valley.* From the builder's standpoint, too, it's your best buy—you save on installation costs because this single unit heats the whole house in winter, cools it in summer.

Point out to your customers that one simple, easy-to-use thermostat regulates the temperature of the entire house all year round. Clean, filtered air—cooled or warmed to the desired degree—circulates and ventilates constantly. Even the humidity is controlled.

**"Fresh-Air" Gas Heating that's clean and costs less!**

Because Gas is low in cost, and burns completely, you can promise your prospects they'll save money every winter—literally hundreds of dollars over the years. In addition, they'll avoid worry over fuel deliveries—clean, dependable Gas is piped right in. You'll save, too, in initial outlay because you don't have to provide storage space for fuel. And a Gas heating unit is so compact it can be positioned to save duct work. Important selling point: a modern Gas heating installation can be converted into a year-round weather-conditioner simply by adding a gas cooling unit in the future.

**ONLY GAS**
comfortable all year round

does so much more...for so much less!
Offer a smokeless, odorless, Gas incinerator

The Height Of Luxury For Pennies A Day! Here's the cleaner, healthier living every home buyer wants. Modern Gas incinerators save prospects the nuisance of garbage carrying, lets you offer a community free from unsightly refuse piles waiting for collection day. Less danger of insect breeding, too.

A Cinch To Use! Just drop in trash, set a dial, and Gas goes to work immediately.

—the latest innovation in outdoor lighting—Gas!

Modern outdoor lighting by Gas is picturesque and practical. The handsome posts or wall-bracket mounts are available in a choice of models to fit any architecture, to add beauty and value to a house. At night the warmth from this kind of lighting helps create a soft, hospitable atmosphere . . . another reason for prospects to buy.

Give a new look to entrances, drives, walks, parking areas, pools, patios and gardens with the soft radiance of outdoor Gas lighting. Your customers will be glad you did.

Your Gas company representative will be glad to help with planning and with any information you may want on Gas appliances and services. He'll also be happy to tell you about the national consumer advertising program and the local builder and dealer programs sponsored by the Gas company and the American Gas Association. Before you finalize plans on one more house—see your local Gas company man. He knows the home buying market, the area you're building in, and the preferences of many of your buying prospects.

BLUE STAR HOMES

with automatic Gas appliances
serve builder and buyer best!

ONLY GAS does so much more...for so much less!
The step from building houses to building apartments is a short one... a profitable one, too. Today, more builders are discovering that the same attention-getting sales features pay off in both types of construction. For years, American-Standard products have contributed to the sales appeal of millions of quality homes. These same products, plus the respected American-Standard name, will help you make faster, more profitable apartment sales and rentals, too.

Here are features that help make apartments as desirable as single-family houses...
As the builder, you'll find many economies in "solo" heating. Individual apartment furnaces or boilers eliminate need for complex piping or ductwork. There are no vertical runs needed, only short lateral runs. Furthermore, there is no large central heating room, no heating tunnels between buildings and no chimney to be built. Inexpensive vent pipe in party walls (one per heating unit) replaces the chimney.

As a landlord, you forget about fuel bills; each tenant pays his own. Of course, there are never any tenant complaints about lack of heat, nor can a single breakdown leave all apartments without heat. Renters are enthusiastic about "solo" heating, too. They regulate heat to suit their preferences.

Compact, easily installed heating units are available for both hydronic* and forced air "solo" installations.

The American-Standard G-2 gas-fired boiler is less than three feet high and two feet wide and is approved for closet installation.

For warm air installations the American-Standard gas-fired furnace requires only three square feet of area.

* Hydronics—the science of cooling and/or heating with water-

Nothing rents an apartment faster than year 'round air conditioning

More and more apartment houses are offering air conditioning—the one big feature that spells out "modern apartment." American-Standard equipment allows you to cool with either hydronics* or forced air.

In a hydronic system, year 'round air conditioning can be easily provided by a compact, attractive combination heating and cooling unit that can be installed through-the-wall. Cooling is provided by a self-contained refrigeration circuit that allows occupants to control the unit to suit their comfort requirements. For heating, this unit can be tied into the hot water or steam piping system—replacing conventional baseboard panels or radiators.

In a forced warm air system, you can add on a cooling package through an exterior wall or mount a cooling coil on the furnace and connect it to an outside condensing unit. Packaged or Split-System heat pumps also provide ideal year-round air conditioning. The same ductwork is used for both heating and cooling.
TENANT-PLEASING EXTRAS MEAN FASTER RENTALS, FULLER RENTALS

Give your bathrooms the *extra* conveniences that catch prospects' eyes. The unique design of the Contour bathtub provides extra-roomy bathing area, two wide corner ledges ... and needs no more space than a conventional bathtub! A Gracelyn cabinet-lavatory combines a big, easy-to-clean, one-piece china top with lots of storage space ... a "plus" feature in an apartment. The Norwall toilet illustrated is a sure eye-catcher because of its work-saving, off-the-floor design.

You can give such tenant-pleasing extras if your bathroom plans are economical. Cut costs by aligning three fixtures on one wall—save still more by placing the toilet between tub and lavatory.

CUT COSTS WITH COMPACT ASSEMBLIES

Compact assemblies are just as important in apartment building as they are in new-home construction. Place your bathrooms back to back, or back them up to kitchens to form an interior compact assembly, thus cutting piping costs —and saving valuable exterior walls for living areas.

SNAP-OFF SEAT

Both the seat and cover of this Church Seat can be removed for cleaning by simply pressing a button on each side of the hinge. Seat and cover are smartly designed in high-impact plastic, available in white and popular colors.
With Youngstown "Package" Kitchens you offer tenants STEEL with a PLUS

STEEL'S STRENGTH, PLUS WOODCHARM WARMTH, PLUS LAMINATED SURFACING'S EASY UPKEEP

Look for two things when you choose your apartment kitchens:
LONG-LASTING APPEAL FOR YOUR TENANTS
LONG-LASTING VALUE FOR YOUR MONEY

Youngstown "Package" Kitchens offer you more of both. You can choose warm new Woodcharm laminated surfacings in Cherrywood, Provincial or Honeywood... or high-baked steel finishes in Star White or Monterey Beige. You select from an unlimited number of "packages"—made up of standardized units—designed to fit any space or floor plan. You offer tenants a strikingly modern, easy-to-keep-clean kitchen that will be as appealing ten years from now as it is today.

And, regardless of the surface finish you choose, there's steel construction underneath to protect your investment. Doors won't warp, drawers won't stick. Your kitchens will last the lifetime of your building!

For more information write to:

AMERICAN-Standard

AIR CONDITIONING DIVISION
40 West 40th Street, New York 18, N.Y.

C. F. CHURCH DIVISION
Montgomery St., Willimansett, Mass.

PLUMBING AND HEATING DIVISION
40 West 40th Street, New York 18, N.Y.

YOUNGSTOWN KITCHENS DIVISION
University Street, N.E., Warren, Ohio
now available...your own book of these famed designs!

...and this is the California Contemporary—Hillside... from the Famed Scholz Design Collection. Your own copy is now available.

Use of these famed designs have sold tens of thousands of homes in recent years... at the highest profit margins in their builders’ experience... largely pre-sold from leads furnished by Scholz Homes in its continuous promotional programs.

This same world renowned distinction of design, this impeccable quality and craftsmanship can build your prestige reputation as well as provide a continuous pre-sold building program at pleasantly surprising profit levels for you.

Call or write today (coupon at right) on a franchise for your area.

Please forward the 36-page, full color "Famed Scholz Design Collection"
☐ I would also like more complete information on the Authorized Custom Builder Franchise.
☐ I would also like information on lower priced Scholz '60 North American Homes.

Mail to: SCHOLZ HOMES, Inc., P.O. Box 780, Toledo 7, Ohio
HERE TO STAY...THAT'S THE BEAUTY OF ALUMINUM

For shutters outside...or for ductwork inside...you can build better, to last longer with aluminum.

- Shutters made with Kaiser Aluminum never warp or sag, eliminate costly call-backs. With baked-on paint beauty, they're maintenance-free for years.
- Heating and air-conditioning ducts made with Kaiser Aluminum cannot rust, and aluminum's thermal efficiency adds to heating and cooling system economy.

For complete information on shutters and ductwork, write today directly to: Kaiser Aluminum & Chemical Sales, Inc., Department HB-318, Kaiser Center, 300 Lakeside Drive, Oakland 12, California.
TODAY'S MOST TALKED-ABOUT NEW HOME BUILDING MATERIAL  KAISER ALUMINUM
HOW TO BUILD ACCEPTANCE:

Your best prospects are included in the many millions who see steady Kentile advertising. The room below, which features Kentile Solid Vinyl Tile, appears in:

- LIFE, LOOK, SATURDAY EVENING POST
- plus 16 other leading national magazines
- plus Magazine Sections of 323 newspapers

These prospects know and respect Kentile Floors... are especially receptive to the homes that feature these quality floors. And, with Kentile, you can have distinctive flooring designs in each of your homes. Talk to your flooring contractor. Remember: “You Get Much More In A Kentile Floor.”

SIGN OF GOOD VALUE

Get your Free Model Home Display Kit complete with signs which help you make the most of Kentile’s National advertising. Write Kentile, Inc., Brooklyn 15, N. Y.

Living room, dinette and playroom areas in this home show some of the many effective uses of Kentile® Solid Vinyl Tile. Wall Base is KenCove®.

KENTILE FLOORS

Choose from over 200 decorator colors in Solid Vinyl, Vinyl Asbestos, Rubber, Cork and Asphalt Tile.
Is the pace of housing poised for a recovery?

Signs are increasing that the slump in housing is bottoming out. Housing starts showed a comeback in August: 120,700 private, 4,600 public for a seasonally adjusted annual rate for private nonfarm starts of 1,256,000. This is the highest annual rate since May's 1,324,000.

FHA applications on new private homes—one harbinger of starts to come—rose 17% in August (to 22,900 units). It was the first month this year when applications topped those of the same month in 1959. "A highly favorable development," enthuses FHA Commissioner Julian Zimmerman. Appraisal requests on new VA units jumped 45% (from 8,483 to 12,370).

Sales of existing homes—which improved during the summer while the rate of new house building sagged—will go up still more during the fall, predicts NAREB President C. Armel Nutter. The big reason? As mortgage yields drop, home sellers need absorb smaller FHA discounts and so they feel less frozen in to their present property. FHA applications have been running 2 to 1 in favor of sellers in recent months. This reflects what Nutter reports.

Predicts this month's FORTUNE: "The possibility [that housing's slump might lead the economy into a recession] is remote. Underlying demand is still strong. It now appears that the decline in home construction activity will run its course in this quarter or next, and that housing starts next year will expand to perhaps 1,325,000 (nonfarm private)."

Economist Miles Colean's annual forecast for House & Home (see p 130) is even more optimistic. Colean expects 1,375,000 private nonfarm starts next year and an overall total of 1.424,000. In dollars, Colean predicts 1961 will be the second biggest housing year yet, second only to the all-time peak in 1959.

Why public housers cry over no housing law

Public housers are doing most of the wailing over the death of an omnibus housing bill this year (see p 45). Industry groups were satisfied to see free-spending programs they oppose go down the drain along with items they back like FHA insurance for land development loans and a central mortgage bank.

But public housers face a temporary slowdown in the rate they can expand their housing empire (which is already the nation's largest). The 1959 Housing Act gives public housing another 37,000 units for the current fiscal year. PHA has already signed up over 4,000 of these. But enough reservations have been issued or applications filed to use up the balance.

So FHA expects it will have to stop issuing planning advances and preliminary loans about the end of 1960. It would be the first time in public housing's 25 year life that the government has had to take such drastic action. It would hit hardest at small communities. The US is prepared to pay the entire bill for construction costs of public housing. This means all operating income can go for salaries and expenses. Usually, big cities have a little left over to plan new projects. But not a community starting to build its first project.

WASHINGTON INSIDE: Seldom has FHA top brass put in so much night work as it has in recent months, responding to Commissioner Zimmerman's pressure to get kinks out of FHA operations, unwind cumbersome red tape. Results are showing up. Samples: faster payoff in debentures when a property is foreclosed (see p 46), a quick reversal of its ban on fee appraisers when processing backlogs developed.

Good news for producers of low-priced houses is a new FHA change in its Minimum Property Standards (No. 1819, dated Aug 31). From now on, FHA will permit the lower standards for 203i homes to be applied to Sec 203b units where the mortgage does not exceed $9,000. The 203i standards omit finished floors, heaters, coat closets, gutters and downspouts. They countenance drop-cord lighting, smaller room sizes, have softer interior finish and storage requirements. Most important of all, neighborhood standards are lower . . . Deputv FHA Commissioner Cy Sweet has been quietly downgraded, from $17,500-a-year Grade 18 to $16,335-a-year Grade 17 in civil service job classifications. Deputy Les Condon steps up from 17 to 18, reflecting his status as FHA's second-in-command. After a month off, Sweet will start an extended round of FHA field offices.

MARKET MURMURS: Montgomery Ward is mulling going into the shell house field in a big way. Talks are in progress with a New York mortgage broker. . . . Some Los Angeles builders are unhappy at the extension of VA housing for World War 2 vets. Says one: "Not many builders use VA any more. They would just as soon VA end so it would stop this [easy term] competition." Par-3 golf courses have become one of the hottest new land-use ideas. A par-3 course will fit on 5 acres instead of 100 for a regulation-length course. And they are cheaper to build: $1,000 to $3,000 per hole (exclusive of land and water system) vs. $5,000 to $10,000 a hole . . . Realtors are pressing VA to approve 6% commissions in areas where local boards have established that big a fee. FHA has agreed to do so, but VA still insists on a 5% ceiling . . . Builders around Washington are keeping a wary eye on a new gimmick being tried out by a disgruntled estate owner to upset a subdivision. After he failed to block the tract in court and at zoning hearings, the owner put up a highly visible sign on his 1,000-acre estate: "BETHEL VALLEY HOG CRANCH, MIXED BREEDS, BOUGHT, SOLD, TRADED." Builder A. "Buddy" Yurgaitis says the sign has killed customer interest in his 149-lot project. NEWS continued on p 44
WHAT THE REALTY CONDUIT TAX LAW PROVIDES

1. More than 30% of income may come from sales of personal services, such as the sale of personal property to the corporation, or from other sources except for capital gains.
2. More than 30% of income may come from sales of personal services, such as the sale of personal property to the corporation, or from other sources except for capital gains.
3. Not more than 35% of the stock or voting power of a corporate contractor, or interest in the stock or voting power of an unincorporated contractor, may be held by persons with 35% interest in the trust.

How may it invest? A realty trust must comply with two rules, both akin to those for regulated investment companies:

1. 75% of its assets must be in real estate, cash, and government securities.
2. Assets other than these three kinds must be diversified.

But a realty trust will not lose its status because it fails to meet these requirements in any one year unless the failure is partly or wholly caused by buying the wrong kind of securities or property. Trusts get 30 days after the end of a quarter to correct inadvertent or unavoidable imbalances in their portfolios.

Can rents be on profit-sharing basis? No—neither wholly or partly. This is aimed at preventing trusts from becoming active in property management. One exception: rents may be based on percentages of gross receipts or sales, since this is customary in some realty deals.

How are trusts kept out of real estate operations? By excluding from the tax-free rental income any amounts where the trust directly furnishes services to the tenants, managers, or operators of property. The law lets management services be provided by an independent contractor. His independence must meet these rules:

1. The trust cannot receive any income from him.
2. The contractor may not own more than 35% of the trust.
3. More than 35% of the stock or voting power of a corporate contractor, or interest in the stock or voting power of a noncorporate contractor, may be held by persons with 35% interest in the trust.

How about capital gains? Capital gains (including depreciation) of the trust, if distributed, will be taxed to beneficiaries as capital gains. If the trust keeps them, it will pay only capital gains rates.
Why labor experts doubt the industry can stave off site-picket bill in '61

Congress adjourned this year without passing the legislation home builders feared most—the Thompson-Kennedy bill to let unions picket, and possibly close down, their job sites if the unions have a dispute with even one contractor working there. Skillful delaying tactics by House and Senate conservatives kept the measure bottled up in committee in both houses of Congress. But labor analysts hold little hope that the legislation can be staved off another year, barring an unexpected conservative sweep in fall Congressional elections.

The big problem is that the bill has overwhelming bipartisan support plus the sponsorship of John Kennedy, Democratic presidential nominee. Moreover—and this may be even more important—two conservatives on key committees are not running for re-election to the House. Their spots may be filled by Congressmen less sympathetic to the industry viewpoint. The two: Rep Graham Barden (D. N.C.), chairman of the House education and labor committee, whose parliamentary maneuvers kept the bill bottled up longer than even its opponents dared hope, and Rep Leo Allen (R. Ill.) whose presence on the House rules committee means that key group its celebrated 6-6 conservative vs. liberal deadlock.

If the Democratic keep control of the House, seniority would make Rep Adam Clayton Powell (D. N.Y.), lawyer, pastor, and controversial political boss of Harlem, chairman of the House labor committee. Powell supports the bill, although he gives other items higher priority.

What it does. The Thompson-Kennedy bill would kill the Taft-Hartley Act's ban on secondary boycott picketing of construction sites. It would allow picketing of a site where, for example, products made by a struck manufacturer were sold. NAHB has warned that its passage would mean that "open shop areas may expect to become quickly enroiled in industrial unionization campaigns. Builders in union shop areas, even though not directly involved in a dispute, could have their jobs completely closed down . . ."

The amendment was left out of 1959's Landrum-Griffin labor reform bill only after Sen Kennedy, chairman of the Senate labor subcommittee, promised building trades leaders to take it up early this year.

How it bogged down. "Last January, I wouldn't have given a bill of beans for our chances of stopping the measure," says former NAHB Labor Staffer Andy Murphy. Here's what happened:

Kennedy, confident of getting the bill through the Senate easily, waited until June to hold hearings on it. The strategy was to get it through the House first, where most analysts figured it would be almost a cinch for adoption if it ever got out of committee for a floor vote.

Barden's House labor committee began hearings in February. Opponents of the bill rallied everyone they could to testify against it. This delayed committee adoption until May. Then, even after the bill was reported to the House rules committee (which governs what legislation will be taken up in what order on the floor), Barden stalled on requisitioning a hearing to seek action on the measure. There was more important legislation pending, he argued. Thus, the site-picketing amendment lay before the rules committee until the even more controversial minimum wage bill also emerged from the labor committee.

Now, Barden asked the rules traffic cops which bill they wanted to move ahead on. Upset at hearing no immediate supporters of the amendment on the labor committee, backers of the amendment on the labor committee were ready to adopt a motion forcing Barden to call the site-picketing measure up by a parliamentary maneuver to bypass the rules committee. They had to vote to do so. At this crucial moment, the bell rang announcing a roll call vote on the floor of the House. While committee members answered the roll call, Barden used his prerogative as chairman to reorder the program and substitute another which would have little impact on the federal budget, signed it Sept 14 without comment. Barden brought the committee session to a halt by refusing the unanimous consent which the Senate rules require for committees to meet while the Senate itself is in session.

Finally, time just ran out in both Houses. Congress adjourned before either chamber brought the measure to a floor vote.

Congress votes bare-bones housing law

Grandiose plans for a catch-all housing bill died with a whimper in Congress' four-week post convention session. But a simple resolution, adopted by a voice vote in both the Senate and House, gave the housing industry these essentials:

1. FHA's Title I repair loan program was extended a year to Oct 1, 1961. And Congress removed entirely the $1.75 billion ceiling on it.

2. HHFA's Community Facilities Administra-

tion was put back into the business of lending money—at subsidized interest rates—
to colleges to build dormitories. Congress voted $500 million. President Eisenhower, who wanted to junk this costly program and substitute another which would have little impact on the federal budget, signed it Sept 14 without comment.

In ten years since the Truman Administration started college housing loans, the govern-
|ental housing program continued on p 46
Rules, committee role in killing housing bill 'exaggerated,' say experts

continued from p 42

ment has passed out $1.175 billion—mostly for housing but also for items ranging from classrooms to student unions with beer halls. Funds had been exhausted for weeks and the backlog of applications had reached $300 million.

3. CFA got another $50 million to lend localities for sewer, water and gas systems and other community facilities.

Other measures. Besides the really investment trust conduit tax bill (see p 44), the 1960 Congress adopted—and the President signed into law—this housing legislation:

FNMA stock tax: Builders and mortgage men, who must buy stock in Federal Nat'l Mortgage Assn as a condition of selling FNMA a mortgage loan, get long sought permission to write part of the cost off as a business expense on their income taxes. FNMA requires stock purchase equal to expense on their income taxes. FNMA revenue trust conduit tax bill.

Other loan guarantees: 

S&L holding companies: The temporary ban on holding companies acquiring control of two or more federally insured savings & loan associations was made permanent. S&L men and the Home Loan Bank board backed the measure on the ground that S&Ls should be local businesses with local management, not controlled by distant interests who might be more concerned with profits than depositors.

Housing for the aged: The new HHFA program for direct loans to finance housing for elderly (over 62) citizens was brought to life by an appropriation of $20 million. (The Administration asked for nothing.) There is a small market for these loans and builders can tap. HHFA, under the direction of former Asst FHA Commissioner Dan Minto, will make 3½%, 5-year loans to private, nonprofit corporate sponsors. Projects must have at least eight and no more than 50 units. The $20 million should produce about 2,000 units, HHFA figures. There is no ceiling on cost per unit, but Minto says luxury plans will be considered inappropriate. VA extension: The expiration date for VA home loans to World War 2 veterans was extended (for the fourth time) to July 25, 1962 (News, Aug).

The rules alibi. Why, with the big Democratic majorities in both houses (Senate: 66 Democrats, 34 Republicans; House: 280 Democrats, 152 Republicans), was Congress unable to pass the kind of housing legislation that Democratic leaders in both houses demanded? Both Sen John J. Sparkman (D, Ala.) and Rep Albert M. Rains (D, Ala.) swore repeatedly in the months of the session that the Senate was preparing an omnibus housing bill this year, or nothing. At the last minute, neither opposed the bare-bones legislation Congress finally adopted.

The popular alibi, among public housers and "liberal" Democrats, is that the House rules committee stymied the majority will. The Senate passed its version of a catch-all housing bill June 16, by a 64-16 vote. But in the House, an omnibus bill died in the rules committee, where conservative Chairman Howard W Smith (D, Va.) and Rep William Colmer (D, Miss.) teamed up with four conservative Republicans to create a 6-6 deadlock which prevented the Senate bill from getting to the floor. A congressional coalition, cries the pro-public housing Natl Housing Conference—with more fervor than accuracy.

Both Sparkman and Rains have also criticized the Administration for creating a hostile climate by threats of vetoes. Some industry spokesmen argue that Rains himself contributed to the impasse by his stubborn insistence on loading his catch-all bill with items repugnant to conservatives of both parties, like no-down-payment on FHA loans up to $13,500.

Rains did nothing to enhance his stature as a housing statesman with his "emergency" bill to give FNMA another $1 billion of mortgage money to lend at a subsidized par price—about 5 points over the market for FHAs and 8 or 9 points over the market for VAs. His bill passed the House, 214-163, in the early spring after much whip-cracking by the Democratic leadership. House Minority Leader Charles Halleck (R, Ind.) scornfully labeled it "political pyroly.

The Rains' bill was quietly pigeonholed by the Senate banking committee. Out of deference to his one-time college roommate, Sparkman did not mention the bill publicly. But he made it clear he thought it was entirely unnecessary.

Rains, who had already predicted a slump in housing, then recanted. He asked that the amendment be more right than Administration spokesmen. But for the wrong reason. Evidence piled up before the Senate banking committee that builders are having a hard time selling the homes they have already built. So why should they build more, even with Fanny May money at par.

The truth of why Democratic plans for a big housing bill collapsed seems, in retrospect, to be that except for a few housing zealots like Rains and Sen Joseph S. Clark (D, Pa.) few legislators were interested in passing legislation for decent homes for all.

For one thing, with FHA Title I repair loans extended, no other popular programs were facing sudden death for lack of Congressional action. The leveraged S&L & Resources have been used in the past to force through a catch-all housing law—giving FHA more insuring authority for its main Title II programs—was missing. With starts dropping, FHA has been urging Congress to extend its authority going until after Congress reconvenes next January.

The role of the conservative coalition in the rules committee has been exaggerated. Judge Smith, say insiders, was just cutting a caper to take the House leadership off the hook. When Congress reconvened in August, they say, Speaker Sam Rayburn (D, Tex.) and Majority Leader JR Ryun (D, Miss.) have broken the kind of housing legislation he had wanted to. Instead, Rayburn told a press conference that the session opened that chances of a housing bill this year were "very remote."

One reason for such lack of enthusiasm was Rayburn's desire to avoid embarrassment on racial segregation. The Republicans offered a drastic civil rights bill echoing the Democratic platform on that subject—and Democratic leaders in both houses felt they had the support needed to pass the tracks. Changes are that an amendment prohibiting racial discrimination in all government-assisted housing—notably in public housing—could have been pigeonholed in conference. Had the House adopted it. The Senate-approved housing bill had no such item. But Rayburn did not want to stir up the animals in an election year.)

Backers of a freespending housing bill pinned their hopes on bypassing the House rules committee on calendar Wednesdays when the House may take up, if it votes to, legislation that has not been cleared by rules. Majority Leader John McCormack (D, Mass.) is supposed to cajole or force votes for the bill forward. House leaders felt they had to stop this one in its tracks.

FHA fee appraisers

FHA has canceled its ban against the use of fee appraisers in areas where returns were complaining that processing backlogs were hurting business. In m-dSeptember, the agency allocated 1,680 fee appraisal cases to 14 offices for September through November. More offices are expected to be added to the list. The cities and the allocation:

City/County:

Faster FHA payoff

FHA has adopted a new setup to cut from six to three months the time the agency needs to issue debentures to settle mortgage insurance claims. The new regulations are effective December 1.

FHA is scrapping the first half of its debenture process, under which it usually submit formal advance notice of intention to convey title of defaulted property. Thus lenders will have to make only one title search instead of two. Under the new setup, a lender will simply write the local FHA office that he is going to convey a defaulted property for debentures. The office will mail him forms to be filled out—most of them to account for the lender's expense in casualty insurance premiums and other reimbursable outlays since the property went into default. The lender will have 30 days to fill in the forms and send FHA evidence of title.
HOUSING CAMERA:

Hurricane Donna hits hardest at trailers—which aren't subject to building codes

Hurricane Donna gives builders fresh evidence to back up their notion that trailers should be made subject to building codes. As Donna's 100-mile winds cut a 425-mile swath through Florida before whirling up the East Coast, they tortured hundreds of mobile homes into junk like one south of devastated Ft Myers (photo right) which was worth $8,000 to $7,000 new. Homes where building codes are seriously enforced generally escaped with only superficial damage.

Thus the storm—Florida's first major blow in ten years—focused new attention on trailers' weird immunity from building codes as well as property taxes. Florida's 85,000-plus mobile homes are legally vehicles, not structures, and so escape building codes which generally require wind resistance of 25 psf. Roughly equal to an 80 mph wind. Moreover, owners don't anchor trailers down lest they become subject to property taxes. And most trailer lots are too small to allow emergency rigs for anchorage.

The upshot at Ft Myers, for example, was that more than 50% of the trailers in the area were damaged or destroyed. At Page Mobile Home Park, only three trailers of 160 were left standing, and some were blown as much as a half-mile, even though Donna set no records for wind and rain. Around Miami, Dade County building code and subdivision regulations paid off. The hurricane tore screening from aluminum and wood patio enclosures, but hardly a roof was lost in the county. Builders Sid Mann and Ira Hochkiss report they made two sales the day after the storm and didn't give a single deposit back to the dozens of buyers who came out to see how high the water was in their tract off the Tamiami Canal. (Behind Miami, Florida turns swamp and officials have imposed subdivision drainage standards stiff enough so builders often squawk.)

The Florida Keys will pay a long time for Monroe County's carelessness with building inspection. Roofs flew like cardboard. Windows and doors blew out. Old frame houses, cross-braced, stood up as shoddy concrete block houses fell apart. A well-built chicken coop 100' long came through almost unscathed, but a two-story cooperative apartment at Marathon looked as though it had been bombed, as did the Phil Sadowsky development (photo, left), where apartments were built on pumped-in sand.

Before Donna, two-thirds of Florida's 67 counties had no building code. The experience in the Keys and on the Gulf Coast promises to change all that.

NAHB's London House gets US sendoff from top brass

Last spring, NAHB and the National Housing Center scored a hit with Britons at London's New York, to produce a showcase interior. For Ideal Home exhibition with a 3-b/r, 2'/i-bath the opening. Mitnick was host to more than 100 guests, including (I to r): FHA Commissioner Julian Zimmerman, Mitnick, NAHB President Martin Bartling, HHF Administrator No man Mitnick teamed up with the Natl Design Center, New York, to produce a showcase interior. For the opening, Mitnick was host to more than 100 guests, including (I to r): FHA Commissioner Julian Zimmerman, Mitnick, NAHB President Martin Bartling, HHF Administrator. Mason and Somers Point Mayor Fred W. Chapman.

They roasted the Home Loan Bank Board

These three members of a House government operations subcommittee are making life hot for the Home Loan Bank Board: (I to r) Reps Neal Smith (D, Iowa), Chet Holifield (D, Calif.), and Chairman John E. Moss (D, Calif.). At hearings, Holifield and Moss, have repeatedly accused the board of failing its duty to set up guidelines for S&L management, indicate they will call for a sweeping reorganization of the HLBB next year. (For details, see p 51.)

Upside down house draws 40,000, sells 63

Hurricane Donna didn't do it. Builder Norman Johnson built this $10,745 house upside down as a promotion stunt at Ft Lauderdale, Fla. In four weeks it drew 40,000 viewers, "but it's the quality of our homes that produced 63 confirmed sales," says Johnson. Prices: from $8,995 for 2 b/r, 1 bath, without carport: $12,995 for 3 b/r, 2 baths. Financing: 80% conventional first mortgage at 6'/2% for 24 years, plus a second.

Wartime housing project becomes plush hog farm

In World War 2, the US spent over $1 million to build a 350-unit concrete-block-and-stucco housing project for 1,150 people at Ordnance, Ore. Early this year, with the Ordnance depot closed, the government sold the project—complete with 100,000 gal. water tank and sewage disposal plant—for $36,300. Ranchers Stafford and William Hansell have converted it into a hog farm. The pigs will have more space than the people. Plans call for a top population of 1,000 swine.
NEW ELEGANCE FOR COMMERCIAL ESTABLISHMENTS

is possible with Elegant Endura-Cloth, an amazing new, durable woven vinyl fabric wallcovering. Years of research have resulted in an ability to open new design and style vistas in this type of long lasting wallcoverings. You'll choose from patterns handsomely designed, startlingly unlike any you've seen before.

A PRODUCT OF YEARS OF RESEARCH which was targeted at producing the finest in wallcoverings. Our designers working with our laboratories wanted a product that was easy to apply, easy to remove—and the ultimate in durable wall decoration! Elegant Endura-Cloth combines all these features, plus a receptiveness of product for designs of large scale or small—completely flexible and versatile to cover any function you may have.

UNUSUAL SCOPE OF STYLING in Elegant Endura-Cloth is indeed a triumph...made possible through our years of leadership in vinyl stainproof wallpapers. Subtle designs, nuances, delicate approaches, boldly brilliant—never before so much choice to assure that the walls of any establishment can be as superb as all other elements.

ELEGANCE GIVES A LOCATION MORE "WORTH"—and such elegance is inherent in Elegant Endura-Cloth. For a wallcovering so magnificently conceived and constructed requires the quality of manufacture to be symbolized by the best in styling. Actually, you'll be amazed at the versatility that will trade up any location in which you use it.

TESTED FOR DURABILITY. Our own extensive testing did not satisfy us! We wanted Elegant Endura-Cloth to be truly everything we planned it to be. To check our findings we asked independent laboratories to run durability tests. Results: more than we'd dare hope! Now we bring you a new product that's been tested, checked—and proved!

ALL STAINS WASH OFF 25,000 TIMES—THAT'S GUARANTEED! This is the pay-off for you. For what appears to be delicate beauty is really enduring magnificence. All stains whisk away with soap and water—slash maintenance and redecorating costs. Test Elegant Endura-Cloth today!

Hot grease, indelible ink, lipstick, cold cream, crayon, furniture polish, and many other stains 25,000 times scrubbable—that's guaranteed

DESOTO CHEMICAL COATINGS, INC.
vinyl stainproof wallcoverings is here!

A STRONG WOVEN FABRIC WALLCOVERING...GUARANTEED

TO WITHSTAND UP TO 25,000 SCRUBBINGS...STYLED TO BRING

ELEGANCE AND ENDURING BEAUTY TO YOUR PROJECT

Illustrated: Elegant Endura-Cloth Brochure #70074

Mail coupon today for FREE testing sample and AIA file information folder—no obligation.

DeSoto Chemical Coatings, Inc. Dept. H11-10
3101 South Kedzie Avenue
Chicago 23, Illinois

Gentlemen: Please send me free testing sample and detailed information on Elegant Endura-Cloth. I'm interested for possible use in:

- hotel sleeping rooms
- hotel commercial rooms
- private homes
- restaurants

- lounges
- clubs
- offices
- motels

- auditoriums
- hospitals

- other

NAME ________________________ TITLE ________________________
COMPANY ___________________________________________
ADDRESS _________________________________________
CITY ________________________ ZONE ________ STATE ________

3101 SOUTH KEDZIE AVENUE • CHICAGO 23, ILLINOIS

OCTOBER 1960
Arkla-Servel proudly announces a design and engineering vehicle which:

1. Gives ⅓rd more power without pistons or valves.
2. Provides lowest ownership cost...full 5-year warranty.
3. Is vibration-free...never needs a tune-up.
4. Has double and triple normal life expectancy, because there are no moving parts to wear out.
5. Won't lose capacity or jump operating costs with age, because it has no efficiency-robbing friction.

No, that's not a space age automobile...it's the Arkla-Servel Sun. Valley All-Year gas air conditioner, as it compares to conventional electric central system air conditioners.

Building this kind of satisfaction into your homes is the best way we know of assuring future sales and stopping profit-robbing recalls at the same time.

If you find the comparisons above a bit hard to believe, we respectfully invite you to talk to your local gas company, or write Arkla Air Conditioning Corporation.
Slow sales should shrink discounts more by next year, predict experts

Builders and homebuyers will probably find mortgage money growing still cheaper this fall.

The outlook, agree mortgage bankers, lenders and economists, is for FHA and VA discounts to continue dwindling gradually for the next few months. Conventional loan rates have already eased and this should continue.

Talk of a recession (are we in it already, or is it just ahead?) dampens buyers' enthusiasm. Despite easier money, house sales are lagging. So investors' demand for mortgages is outrunning the supply of immediate-delivery paper. Surprisingly, mortgage yields have remained high while bond yields have fallen. The spread, now biggest in years, gives prophets of improving mortgage prices a good case. Predicts President Tom Coogan of Housing Securities, New York: FHA and VA prices will move up (and discounts down) as much as a point in the next 30 days. President Ray Lapin of Bankers Mortgage Co of California looks for only a slight increase in prices this fall but still more improvement in early '61 if business doesn't snap out of its slump. Forecasts Lapin: VAs at 94, FHAs at 98 by the first quarter in San Francisco.

Will the US Treasury's new advance refunding (offering holders of $12.5 billion in 2⅔% World War 2 bonds a chance to convert to 3¼% bonds maturing in 20 to 38 years) drain the mortgage market? Consensus: it won't hurt much. Says President Bob Tharpe of Atlanta's Thrare & Brooks: "There's enough excess money in the market now so it won't be like last fall's Magic 5's. It might delay price improvement, but it won't stop it."

FNMA's ½ point boost in secondary market purchase prices—second hike in two months—has stiffened builder resistance to big discounts by giving them a higher floor to bargain from.

In fact, says Ray Lapin: "Builders are hanging onto loans for dear life. They're learning that timing is important in the mortgage market. They're hoarding loans where they can, paying the construction loan longer." To lure builders against a price drop with standbys.

They're hedges onto loans lot for dear life. They're learning price (currently 92) is only a sort of under-the-counter payola in the form of discounts on mortgage money."

The decrease in FHA-VA discounts last month was the most widespread so far this year.

Since the bottom last spring, prices have edged up from 1 to 1½ points, a few cities at a time. Last month, almost all of the cities in House & Home's survey reported smaller discounts.

FHA minimum down immediates moved up thus: In Atlanta, from 96-97 to 96½-97½; in Cleveland, from 96½-97½ to 97½-98½; in Denver, from 93-94 to 96-97½; in Detroit, from 96-97½ to 97½-98½; in Honolulu, from 96 to 95-96½; in Houston, from 96½-97 to 97½-97½; in Jacksonville, from 96-96½ to 96½-97½. In Los Angeles, from 96½ to 96½-97½; in New York, from 97 to 98; in Oklahoma City, from 96½-97½ to 96½-97½; in Philadelphia, from 98 to 99; in San Francisco, from 96½ to 96½-97; in Washington, from 97 to 97½-97½. Boston savings banks pegged out-of-state purchases at 96-97, up from 96-96½.

Will FHA cut its interest rate on 1- to 4-family mortgages from 5¼% to 5½% soon?

Commissioner Julian Zimmerman hints strongly that it will. He told a Los Angeles newspaper he "hopes" the rate can be cut this fall. Zimmerman has been disappointed that home financing costs haven't dropped faster.

NAHB President Martin L. Bartling, Jr. got in the act last month with a blast at "greedy" lenders. He wrote: "For years now the mortgage lender has enjoyed a sort of under-the-counter payola in the form of discounts on mortgage money." If mortgage costs don't move into line with other interest charges, warned Bartling, "the only recourse left to the industry and the public for protection is legislation."

Talk grows among savings and loan men of dividend rate cuts early next year.

A month earlier, most S&L spokesmen pooh-poohed the notion of cutting interest paid to shareholders by investors. But in mid-September, at the annual convention of the New York State Savings Association League, dividend cuts were a top topic of corridor talk. Slack demand and resulting lower interest rates for mortgage money are squeezing S&L profits, S&L men complain. "I'd look for a dividend cut early next year," predicts Managing Director Kenneth G. Heisler of the Natl League of insured Savings Assns, but he adds: "It probably will not be very extensive."

MORTGAGE MONEY:

MORTGAGE BRIEFS

HLBB comes under fire

The House subcommittee probing the Home Loan Bank Board's seizure of Long Beach (Calif) Federal S&L is aiming at a drastic shakeup of the board that would affect the entire savings & loan industry.

The subcommittee has labeled the seizure "arbitrary and unlawful" (News, Aug.). Now, resuming the investigation, the congressmen have made it plain they are after bigger game. Expected to emerge from the subcommittee's probe are sweeping recommendations for the next session of Congress to revise the HLBB's organization and methods, including proposals to 1) curtail the board's powers of seizure and 2) require the board to spell out more specific rules to guide S&Ls.

The subcommittee has been especially critical of the Board's failure to issue uniform regulations on what constitutes unsafe or unsound practices. Contrasting the HLBB with its counterparts in banking, Rep Chet Holifield (D, Calif) told Keenan: "They [banking officials] have written regulations—books of them—and they have tried to give the banks of this country uniform rules and regulations to go by. They haven't left it up to the judgment of one man as to what is prudent and what is not... I say the board is indicted by its failure to adopt the rules and regulations—the stop signs that have been suggested to you [by board staffs]."

The subcommittee singled out the lack of rules establishing how much of its assets an S&L can safely put in short-term construction loans. An HLBB spokesman testified that the board was considering such a regulation. Subcommittee Chairman John E. Moss (D, Calif) retorted that the subcommittee may well have ideas of its own. (For photo, see p 46.)

Union pension funds

AFL-CIO plans to channel $8 billion of pension and welfare funds into FHA and VA mortgages may turn out to be a mixed blessing for builders.

The union aim is threefold: 1) to pour so much money into housing that mortgage discounts disappear; 2) to stimulate construction and thus provide more jobs for the building trades; and 3) to boost the return on union investments. But unions will also insist that all the housing built with their mortgage money use only union labor, even in right-to-work law states. "If builders want our money," says blunt-spoken Joseph D. Keenan, secretary of the International Brotherhood of Electrical Workers, "they will have to sign an agreement to use union labor exclusively in spite of right-to-work laws."

What about areas where home building is entirely open shop? "All we need to do is bring in a union builder from somewhere else," threadbare Keenan. "If the builders on the scene want to change their minds, it's okay.

Would unionized builders have trouble matching the costs of non-union builders? "Production-wise we can offset them," Keenan contends. "With the unions giving us better men, we will be able to show that good men can do twice as much work in a given time and do it better."

Keenan's IBEW has invested some $4 million in FHA and VA mortgages in recent months continued on p. 55
BARRETT BAR-FIRE... the only shingle supported by all three!*


[TM Trademark Allied Chemical Corporation]
appearance. Don't forget we have built-up roofing, insulation board products, gypsum, aluminum siding, plastic panels, protective coatings.

BARRETT DIVISION
40 Rector Street, New York 6, N. Y
Here's a window line so complete that it's bound to suit your requirements. The Qualitybilt Wood Window line ranges from precision-crafted, slimline Casements to the versatile, economical 4-Ways... includes the novel Gliders, Double-Hung, and Picture Units. If it's quality you want... at a reasonable price... then investigate this full line! There's a Qualitybilt Distributor near you with complete details. See him TODAY, or, write us for full information.

See our catalog in Sweets Architectural and Light Construction Files!
years. "We won't buy mortgages where the discounts are too high," Keenan notes. "We have instructed our brokers that only 6 points on a VA mortgage is all we will take."

Result: IBEW is not buying many VAs.

Keenan figures it will take 2 1/2 or 3 years to get his program rolling.

**NEW YORK WHOLESALE MORTGAGE MARKET**

<table>
<thead>
<tr>
<th>FHA</th>
<th>VA</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>4%</td>
<td>4%</td>
<td>.5%</td>
</tr>
</tbody>
</table>

**CUT COSTS, AFL-CIO TOLD**

Labor could do more to boost home sales by cutting labor costs 10 to 20% than by pouring "billions of dollars" into mortgages.

So contends Chairman Morton Bodfish of First Federal S&L, Chicago. "Discounts such as Meany talks of are . . . a factor in only about one out of every 20 mortgages in the U.S."

Bodfish notes: "Mr. Meany and his unions could well take the lead in reducing the cost of homes and home repairs by 10 to 20%. All that would be necessary would be the elimination of restrictive labor practices, featherbedding, and the costly, union-inspired parts of building codes."

**MORTGAGE MARKET QUOTATIONS**

(Sale on originating mortgages who retains servicing.) As reported to House & Home the week ending Sept 24, '60.

**SOURCE:** Atlanta, Robert Tharpe, pres, Tharpe & Brooks Inc; Boston, Robert M. Morgan, vice pres, Boston Five Cents Savings Bank; Chicago, Harvey N. Gordon, president,驱述D, Cleveland, Demetrios, president, Youman, vice pres, Jay F. Zook Inc; Denver, C.A. Beoq, vice pres, Mortgage Investment Co; Detroit, Harold Flinn, exec vice pres, Citizens Mortgage Corp; Honolulu, Gorden Patton, vice pres, Bank of Hawaii; Houston, Donald McGregor, exec vice pres, T.J. Beths Co; Jacksonville, George Dickerson, vice pres, Shrecker, Whaley, Davis & Co; Los Angeles, Robert Ertz, exec vice pres, The Outillo Co; New York, William F. Hanz, vice pres, Franklin Capital Corp; New York, John Halperin, pres, J. Halperin & Co; Oklahoma City, M.F. Haugh, first vice pres, American Mortgage & Investment Co; Philadelphia, W.A. Clarke, pres, W.A. Clarke Mortgage Co; St Louis, Sidnev L. Aubrey, vice pres, Merchant Mortgage Co; San Francisco, Raymond E. Lapsi, pres, Building Sept 15 by Thaf Calif, Washington, D.C., Hector Hollister, exec vice pres, Frederick W. Berens, Inc.

**FNMA PRICES**

Effective Aug 18, 1960

<table>
<thead>
<tr>
<th>FHA 5%</th>
<th>VA 5%</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>4%</td>
<td>4%</td>
<td>.5%</td>
</tr>
</tbody>
</table>

**FNMA STOCK**

Month's Month's
Bid... 591/2  59  57  64
Asked ... 611/2  66  591/2  66

*Dividend increase from 82.5c per annum to 83.25c per annum announced Sept 9.

• Quotations supplied by C. F. Childs & Co.
Hines Widewood fills certain material needs better than any other wood product. Better than lumber because it comes in wider widths and with less tendency to warp or twist. Better than plywood because you can nail or screw into the edge and the edge needs no special finishing. Easier to saw, too. It's the ideal material for closet walls, counter tops, cabinet ends, platforms, soffits, cornices, fascia, shelving...or any use where a warp-free, extra-wide board is desirable. Its possibilities challenge the imagination. Widewood can be made any size up to 54″ wide, 24′ long and 4″ thick...and 100% clear if you want!

In manufacturing Hines Widewood, selected pieces of top quality kiln-dried Ponderosa Pine are electronically bonded with water-proof glue. Pieces are joined end to end with a special precision-cut joint that, when glued, is stronger than the wood itself. Panels are sanded smooth at our mill, ready for finishing. Choice of standard grades and sizes. Special sizes to order.


"We stock Hines Knotty Pine Paneling exclusively. The selective grading at Hines mills gives us a product that brings our customers back asking for more. It stays straight and lies flat. And they like the smooth surface that takes conventional or the new color finishes equally well. Incidentally, we find it convenient to restock Hines Paneling because there are so many other Ponderosa Pine items available from Hines mills to help fill out a car."
To make closet wall units, the Huber Manufacturing Company of Mankato, Minn., buys Hines Widewood 24" x 1" in 16' lengths, clear grade. Sawing one piece in half makes the sides. Three cuts in a second piece yield the top, bottom and shelves. Sides are rabbeted to hold shelf ends.

Send for free samples today! Just call or write the man from HINES

Other plants: Plywood, Westfir; Horeband, Dee; Millwork, Baker and Hines, Oregon.
Engineering and Development Division: Hood River, Oregon.

Edward Hines Lumber Co.
200 S. Michigan Avenue, Chicago 4, Illinois

Please send me information and free samples of

[ ] Widewood  [ ] Knotty Pine Paneling
[ ] Both

Name

To get your free samples, just clip this panel, sign your name, attach to your letterhead and send to the address above.

OCTOBER 1960
CANADA:

Mortgage money eases; down payment cut seen

The mortgage market has made a sudden

...Canada's housing market appears to have fallen a

...Lowden, president of the Canadian Real Estate Board,

...the FHA's stand that it is answerable

...the consumer and tell it to confine itself to

...the FHA expects to tighten up its inspec-

HOUSING MARKET:

Federal appeals court upholds damages to buyer in negligent FHA appraisal

FHA must pay home buyers damages if they suffer a financial loss from relying on an FHA property appraisal.

The Federal Circuit Court of Appeals in Nashville, N. C. has just handed down this tradition-breaking decision in the first suit of its kind to go before an appellate court.

FHA officials consider it bad news for the agency. It may turn out to be bad news for builders, too (see below).

The case arose when an Alexandria, Va. couple paid $24,000 for a used house (including an $18,800 FHA mortgage) in July. The FHA staff appraiser had found it in good condition and valued it at $22,750. Several days after they moved in, substantial cracks appeared in interior walls and ceiling and in the blocks of the basement. FHA inspectors then found cracks in exterior walls. And the sun porch began separating from the east wall of the house. Says the circuit court:

"These conditions were found to have been caused by the character of the soil, which contained a type of clay that quickly disintegrates when exposed to water," Mr. and Mrs. Stanley S. Naustad said for $8,000—the cost of repairs.

In sustaining the original decision (News, May), the circuit court ruled that the 1954 amendment to the Housing Act which requires sellers to give buyers a copy of the FHA appraisal "imposes on the US the duty to appraise the property with ordinary care and diligence... and that neglect of this duty makes the US liable to the purchaser." If the decision stands, it will probably produce new problems for builders:

1. FHA is expected to tighten up its inspections and appraisals.

2. This, in turn, will mean builders will...
Dazzling Crown Vinyl floors have been known to hypnotize a lady prospect. Beautiful patterns do it—Comtessa, Electra, Invicta, Taj Mahal, new Lido (shown)... add a breath-taking 3-dimensional look to every room. And, Mr. and Mrs. Prospect know that heavily advertised Crown Vinyl never needs scrubbing. An exclusive new vinyl formula makes it extra tough in high traffic zones—around sinks, stoves, in halls and entrance-ways, 12-year guarantee. Close the sale with Crown Vinyl.

By the makers of famous Sandran. Sandura Co., Benson-East, Jenkintown, Pa.

LUXURIOUS CROWN VINYL FLOORS
When they're home-hunting... nothing says “built to last” like brass. That's one good reason why more and more of today's model homes are showcases for all the things that brass does better and more beautifully than any other material. You'll increase sales appeal with solid brass hardware and fixtures. And the finest brass products start with **Western Brass** — the “tailor-made” metal that's alloyed and rolled to your suppliers' individual requirements.
"SOUTHERN PINE meets the exacting requirements for TRUSSED RAFTERS — That's why I use it exclusively."

SAYS HERBERT O. ROOT, President, Dade Truss and Manufacturing Co., Inc. Leading Florida Truss Manufacturer

"Southern Pine's grading features, including proper seasoning, plus its ready availability, make it the ideal stress-rated material for superior truss manufacture."

The Federal Housing & Home Finance Agency says: "The greatest need to assure the efficient use of wood in residential framing is the establishment of a full-length, all-purpose grade with established working stresses for all loads to which wood is subjected . . . bending, tension, compressions, shear, etc. This grade should be independent of the size and length of the member and should include 1" boards for use in trusses and other light framing. This ideal grade is most nearly approached today in SOUTHERN PINE."

D R Y S O U T H E R N P I N E O F F E R S T H E S E A D V A N T A G E S:
- Uniform grading throughout its length permitting simple beam, cantilever, continuous or tension-loading design.
- Uniform size because it's properly seasoned.
- Superior gripping power for nails and other fasteners.

Write today for these FREE bulletins!
- Stress Grade Guide
- Trussed Rafter Data
- How to Specify Quality Southern Pine

SOUTHERN PINE ASSOCIATION
P.O. Box 1170—New Orleans 4, La.
$14.97 extra profit on every closet you build with FLOAT AWAY METAL CLOSET DOORS

For bigger figures in your profit column...write now for details on these facts.

FACT: $14.97 extra profit per closet with the Float-Away method.

FACT: 50% increase in customer closet convenience.

FACT: Gain 25% more storage space with Float-Away Metal Closet Doors.

FLOAT-AWAY DOOR COMPANY
1173 Zonolite Road, N.E.
Atlanta 6, Georgia

Name __________________________
Address _________________________
City ___________ Zone ___ State ___
MATERIALS & PRICES:

Mosaic tile, plate glass hardboard producers seek help to fight imports

For many US materials manufacturers, the invasion of lower-priced foreign products has caused growing concern. For some, it has become downright alarm. Items:

- The ceramic mosaic tile industry has appealed to the US Tariff Commission for relief at a "point hearing." Cheap imports, mainly from Japan, have captured 33% of the US market and now threaten to destroy the industry here, cries President Norris E. Phillips of Associated Ceramic Mosaic Tile Manufacturers.
- In a similar appeal, Vice President Robinson F. Barker of Pittsburgh Plate Glass told the commission that the domestic sheet (window) glass industry in this country is in jeopardy. Imports have taken over 23% of the US market.
- The hardboard industry is starting a campaign against building contractors, dealers, and others to promote domestic hardboard. Imports, mainly from Sweden, have captured 11.6% of the US market, says American Hardboard Assn officials, may take 25-35% in the foreseeable future.

Why it hurts. The volume of imported materials has jumped sharply in the last decade, with some of the sharpest increases coming last year. For many US producers, the pressure of foreign competition is felt more keenly now because the slump in homebuilding has shrunk their markets and sharpened the scramble for business. Among industries feeling the pinch: cement, hardware, lumber, copper pipe and tubing, plastic laminates.

A major complaint of American manufacturers is that they spend big money on research to pioneer new materials, develop markets. But once they've succeeded, foreign competitors clam up the bandwagon, flood the market with cheaper imitations. And due to local US producers, companies enjoy an unfair competitive advantage through much lower costs for labor, raw materials and water transportation. A Japanese tile worker, for example, gets 20c/hr. compared to the US worker's $1.90-$2/hr.

As a result, Japanese mosaic tile wholesalers here at anywhere from 20c to 40c/sq ft ("less than it costs us to make the stuff," notes a US tile man glumly) compared to domestic tile prices of 56c-58c/sq ft.

No help foreseen. Because US foreign policy leans toward free trade, few domestic producers expect tariff increases from the 33-nation General Agreement on Tariffs & Trade (GATT) negotiations which just began in Geneva. Most seek only to hold the line by having their materials taken off the list for possible further US concessions. The ceramic tile industry would like to see import quotas established. The hardboard industry, which would like to see their product reclassified as wood instead of pulp (and thus made subject to a 5 to 6% higher duty), is pinning its main hopes on its promotion campaign which will stress the advantages of domestic products, including more availability, quicker delivery, and lower freight costs. Many US industries, anxiously eyeing the inroads of foreign competition, this may be the readiest tack, over the long haul, in dealing with a problem that promises to get knottier.

MATERIALS BRIEFS

Plywood bounces back

Propelled by curtailed output at Northwest mills, plywood prices have perked up. After plummeting to a post-World War 2 low of $60 msf during the summer, $74" sanded stock bounced back to $68 at mid-month. The price recovery was paced by giant Georgia-Pacific. But many mill men had their fingers crossed. With prices back above $64, which many contend is the break-even point, some mills may start to boost production again, bring back the glut which caused such havoc in the market during the summer.

Transit cars (cont'd)

After a year-long battle to keep the ICC from banning free hold-time and diversions for lumber shipments, western US railroads have turned about and voluntarily cancelled transit privileges. Canadian rail lines first announced they would cancel hold-and-diversion privileges for cars originating in the US. They proclaimed a cut off 15 to 7 days in free hold-time for Canadian cars. Then the Canadian roads reversed themselves and restored full transit privileges.

For many US lumbermen, it was a double blow. Mills and wholesalers who use transit shipping as a form of warehousing on wheels while they seek buyers now must find other ways to delay their shipments en route. One possibility: circular routing. But, says President Hal Saltzman of the Western Lumber Marketing Assn: "Circuitous routing certainly isn't something we can use as easily and economically as the 15-day delay we...

LABOR:

NLRB's astonishing Kohler verdict

In a ruling with far-reaching implications, the National Labor Relations Board has finally made its decision in the nation's longest labor dispute, the six-year-old struggle between Kohler Co and the United Auto Workers. The decision: Kohler was guilty of prolonging the strike through unfair labor practices. NLRB, upholding Trium Petitioner George A. Downing, ordered the company to 1) rehire all of the original strikers who ask for their jobs back (except 78 fired for strike violence) and 2) bargain with the union in "good faith."

The world's promptly asked US Circuit Court to review the finding of unfair labor practices. The union appealed too, demanding that the company be forced to rehire the 78 the NLRB held guilty of misconduct.

Meanwhile, Kohler has offered to rehire some 1,400 of the strikers. Several hundred had already returned to work during the long fight. Many have moved away or found other jobs. Some have retired. Only about 130 are listed by the union as still being jobless. The company declines to estimate how many eventually will ask for their jobs back (by midmonth, three weeks after the NLRB decision, less than 50 had done so).

Under the NLRB ruling, the company would have to fire present employees to make room for returning strikers, if necessary. A spokesman said Kohler "hopes" to absorb the returning workers without layoffs.

For Kohler, the country's second largest manufacturer of plumbing fixtures, the NLRB ruling was a bitter climax to the long dispute which the company had won despite a $10 million union campaign involving bloodshed, terrorism, intimidation and coercion. In reversing the company's victory and handing it to the union, the NLRB has also raised some troublesome questions about the future of management in labor disputes.

The Kohler strike began in April, 1954, after the UAW demanded compulsory union membership in the company's Sheboygan plant. Herbert C. Kohler, the company individualistic and determined president, rejected the notion. Said he: "We do not believe that people should be compelled to become or remain members of a union."

The union countered by surrounding the plant with thousands of strikers, shutting Kohler down for 54 days by illegal mass picketing. City, county, and state authorities refused to intervene, but the Wisconsin employment relations board, which has the power to stop the mob picketing. Kohler resumed production, hiring outside workers and strikers who elected to come back. To scare off non-striking workers, the union resorted to beatings, threats, vandalism, acids, and paint-throwing, and bombs. An elderly worker died after a union gun broke his neck. Sheboygan became a battleground where...

Air conditioning boom

Sales of central air conditioning are up 15% this year, while house sales are falling. By the end of the year, estimates the Air Conditioning & Refrigeration Institute, more than 1 million of the nation's 60 million homes will have central cooling. That is double the 1957 mark. Most of the increase has gone into medium priced ($12,000 to $15,000) homes, says ACRI. It predicts this will continue.

Carrier says its own sales are running 25% above a year ago despite a four-week strike in March. C. A. Olsen Co, Westinghouse subsidiary which makes central units up to 5 tons, reports sales 76% ahead of the year before for the first half of 1960. Adds Westinghouse Vice President R.N. Campbell: "We're looking forward to 1961's volume exceeding even 1960's, which is exceptionally good."

Mild summer weather cramped sales of room air conditioners. But President Paul Augustine of Chrysler's Airtemp Division predicts: "Sales might bounce back as much as 15-20% in 1961." He adds: "People who had room air conditioners will buy central air conditioning in their new homes."
if you can find another patio door...
...with these three exclusive sales-clinching quality features
...and priced to go to the builder for around $100...

buy it!

ShoDoCo's
NEW
ShoLume PATIO DOOR

LUCIEN HANDLE
Effortless fingertip action. New turn-indicator-type handlekok clicks up and down to lock and unlock at a flick. Retractable latch prevents accidental lock-out.

BIRON CLIP
ShoDoCo's Biron Clip (pat. pend.) positively prevents fine "Scotsman" screen from ever jumping track.

ALL-POINTS WEATHERSEAL
Silicone treated heavy Schlegel wool pile gives overlapping "All-Points Weatherseal."

EXCLUSIVE BONUS FEATURES

(A) All ShoLume panels are REVERSIBLE, install as either XO orOX
(B) Single Glazing or 3/8" Dual Glazing
(C) 6' ShoLume door, glazed with 3/2" sheet and with Screen
PRICED TO GO TO BUILDER FOR AROUND $100
(D) Available either KD or completely glazed and assembled.

Write for details on ShoLume Patio Doors and the world's finest lines of shower enclosures.

'SPORLD'S LARGEST MANUFACTURER OF SHOWER ENCLOSURES'

Can unions lose strikes?
Continued from p 63

friend turned against friend, brother against brother, father against son.

Failing to shut the company down, the union sought to cut off raw materials by picketing cargo vessels carrying vitreous clay and then to ruin the company by a nationwide boycott of Kohler products. Despite the harassment, the Kohler company kept up production and built up a force of 2,500 production and maintenance workers (compared to the pre-strike force of 3,300). A big reason for employee loyalty: Kohler policy provides continuous employment to its workers by trimming prices in tough times to maintain production, avoid lay-offs.

No forced unionism. The company did not refuse to bargain with the union, and Herbert Kohler offered to take back many of the strikers. But he stuck to his guns in refusing compulsory unionism. The union was equally adamant.

Cried President Walter Reuther: "The Kohler Co. has not recognized either the letter or the spirit of the law... Management must recognize the right of its employees to choose their own bargaining agent." He accused company negotiators of meeting with the union "not to settle the strike [but] to break the strike in order to break the union."

As the fight dragged on for six years, it was clear that Kohler had bested the UAW—until the NLRB stepped in.

The crux of the board's ruling is that the company, after it resumed operations following the 54-day shutdown, granted two wage increases to non-striking workers without getting permission from the union—and this, argued the NLRB, created "serious impediments to settlement" of the strike and constituted unfair labor practices.

For Kohler officials, the board's reasoning was doubly stunning because UAW never raised the issue of the wage boost in any of its charges against the company. Says Kohler Executive Vice President L. L. Smith: "It's like being indicted for robbery and acquitted but then being convicted of a murder not even mentioned in the indictment."

What is 'unfair'? NLRB criticized Kohler Co. for hiring detectives to watch strikers. It lambasted the union for improper picketing methods and mob demonstrations around the homes of non-striking workers.

About the only solace for the company in the NLRB ruling is the provision that strikers responsible for violence against non-strikers do not have to be rehired, a point the union "not to settle the strike [but] to break the strike in order to break the union."

As the fight dragged on for six years, it was clear that Kohler had bested the UAW—until the NLRB stepped in.

The crux of the board's ruling is that the company, after it resumed operations following the 54-day shutdown, granted two wage increases to non-striking workers without getting permission from the union—and this, argued the NLRB, created "serious impediments to settlement" of the strike and constituted unfair labor practices.

For Kohler officials, the board's reasoning was doubly stunning because UAW never raised the issue of the wage boost in any of its charges against the company. Says Kohler Executive Vice President L. L. Smith: "It's like being indicted for robbery and acquitted but then being convicted of a murder not even mentioned in the indictment."

What is 'unfair'? NLRB criticized Kohler Co. for hiring detectives to watch strikers. It lambasted the union for improper picketing methods and mob demonstrations around the homes of non-striking workers.

About the only solace for the company in the NLRB ruling is the provision that strikers responsible for violence against non-strikers do not have to be rehired, a point on which Herbert Kohler has been determined.

For labor analysts, the astonishing Kohler decision poses these questions:

• Once a union calls a strike, are all wages in the struck plant frozen at the pre-strike level unless the striking union consents to a raise?
• Since Kohler did not refuse to bargain with the union, does refusing in "good faith" with a union really mean concessions by management?

Editorialized the Chicago Tribune: the philosophy underlying the decision is that "no company is permitted to win over any union in an open fight. Walter Reuther's UAW was licked, and licked decisively at Kohler... In any labor-management controversy, it is the union which must win. It is an unfair labor practice for a company to triumph."

HOUSE & HOME
SEGREATION:

How open should open developments be?

Legislation prohibiting race bias in housing can hinder, instead of promote, efforts to build stable, racially integrated neighborhoods. Instead, "benign quotas" administered by private developers (a la Morris Milgram) seem to produce better results.

These ideas were aired last month at—the Natl Urban League's 50th anniversary conference in New York City. Significantly, they were expressed by a business executive who has labored hard to stop the growing concentrations of Negro families in blighted neighborhoods. Said J. Stanley Purnell, assistant to the president of T. Mellon & Sons of Pittsburgh:

"From our experience, I am convinced that legislation should be flexible enough to assist, rather than hinder men of good will who are attempting at great personal effort to solve the housing problems of all people... If such laws must be enacted, they should be state-wide rather than only city-wide. However, I doubt the wisdom of such laws. On a city-wide basis, they only tend to drive whites to the suburbs, and thereby sharpen what Dr. Morton Grodzins calls 'the urban-suburban racial and class schism.' I believe the solution is not in legislation, but in private individuals, groups, and housing corporations going ahead, building housing, and then selling and renting on a planned integration basis..."

In Pittsburgh's Spring Hill Gardens, (News, Dec.), an FHA 221 project with rents from $77.50 to $97.50 a month for one- to three-bedroom apartments, "our goal was to have 80% white occupancy with two or three Negro families in each of the 19 buildings," Purnell related. He added: "Many of our present white tenants would not have moved in without assurances that we would do all in our power to maintain an 80-20 balance."

"...Two qualified Negro applicants recently filed complaints with the Commission on Human Relations simply because they were asked to postpone their move-in date until there were sufficient white applicants to maintain the established balance—the quota. After consultation, the commission ordered us to take the Negro applicants immediately. We did so.

"We have been able to comply without upsetting or 'ripping' the development. But we know our community, and we know Pittsburgh. If this law [Pittsburgh's anti-bias ordinance] is to be used to force us to accept more and more Negro tenants until the percentage reaches 30 or 40 or more, then Spring Hill Gardens will be on the way to becoming a segregated development. A panicking neighborhood might result; and the case of race relations, housing, and urban renewal will all be considerably harmed." So quotas, Purnell said, "run a bit contrary to our ideals, but derive strong support from our experience."

 Redeveloper James Scheuer, a panelist on the same forum with Purnell, agreed that "in striving for integration, balance is an absolute necessity." But he scoffed at Purnell's implication that the tip-point is 30% or 40% Negro occupancy. In New York, Scheuer asserted, it is more like 20% or 25%. He argued for the "right to discriminate against an individual for the right of maintaining balance of a project."

Panelist Oscar Cohen, of the Anti-Defamation League of B'nai B'rith, called quotas "hateful—but necessary now" in private developments.

State orders realtors to sell to Negroes

The Massachusetts Commission Against Discrimination, in its first order under state laws prohibiting racial bias in private housing developments, has directed two real estate companies to sell homes to Negroes.

The order was issued against Campanelli Builders Inc., Middlesex Homes Inc., and President Frank Equi of Middlesex. A Boston Negro electrical contractor, Ulysses G. Marshall, complained that he was refused a house in Woodvale, a 300-lot development at Danvers, 20 miles north of Boston. Campanelli Builders, one of New England's biggest residential construction concerns (1959 total: 1,135 starts), is the owner and builder of Woodvale, Middlesex Homes is the sales agent. The houses are priced from $14,900 to $22,000.

Campanelli, Middlesex and Equi were found guilty of illegally refusing to sell Marshall a house at the first public trial in a housing case held by the commission since it was created in 1946. The commission invoked two statutes, adopted in 1957 and 1959. One prohibits discrimination in private housing built with FHA assistance, the other, discrimination in private developments of ten or more lots.

*Purnell's Pittsburgh adopted what is considered the country's stiffest anti-bias law in December 1958. It bars discrimination in private housing by real estate brokers, salesmen, agents and lenders, as well as owners. It applies to groups of five or more units under one ownership. Violators face a $100 fine or 30 days in jail.

OCTOBER 1960
Here's Western Pine Association dependability for you—grading proved 97.3% on or above

Using the published standards of the Western Pine Association, 32 inspectors traveled more than a half million miles to member mills last year to check-grade nearly 51 million feet of shipping-grade lumber. They found that better than 97% had been graded on or above standard.

That's the kind of grading control you can expect with every shipment of Western Pine Region woods — top dependability, too, in sizing and shipping. And...there are eleven kinds of woods from this region for your customers to choose from...soft-textured, straight-grained, ideal for many, many interior and exterior applications.

For more information write to Western Pine Association, Yeon Building, 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 • Western Hemlock

TODAY'S WESTERN PINE TREE FARMING GUARANTEES LUMBER TOMORROW

PONDEROSA PINE—this wood combines excellent insulation with firm nail-holding power. It handles easily and mills accurately. For sheathing, light framing, paneling, millwork and siding.

DOUGLAS FIR—tough, straight-grained wood for interior trim, millwork, and applications requiring stiffness and nailholding power. In stress grades, it offers exceptional strength for framing.

WHITE FIR—strong and lightweight for framing, roof decking, paneling and molding. It is easy to cut, saw and shape. Popular, too, for interior and exterior trim and many industrial uses.

ENGELMANN SPRUCE—lightweight, whitest of Western woods, it is fine textured, works and nails superbly. High insulation value for sheathing and siding. Beauty for paneling.
Where public housing will be built

Since the end of June, PHA has allocated 7,620 units of public housing. Of these units, 3,677 (or 48%) went to communities with populations under 25,000. This points up a trend toward spreading new public housing into small towns. Most big cities have a backlog of units under contract but unstarted, often because local authorities cannot find sites where the neighborhood is willing to accept public housing tenants (ie, Negroes). Of the 81 communities listed below—the most recent to receive PHA allocations—36 have no public housing so far. A total of $646,250 was loaned to 42 communities for planning projects not yet certain of construction. This funds an additional $446,250 for architects to draw, at government expense, plans that may or may not be built.

<table>
<thead>
<tr>
<th>CITY</th>
<th>POPULATION</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patterson, Ga.</td>
<td>3,347</td>
<td>0</td>
</tr>
<tr>
<td>Newton, Mass.</td>
<td>91,584</td>
<td>1,000</td>
</tr>
<tr>
<td>Roxbury, Mass.</td>
<td>5,087</td>
<td>15,000</td>
</tr>
<tr>
<td>Norristown, Pa.</td>
<td>38,476</td>
<td>15,000</td>
</tr>
<tr>
<td>Ringgold, Ga.</td>
<td>1,360</td>
<td>0</td>
</tr>
<tr>
<td>Manchester, Ga.</td>
<td>4,103</td>
<td>0</td>
</tr>
<tr>
<td>Vicksburg, Miss.</td>
<td>28,977</td>
<td>0</td>
</tr>
<tr>
<td>Louisville, Ala.</td>
<td>1,069</td>
<td>0</td>
</tr>
<tr>
<td>Alton, Ill.</td>
<td>681</td>
<td>0</td>
</tr>
<tr>
<td>Hoopeston, Ill.</td>
<td>17,425</td>
<td>0</td>
</tr>
<tr>
<td>Bodeo, Calif.</td>
<td>6,950</td>
<td>0</td>
</tr>
<tr>
<td>Elizabeth, N.J.</td>
<td>10,477</td>
<td>0</td>
</tr>
<tr>
<td>Elgin, Ill.</td>
<td>3,949</td>
<td>0</td>
</tr>
<tr>
<td>Lawrence, Mass.</td>
<td>70,545</td>
<td>47,500</td>
</tr>
<tr>
<td>Pineville, Tenn.</td>
<td>1,284</td>
<td>0</td>
</tr>
<tr>
<td>Mayfield, Ky.</td>
<td>10,708</td>
<td>0</td>
</tr>
<tr>
<td>Franklin, N.C.</td>
<td>3,621</td>
<td>0</td>
</tr>
<tr>
<td>Gatesville, N.Y.</td>
<td>29,786</td>
<td>0</td>
</tr>
<tr>
<td>Lake Butler, Fla.</td>
<td>1,297</td>
<td>0</td>
</tr>
<tr>
<td>Irvington, N.J.</td>
<td>50,335</td>
<td>0</td>
</tr>
<tr>
<td>Trenton, N.J.</td>
<td>114,015</td>
<td>0</td>
</tr>
<tr>
<td>Edison Township, N.J.</td>
<td>40,075</td>
<td>0</td>
</tr>
<tr>
<td>Fulton, Mo.</td>
<td>11,999</td>
<td>0</td>
</tr>
<tr>
<td>Cartersville, N.J.</td>
<td>26,473</td>
<td>0</td>
</tr>
<tr>
<td>Red Bank, N.J.</td>
<td>12,478</td>
<td>0</td>
</tr>
<tr>
<td>Atlanta, Ga.</td>
<td>481,823</td>
<td>0</td>
</tr>
<tr>
<td>Moulton, Ga.</td>
<td>1,224</td>
<td>0</td>
</tr>
<tr>
<td>Stuart, Fla.</td>
<td>4,650</td>
<td>0</td>
</tr>
<tr>
<td>Latrobe, Pa.</td>
<td>2,595</td>
<td>0</td>
</tr>
<tr>
<td>Turkey House, Ind.</td>
<td>73,796</td>
<td>0</td>
</tr>
<tr>
<td>Harlem, N.Y.</td>
<td>2,863</td>
<td>0</td>
</tr>
<tr>
<td>Magnolia, Miss.</td>
<td>5,010</td>
<td>0</td>
</tr>
<tr>
<td>River Rouge, Mich.</td>
<td>18,127</td>
<td>0</td>
</tr>
<tr>
<td>Derry, Ariz.</td>
<td>1,260</td>
<td>0</td>
</tr>
<tr>
<td>Mineral Springs, Ark.</td>
<td>415</td>
<td>0</td>
</tr>
<tr>
<td>Swannanoa, Ga.</td>
<td>6,910</td>
<td>0</td>
</tr>
<tr>
<td>Cockermont, Ga.</td>
<td>3,806</td>
<td>0</td>
</tr>
<tr>
<td>Carrabelle, Fla.</td>
<td>1,142</td>
<td>0</td>
</tr>
<tr>
<td>Boscoeville, Miss.</td>
<td>3,033</td>
<td>0</td>
</tr>
<tr>
<td>Roosevelt, Calif.</td>
<td>85,446</td>
<td>0</td>
</tr>
<tr>
<td>Pullman, Ala.</td>
<td>10,249</td>
<td>0</td>
</tr>
<tr>
<td>Cambridge, Ga.</td>
<td>974</td>
<td>0</td>
</tr>
<tr>
<td>Waco, Ga.</td>
<td>1,111</td>
<td>0</td>
</tr>
<tr>
<td>Albertville, Ala.</td>
<td>8,272</td>
<td>0</td>
</tr>
<tr>
<td>Childsboro, N.J.</td>
<td>4,665</td>
<td>0</td>
</tr>
<tr>
<td>Opp, Ala.</td>
<td>5,451</td>
<td>0</td>
</tr>
<tr>
<td>Sylvanview, Ala.</td>
<td>12,691</td>
<td>0</td>
</tr>
<tr>
<td>Mt Vernon, Ill.</td>
<td>15,646</td>
<td>0</td>
</tr>
<tr>
<td>Crystal City, Tex.</td>
<td>9,207</td>
<td>0</td>
</tr>
<tr>
<td>Muskogee Heights, Mich.</td>
<td>19,516</td>
<td>0</td>
</tr>
<tr>
<td>Woodville, Ill.</td>
<td>76,268</td>
<td>0</td>
</tr>
<tr>
<td>Palmer, Tex.</td>
<td>614</td>
<td>0</td>
</tr>
<tr>
<td>West New York, N.J.</td>
<td>35,243</td>
<td>0</td>
</tr>
<tr>
<td>Brewton, Ala.</td>
<td>6,009</td>
<td>0</td>
</tr>
<tr>
<td>Rose, Okla.</td>
<td>1,069</td>
<td>0</td>
</tr>
<tr>
<td>Clinton, Ark.</td>
<td>5,656</td>
<td>0</td>
</tr>
<tr>
<td>Collinsville, Ala.</td>
<td>1,117</td>
<td>0</td>
</tr>
<tr>
<td>Athensville, Ala.</td>
<td>6,662</td>
<td>0</td>
</tr>
<tr>
<td>Mobile, Ala.</td>
<td>19,365</td>
<td>0</td>
</tr>
<tr>
<td>Northport, Ala.</td>
<td>9,255</td>
<td>0</td>
</tr>
<tr>
<td>Onalaska, Ark.</td>
<td>9,479</td>
<td>0</td>
</tr>
<tr>
<td>Columbus, Tenn.</td>
<td>17,627</td>
<td>0</td>
</tr>
<tr>
<td>Franklin, Tenn.</td>
<td>3,944</td>
<td>0</td>
</tr>
<tr>
<td>Lawrenceburg, Tenn.</td>
<td>6,025</td>
<td>0</td>
</tr>
<tr>
<td>Waverly, Tenn.</td>
<td>2,902</td>
<td>0</td>
</tr>
<tr>
<td>Dalton, Ga.</td>
<td>33,722</td>
<td>0</td>
</tr>
<tr>
<td>Lindaleton, Ga.</td>
<td>5,859</td>
<td>0</td>
</tr>
<tr>
<td>Sparta, Ga.</td>
<td>1,938</td>
<td>0</td>
</tr>
<tr>
<td>Villa Rica, Ga.</td>
<td>3,449</td>
<td>0</td>
</tr>
</tbody>
</table>

Footnotes:
1 Annual (*) indicates planning loan made under preliminary contract. Bagger (t) indicates official total development cost of project. Cents (0) are nominal contract cost. PHA lend 80% of this cost to a local authority in addition to making annual contributions in help keep rents within means of low-income families.
2 Figures in parentheses indicate additional units either in preliminary construction (P) or under construction (C).

NEWS continued on p 69
RUBEROID gives you quality where it will be seen!

OLIVER L. PARKS, East St. Louis, Illinois: "To me, specifying RUBEROID siding and roofing on a new house is just like putting out a big sign saying QUALITY. In fact, it's better than a sign when we figure in the handling and application costs. We find we're actually saving money using RUBEROID products. In many cases RUBEROID's unique product features have aided sales and established good future customer relationships at the same time that they're cutting our costs. RUBEROID certainly helps us build new homes and new sales."

RUBEROID
500 FIFTH AVENUE • NEW YORK 36, N.Y.
New overseer for S&Ls

Ailing (stomach ulcers) William J. Hallahan has resigned from the Home Loan Bank Board. President Eisenhower immediately named Joseph J. Williams, Jr., Virginia lawyer, legislator, and savings & loan official to replace him as the lone Democrat on the three-man board.

Hallahan's ailment (which began while he was an Army major in World War 2) worsened in recent months as the HLBB came under heavy fire from a House subcommittee investigating its seizure of Long Beach (Calif.) Federal S&L. After being hospitalized, Hallahan finally quit on the advice of his doctors to undergo surgery and a long convalescence.

For S&L men, Hallahan's departure is a matter for keen regret. Young (43), stocky, affable Bill Hallahan has long been regarded by the industry as a key man in the HLBB's important decisions and one of its ablest members. A native of Corning, N. Y., and a graduate of Syracuse University and Georgetown University Law School, Hallahan was appointed clerk and counsel of the House banking committee in 1946, Eisenhower appointed him to a four-year term on the HLBB in 1955, reappointed him last year. As the only Democrat (under law, no more than two members of the board can be from the same party) Hallahan was inclined to be more independent than his two older Republican colleagues, Chairman Albert J. Robertson, 67, and Ira Dixon, 69, say S&L men Dixon, who can't speak above a whisper since an operation for throat cancer, is well regarded, but Robertson says he is in for criticism on two grounds: 1) as a former banker (senior vice president of the Iowa-Des Moines National Bank) he is not always sympathetic enough with savings & loan problems and 2) he has not kept the board as independent of general Administration fiscal policies as he could.

Williams, 55, a conservative Democrat, will fill Hallahan's term which expires July 30, 1963. S&L men generally view his appointment with favor. A native of Cold Harbor, Va., and a graduate of the University of Richmond, Williams has practiced law since 1930 and has been a director and counsel of the Franklin Federal S&L of Richmond (assets $40 million) since it was founded in 1933. He has served in the Virginia House of Delegates since 1937. Says one S&L man: "With his background, he could turn out to be the strongest member the board has had for some time."

Boss to leave FHA

FHA Commissioner Julian Zimmerman will become president of Lumberman's Investment Corp, five-year-old mortgage concern operated by Texas lumber dealers, when the Eisenhower Administration ends next January.

Zimmerman was offered—and accepted—the $35,000-a-year post in late summer. The White House persuaded him to stay in his $20,000 government job for the rest of Eisenhower's term. When word leaked out that Zimmerman might be leaving, several self-designated candidates on and off FHA's staff had begun bucking to succeed him. Administration higher-ups were unhappy over such turmoil.

LIC, owned by nearly 700 retail lumbermen throughout Texas, has originated some $14 million in FHA and VA mortgages plus $71/2 million in home improvement loans. Now, it is planning to expand nationwide.

ELECTRIC HEAT gives your homes a WARM TOUCH!

Emerson Electic Electric Heat...baseboard heaters gently circulate heat throughout the room without a fan...Emerson Electric ceiling cable assures uniform comfort...Emerson Electric Heaters recessed in the wall silently provide clean, safe heat. A full line of electric heat bearing the Emerson Electric guarantee of quality.

Another of Emerson Electric's Finishing Touches...pre-sold packages of quality electrical accessories.

Deputy quits HHFA

Walter Rosenberry, 52, resigned last month as deputy HHF Administrator to become a management consultant in Washington. Rosenberry came to the top housing continued on p 71
"Kohler Fixtures and All-Brass Fittings

will cut your apartment maintenance costs!"

"That's mighty important!"
"It sure is ... as builder-owner you've got a long-term investment in this apartment house ... As your architect it was my job to protect it."

"Right! ... But how do I save on maintenance?"
"For one thing, you'll have far fewer repairs and replacements with Kohler All-Brass Fittings."

"Why?"
"Because genuine brass resists wear and corrosion. Also takes and holds chrome finish better than any other metal."

"Sounds fine! ... Now tell me—"
"Wait! There's more... Every Kohler fitting has the Valvet unit that works with a smooth piston-like movement... Eliminates the grinding action that wears out washers so fast in conventional faucets."

"Do these faucets work easily?"
"At a finger-touch ... and easy shut-off means no dripping—less rough handling."

"I'll tell my tenants these are Kohler—"
"They'll know anyway ... All Kohler fittings have the Kohler name on the handles ..."

"Kohler fixtures certainly deserve Kohler fittings—the finest."

"Of course! ... Kohler fixtures are outstanding for looks—for durability ... Installing them with matching Kohler fittings was one of the two smartest things we did."

"What's the other?"
"Specifying two Kohler bathrooms for all three-bedroom apartments ... Extra bathrooms are the biggest trend in today's apartment and home building because there's no greater modern convenience!"
agency in January 1959 when Norman Mason moved up from FHA commissioner to HHFAd-
ministrator. Rosenberry had been Mason's special assistant at FHA for a year and a half before.
At HHFA, Rosenberry, a jovial and story-loving teetotaler, served as a trouble-shooter, notably in liaison with Capital Hill last year when President Eisenhower twice vetoed housing bills. Minnesota-born Rosenberry married Sarah Maud Weyerhaeuser after graduating from Dartmouth (’30). He went to work in the Weyerhaeuser lumber empire and became, at 25, general manager of 30 yards. After a divorce, he organized his own lumber company in Billings, Mont., and Spokane.

URBAN RENEWAL: Asst Urban Renewal Commissioner Martin Hillspaugh, 34, is resigning Oct 15 to become deputy general manager of Baltimore’s $127 million Charles Center Renewal project. The post will pay $17,000. Hillspaugh will replace $24,000-a-year Dennis Durden, who is rejoining the consulting firm of Larry Smith & Co after a leave.

Hal Colling wins vote of confidence from ICBO

The squabble between Past President Gil Morris of the International Conference of Building Officials and ICBO Managing Director Hal Colling has apparently ended with a victory for Colling.

At its 38th annual meeting last month in Colorado Springs, the powerful regional code group adopted a resolution of confidence in ICBO’s management and officers.

Morris, who just retired as Los Angeles’ building superintendent, had charged ICBO management with “extravagant and unwise expenditures” and meddling in the group’s politics (News, Aug.). "ICBO should be run for the benefit of the cities, the building officials, the construction industries, and not for the benefit of management," he declared. In his blast at ICBO management, Morris cancelled Los Angeles’ $250-a-year membership. But his successor, John Monning, said in Colorado that the city’s dues for the current year have been paid. Morris did not attend the convention.

The resolution was adopted after only token discussion. But the meeting also voted Morris (and three other men) an honorary life membership in token of services to ICBO.

Philip M. (for McRee) Roberts, 55, chief building inspector of Boise, was elected ICBO president. He succeeds Cassatt D. Griffin, assistant chief deputy engineer for L.A. County, Chattanooga-bom Roberts, a lean six-footer with a professional air. worked for an Idaho construction company for 20 years before becoming chief building in 1946. Another 33 cities, towns, or counties adopted ICBO’s Uniform Building Code and became ICBO members during the fiscal year, Colling reported. ICBO, a non-profit California corporation, took in 48% of its $289,797 income for the year ended June 30 from publishing (28% from book sales, 19% from its monthly magazine). Only 18½% came from membership dues, according to reports to ICBO members.

DIED: Douglas G. McNair, 67, vice president and general manager of Temple Lumber Co., Houston, Tex., Aug. 8, at Houston; Alvin Hayman, 77, real estate developer and builder of thousands of homes in San Francisco area and one of first presidents of the local homebuilders association, Aug. 17, in San Francisco; Robert P. Etienne, 47, San Francisco area land developer, in an auto crash, Aug. 23, in San Francisco; Arthur O. Edwards, 84, British-born engineer who developed many tracts and built hotels in Florida, Aug. 24, at Villa Nova, Pa.; Donald H. Aiken, 44, treasurer of the Greenwich Savings Bank, New York, and former (1951-54) first deputy superintendent and counsel of the New York State Banking Department, Aug. 25, in New York; Charles F. Haring, 77, builder and developer in New York’s Westchester County, Aug. 26, in New York; Richard W. Fechtenburg, 64, realtor and chairman of the Bucks County (Pa.) Planning Commission and former (1936-57) president of the Pennsylvania Realtors Assn, of a heart attack after being stung by a swarm of yellowjackets while mowing his lawn, Aug. 27, near Langhorn; Meyer Rosenberg, 60, San Francisco contractor, after being beaten by thugs who invaded his office and took $7,000, Aug 29, in San Francisco.

Here’s how! From one quality source you get ventilating fans and hoods, chimes and intercoms, recessed and decorator lighting and electric heating and air conditioning equipment. Just one dependable supplier .. Emerson Electric ... is responsible for guaranteeing quality, for billing your order and for shipping. You save not only the hidden costs in time spent ordering from many different suppliers ... but you also save money in initial costs because you are an important quantity buyer!
MASONITE ASKS: what's in a name...for

just name this all-new MASONITE "X"-Siding!

Here are some clues that may help you find a name for this new, prospect-pleasing siding made with special X-90 fibre formula:

- realistically priced
- exceptional dent resistance
- extra-wide exposure—deep, attractive shadow line (size 12" wide up to 16' long)
- two identical edges—cuts waste
- excellent weatherability—superior stability
- prime-coated and back-sealed super-smooth surface won't check, splinter or split—takes and holds paint beautifully
- guidelines top and bottom for quick, accurate alignment
- pre-packaged with rust-proof, self-seating nails

All you have to do is name this all-new Masonite "X"-Siding to win a trip for two to Hawaii! Actually, you can win two ways:
1. name it and win a free vacation;
2. use it on your new homes for terrific sales appeal. Get the full details on this exciting contest from your lumber dealer or Masonite representative today. Use "X"-Siding now—name it while you nail it!

"X"-Siding is another quality hardboard product of Masonite research.
you?

a FREE TRIP to HAWAII for TWO!

OTHER PRIZES, TOO! You don't have to be top winner to earn a prize! Just look at these enviable awards for the ten best entries:

1. Hawaiian Trip—Bonus of $250.00 expense money if winning builder uses "X"-Siding on 1 or more homes
2. Motorola "Declaration" 3 Channel Stereophonic Console with FM/AM Radio
3. Magnavox "International Modern" 23" Television Console
4. Philco "The Concerto" Custom Stereophonic High-Fidelity Console with Convertible Speaker System
5. Zenith "The Plaza" 19" Portable Television
7. Philco "The Congress" All Transistor Portable Radio
8. Zenith "Royal 710" All Transistor Portable Radio
9. Magnavox "Sportsman" All Transistor Portable Radio
10. Motorola "X19" All Transistor Pocket Portable Radio with Carrying Case

MASONITE CORPORATION
Dept. HH-10, Box 777, Chicago 90, Illinois
Please send me an entry blank, plus all other collateral material on the Masonite Name the "X"-Siding contest.

Name
Firm
Address
City
State
Zone County

MASIONITE CORPORATION

©Masonite Corporation—manufacturer of quality panel products for building and industry.
AT LAST! A THROUGH-THE-WALL AIR CONDITIONER

NEW WIND 'N WATER BARRIER SLEEVE DESIGNED TO OVERCOME WALL INSTALLATION PROBLEMS

It takes more than good workmanship to install equipment that must be open to the weather on one side...and to living areas on the other...in the wall of a building. Wind and rain and all the unforeseen extremes of weather that will occur during the lifetime of a building, will circumvent the most painstaking installation procedures. Real protection from wind and water can be achieved only in the basic engineering design of the equipment itself. That's where you'll find it in the new WIND 'N WATER BARRIER sleeve which Fedders has just perfected for its through-the-wall air conditioners.

PROTECTION AGAINST WATER: Perfect side-to-side and front-to-back leveling of the air conditioner chassis, which is so necessary for proper drainage of condensate and infiltrated rain, is assured by two chassis levelers built into the new sleeve. In addition to the sump and water disposal systems in the chassis base pan, the new sleeve incorporates its own overflow drainage system—a wall-to-wall water barrier that leads overflow water through cleanable drainage channels to the outdoors. Under Fedders' brutal Wind 'N Water test (see illustration), this newly engineered system disposed of every drop of water. Even water introduced into the indoor grille to simulate extreme humidity conditions, was completely expelled.

PROTECTION AGAINST WIND: Three flexible rubber gaskets, built into Fedders' Wall-Fit chassis as an integral part, hug the sides and top of the sleeve. A similar gasket on the bottom of the sleeve seals out wind on the fourth side. Metal seals on the decorative indoor grille provide additional protection from drafts. Even the small amount of wind that can infiltrate through the drainage outlet holes is diverted and rendered harmless through widely spaced ports. Temporary front and rear sealer plates are provided as standard equipment to prevent drafts before the chassis is installed.

When you specify Fedders Wall-Fit Air Conditioners, this step-by-step engineering solution to through-the-wall installation problems ends water damage and wind leakage in your new building.

Fedders Wall-Fit Air Conditioner

AMAZING WIND 'N WATER TEST: In a special test chamber, the equivalent of 15 inches of rain was driven from all directions against the outdoor louvres of the Wall-Fit sleeve...with gale force of 50-mile winds. Hour after hour, the brutal test went on. Results—no moisture leakage indoors or into walls.

MODELS FOR EVERY REQUIREMENT: To meet the special requirement for efficient through-the-wall air conditioning which makeshift window air conditioners cannot cope with, Fedders builds 20 different Wall-Fit Air Conditioners. Models that heat as well as cool...models for every size room...for every type of current...for every type of wall construction.

FEDDERS
SPECIALLY ENGINEERED TO KEEP OUT THE WEATHER!

EXCLUSIVE CHASSIS LEVELERS: For perfect chassis alignment necessary for good drainage, two built-in leveling devices in the sleeve permit adjustment side-to-side and front-to-back in increments of .06 inch.

OVERFLOW DRAINAGE PROTECTION: Overflow from chassis drainage system moves through special channels to well at bottom rear of outdoor louver. Overflow condensate is trapped inside leading edge of sleeve which extends beyond chassis underneath the front grille.

TRIPLE WIND BARRIER: Gasketing on chassis and bottom of sleeve, seals off drafts on all four sides. Wind infiltrating through drainage holes is diverted and dispersed through separate ports.

FOUR SQUARE STRUT: Heavy metal structural member supports top of sleeve at point of greatest stress during construction. Removable in minutes before installation of the chassis, it assures tight but smooth fit. Eliminates possibility of leakage through warped sleeves.

WALL-FIT AIR CONDITIONERS

FEDDERS CORPORATION DEPT. HH-10, MASPETH 78, NEW YORK

Please send full details on Fedders Wall-Fit Air Conditioners, including architect’s specifications; Have representative call.

NAME

FIRM

ADDRESS

STREET

CITY

COUNTY

STATE

OCTOBER 1960
3 problems in
2-STORY MOTELS:
Fire-Proofing, Noise-Control,
Space Savings...and 3 practical
Gold Bond solutions!

Architects and owners of two-story motels know how difficult it is to make effective use of living space and still keep control of noise between units. Here are three special Gold Bond Construction Systems that protect the motel guest from noise next door and increase usable living space with good fire protection. Save this ad for handy reference on your next motel job. For complete structural details see your Gold Bond® Representative or write Dept. HH-1060 for free samples and literature.

NATIONAL GYPSUM COMPANY, BUFFALO 13, NEW YORK

PROBLEM: NOISE BETWEEN UNITS
SOLUTION: GOLD BOND HOLOSTUD, RESILIENT CLIPS, LATH AND SANDED PLASTER PARTITION

This non-load-bearing Holostud® Partition is a superior isolator of inter-unit noise. Gold Bond Gypsum Lath is attached with resilient clips which hold the lath from the Holostuds, reducing sound transmission and minimizing plaster cracking. Recognized Laboratory Sound Transmission Loss Rating Average is 46 db. Large open spaces in studs leave plenty of room for plumbing and other utilities. This system has a 1-hour fire rating.
**PROBLEM:** FIRE-PROOFING

**SOLUTION:** GOLD BOND WIRE-TITE CEILING, GYPSUM LATH, GYPSOLITE PLASTER AND ACOUSTICAL PLASTER

This unique Gold Bond Ceiling System combines excellent fire rating (1 to 4 hr. fire endurance) with acoustical treatment. All at low cost. Perforated Gypsum Lath is attached to furring channels with Gold Bond Wire-Tite Clips. Gold Bond Sprayolite Acoustical Plaster adds an acoustical NRC of .60. Structural system consists of bar-joists and concrete floor with Rib Lath Centering.

---

**PROBLEM:** INCREASE USABLE LIVING SPACE

**SOLUTION:** GOLD BOND 2" SOLID LATH & PLASTER PARTITION WITH 1" CORE

This non-load-bearing, structurally strong, space saving partition system (only 2" thick) increases floor area by approximately 1 sq. ft. for every 4 lineal ft. of partition compared to conventional construction. Partition has a one-hour Fire Endurance Rating and adequate Sound Transmission Loss (approx. 37 db). No bracing is required up to 8 ft. This speeds erection and reduces in-place partition costs.
NO OTHER GAS DRYER HANDLES
ALL OF TODAY'S DRYING JOBS!

What Buyers of Norge-equipped Homes Tell Their Friends:
ONLY NORGE GAS DRYERS HAVE
ALL 4 WAYS OF DRYING
1 Tumble-dry with heat
2 Tumble-dry with air
3 Heat-dry, no tumble
4 Air-dry, no tumble

Nylons, cashmeres, all of today's most delicate fabrics—Norge dries every washable beautifully.

ONLY NORGEGAS DRYERS
have two extra no-tumble cycles for the many things that dare not be tumbled

This is a great selling story to every woman who does her own laundry. Norge makes her entire job easier and faster because Norge alone, of all dryers, dries or air-fluffs the most fragile pieces—even furs! There's much less ironing, too, because wash 'n wears dry practically wrinkle-free. Install Norge—and let Norge help you sell.

5-YEAR WRITTEN WARRANTY
on all Norge Dryers—1-year motor warranty
NORGE...the only complete line of gas kitchen and laundry appliances!

* Ice-maker Never-D-Frost Gas Refrigerators
* Built-in and free-standing Ranges • Dryers
* Washer-Dryer Combinations • Water Heaters

What Buyers of Norge-equipped Homes Tell Their Friends:

Licensing remodelers
In the article “Push for Remodeler Licensing Grows” (NEWS, Aug), you certainly covered a tremendous subject in a few short words! You will no doubt want to elaborate further on this.

NFIB is the oldest (est 1933) and largest national association devoted to the interest of the home improvement contractors and to the public. The association’s primary objective is to raise the ethical standards of the industry and to protect the trade from unjust, burdensome legislation and regulations along with advocating beneficial laws.

RICHARD R. WHITE, field secretary
NFIB Inc
New York City.

Land issue
The issue [Aug] was a superb contribution on an important topic.

STEPHEN SUESS, planning & zoning consultant
Trenton, N.J.

We have heard many fine comments about this editorial and although we may disagree with some of the theoretical conclusions, nevertheless, it is one of the finest reporting jobs on the major problem facing our industry that we have seen.

ROBERT S. HUNT, exec vice president
Building Contractors Assn
Los Angeles.

Your issue bringing up to date the body of information on land, its problems and potentials, deserves hearty congratulations.

HENRY S. BINKER, chief planner
Boston City Planning Department

It is a wonderful article and should be disseminated to our local legislators.

JACK STEVENS, exec director
Hawaii HBA

You are to be congratulated on your August issue. It is excellent and worthy of being required reading for every builder.

W. DEWEY KENNELL, builder-designer
Sarasota, Fla.

I had been looking forward to the August issue and I wasn't disappointed. Your treatment of land is by all odds the best yet—timely, provocative, and enlightening. You covered the subject in depth. I should like a desk copy and three or four to put on reading reserve for my classes. Congratulations on a job well done.

CLYDE BROWNING, assistant professor
School of Business Administration
University of Oregon.

One of the greatest jobs ever performed.

JAMES W. PEARSON, exec vice president
Washington D.C. HBA

I hope we are not too late in getting in our order for 25. It is a very worthwhile and timely article.

CHARLES A. TAYLOR, exec vice president
Building Contractors Assn
San Diego.

All our members who are subscribers have been most favorably impressed by the issue. It was discussed at some length at our recent Board of Directors meeting.

M.C. HORN, executive director
Tidewater (Va.) Assn of Homebuilders
THE FINEST COSTS SO LITTLE

When you consider the small difference in cost between so-called economy locks and finest quality Weiser, it becomes obvious that it is false economy to use anything but the best. Weiser manufactures one quality only...the finest. With Weiser, there is no quality compromise for the sake of a few pennies in price.

WEISER LOCKS
WEISER COMPANY • SOUTH GATE, CALIFORNIA
THIS SEAL IS
YOUR ASSURANCE OF
CENTRAL AIR-CONDITIONING
PERFORMANCE

Here's how to be certain that the air-conditioning equipment you install in your new homes will satisfy your buyers:

Make sure it bears the ARI Seal of Certification. This Seal is the symbol of an industry-wide program of testing, rating and certification supported by 51 manufacturers who produce more than 90% of all central air-conditioning equipment sold.

NEW SAFEGUARD FOR HOME BUILDERS: To be granted this Seal by the Air-Conditioning and Refrigeration Institute, these manufacturers have agreed to rate their equipment by one uniform standard, in Btu per hour—misleading terms such as "tons" and "horsepower" have been dropped. This rated capacity is subject to checking and verification in an independent testing laboratory under adverse conditions, with emphasis on wilting heat and high humidity. Any model failing to deliver rated capacity must be brought up to standard or be withdrawn from sale.

WHAT DOES THIS MEAN TO YOU? When you install ARI-certified central air-conditioning equipment in your new homes, you can have complete confidence in its performance. Simply look for the ARI Seal: it assures you of flexible design, laboratory ratings, reliable performance and the best chance for complete customer satisfaction.

Consult your local air-conditioning contractor and specify equipment bearing the ARI Seal of Certification in the next homes you build.

For free explanatory booklet and Directory of participating manufacturers, write to: Chief Engineer, Dept. R-1003, Air-Conditioning and Refrigeration Institute, 1346 Connecticut Ave., N.W., Washington, D.C.

Manufacturers participating in this program as of July 1, 1960: Airtemp Division, Chrysler Corporation • Amana Refrigeration, Inc. • American Furnace Company • American Standard Industrial Division, American Radiator and Standard Sanitary Corporation • Arhla Air Conditioning Corporation • Armstrong Furnace Company, Division of National Union Electric Corporation • Bryant Manufacturing Company • Carrier Corporation • Cleveland Heat Products Corporation, T泸ems Division • Chief Industries Incorporated • Cooper Division, McGraw-Edison Company • Crane Co. • Duda Air Conditioning Corporation • Day & Night Manufacturing Company • Florida Warren Corporation • Frazier & Johnson Company • Froctica Refrigeration, Incorporated • Gaffers & Sattler • General Electric Company • Georgia Metal Products Inc. • Gulf General Company, Division of The Sykes Corporation • International Metal Products Division, McGraw-Edison Company • Jourdan Manufacturing Company • Reid & Zirkel Company • Leeds Industries Incorporated • Lincoln Air Conditioning and Heating Corporation, Division of Lincoln Electric Company • The Martin Company, Division of Glen Allen Corporation • Miami Products Incorporated • Master Air Conditioning Corporation • National Heating and Air Conditioning Corporation, Division of National Housing Corporation • National Thomatic Corporation • The Fajar Company • Pearson Corporation • Perfection Division, Hupp Corporation • Pioneer Industries, Division of Allco York Co., Inc. • Pfizer Manufacturing Company • Simmons-Emerson Company • Therm-Air Manufacturing Company • Tropic Air Manufacturing Corporation • The Trane Company • Typhoon Air Conditioning Division, Hupp Corporation • United States Air Conditioning Corporation • Welbilt Air Conditioning and Heating Corp. • Wellesley Electric Corporation • Williams Oil-Matic Heating Company • Worthington Corporation • Wright-Temp Manufacturing Company, Inc. • York Corporation

According to the FHA: "Within a few years, any house that is not air conditioned will probably be obsolescent." In many areas, air conditioning is already as important as central heat. It provides more than comfort: central air conditioning makes any home cleaner and healthier, helps cut laundry and house-cleaning bills. It silently suggests that the builder has omitted nothing to provide the finest home for the money. As the FHA suggests, central air conditioning will add increased resale value to your homes—a persuasive selling feature for your prospects.
APARTMENTS

90 Building good new apartments is the best way anyone with money can make more money

99 Checklist to help you study your proposed apartment site

100 Today's good new apartments: what makes them good?

114f How to make money building apartment houses—and how to keep most of it after taxes

LANDSCAPING

122 How to transplant big trees—and give your new development the ten-year-old look on opening day

INDUSTRY FORECAST

130 1961 will be a big year for housing, reports Economist Miles Colean

GAS IN TOMORROW'S HOUSE

133 The comeback of gas

134 Round Table report on the use of gas in tomorrow's house

140 How gas utilities are helping new-house builders sell

153 Four all-gas houses

NEW WAYS TO BUILD BETTER

159 Index

188 New concrete could slash wall construction costs

197 Look how far you can go with built-ins

218 Look what's new in gas appliances

284 Reviews of technical literature

NEWS

New law promises to spur mortgage investment trusts

Mortgage money outlook: cheaper in the winter

NLRB's astonishing ruling in the Kohler strike

Index to these and other News reports

COMING NEXT MONTH

61 houses for '61

OCTOBER 1960

HOUSE & HOME is published monthly by TIME INC. 629 Fifth Avenue, New York 20, N. Y.  Yearly subscription payable in advance. To individual or firms not engaged in building, design, construction, finance, realty, material distribution, production or manufacture, government agencies and supervisory employees, teachers and students of architecture, and trade associations concerned with the building industry, advertisers and publishers, U.S.A., $6.00; elsewhere, $8.00. In single copies, $1.00 each. When ordering change of address, please state the name of the magazine and furnish an address label from a recent wrapper, or state exactly how the magazine is addressed. Both the old and the new address are required. Allow four weeks for the change. © 1960 by TIME INC. All rights reserved.

TIME INC. also publishes TIME, LIFE, SPORTS ILLUSTRATED and ARCHITECTURAL FORUM. Chairman of the Board, Roy E. Larsen; President, James A. Linen; Executive Vice President and Treasurer, D. W. Brumbaugh; Senior Vice President, Howard Black; Vice Presidents, Howard Sloan, Edward H. Hornbeck, Charles W. Hardin, H. W. Nusbaum, Howard Black; Vice President and Secretary, Bernard Banana; Vice Presidents, E. E. Baker, Clay Burchardt; Director, Andrew Heiskell; Managing Director, P. I. Prentice; Art Director, Jan V. White; Managing Editor, Robert W. Chasteney Jr.; Executive Editor, Carl Norcross; Assistant Executive Editors, Gurney Breckenfeld, John F. Goldsmith, Walter F. Wagner Jr.; Assistant Executive Editor, Edward Birkner; Art Director, Jan V. White; Associate Photographers, Carl Boester, Miles L. Colean, FAIA; Thomas P. Coogan, Ruth Goodhue; Consultants, James T. Lendrum, AIA; Leonard Haeger, AIA, David C. Slipher.

DEPARTMENTS

Letters to the editor

Advertising index

COVER

Drawing from a proposal by Architects Angus McSweeney, Donald Beach Kirby, and Leuchter & Glynn for San Francisco's Golden Gateway project sponsored by Utah Construction & Mining Co and C. Beck Co.
Building good new apartments
is just about the best and easiest way
anyone with money
can make more money

because . . .

1 The market for good new apartments is growing even faster than the market for
good new houses;

2 There are so many good new ways to make new apartments more livable and more
rentable than yesterday's apartments;

3 There is nothing to stop tenants in yesterday's apartments from moving whenever
they can find something they like better. Most tenants can move any time they like,
and most of them do. The average tenant stays put for less than three years;

4 Apartments should cost much less per sq ft to build and much less per unit for land;

5 Apartments for rent get a much better tax break than houses for sale.

but Building anything but a really good new apartment is a very risky business. It can
prove the quickest and easiest way to send your money down the drain, because . . .

You will start losing tenants as soon as somebody else offers something better. Mediocre
apartments will be sitting ducks as soon as supply catches up with demand in the rental market. You can see this happening wherever the rental shortage has been eased. You will see it in more towns next year and still more towns the year after. Better apartments will always siphon tenants out of less desirable units, leaving their owners stuck with high vacancies to face decelerating depreciation and accelerating amortization.

Last year, HOUSE & HOME warned its subscribers to build their apartments to live
like the best houses if they wanted the apartments to rent and stay rented. Since
then there has been a real revolution in apartment planning and design. Many of
the apartments built in the last twelve months are far more livable and far more
homelike than any apartments ever before built in quantity. And the market is
eating these good new apartments up.

For details, begin on the next page
The demand for good new apartments continued

The demand for apartments is almost sure to grow because . . .

1. The number of people who normally live in apartments is growing at a faster rate than the nation as a whole

For the next ten years, the number of young people who can't yet afford houses and older people who no longer need houses will grow faster than the number of people in the home-buying, family-raising ages. According to Economist Miles Colean, by 1970 we will have six million more "war babies" in the 20 to 24 year bracket, and seven million more people 55 years old and over. By 1970, these two groups will make up 13% more of the total population than they do today. (See Colean's 1961 forecast, p 130.)

2. People are moving back to the city, where apartments are almost the only kind of housing that can be built

"We are cashing in on the flight from suburbia," says L. F. Niles of Boston's Niles Realty Co. "Older people are fleeing the responsibility of lawns that need mowing, snow that needs shoveling, and old furnaces that break down." Adds Stephen G. Cohn, president of Chicago's Greenbaum Mortgage Co, "There is a distinct trend back to the city by middle-aged couples whose families are grown. "These are the best candidates for the new middle- and upper-income apartments along the city's lakefront." And John L. Waner, Chicago FHA director, adds: "In one such apartment, 30% of the tenants came from the suburbs."

This trend towards recentralization is making a strong impact on the vacancy rates in some areas. In Buffalo, some suburban apartments are having trouble holding tenants in competition with newer apartments closer in. And in Sacramento, a builder reports that "far-out apartments are being clobbered by units recently built closer to the center of town."

3. Nearly six million housing units, mostly apartments, are hardly fit for habitation and should be replaced

According to the Census Bureau, nearly 30% of all today's apartments are dilapidated or lack a private inside bath. The replacement of these substandard (to say the least) units should be a primary aim. Yet the US, with a population expansion of three million a year is building only about 200,000 apartments a year. (England, with an annual population expansion of only 200,000, is building apartments at close to a 75,000-per-year rate so that its substandard units can be replaced.)

All these pressures will almost certainly produce a big growth in apartment construction over the next decade. Economist Colean expects the apartment portion of the total housing market to rise from 15% now to 20% in 1965 and to a whopping 25% in 1970. This means some three million new apartments would be built in the next ten years. But it does not mean that just any apartment will be a sound investment. On the contrary . . .
The best and only sure way to make money in this market is to build the very best new apartments you can, because . . .

1. Really good apartments are still hard to find almost everywhere

"There's always a need for really good new apartments—particularly ones that are well located," says Bank of America official in San Francisco. "We'll always have financing available for that kind of apartment."

In Los Angeles, where high vacancies are becoming a serious problem, Architect Carl Maston (who both designs and owns apartment buildings) says, "I don't think there are any really good apartments vacant. Those with something to offer are always filled up. The really good old timers are holding their own too."

In virtually every market across the country (see p. 96) the report is the same: full houses and waiting lists for well planned, well equipped apartments, especially those in the middle and upper rental brackets.

2. People are no longer looking for shelter—they want the kind of living possible in really good apartments

"Mere living space is not the answer any more," says Atlanta Builder Lewis Cenker. "Present day apartment dwellers want all the luxury and all the extras they can get."

What features do tenants want? "Location is still number one," says Robert Harrison, vice president of Henry G. Beaumont Co., a Los Angeles building management company. "But beyond that people want a swimming pool and air conditioning. And they want good kitchens, large rooms, and large closets. It's the woman who usually decides on the apartments, and she looks at the kitchen and closets first. The higher the rental, the more important these things are."

And Dallas Builder Leo Corrigan adds, "No one I know of is building apartments without pools or air conditioning. They're just as important as bathrooms and telephones."

A striking example of the need for extras is offered by Valley View Apartments, owned by Martin L. Adams & Son of Louisville. This is a cluster of four-unit buildings, with 56 apartments in the $85 to $90 a month range, and it was built without a swimming pool.

"Our vacancies were running close to 30 per cent at the start of this year," says Joshua Adams. "So we put in a swimming pool (it opened about June 1) and now we have a waiting list. From now on, anything we build will have recreation facilities."

For a detailed look at the features of today's fastest-renting new apartments, see p. 100.

3. People have the money to pay higher rents, and they will spend it to get a really good apartment

"People have a wide choice of apartment rentals today," says Realtor Edward N. Adourian, of Philadelphia. "And
The demand for good new apartments continued

although, the rents in the good new apartment buildings are higher, we find a lot of people willing to pay these higher rents." (A survey of apartments considered "luxury types" in Philadelphia shows that the majority of tenants have incomes below $10,000 a year, and that a third of them make less than $6,000.)

Says San Francisco Builder Clarence E. Minnerly: "People here don't want an apartment just as a temporary place to hang their hat. They want the advantage of a permanent home without the responsibility of a permanent home. And they're willing to pay as much or more than homeowners to get what they want."

"We find that a lot of single people, who really need only efficiency apartments, are taking one-bedroom apartments just for the added comfort," says Gerrold Wexler, partner in the Chicago real estate firm of George S. Lurie & Co. "They are perfectly willing to pay the increased rent."

4. The rental market is fluid; tenants can and will move as soon as someone offers them a better apartment

"We see many vacancies in apartments built seven or eight years ago which were once filled," says Building Executive Robert Harrison of Los Angeles. "New apartments with desirable features like wall-to-wall carpets, drapes, private patios, etc., are drawing tenants out of older buildings which offer none of these things."

In Philadelphia, District FHA Director William A. Kelley made a study of the tenants moving into Park Towne Place and Ambassador Towne House, two big new luxury apartments. He found that half the tenants came from other apartments, mostly older mid-city units built in the 1920s. "People are constantly looking for something more and better for their money," says Jack Garner, assistant vice president of Houston's T. J. Bettes Co. "If you give them a better new apartment, they'll move to it, leaving their old apartment behind and vacant."

5. In some rent ranges, mediocre apartments will be hurt by new house competition when financing costs drop

Says Builder Lewis Cenker of Atlanta: "This is particularly true in lower-price rentals. As soon as money eases so houses can be financed with almost no points, a lot of my lower-rent apartments will start to empty." J. D. Carringer, vice president of Fidelity Bankers Trust Co of Knoxville, agrees: "Rentals have not been as good in older apartments as in new ones. Old apartments are competing with homes that people can buy without paying anything down."

Apartment Builder Arthur Radice of White Plains, N. Y., finds the toughest competition from houses in the middle rental range. "We can rent all the apartments we have under $35 a room," says Radice, "and also those over $50 a room. But in the ranges between we get the rising young executive, and he usually wants a house. He's hard to hold."

In Philadelphia, low-priced rowhouses are a big inducement to the young family. "They give apartments rough competition," says William Clarke, president of the Wm. A. Clarke Mortgage Co. "When a buyer can get a good six-room house with everything he needs for $85 a month, why should he pay $125 a month for just three or four rooms?"

And says Karl H. Smith of Smith-Bischop, Detroit property managers, "You must make your apartments attractive. Remember, people can go out and buy a house for $500 down. You've got to compete with that."

So... although even mediocre apartments are still full in some markets today, it just doesn't make sense to build them. As soon and as fast as the supply of good new apartments catches up with demand, the mediocre apartments will be in trouble. Their owners will lose their tenants and lose their shirts.

![THIS MEDIUM APARTMENT](image1)

This mediocre apartment in Los Angeles has continuous 10% vacancy rate—much higher than city average.

![THIS GOOD APARTMENT](image2)

This good apartment in Los Angeles has no vacancies. Its good location, off-street parking, private patios and balconies, and big rooms attract and keep tenants. Architect: Carl Maston.
Don't worry too much about high vacancy rates until you know what is vacant and why because . . .

1. In most cities, the vacant apartments are poorly located and lack distinction

"We call these 'mine-run apartments,'" says Jim Downs, chairman of the Real Estate Research Corp, Chicago. "They are built in an area simply because that area is zoned for apartments, or perhaps because the builder had a piece of land and didn't know what else to do with it. Well located suburban apartments are doing well, and we think that 're-centralization luxury apartments' close in to cities are the most promising market of all. But the 'mine-run' apartment is the first to get in trouble. It's a bad apartment because it's usually in a bad location."

Says William P. Snethen, secretary of the Indianapolis Apartment Owners Assn: "Most of our vacancies are in older buildings in changing neighborhoods, and in older houses converted to apartments during the postwar shortage. These are generally substandard apartments, and they don't hold tenants when something better is available."

And a New Orleans apartment owner says that although the number of vacancies in that city is growing, "the chief losers are the marginal properties—old homes that were divided up into apartments and allowed to deteriorate during the years when anything would rent. Most of the 'apartment for rent' signs are on side streets.""

2. In many cities, the vacant apartments are mostly in the lower rent category

In Boston, a city with an acute apartment shortage (see page 96), the only vacancies are in the bottom of the market—$25 to $35 units being abandoned by young couples who upgrade to a better apartment as soon as they can find one.

In Detroit, a city with a serious vacancy problem, the majority of these vacancies have been in low-rent apartments; a soft market has made better units available for only slightly more rent, and tenants have moved upwards.

"In Atlanta, our hardest hit market is the low-rent market," says Builder Lewis Cenker. "It's too close to low-down payment houses."

And says Management Executive Robert Harrison: "In Los Angeles we have fewer vacancies in the really high-priced luxury rentals than in the less costly brackets."

3. In many cities, high vacancy rates are the result of special local conditions

In Seattle, where Boeing Aircraft production is down, apartment vacancies are up (FHA rate: 10.2%, compared to 3.1% last year).

In Fort Worth, one whole 608 project is empty; it was built with the only plumbing materials available right after the war, and the plumbing has collapsed. This accounts for much of the city's 22.8% FHA vacancy figure.

In California, a long, dry Fall last year extended the building season, so apartment builders, working deep into the winter months, produced too many apartments in some areas.

Special conditions can work the other way too. In Jacksonville, Fla. George Dickerson, vice president of Stockton, Whatley, Davin & Co, reports that vacancies are down, possibly as low as 5%, compared with 15% estimated at the beginning of the year. The reason: the Atlantic Coast Line has just moved its home office to Jacksonville, bringing in some 900 new families.

4. A high apartment-construction rate can create a high (and misleading) vacancy rate

Many new apartments are fully rented on opening day, but between the time they are completed and the time renters move in they show up as vacancies, even though they will be filled in a couple of months.

By the very act of moving into these new apartments, tenants create a vacancy in the apartments they leave. Even though another tenant may move in very soon, a vacancy can be recorded.

Finally, a high construction rate pulls tenants out of marginal apartments, such as converted dwellings, and even though these houses may never be occupied again, they are carried on the books as vacancies for a long time.

5. And since 30% of all apartments are not fit to live in, it would be a good thing if they were vacant

For a market report from 25 cities, turn the page
Here are apartment market reports from 25 cities (and in almost all, the good apartments are renting best)

ATLANTA
Apartments have boomed but the pendulum seems to have swung too far. Consequently, vacancies are high in almost all categories.

Says C. Buck LeCraw, president of the Southland Investment Corp: “We are staying out of the $135 to $200 a month range. It’s overbuilt.” But LeCraw has a waiting list for his newest two-bedroom apartments with “all the extras,” including swimming pool and tennis courts, for a $107.50 top. Most apartments of this quality rent for around $140.

“Location is a big factor,” says Builder Lewis Cenker. “In one apartment we offer two bedrooms for $70, have a 10% vacancy. In another, better located unit we have one bedroom for $80, and no vacancies.”

BIRMINGHAM
Apartment construction is down: most being built are garden walk-ups. There seems to be a small surplus, and people are moving out of older units into more modern ones. Location is important; apartments in good neighborhoods, or close to shopping centers, are doing well.

Few apartments are in serious trouble. An exception: apartments in outlying smaller communities, where people are showing their preference for houses.

BOSTON
There is a severe shortage of good apartments here, and little being done about it. Two factors have kept building down: rent control, which only ended in 1956, and real estate taxes, which have run as high as 45% of gross income.

Says A. Donal Deluse, manager of the Real Estate Board’s rental-housing division: “About 4,000 units are under construction now (about double last year’s rate) but it would take 25,000 units to saturate the market.”

Says Banker Robert Morgan: “The lower end of the luxury level—$85 to $105—is the easiest to rent.”

Says Realtor L. F. Niles: “I’d shoot for the upper-middle income bracket, offer big rooms. You can spruce up apartments over the years, but you can’t make them bigger.”

Good apartments are full in virtually every price range.

BUFFALO
The demand for apartments is quite high, particularly within the city limits.

“The most profitable kind of apartment to build is definitely the luxury type,” says Charles Peacock, president of the Niagara Frontier Builders’ Assn. “There’s a decided shortage of them.”

CHICAGO
The supply is well behind the demand. Vacancies are running about 3%, and mostly in older buildings—some of them 45 years old—in the west part of the city.

Biggest market: luxury apartments along the lake front. “We are returning to the apartment hotel of the twenties,”
says Realtor Gerrold Wexler. “People want all hotel services for their apartments.”

Only slow rentals: the top floor of three-story walk-ups. But owners are doing little rent-cutting and rent these units sooner or later anyway.

CINCINNATI

A prospective tenant can be choosy. Vacancy rates are between 5% and 7%, not considered alarming. Rents on older apartments have not dropped, and the big reason for vacancies seems to be the change caused by a major downtown slum-clearance project.

George Turner Jr, whose family operates some 500 apartments, gives this advice: “Get a good location, don’t skimp on room and storage space. Build so you don’t have to get the top rent dollar, and air condition the entire building.”

CLEVELAND

This city is underbuilt and there is little competition to remedy the situation. The result is that mediocre apartments are being built. They are renting today, but they may well be in trouble in a few years. Says one observer, “Cleveland is suffering from a lack of imagination in apartment design. There’s a sameness about the ones being built that is terrifying. You can’t tell whether they were built in 1945 or 1960.”

Furnished efficiency apartments offer a good market. “Somebody’s going to do well if he builds efficiencies,” says a leading builder.

DALLAS

Apartment construction is booming and vacancies are normal—around 5%. There will be 2,500 to 3,000 units built in Dallas County this year, about half within the city.

“Most will be two-story garden apartments,” says FHA Director Ellis Charles, “but there seems also to be a big demand for high rises.” There is enough land in Dallas, much of it on former estates, to build a lot of them.

Everyone agrees air conditioning and pools are musts. “They’re as important as indoor plumbing,” says one builder.

DENVER

Although construction is up almost 50% over a year ago, finding an empty apartment is still hard. The only type with vacancies, according to Phil E. Berg, executive director of the Board of Realtors, is “low class units, many of them in converted houses.” Everything else is full.

The reason: Denver is a fast-growing town, boomed by such installations as Martin Aircraft (makers of the Titan missile). No one sees any easing of the tight market soon.

DETROIT

The apartment situation is split into two definite parts: 100% occupancy in the new semi-luxury high-rise units (most of them downtown along the riverfront), and up to 90% vacancy in changing neighborhoods. The average vacancy rate—9%.

Says Dwight Hamborsky, FHA district director: “There is a huge market in luxury high-risers here, and it’s demonstrated by the way they’re filling up.” Co-ops have been most successful, many of them sold out before the buildings are completed.

Some owners of “depressed” older apartments are re-decorating, landscaping, adding new appliances and swimming pools, bringing their projects back to 100% occupancy.

HARTFORD

Apartments are in short supply, and the situation has been worsened by demolition for major urban-renewal projects. Result: apartments with ordinary amenities are renting quickly.

Banker James E. Bent says better apartments are needed but no one is building them now. “There are a few projects with better kitchens, more and bigger rooms, and air conditioning,” says Bent. “And before long they should become standard.”

HOUSTON

Vacancies are high—around 12%—but are concentrated in older units. The newer the apartment, the more it is in demand. People seem willing to pay higher rents to find something they want.

Says Mortgage Banker Jack Garner of T. J. Bettes Co: “I think the demand will rise. We’re going to get lots more people who don’t want houses—older people, younger people, and transients.”

INDIANAPOLIS

Quiet. There are few vacancies—some estimates are as low as 2%—but construction is slow.

Albert Johnson, FHA director, says he believes there is a good market for new luxury apartments, but other housing leaders in town are skeptical. A sure bet is the efficiency apartment. One 390-unit efficiency project has a constant waiting list, is described by Johnson as “105% occupied.”

JACKSONVILLE

Despite a high vacancy rate (reported at 10% to 15% early this year) and a generally soft market, there is a shortage of bigger, higher-priced apartments with two baths, two to three bedrooms.

Says Mortgage Banker George Dickerson: “There are a lot of converted apartments in older houses that are in trouble. They can’t compete with new apartments, or with new houses. And new houses are the standard by which apartments here are judged.”

LOUISVILLE

Vacancies are relatively low, averaging under 5% and occurring largely in converted houses. Many people feel Louisville is not an apartment town, but it is hard to find a good apartment in a good location.

A recent survey showed a need for 1,500 to 1,800 apart-
Market reports

ments in the downtown area. Some are already scheduled, including a luxury high rise and one being built by the Methodist Church for elderly persons.

LOS ANGELES

Vacancies are still high—7.2% for the metropolitan area—but appreciably lower than last year's 8.7%. Highest vacancy areas: West Hollywood, San Fernando Valley.

According to Banker Dan Duggan, a few speculative builders are making concessions to fill their apartments, but most investors are not. "Investors know that this sort of thing seldom gets them the kind of tenant they want," says Duggan.

Furnished apartments seem to be in shorter supply than unfurnished ones. In general, rentals from $95 to $150 do well if they're well located. And there is also a good market awaiting the builder who can afford to build luxury units for a maximum of $500 a month.

MIAMI

The key to renting apartments here is not price, but quality. Modern, well designed apartments with air conditioning, patios and pools are in great demand.

Example: "We took over a 30-unit apartment house two years ago," says Realtor John Basie of the Keyes Co. "Efficiencies rented for $65 with maid service. We redecorated, recarpeted, built a pool, added air conditioning. Rents are now $100 with no maid service, and we've raised the occupancy from 50% to 90%.

MILWAUKEE

Starts are up more than 50% over 1959. And although some housing professionals are nervous about overbuilding, vacancies are holding at 6% or less.

Here's the kind of apartment that is being snapped up in an area about 30 minutes from downtown Milwaukee: rent $120 to $150 a month plus utilities and heat, two bedrooms, separate dining room, kitchen with all appliances, good closets, good landscaping, janitor service, air conditioning (optional), and free parking.

NEW ORLEANS

The apartment boom started late here (there was almost no apartment construction before 1950) and supply has only recently begun to close in on demand. Vacancies are low; rents are holding firm in almost every part of the city. Several high-rises are planned for the downtown area (mostly luxury class). Two-story walkups with all the extras being built further uptown are doing well. Proof of the value of location is offered by the famous French Quarter. Some owners there have modernized their apartments, put in pools and air conditioning, get as much as $300 a month. Others make only minimal repairs, get as little as $50 a month for a studio apartment. Both types are full.

NEW YORK

There is a big demand for apartments, but there are still many apartments for rent. Many of the new apartments are undistinguished or downright bad, and some owners are giving up to three and four months rent concessions to fill them.

"Most apartments here are poorly designed, inadequately equipped, and too small," says an apartment-wise housing professional. "And most of them are exact copies. The few builders who do a good, imaginative job are having no trouble at all finding and holding tenants."

PHILADELPHIA

The city has approached apartment construction cautiously, and the result is a strong and apparently healthy market. Vacancies are very low (the only exception: older converted houses) and rents are holding firm.

Says Mortgage Banker William Clark: "There's a big demand for luxury apartments, both in and out of the city. I know of three big 207 projects in the suburbs that aren't finished yet, but are 100% rented. And I checked back over three big 608 projects we refinanced last year, found just one vacancy in 1,000 units."

And says FHA Director William A. Kelley: "It is awfully hard to see where the saturation point is."

PITTSBURGH

This is one of the few cities in the country where apartment construction is at a virtual standstill. Although there are plans for some half-dozen big urban-renewal projects in the next few years, the only units built over the past two or three years have been luxury apartments renting for $175 and up.

PORTLAND, ORE.

With apartment construction running some 25% ahead of last year, the supply has passed the demand here.

"We seem to be at the saturation point," says Sam Plunkett, secretary of the Oregon Apartment House Assn. "A year ago, good new apartments were filling in 45 days; today it may take months."

The best market right now seems to be in the suburbs, where $135-up units with pools and all the extras are nearly all full.

SAN FRANCISCO

This is a luxury market. While the $90 apartment is not unrentable (vacancy rate about 15%), it is in such slight demand that almost none are being built. Instead, the $125 to $150 units with pools, fireplaces, and all the kitchen extras are getting most of the attention.

Says Apartment Builder Clarence Minnerly: "In one of our projects we had units renting from a low of $100 to a high of $135. The high-priced ones were the first to be fully occupied."

The "motel" idea has caught on strongly in San Francisco, and the Hawaiian look and the South Seas look have proved especially effective in bringing in tenants.

SEATTLE

The apartment construction rate is off considerably from last year, and vacancies are up, although not so seriously as to cause any rent cutting. Apartments close in are doing well enough—the trouble seems to be in suburban areas, particularly near the slowed-down Boeing Aircraft plants.

Another reason for the present apartment surplus: like New York City, Seattle had an impending zoning change which went into effect the first of this year, and builders rushed to get under the wire.
Say the experts: One of the biggest mistakes an apartment investor or builder can make is to build an apartment on land just because he happens to own it or just because it happens to be zoned for multi-family dwellings. Before you commit yourself much further than an option on a piece of land . . .

Use this checklist to study your proposed apartment site

**Does the area need more apartments?**
- Do Census figures show the area has grown since 1950? 
- Is the expansion in the direction of the site? 
- Is the number of potential renters increasing? 
- Are new businesses moving in, local firms, colleges, or hospitals expanding? 
- Is there a growing number of young marrieds or retirees in your town? 
- Have good new apartments in the area rented fast? 
- Do realtors or rental management firms report a shortage of any particular type, size, or price of apartment? 

**Have you studied vacancies in the area?**
- Are there less than 5% vacancies in the good new apartments? 
- Are there fewer vacancies than there were a year ago? 
- If the vacancy figure is high, is it misleading because: most vacancies are in old and obsolete apartments? 
- many vacancies are in just-built apartments that will soon fill up? 
- some vacancies are in remodeled but still mediocre buildings with high rentals? 
- some vacancies are in buildings suitable only for seasonal occupancy? 
- Have you analyzed the local market to learn which size unit (1-br, 2-br, efficiency, etc) has the most (and least) vacancies? 
- Are there more vacancies in one part of town than another? 

**Have you checked the zoning of your proposed site?**
- Is it zoned for multi-family use? 
- If not, are you positive you can get the zoning changed? 
- Can you build economically within the zoning density? 
- If zoning density is too low (12 units per acre, for example) could you convince zoning officials that a higher density in higher buildings would provide better living and more open space? 
- Are you sure that zoning of car parking, interior streets, setbacks, and lot coverage permit you to build the kind and size of buildings you are planning? 
- Has an experienced realtor, lawyer, or other specialist searched the zoning laws for hidden restrictions? 

**Do you have the best possible location in the area?**
- Does the street have a good name? 
- Is the approach pleasant? 
- Are surrounding streets safe at night? 
- Are nearby apartments successful? 
- Is other nearby land zoned for apartments? 
- Are water, sewers, gas, electricity, and telephone service available? 
- Is public transportation available? 

Will local mortgage brokers (and FHA, if necessary) approve the location? 
- Is the site close to shops, churches, schools, recreation? 
- Does the site have a view (or can you create one)? 
- Is it convenient to a fast route to downtown? 
- Is the site easy for prospects and future visitors to find? 
- Is there enough space for a swimming pool and other outdoor recreation facilities? 
- Is there enough space for offstreet parking? 
- Is the location as good as that of existing apartments in the area? 

**Have you studied your potential market?**
- Have you gathered basic data such as incomes, family sizes, ages, occupations (which may reveal, for example, a large retirement market)? 
- Have you interviewed tenants in new apartments in the area to find out why they moved? 
- Have you interviewed tenants in competitive apartments to find out what they like and dislike about their present apartments? 
- Have you studied local apartments with vacancy rates over 10% to avoid the mistakes they made? 
- Have you studied local apartments with vacancy rates less than 3% to find ideas you can use? 
- Have you discussed renter preferences with local realtors and apartment managers? 

Here are the best sources for the information you need: 

- suggested by James F. Neville, director of NAHB’S Rental Housing Department (who suggested many of the above questions).

- Experienced apartment-house architects
- Local banking institutions
- Savings & Loan associations
- Mortgage lenders
- Real estate management firms
- Local building department
- Planning commission
- School principals or superintendents
- Unemployment commission
- Homebuilders associations
- Owners and managers of apartments
- Related trade associations
- Chamber of Commerce
- Federal Housing Administration
- Public Housing Administration
- Redevelopment agencies
- Real estate department of chain store organizations
- Owners of shopping centers
- Census Bureau
- State department of commerce
- Local church groups
- Public utilities companies
- Real estate editors of local newspapers
- Local universities
TODAY'S GOOD NEW APARTMENTS:

here is what makes them attract and hold tenants

The apartment shown opposite has a vacancy rate of less than 1%. The reason: like all of today's good new apartments, it offers a better and more pleasant way of life than all but a very few apartments ever offered before.

While today's good new apartments vary widely in design and size and price range, they have much in common. That became clear as HOUSE & HOME's editors talked with hundreds of apartment-house builders and architects, and to the lenders who financed apartments and the realtors and renting agents who rented them.

On the next 18 pages you will see what they have in common; what makes them good places to live—and good business opportunities.
Today's good new apartments use land and landscaping to their fullest potential

Good land use can make all the difference between building just another mediocre apartment and creating a really pleasant place where people will want to live—and more and more apartment builders are realizing it.

Good land planning is the cheapest way you can attract new renters and then hold them for a long and profitable stay. In building apartments to live like houses, nothing is more important than following these basic rules:

- **Save existing trees or move some in.** Big trees are as important in renting apartments as in selling houses. If you have trees on your site, do everything possible to save them: site your buildings around and among them, protect them from damage by contractors' crews. Never be satisfied with a first site plan, especially if it forces you to sacrifice trees. If you have no trees, or not enough, the cost of moving some in may be less than you think (see p 122).

- **If you don't have a good view, create one.** Landscaped gardens, no matter how small, give your renters something pleasant to see from their windows or balconies, make a pleasant place to walk or sit. Use a landscape architect. He will not only give you design ideas but tell you what kind of landscaping will be easy to maintain.

- **Don't overcrowd your site.** Leave as much open space around your buildings as you possibly can. Local zoning may put you in a family-per-acre straitjacket. But in many cases careful study by an architect may show you how to satisfy local zoning and still give your renters some breathing space by concentrating the buildings and leaving more of the site as uninterrupted green space.

- **Take advantage of hillside land—but don't fight it.** Teamed with imaginative design, a rolling site lets you include more floors without elevators, provide more private patios, add more individuality. With apartments as with houses, it does not pay to bulldoze sloping land flat until an imaginative architect has seen what he can do with it.

- **If you have enough land, combine low- and high-rise.** Combining garden apartments or patio town houses with elevator buildings adds a pleasing variety to a group of apartments and lets you appeal to different types of renters. It also allows higher densities without crowding the land.

- **Keep parked automobiles out of sight.** No tenant wants to look out on a parking lot. So you should lay out your buildings so that cars are restricted to the perimeter, screened by trees or sloping land, or hidden away in covered carports.

Ancient Bay Tree was focal point around which Architect Fred Marburg grouped the half-dozen buildings of Bay Tree Apartments, Los Gatos, Calif. Builder: Trojan Construction Co.

© Ezra Stoller

Dozens of trees were moved in and a beautifully landscaped garden with reflecting pool turned a wasteland site into a garden at Capitol Park apartments in Washington. (For closer view, see p 113.)

Eldon Talch
FRESH WAY TO USE HILLSIDE LAND was developed by Architects Aaron Greene and John Warnecke for Marin City (Calif.) public housing. There is an on-grade entrance, left in photo, for each of five floors. Tenants may drive to the level they live on, then walk along an access balcony to their apartments. On opposite side of building, each apartment has sliding glass doors opening to a private balcony. There are six buildings like this.

HILLSIDE APARTMENTS are one-story on entrance side (above), two stories on rear side (right) in Irvin Blett's successful Carriage Hill in Glenview, Ill., on Chicago's northshore.

EASY-TO-MAINTAIN LANDSCAPING (left) —ground cover and tropical plants—creates pleasant view at Eli Luria's Alamar apartments in Santa Barbara, Calif.
Today's good new apartments have a look designed to attract a specific local market

Experienced apartment builders are selecting a relatively narrow segment of the total apartment market—then working with their architect to develop a design that will appeal to this group. The routine row of red brick boxes no longer suits many buyers—so almost all of today's most successful apartments have a fresh look.

In almost every market—even where traditional houses are still the best sellers—a contemporary look sells rental space to people who have learned to accept and admire modern design in office buildings, schools, restaurants, and stores. Many of the same people who would hesitate to invest in a contemporary house seem to enjoy renting in a distinctive building.

Here are some of the apartment "looks" that are proving successful (see also photos):

The smart downtown look. To city sophisticates, precise tiers of glass seem to have a strong appeal. Typical renters are the successful businessmen who have no children or whose children are grown, the career women, the bachelors, the people on the move, upper income families who just don't like the suburbs.

The campus look. The easy informality of this type of apartment, especially when teamed with an upstairs-downstairs floor plan, is popular with young married couples with children. They want green space around them, a place for children to play, the companionship of other couples.

The prestige look. Traditional elegance suggests to many well established couples the kind of house they love but no longer want to maintain. Solid respectability is the keynote.

The advanced contemporary look. This type of design appeals to "the sports-car drivers"—usually young married couples, career girls, junior executives.

The one-story look. Its greatest appeal is to people who want an apartment that is very much like a house—except for maintenance problems. It is especially popular in Florida, Arizona, and California.

The vacation-house look. Playful design has great appeal to renters who want to live in resort areas, or near rivers, lakes, or the ocean.

The close-to-nature look. This style has the widest appeal of all, suits renters of all ages who want a pleasant place to live where there are trees and grass—and none of the cooped-up feeling of downtown living.
THE ADVANCED CONTEMPORARY LOOK is dramatically presented in this vaulted-roof apartment overlooking the water in Tiburon, Calif. Designed by Harold B. Reid, and built by Reid, Cahn & Richardson, the two-bedroom units have 1,400 sq ft of living space, rent for $255 a month.

THE ONE-STORY LOOK of these Phoenix apartments by Builders Paul Starnan and Edward Fields reflects their just-like-a-house floor plans. These side-by-side units are co-ops. They sell for $22,950 to $27,950 plus monthly maintenance charges of $75 to $82.

THE VACATION-HOUSE LOOK of these circular beach apartments in East Quogue, L.I. attracted so many New Yorkers that 76 units (in four buildings) sold out immediately. Architect James A. Evans designed them for Lawrence W. Snell. Each unit has 700 sq ft, including balcony.

THE CLOSE-TO-NATURE LOOK of the Greenspring Apartments in Baltimore is so popular that buildings rent before they are completed. The units were designed by Architect Irwin A. Baker for Gora Bros. One-bedroom units rent for $120, two-bedroom units for $165 to $175.
Today's good new apartments are planned to live like today's good new houses

"The test of a good apartment plan is whether a renter who is used to living in a well laid-out house can walk into one of your units, check your layout, and feel right at home."

So says successful Cleveland Apartment Builder James Flood. To make an apartment live like a house:

Plan for maximum privacy. The ideal arrangement is to provide separate entrances to every apartment, but this is only possible in garden apartments. You can provide visual privacy between adjacent patios and balconies simply by extending the heavy masonry party walls outside the building. You can be sure interiors are private by being sure no window looks out on the windows of another apartment.

Use prime space for living areas. The light, windowed areas around the perimeter should be used for living, dining, bedrooms—the places where people want and can enjoy a view. Use the core of the building for kitchens, baths, furnaces, laundry rooms.

Make the most of outside walls. You only have so many feet of outside wall, and you must use this space for all the daylighting and ventilation you can get. Try to provide cross ventilation in bedrooms and give your living rooms as much window area as budget and furniture placement will allow.

Provide the best possible traffic pattern. If the living room is located between the front door and the kitchen and bedrooms, it will become a hallway and not a living room. The best arrangement has all rooms opening off a foyer. And be sure at least one bath or a half-bath opens off a hallway.

Make it easy to arrange furniture. Nothing frustrates a renter more than moving into a bedroom that is so small or has so little wall space that he can't place his bureaus and beds without making it difficult to move around in the room. In the No. 1 bedroom, allow space for two beds (or at least a double bed) and two bureaus. In the living room, plan on a sofa, two or three armchairs, bookshelves, a home music system and/or a piano.

Make your layout as flexible as possible. This is not so easy in an apartment as in a house for the simple reason that an apartment is much smaller. But try to plan your units with a big bedroom that can be divided with a folding partition, or with a dining room that can be closed off from the kitchen or living room.

Most important of all, make your rooms and your closets as big as you can (see p 108).
SIDE-STAIR TWO-STORY apartment by Architect I. M. Pei in Philadelphia has three bedrooms, 2½ baths, big dining area in kitchen, and a patio off rear living room.

SIX-UNIT CLUSTER by Architects Collins & Kronstadt in Washington is used to get 28 units in a 4½-story building. Four plumbing cores serve the six units on each floor. All ground-floor apartments have patios; all others have balconies.

FOUR-UNIT CLUSTER (left) by Architects Grosel & Jencen in Cleveland has livingroom balcony — that neighbors cannot see — in each unit. Baths and kitchens are grouped to save plumbing costs.

LUXURY APARTMENT (right) by Architects Harrell & Hamilton in Tulsa is a corner unit in high-rise building. Apartment has 2,360 sq ft including terraces opening off every room except the two baths.

CENTER-HALL APARTMENT by Architects Muchow & Stuchter in Denver avoids cross traffic because every room opens to hallway. Living room and bedrooms face rear balcony.

SIDE-BY-SIDE TWO-STORY apartments by Architects Palmer & Krisel in Newport Beach, Calif., have livingroom patios, private en-
Today's good new apartments have big rooms and plenty of big closets

"Everyone these days wants bigger rooms and more and bigger closets."

So says New York Apartment Realtor Charles H. Greenthal. He adds: "The rooms in our new apartments are at least 10% larger than those in apartments built a few years ago. And we urge builders to put in as many as eight or ten closets. We think good storage is so attractive to renters that we write the number of closets—as well as the number of bedrooms and baths—across every plan in our offices."

How large should rooms be to attract and keep renters? You can get an idea from the new apartment plans on p 106. And two experienced apartment architects—Dick Collins and Arnold Kronstadt of Washington—recommend these sizes:

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Medium Rents</th>
<th>High Rents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living room</td>
<td>12'x18'6&quot;</td>
<td>14'x21'</td>
</tr>
<tr>
<td>Dining room</td>
<td>9'x10'</td>
<td>11'x12'</td>
</tr>
<tr>
<td>Dining area</td>
<td>8'x10'</td>
<td>10'x11'</td>
</tr>
<tr>
<td>Master bedroom</td>
<td>11'x13'</td>
<td>13'x15'</td>
</tr>
<tr>
<td>Second bedroom</td>
<td>10'x11'</td>
<td>12'x14'</td>
</tr>
<tr>
<td>Third bedroom</td>
<td>10'x10'</td>
<td>11'x12'</td>
</tr>
<tr>
<td>Kitchen</td>
<td>7'6&quot;x9'</td>
<td>8'x11'</td>
</tr>
<tr>
<td>Kitchen &amp; breakfast room</td>
<td>9'x10'</td>
<td>10'x10'</td>
</tr>
<tr>
<td>Balcony or patio</td>
<td>6'x12'</td>
<td>6'x15'</td>
</tr>
</tbody>
</table>

You can offer tenants better storage, say apartment-building professionals, if you:

- Put in oversize closets. Many apartment renters have just as much clothing and sports equipment and just as many odds and ends as homeowners. Yet apartments have no basements, attics, or spare rooms to store all these things. Observes one apartment realtor: "Apartment builders should measure the storage needs of tenants by those of their own families."

- Run your closet doors to the ceiling. You will avoid the cost of furring down, give more storage space, and make it easier to get at the top shelves.

- Build plenty of shelves into your closets. This is an inexpensive way of providing something every renter wants and needs. Today's good apartments have built-in shirt shelves, shoe racks, drawers, double-tiered coat racks, and other storage compartments.

- Use bifold or sliding doors. They save room, are now used in most good apartments (but some builders still use swinging doors that require free floor area).

- Provide a dry, convenient store room for bulky belongings like bicycles, sleds, and trunks.

DOUBLE CLOSETS have bifold doors that open full width of each closet in master bedroom at Imperial Builders' Starlite Apartments, Los Angeles. Wall-to-wall carpeting is standard in $110-to-$155 units.

H&H Staff

Darrow M. Watt

HALL CLOSETS have shelves for linens at Eichler Homes' apartment in Palo Alto and at Perma-Bilt Enterprises' apartment near San Francisco. Sliding doors of Eichler closet, left, are plywood covered with grass cloth. Perma-Bilt closet, right, has upper and lower sections.

Darrow M. Watt

OVERSIZE CLOSET has sliding doors that save floor space in second bedroom at Perma-Bilt apartment. Doors extend all the way to ceiling, so upper shelves of closet are easy to get at.
LARGE LIVING ROOM has window wall, left, that opens room to balcony and makes it seem even larger. Room—in two-bedroom apartment at Dreisen & Freedman's Nob Hill outside Washington—is long enough (23') to include dining area, behind camera. Architect Richard Collins Jr, who furnished this apartment for himself, also built plastic divider to screen room from front door at right.

EFFICIENCY APARTMENT has folding wooden screen that opens bedroom to 12'2"x18' living room at Washington's Capitol Park, built by Roger Stevens and James Schuer and designed by Architects Satterlee & Smith.

Other Capitol Park living rooms are 16'x18' and 13'x24'. Rents are $105 for efficiencies, $129 to $162 for one-bedroom apartments, $189 to $230 for two bedrooms. Highest priced apartments rent fastest.
Today's good new apartments
have pleasant-to-work-in kitchens
and glamorous baths

Every house builder knows it is the kitchen that sells the house. Now the kitchen is beginning to play the same important role in apartments.

A few years ago women didn't expect an apartment kitchen to be very good (and generally it wasn't). But today the apartment kitchen is looking more and more like the kitchen in a well planned house. It is significant that in renting offices of New York's newest apartments, the kitchen is getting more display attention than any other feature.

So in planning your apartment kitchens, it will pay you to:

Make the kitchen big—or make it look big. The kitchen that is just a "kitchenette" is a thing of the past except in small efficiency units. New kitchens have more space and are better arranged. Some are compact but seem larger because they are open to an adjacent dining or living area.

Put in lots of storage cabinets. Many apartment kitchens today have twice the cabinet space of old-fashioned apartments. Cabinet fronts are attractive—either natural wood or enameled steel.

Use maintenance-free counters, sinks, and floors. In apartments—as in houses—women want durable surfaces that are easy to clean. Today's apartment builders are using quality materials like vinyl tile, plastic laminates, and stainless steel.

Make your lighting easy on the eyes. Because many of today's kitchens have no windows, designers have had to do an extra-good job of lighting. There is more light, it tends to be softer, and it covers all the working surfaces. Some builders—especially those who rent to families with children—believe that a big window is still necessary.

Install plenty of electric outlets. Renters need kitchen outlets for percolators, toasters, mixers, frying pans, broilers, etc. And, to be on the safe side, you will be wise to allow for some new gadgets not yet invented.

Don't stint on appliances. A stove, refrigerator, and an exhaust fan are necessities, and more and more stoves are built in. To meet or top competition, many builders are including dishwashers and, in garden apartments, garbage disposers.

Almost as important as the kitchen in attracting renters is the bathroom. Today's good apartments have more bathrooms (sometimes 2 1/2) with far more eye appeal than those of a few years ago. Builders are finding a glamorous bathroom costs little more than a plain Jane. They are glamorizing their baths with color, wallpaper, large mirrors, good lighting, and separate shower stalls.
CEILING-HEIGHT CABINETS (and lots of them) help make kitchens popular feature of Perma-Bilt Enterprises' apartments at San Leandro, Calif. Appliances include cooktop, oven, hood, disposer, refrigerator.

OUTSIDE KITCHEN at Gruber Apartments in Denver opens to balcony through sliding glass door at left, has steel cabinets, built-in stove, hood, dishwasher, and refrigerator.

COMPACT KITCHEN (right) is separated from living area by curved serving bar in Sandpiper Apartments near Palm Springs, Calif., designed by Architects Palmer & Krisel. Kitchen has full set of appliances.
Today's good new apartments have just as good outdoor living as many of today's new houses

If there is one thing that distinguishes today's fast-renting apartments from those of only a few years ago, it is plenty of well planned outdoor living.

Points out one apartment manager: "More and more of our tenants are older couples who have sold their homes because their children have grown up and moved away. They grew accustomed to outdoor living in their houses. And they expect it in an apartment."

To give renters house-like outdoor living, you can:

1. **Build balconies that are big enough to use.** A narrow runway—like those in some motels—won't do (in fact, FHA won't give credit for a balcony unless it is at least 6' x 11'9"). And be sure your balconies are private. Visual dividers like plastic or wood screens are more important than sound barriers.

2. **Build patios for ground-floor apartments—and fence them in.** An enclosed patio not only provides private outdoor living but also lets you open up living and bedrooms with more light and air. It is one of the best ways to turn hard-to-rent ground-floor apartments into premium space.

3. **Set aside outdoor space for landscaped gardens.** Renters feel cooped up when a building covers every bit of ground. So many of today's new apartments have tree-shaded walks and gardens. Newest man on the apartment builder's team: the landscape architect.

4. **Make it easy for tenants to hold cookouts.** More and more apartment owners now build barbecues which tenants can reserve for private parties. Others encourage the ownership of portable barbecues by permitting their use on private balconies and providing storage space for them.

5. **Make play areas more than barebones playgrounds.** For years apartment owners have been catering to families with children by providing swings, slides, and sandpiles. Now they are making their play areas attractive to mothers—with benches and more shade trees, grass, and landscaping.

6. **Install a landscaped swimming pool.** Once considered a luxury by apartment owners, pools are now a "must" in many areas. Today's new apartment pools, unlike those built a few years ago, are no longer simply places to swim. Attractively landscaped and often lighted at night, they are now the centers of informal outdoor living whether tenants swim or not. And, builders point out, there is nothing better than a pool to use some of the open space every good apartment needs.
LANDSCAPED GARDEN behind Capitol Park apartments in Washington transformed slum area rubble heap into pleasant private park. Architects Satterlee & Smith designed lily pools and barbecue sheltered by arbor with vaulted roof. Builders Roger Stevens and James Scheuer built paths and stone terrace, moved in trees and other landscaping. Half of Capitol Park's apartments overlook garden and have balconies large enough to use for outdoor living.

OUTDOOR BARBECUE—a communal feature at more and more new apartments—has big fieldstone grill designed by Architect Charles G. Polacek at Staman, Fields & Co's Maryland Park West in Phoenix.

CIRCULAR WADING POOL, with sprinkler in center and benches for mothers, is popular play area for small children, also keeps them away from adults' swimming pool at Rock Creek Forest near Washington.

LIVING-ROOM PATIO (left) makes rear ground-floor apartment—usually slow to rent—fastest renter in midtown New York building managed by Realtor Charles H. Greenthal.

NIGHT-LIGHTED SWIMMING POOL (right) in center of courtyard, is big factor in attracting tenants to Paul Robertson's Bayside Villa at Newport Beach, Calif.
Today's good new apartments
are as noise free
as most single-family houses

Muffling noise in apartments is far more complex than in houses.
So say many homebuilders who are now also building apartments. For instance: you can protect a house from neighbors' noise simply by the way you site it. Not so an apartment—where noise reduction must be built in.
But, builders also point out, the benefits of noise control are far greater in an apartment than in a house. Most people expect noise in an apartment—even though they don't like it. Offer them a quiet apartment, and they are pleasantly surprised, more inclined to sign a lease, and more apt to stay put once they have moved in.

How do you reduce noise? Here are some suggestions from successful builders and architects:

*Isolate your apartments from street noise.* If your view is to the street, place your building as far back on the site as possible, and build walls at least 4' high around all front patios. If your view is away from the street, face your apartments to the rear of the site, and use hallways, baths, and utility rooms as sound buffers on the street side. No matter where your view is, plant trees, shrubs, and even a high hedge between the street and the building.

*Cut sound transmission between apartments.* Best way to do it: with solid masonry walls. They cost less than double-framed walls (also effective) and have decibel-reduction ratings up to 60 (the level at which shouting or a loud radio is reduced to a murmur). Use resilient clips for fastening drywall. You can also cut sound transmission by putting fireplace walls and closet walls between apartments.

*Keep your hallways from being sound boxes.* Voices and footsteps in a hallway can reverberate through a whole building. To prevent this, use carpeted concrete or double-construction floors and textured (rather than smooth) walls.

*Isolate or muffle mechanical noise so it cannot travel.* Best way to do this is to isolate noise at its source and prevent it from moving out over ducts and pipes and through the building structure. All mechanical equipment should be mounted on anti-vibration mounts of neoprene or felt. All ducts should have canvas sleeves separating them from equipment. Pipes with water under pressure (the only pipes that make noise) should be wrapped with soundproofing where they go through walls or ceilings. Sound-producing equipment should always be mounted so airborne sound travels away from apartments.
PARTY WALLS (between apartments or between apartments and halls) do the best job of reducing sound transmission when they are solid masonry (decibel-reduction rate: 55 to 65). But double-framed walls work well, too.

To prevent sound leaks in party walls, medicine cabinets in back-to-back baths should be surface-mounted—not set into walls. And electrical outlets in neighboring apartments should not be placed opposite each other.

PARTY FLOORS (above other apartments) should not reverberate to footfalls. Minimum floor at left must have carpeting to avoid drumming action that can annoy people below (even with carpet, radio can be heard clearly through it).

Triple-framed floor, center, is as soundproof as a poured concrete deck (shown below for hallways). Floor at right has resilient clips for hung ceiling, and, with carpeting, is almost as soundproof as triple-framed floor.

HALLWAY DOORS (left) to apartments do best soundproofing job if they are double—air space between them acts as a baffle. Doors should be weather stripped because sounds flow through cracks.

HALLWAY FLOORS (right) of concrete poured over corrugated steel pans cut sound transmission to a whisper, and—more important—do not reverberate when people walk on them.

MECHANICAL BAFFLES keep equipment noise from entering apartments along ducts and pipes. Left to right: duct is lined with soft material to stop sound transmission; rigid shell of duct is interrupted with canvas sleeves to keep vibrations from traveling through it; pipe carrying water under pressure is wrapped with soundproof material to muffle plumbing noise; air conditioner is mounted on vibration-absorbing pad to isolate noise at its source.
Today's good new apartments
have completely controlled
and odor-free air

More than ever before apartment owners are finding
that a controlled indoor climate gives new apart­
ments a distinct advantage over old ones.
Renters want more control—and more comfort—
than they can get by simply opening or closing a
window or turning a radiator off or on.
To give them what they want, here is what to do:

Install a thermostat in every apartment. With a cen­
tral warm-air heating system, the thermostat acti­
vates a motorized damper (you can run returns in
hallway ceilings, as shown opposite). With a central
hot-water system, the thermostat works a motorized
zone control. With individual systems—either fur­
naces, boilers, or heat pumps—the thermostat turns
the heating unit on or off as in a single-family house.
With electric baseboard heat, you will get the best
results by installing a thermostat in every room.

Install cooling equipment—but be sure it is not ob­
trusive. You can often spot an old, poorly designed
apartment simply by the window air conditioners
sticking out all over the facade. (Window units
themselves are good, but when they are spotted over
a big facade, the building looks bad.)

Builders of good new apartments keep air condi­
tioning unobtrusive in any of four ways: 1) by using
through-the-wall units mounted flush with the out­
side wall and sometimes centered 6'-8" above the
apartment floor so cold air can drop down; 2) by
placing units in a louvered closet or in a louvered
enclosure on a balcony; 3) by mounting condensers
in a concealed air shaft (see drawing, opposite); 4)
by placing a central absorption unit in the basement
and a water chiller on the roof.

Install vent systems to get rid of smells. In your
kitchens, use range hoods with fans, and be sure to
vent directly to the outdoors. You can also pick up
bathroom odors with your kitchen vent systems. In
your hallways, mount registers, ducts, and big fans
to draw air up and out of the building. Allow for a
clean air supply from the lobby or outdoors so that
your system will not tend to draw apartment smells
into halls by getting its air supply from the apart­
ments.

Install filters to keep out dirt, pollen, and smoke.
You can use an electronic filter with either individ­
ual or central warm-air systems. Filters keep an
apartment so much cleaner that they save up to
$1,000 in maintenance costs over ten years.

Install humidifiers to dampen the air. Humidifiers are
an important talking point with prospective renters
because they reduce colds in winter (too-dry air
causes as many colds as wet cold air).
HEATING with hot water, left, or warm air, lower right, can be done with central systems or individual boilers or furnaces. Electric baseboard heat, upper right, is automatically individual. There is no rule for choosing between central and individual systems: With central equipment, owners defray operating costs with a low increment added to rents; with individual units, tenants pay higher heating costs, slightly lower rents.

AIR CONDITIONERS IN AIR SHAFT do not deface apartment facade. In this system—worked out by American Standard and Detroit Edison—condensers stick out into concealed air shaft that runs up through center of building.

AIR CONDITIONER NEAR CEILING is less noticeable inside apartment and more efficient because cold air drops. Through-the-wall unit is also less noticeable outside because it is mounted flush with exterior wall.
Today's good new apartments offer all these other attractions for more pleasant living

Smart builders are including more and more of these attractions—not only to lure tenants out of undistinguished apartments but also to make sure the tenants will stay when still newer apartments are built nearby.

Here, they say, are some of the things you can do now to insure 100% occupancy in the future:

1. **Build in wood-burning fireplaces**—they have even more sales appeal in apartments than in houses. Test their appeal in your area by building in a few to see if renters will pay more rent for them.

2. **Install intercoms in the lobby** so guests can call in to announce themselves. Intercoms are standard in most high-rise buildings but are still rare enough in walk-ups to be a good selling point.

3. **Make your windows large.** One of the chief advantages of new apartments over old-fashioned ones is big windows that let in lots of light.

4. **Include carpets and curtains**—now practically a "must" in many cities. One of California's most attractive apartments is slow to rent because it is neither carpeted nor curtained. Renters hesitate to spend their own money for carpets and curtains when they are not sure how long they will stay.

5. **Panel your living room walls.** Wood paneling—in a living room or an extra bedroom that can be used for a den—costs little extra, adds a lot of warmth, and that makes an apartment look like a house.

6. **Provide covered parking for tenants' cars.** But be sure your carport is a visual asset, not an eyesore. There is a vast difference between a well designed carport and one that looks as if it had been designed by a do-it-yourselfer. Also, plan enough outside parking for guests' cars.

7. **Plan an efficient laundry in a convenient spot.** A year or two ago it was enough to put a couple of coin-operated laundries in any unused corner. Now you need clean, well lighted, well ventilated space—often with cabinets for soap and supplies.

8. **Set aside a party room** to be used for tenant get-togethers or rented for private parties. Rooms like this—now included in more and more apartments—help new families become acquainted, build goodwill for the apartment owner, and are of major importance if many renters are elderly or retired.

**Hang an art show in the lobby.** Unusual ideas like this stir up favorable talk. And they please renters who like a building with a distinguished lobby.
WOOD PANELING and exposed beams in living room of La Vista Apartments, Albuquerque, are house-like features that attract renters, say Builders Jim Cox and Stan Haberman.

FLOOR-TO-CEILING DRAPERIES, fireplace, bookshelves, and cabinets are standard equipment in Clarence Minnerly’s one-story, triplex apartments in Santa Clara, Calif. Two-bedroom apartments have 900 sq ft of living area.

BASEMENT GROCERY STORE, a great success with tenants, was added at Capitol Park Apartments in Washington when a promised nearby shopping center was delayed.

WIDE CARPORTS at Baytree Apartments, Los Gatos, Calif, make it easy to get in and out of large cars. Builder James Barber also provided big turnaround area. Carports and apartments were designed by Architect Fred Marburg.

BASEMENT LAUNDRY ROOM is well lighted and well ventilated, has chairs, table, soft-drink dispensing machine. It is in Capitol Park, built by James Sheuer, Roger Stevens.

ART DISPLAY in lobby of Executive Apartments, New York City, is “unusual lobby feature we strive for,” says Rental Manager Charles Greenthal, who controls many apartments.

RECREATION BUILDING at Stuman, Fields & Co’s Maryland Park West cooperative apartments in Phoenix has stone fireplace, cooking and dishwashing facilities, air conditioning, furniture and outdoor barbecue.
Almost anybody can make money building rental housing—and make it faster and easier and keep more of it after taxes than he can building one-family houses.

But nobody should expect to make money building apartment houses today unless he knows exactly what he is doing—far more than he needs to know to build houses.

Almost anywhere you go today you can find many kinds of apartment houses with many kinds of financing that are paying sponsors' profits of 10% to 100% a year, much of it taxfree.

But you can also find well located, well designed new apartments whose backers have made very little money, or actually lost money, because they did not know the ropes on financing and did not know the angles on taxes.

It is easy to make money building apartment houses only...

IF you have enough money to start with (especially the first time you try it).
IF you have a topflight tax consultant (either a tax CPA or a tax lawyer).
IF you have an apartment-wise architect (who knows what the lenders want).
IF you have a good mortgage banker (who can tap the right lenders at the right time).
IF you have a syndicate ready to buy you out (or agree to a sale-leaseback arrangement)

Building apartments for today's changing market is no game for the lone amateur and no place for the shoestring operator. But even a newcomer to the rental market can make his first project a success if he takes advantage of the competent professional help available to him at reasonable fees.

Most of today's new apartments are being built by men who have reached a high-income, high-cash position and want to take advantage of the special tax advantages that apartments offer.

Now hundreds of present and former homebuilders who have heard of the tax opportunities are planning to get in on the boom. NAHB's new rental housing committee has drawn standing-room-only audiences at the five regional meetings it has held this year.

Says James Neville, NAHB's one-man rentals staff: "More homebuilders come to me every day for advice. I tell them to start by hiring an expert on all the tax angles."
On the next nine pages you will see:

1. How much equity you need to build apartments and how to get it (below and page 114h).
2. How to depreciate your new property to avoid big tax bites (page 114h).
3. How the tax laws can let you keep more profits after taxes (page 115).
4. How syndicates are set up to build and buy apartment projects (page 116).
5. How FHA is doing more to encourage rental construction (page 118).

How to get the equity money you need

If you are just starting out, build garden apartments

Garden apartments require less equity per unit and usually less total investment.

Moreover, they come closest to single-family-house construction. You can build them like big houses, and usually you can use the same subs you use as a homebuilder.

Most experienced homebuilders find garden apartments easier and cheaper to build than houses. Says ex-homebuilder Milton Isen, who is now finishing his first apartments in Maryland: "Garden apartments are easier to build because there are fewer structures, less sewers and streets, less dirt to move, less surveying, fewer supervisors to hire, easier scheduling of deliveries, less material losses, fewer settlements to handle, fewer costly callbacks for repairs, and fewer government agencies to deal with."

And you can make just about as much profit—before or after taxes—as you can make on high-rise apartments.

Most apartment builders start with a nest egg of equity money chipped in by relatives and friends.

Next they interest some business associates in joining their venture—realtors, mortgage bankers, and sub-contractors.

They raise the rest of the equity needed from local investors willing to take a small risk for a big return. The best prospects are apt to be professional men who do not need to invest their savings in their own business.

Here are eight ways to get by with less cash equity:

Cash in on your know-how: Sometimes the builder gets by without putting up any money of his own because other investors are willing to give him a share of the ownership in payment for his ability to plan, build, and finance the project.

Buy land at a bargain price. With luck or good planning, you may already own the right piece of land bought at a low price. If you can get the land appraised for three or four times what it cost you, you may be able to get by with very little equity money.

Example:
A Washington contractor owned a rundown family homestead on a 12,000 sq ft lot zoned R-10 for 1,000-sq-ft units. His elderly sister lived in the house. He tore down the house, built a 12-unit garden apartment with a mortgage that covered all but $10,000 out-of-pocket costs. Result: his sister lives in one unit, manages the property, and nets $400 per unit a year—a $4,400 yearly return on his equity of $10,000 plus lot.

Get land re-zoned for apartments. Some sponsors are mad enough or lucky enough to buy a good apartment site in an area zoned for single-family residences and get it rezoned for multi-family use. This usually brings on a zoning fight with the neighbors but the stakes are high. Land bought for $15 a sq ft for houses can get a 75¢ a sq ft appraisal for apartments as a general rule. And if you lose the zoning fight, you can probably resell your land for what you paid for it.

Build on a long-term leasehold. This can cut your cash money need in half on a conventionally financed project. Says Builder George Rabinor: "In effect you get the equivalent of a second mortgage which you never have to pay off. If you figure that second mortgage money commands 8% to 12%, you can translate this into the ground rent you pay. If you can lease a $500,000 piece of land for only $30,000 a year, it is the same as paying 6% interest on a second mortgage."

Many lenders will put up first mortgage money for leased-land projects, and the ground rent is a tax-deductible expense. But there is one disadvantage: your chance of making a capital gain on selling or refinancing the project will be limited.

Buy land on a low down payment. This can take the form of a long-term option or a purchase money mortgage subordinated to a first mortgage. Or some land owners will be willing to settle for part-ownership in the total project.

Mortgage property you own. It may suit your long-term needs best to raise your equity by putting a second mortgage on other property you own, rather than take in partners who will share ownership. You may have to pay a stiff price for the loan, but the interest on the second mortgage is tax deductible—and your full ownership allows you to keep all the benefits of both fast depreciation and amortization of the first mortgage.

Example:
A 110-unit new Maryland garden apart-

continued
ment valued at $1 million cost $800,000 to build. (The other $200,000 represented the builder's $50,000 building profit and land valued at $150,000 which had cost him much less a few years ago.) The builder got a $650,000 mortgage, then borrowed $150,000 on second trusts on two buildings he owned. The trusts are at 6% interest but involved a 3-point discount. The builder will retire the two trusts in only four years by using the cash flow from his accelerated depreciation on the new project.

How much equity do you need to finance apartment houses?

This depends on the lender, how tight mortgage money is, how much your land is worth, and many other factors.

If you finance conventionally, you will rarely get more than 70% loans. So 30% will have to represent the value of your land, about 10% may be your profit and overhead, and about 10% your cash outlay.

But some lenders will make only a $600,000 loan on a $1 million construction job, and do that only when you can show $400,000 in liquid assets to cover completion of the job. And many mortgagees will hold back a big chunk of the mortgage until your project is 75% rented.

If you finance through FHA, you theoretically can borrow every penny of your certified construction cost on a Sec 207 apartment, with no equity required except your land. But don't let that fool you into thinking you can build FHA apartments on a shoestring.

The smallest garden apartment that J. Halperin & Co has financed lately is a 40-unit $620,000 project in Westchester County, N.Y. Though 90% financed under FHA Sec 207, the sponsor needed $100,000 to build it. Part of this went to pay the 7 point discount on the mortgage.

You need solid capital even to build a management-type co-op under FHA Sec 213 which lets you borrow 97% and requires 3% from the co-op buyers. Says Broker Irving Wharton: "The man who builds a $1 million co-op will have to tie up at least $200,000 before he starts getting his money back. FHA requires a sponsor to have a net worth of about 30% of the total cost and he will have to plan his land, process it through FHA, hire an attorney, a land planner, and an architect, advertise for co-op buyers, and start construction before he can start to draw the first of his loan."

Says New York Builder George Rabinor: "On a $1.2 million project in which the land is worth $200,000, the builder needs that $200,000 because it must be free and clear, and he will need at least $50,000 more. This covers the 2% of mortgage amount which FHA requires be placed in escrow for operating capital, possibly a small deposit, or preferably a bond for off-site improvements, excavation, and overhead costs. You need little for operating capital because FHA's payments come in monthly when the foundation is under way."

Fast depreciation is the key to big tax savings

This is true of almost all apartment-house building, whether financed conventionally or through FHA. It is true whether the apartments are built by a corporation, a partnership, or an individual.
can offset this nominal loss against your ordinary income from something else. The higher your tax bracket, the bigger these savings will be. If you are in the 70%-or-higher income-tax bracket, this tax loss can be the most profitable part of the whole venture.

If you are a housebuilder in a high tax bracket, one of the best things you can do is build apartments, too, because you can merge the paper losses of your apartment project with the profit of your homebuilding corporation. This means you can keep your profits in the homebuilding company, instead of having to pay them out in dividends and then being clipped perhaps 80% or 90% in taxes on them.*

After a few years you ought to sell the property because the faster depreciation in the first years leaves you less depreciation to take in the later years. If you own the property personally and want to keep it, you should sell to a corporation which you set up as a subsidiary of another corporation you own. The corporation that buys your apartment can take three-quarters of the fast depreciation that you took from it, and when the building is sold again later to another buyer, he too will be able to take 150% of the straight-line depreciation.

Ever since 1954, the Internal Revenue Service has allowed the first owner two ways to depreciate a building roughly twice as fast as ordinary straight-line depreciation. One of these is the "sum of the digits" method; the other (and usually preferable, because you can switch to straight-line depreciation as soon as it becomes more profitable, without getting the Treasury's okay) is the "double-declining balance" method (see H&H, Oct '59).

Now you can take depreciation by items, even faster than fast

This year the courts have approved a new way to accelerate accelerated depreciation. You can now safely take your accelerated depreciation part by part. Thus only the shell of a building with a 25-year life must be depreciated over 25 years; its shorter-lasting components can be depreciated at the accelerated rates over only 5, 10, 15, or 20 years.

Here is how the components method of depreciation drastically raised a Virginia builder's cash throw-off on a big garden apartment project:

Since the $1.4 million project was ma-
sorony construction, which the Treasury Department estimated to have a 50-year life, all the project would have had to be depreciated over 50 years if the component method had not been used. But the "useful life" was cut to less than 30 years, in effect, when each group of components was depreciated on the basis of its calculated useful life. Thus the basic structures that cost $808,000 to build were depreciated at 50 years, but $50,000 for painting and venetian blinds was depreciated over only five years, $102,000 for kitchen appliances and cabinets over 10 years, $200,000 for heating, air-conditioning, swimming pool and bath house over 15 years, $67,000 for wiring and electrical fixtures over 17½ years, and $176,000 for roofing, plumbing, insulation, etc over 20 years. For result, see table at left.

Here are seven ways to save taxes

suggested by CPA Stanley Grey of Marks, Grey & Shron, New York, member of AICPA's tax studies committee and tax consultant to more than 100 apartment builders.

**Buy land personally on FHA projects.** This lets you deduct from your ordinary personal income right away any costs connected with the land (like taxes, demolition, eviction stipends, operating losses pending completion of the new project, and interest on whatever money you borrowed to buy the land). If you buy the land through your apartment corporation you may have to wait years to get these deductions.

**Set up pensions for officer-stockholders.** This lets them postpone some income until a time when their individual tax rates will probably be lower. Or you can set up the pension for a lump-sum payment which will be taxable as a capital gain at not more than half what their tax would be on ordinary income.

**Waive the FHA builder fee.** FHA will allow a builder's fee for profits in making its appraisal, whether the fee is actually paid or not. This fee will be taxable as ordinary income if you take it; it will not be taxed at all if you are careful not to include it in the face of the FHA note.

**Trade for a new property.** Under the IRS "like-for-like" exchange rules, you can make a tax-free exchange of your project for another piece of property provided no cash is paid to you. When you sell your apartment, this tax-free exchange lets you reinvest all your "sales proceeds" in the new income-producing property undi-

**Use parent-subsidiary companies.** You can consolidate earnings of all corporations continued
owned 80% or more by the parent company. You can write off losses of one company against profits of another. This device is especially useful to those who keep building and constantly create new tax losses that can be carried forward five years or back three.

Trade the land to a 207 corporation. If you personally own the land for a Sec 207 apartment, don't sell the land to the FHA corporation because you would have to pay personal taxes on any profit you made. Instead, trade it tax-free for the common stock, long-term notes or preferred stock of the company. (No use paying taxes on a profit to yourself.)

Plan for estate taxes. When you start a new syndicate and get shares of stock at low cost, give some or all of the stock to your heirs before the stock appreciates when the building operation succeeds.

What you need to know about syndicates

"Syndicates are taking the albatross of heavy equity financing off the builder. There has been this metamorphosis: first there was just the builder, then he brought in his 'partner,' later he talked about his 'associates,' and now he talks about his 'syndicate.'"

—James Neville, director, rental housing committee, NAHB.

"Syndicates usually come in after construction has started or been completed. Why should a dentist with $10,000 to invest—and that means pulling a lot of teeth—put money in a deal that will take a year or two to complete?"

—Mortgage Banker Irving Wharton, J. Halperin & Co.

"The trend today is toward corporate-type syndicates that can buy or build a number of projects and sell stock in smaller units."

—Mortgage Banker George DeFranceaux.

You hear more and more about syndication, "private" and "public." HOUSE & HOME recently questioned a large number of builders, realtors, and others about their interests in apartment houses and found them more interested in learning about "syndicates" than anything else. So let's take a look at syndication:

What is a "syndicate"?

The noun has so many meanings that it has become almost meaningless. The verb syndicate means delegate, so a syndicate can be any kind of incorporated or non-incorporated association by which two or more people with capital delegate the management of their investment to someone willing and able to manage it. The legal form may be a corporation, a partnership, a joint stock company, a land trust, or some other mechanism.

How are syndicates taxed?

They are taxed either as a corporation or as a partnership. A syndicate can be a partnership but be treated as a corporation for tax purposes, or it can have a corporate form yet be taxed as a partnership. This is such a tricky business that no brief account could hope to give you just the right advice to fit your specific problem. Only a top-flight tax man (a tax lawyer or a tax CPA) can tell you what to do.

Are syndicates regulated?

Some are; some are not. Every state has a securities law, and no two laws are the same. Federal courts have ruled that any pooling of capital with the expectation of making profits from the effort of the promoter represents "securities" just as much as stocks, bonds, or debentures. However, the Securities & Exchange Commission usually exempts "private" syndicates from its requirements when a) no more than about 25 people are offered a chance to participate, and b) no more than $300,000 is raised by the syndicate.

What is the commonest form?

Today the trend in syndicates seems to be toward the "limited partnership" in which two or three general partners assume
all the liabilities, and the several limited partners take no liability beyond the risk of losing their investment. Benefits of depreciation can go direct to both general and limited partners without being taxable on a corporate level. The smaller limited partnerships both build new apartments or buy from builders within a few years after the project is completed. The larger syndicates tend more to buy completed projects than build them, because they must get SEC approval to undertake large offerings—and prospectuses are harder to substantiate for unbuilt, as-yet-unproved projects.

How much money does a limited partner put into a syndicate?

Sponsors usually seek "units" of participation of $2,000, $5,000, or more, though some will shade this and combine smaller amounts into one minimum unit in a trust form. For example, if the builder-syndicator needs $250,000 he will try to limit the offer to units of $10,000 for 25 people—otherwise he would probably need to clear the proposal with SEC.

What profit can a syndicate member make?

Returns to syndicate members run a wide range—from minus (if the venture fails) to 20% and up. And the profit depends on each member's personal tax situation. If one-third of the return is tax-free, this means much more to a high-tax-bracket man than to a low-bracket investor.

Says Phoenix Builder Paul Staman: "We have returned 23% to 45% profits to limited partners who have invested in some of our syndicates. Most of this was capital gains, taxable at 25%. Another method we are using gives limited partners 75% of the profits, and the general partners—Edward Fields and myself—get a small building fee plus 25% of the profits. The limited partners get all their capital investment back before we get any distribution of profits. All of this capital return is tax free, of course, and is paid out of the cash flow in the high-depreciation period."

Here is how one current syndication has been set up to give limited-partner investors a chance for a 20% annual gain:

Shannon & Luchs, one of Washington's top realty firms, has set up a public syndicate to buy a 268-unit high-rise apartment house financed by a $4 million FHA mortgage by Builder Ralph Bush. William Shannon and Frank Luchs are general partners, and limited partners invest a minimum of $3,600 for ten shares of stock in the syndicate corporation plus $2,600 in notes bearing 4 1/2% interest. The builder gets $715,000 cash; the syndicate assumes the mortgage payments. Using a 150% declining-balance depreciation, the building is expected to show a tax-loss of $29,450 the first year, though actual income before depreciation should total $146,000. (Interest on the 4 1/2% notes goes back to the partners before $176,000 is taken for depreciation the first year.)

Each year the investor expects to get back $311 on his $3,600 investment—most of it a tax-free return of his capital and the rest in interest on his notes. By the tenth year he will have been paid off so far as his $2,600 of notes are concerned, but by now his $1,000 worth of stock may also be worth $3,800 more than he paid for it because nearly $1 million in mortgage principle will have been paid off by the tenants.

Sale-leasebacks raise your yield and release much of your equity

If you want to get your money out of a finished project to keep building more apartments, your best bet may be to sell the project and lease it back. This way you may get three-quarters of your investment back and make a much greater percentage return on the part you leave in.

New York Mortgage Broker Jack Sonnenblick of Sonnenblick-Goldman Co has arranged many sale-leasebacks and provided the two cases shown below as typical.

Says Sonnenblick: "The syndicator usually takes 1% or 2% of the lease payments for organizing the deal, and his syndicate members get about 10%. They will want the builder to keep part of his money in the project so he will be sure to manage it properly. And it pays the builder to keep some of his money in. Otherwise his return would be much smaller dollarwise, and hardly worth the risks involved as the project manager, even though the profit was made on no investment."

Says New York Tax Attorney Mitchell Siegel: "Sale and leaseback is one of the most intriguing and beneficial developments for the builder in recent years. The present demands for investment in real property give the builder an opportunity to get most of his capital back and still get a handsome return with future value accruing to the leasehold property as a result of increased rentals."

continued
Apartment financing continued

Builder Arthur Radice suggests another reason for keeping part of his investment in each apartment he builds. Says Radice: “Build pieces of property into your own organization, because the income can pay your overhead at times when you aren’t building elsewhere. Then you won’t have to take on any job just to pay your overhead. You also gain because consolidated returns cut your taxes.”

Here are figures on two New York apartment houses showing how sale-leaseback works:

1. The property consist of 110 garden apartments and 25-car garage space in some 2½-story buildings on four acres:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment: Value of land</td>
<td>$100,000</td>
</tr>
<tr>
<td>Building cost</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Total cost</td>
<td>$1,600,000</td>
</tr>
<tr>
<td>Mortgage (at 6% for 21 years)</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>Cash invested</td>
<td>$400,000</td>
</tr>
<tr>
<td>Income: Rentals, etc</td>
<td>$250,000</td>
</tr>
<tr>
<td>Expenses:</td>
<td></td>
</tr>
<tr>
<td>Sales price to syndicator</td>
<td>$300,000</td>
</tr>
<tr>
<td>Annual lease (12% of price)</td>
<td>$36,000</td>
</tr>
<tr>
<td>Remaining cash invested</td>
<td>$100,000</td>
</tr>
<tr>
<td>Remaining income</td>
<td>$23,000</td>
</tr>
<tr>
<td>Net cash flow on investment</td>
<td>25%</td>
</tr>
<tr>
<td>Net annual cash flow</td>
<td>$58,000</td>
</tr>
<tr>
<td>Net on investment</td>
<td>14½%</td>
</tr>
<tr>
<td>Sales price to syndicator</td>
<td>$300,000</td>
</tr>
<tr>
<td>Annual lease (12% of price)</td>
<td>$36,000</td>
</tr>
<tr>
<td>Remaining cash invested</td>
<td>$100,000</td>
</tr>
<tr>
<td>Remaining income</td>
<td>$23,000</td>
</tr>
<tr>
<td>Net cash flow on investment</td>
<td>25%</td>
</tr>
</tbody>
</table>

2. Typical sale-leaseback data on a 20-story high-rise in New York City (including garage, shops, laundry services):

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment: Land</td>
<td>$650,000</td>
</tr>
<tr>
<td>Clearing land</td>
<td>$100,000</td>
</tr>
<tr>
<td>Building cost</td>
<td>$2,350,000</td>
</tr>
<tr>
<td>Total cost</td>
<td>$3,100,000</td>
</tr>
<tr>
<td>6% mortgage</td>
<td>$2,200,000</td>
</tr>
<tr>
<td>Cash invested</td>
<td>$900,000</td>
</tr>
<tr>
<td>Income: Rentals, etc</td>
<td>$507,000</td>
</tr>
<tr>
<td>Expenses:</td>
<td></td>
</tr>
<tr>
<td>Sales price to syndicator</td>
<td>$650,000</td>
</tr>
<tr>
<td>Annual lease (12% of above)</td>
<td>$78,000</td>
</tr>
<tr>
<td>Remaining cash invested</td>
<td>$250,000</td>
</tr>
<tr>
<td>Remaining cash flow</td>
<td>$72,000</td>
</tr>
<tr>
<td>Net profit on investment</td>
<td>28.8%</td>
</tr>
<tr>
<td>Net annual cash flow</td>
<td>$150,000</td>
</tr>
<tr>
<td>Net on investment</td>
<td>16½%</td>
</tr>
<tr>
<td>Sales price to syndicator</td>
<td>$650,000</td>
</tr>
<tr>
<td>Annual lease (12% of above)</td>
<td>$78,000</td>
</tr>
<tr>
<td>Remaining cash invested</td>
<td>$250,000</td>
</tr>
<tr>
<td>Remaining cash flow</td>
<td>$72,000</td>
</tr>
<tr>
<td>Net profit on investment</td>
<td>28.8%</td>
</tr>
</tbody>
</table>

FHA is doing more to make rental financing easier

Two months ago Commissioner Julian Zimmerman made major changes in FHA rules so builders can get bigger mortgages to cover the added cost of building better kinds of apartment units that today’s renters want.

Now FHA will allow a half-room credit (ie, from $1,500 to $2,125) for each full bath and a quarter-room credit for each half-bath, vs no room-count credit for any baths before. Since the room count is often the governing limit on FHA apartment financing, this means many builders will be able to borrow enough more money FHA to pay for better quality and to add features that will make their apartments easier to rent and keep rented. Zimmerman also gave a better room count for foyers and dining space, while cutting the balcony room count and tightening allowances in high-cost markets (H&H, News, Sept).

Last winter FHA also made it easier to finance apartments by changing another of its limits on mortgages—the ratio of net income to debt service on Sec 207 apartments. In estimating net income, FHA will now consider assuming a 5% vacancy rate instead of a 7% vacancy in markets where vacancies are quite low. On a $1 million project, this can lower the builder’s equity needs by $20,000 or more. (But builders have to press to get the change. So far, only three district offices have asked permission to cut the vacancy allowance from 7% to 5%.)

Also last winter, Zimmerman reduced the initial amortization rate from 2% to approximately 1½%, without lengthening the mortgage term on Sec 207 projects. This, says Attorney Mitchell Siegel, “has done more to make FHA projects feasible and make mortgage amounts larger than any other change FHA has made. Now an FHA mortgage costs 7¼% for interest, amortization, and insurance, compared
FHA is just starting on new MPS for apartment houses

A revised edition of the present standards for multi-family buildings should be out by the beginning of February. The new Minimum Standards on apartment houses are not expected to be finished sooner than a year after that.

Neil Connor, director of FHA's architectural standards division, says that "some of the more critical" questions to be studied are:

1. Reconciling FHA standards with the varying building codes in the US.
2. Density and coverage.
3. Parking, both open and in garages.
4. Yard and court dimensions and distances between buildings.
5. Room and apartment spaces and arrangements and light and ventilation needs.
6. Fire protection limitations.

with 8% for conventional mortgage costs."

One of the most effective moves FHA has recently taken has so far gone unnoticed because it has been hidden within its administrations. This is the vigorous prod­ding by new Assistant Commissioner for Operations Edward Dee to get district directors to act under the various multiple-unit sections, especially Sec 231 for the elderly and Sec 232 for nursing homes. Both the latter, he thinks, offer excellent profit opportunities to builders and meet a vastly growing demand—and he is determined that district directors will not resist processing applications in these fields. Says Dee: "I guarantee that a number of our offices are more receptive now to apartment house applications than they were a while back."

Building under FHA has its advantages and disadvantages

Apparently the disadvantages outweigh the advantages for apartment builders as a whole, because in recent years FHA-financed apartments have accounted for only about 10% to 12% of multiple-unit starts.

But there are definite advantages:

Less equity is required.

Some builders like Arthur Radice find they can build for a lower-income market (by $5 to $15 per room per month less) with FHA Sec 207 financing.

Though FHA holds down rent levels, a project can be refinanced conventionally to raise rents if the demand is there.

Some FHA sections offer opportunities that can lead to great profits not obtainable with other financing. Urban Renewal Builder James Scheuer says FHA's Sec 220 lets you become a millionaire on a $75,000 investment and took no builder's profit at all. But there are definite advantages:

But other builders who have tried 220s are not so enthusiastic after experiencing delays and political troubles that often arise.

And then there are the disadvantages:

Just about everyone agrees that you need an extra six months to a year to build an FHA project.

The extra points paid to obtain mortgage money at FHA's 51/4% interest limit can add 6% to 9% in financing costs, and this discount is not tax-deductible like interest.

And you can lose another 2% to 6% through higher building costs for better standards—higher architect fees for the extra work involved, added materials requirements, and so on.

Also, FHA requires that the sponsor incorporate, so he cannot offset his depreciation losses against his high-bracket individual income coming in from other sources.

And there are many complaints that FHA makes life unnecessarily hard for builders by demanding a surety bond of 31/2%, escrows of 2%, a 1 1/2% insurance premium, and untold paperwork in preparing replacement cost estimates, in cost certifications, and in processing the job.

FHA has begun to push rental units under two new sections

Sec 231: housing for the elderly.

Under this section, in effect one year, FHA has issued commitments for two dozen projects with about 3,000 rental units for people over 61. So far, almost all applications have come from church and other non-profit groups, who get loans at 100% of replacement cost. First builder to apply under Sec 231 is William Shafer, president of the Phoenix Home Builders Assn, who plans 99 units in one-story buildings in Tempe, Ariz. Sponsors building for profit get 90% commitments based on replacement costs and FNMA takeouts. "If we build under Sec 207 we would have to pay 6½% more, and if we built conventionally we would have to tie up too much cash." Shafer has an $820,000 mortgage commitment on the $913,000 project, has invested $22,000 for FNMA and FHA fees, initial architectural fees, and office expenses, and owns the land appraised at $65,000. This is all the equity he has tied up.

"Sec. 231 offers good opportunities to builders," Shafer says, "but it has one disadvantage. We found it hard to get a construction loan at the 5½% interest FHA allows. Valley Bank here finally took the interim financing because we have dealt with it over the years in our home-building business."

Sec 232: nursing homes.

FHA offices have started getting applications under this section, which permits 75% mortgages based on replacement value. Two initial cases processed to commitment so far are detailed in an FHA guide now available to builders or other sponsors. In one case, FHA valued a 50-room, 92-bed nursing home at $561,725, approved a $421,293 20-year mortgage, and allowed builder's profit and architect's fees totaling $53,170. Value of the land was put at $48,900. Estimated income based on an 87½% occupancy was estimated at $292,800, estimated cost at $1,182,541 and profit at $73,659 a year. Conceivably, a builder who could buy his land at a bargain and took no builder's profit, might be able to sponsor such a nursing home on a $75,000 investment and come out of it with a property paying a $75,000 yearly profit.

continued
Here is an example of what the right architect can do

Collins, Kronstadt & Assoc in Washington are designing about 5,000 apartment units for over a dozen builders in seven cities because they offer so many services beyond basic design and engineering.

Here is how Architect Richard Collins describes a typical Washington job:

"We first hear from a sponsor after he has his land optioned. We walk over the site with him and guess at the zoning problem (there usually is one), the market possibilities, and other factors.

"Then for $500 to $700, we will make a preliminary study for feasibility. We study area traffic patterns, the school situation, find whether rock must be blasted or perhaps a bridge built to give easy access to the site, see if the area has been overbuilt for rental units and in which kind of apartments, check on availability of gas, electric, sanitary, and other services, and talk to planning bodies. We make sure the sponsor has a lawyer who can get the project through the zoning board. And we introduce the sponsor to a mortgage broker in many cases. After this, we draw preliminary plans, which costs him from $2,500 to $5,000, reflecting only our drafting costs.

"We prepare a highly detailed presentation for the mortgage banker to take to the lender. We show how furniture will fit the rooms. Since some lenders don't easily understand elevations, we give them renderings, birds'-eye views, and the like. Even if only the first section is to be financed, we show how future sections will be laid out. And we supply cubicage and other data.

"Our final plans are prepared for each subcontractor's use. We also give the sponsor a complete time schedule, covering his calls for grading and paving permits, sewer connections, and so on, and later covering the specific dates each craft should be on the job.

"If costs for any sub are over our estimate, we look into it and may find the sub is overcharging or that we have overdesigned. We either recommend another sub (we keep a list of subs in each trade in north Washington) or we change our specifications.

"We also help the sponsor with drawings for his ads. For one new project, we designed a small office on the plot that also doubles as the model for one of the units to be rented. This permits saving a few months renting the units."

For this service, C-K charge standard fees averaging only 2% and wait for payment in full until the builder begins getting his construction money.

Admits Arnold Kronstadt: "We can't always design the way we would like, either because the location would not support as high rentals as the better design would call for, or because lenders with available mortgage funds will not agree that the better design is worth the extra investment. For these reasons, we have turned down some plans that would have been a joy to develop."

Find the kind of mortgage banker you need—and then trust in him

Sometimes you will need one mortgage banker for several projects and sometimes you will need to see several for one project.

Sometimes you can get all the service you need from a local mortgage man, and other times you may need to consult a broker halfway across the country.

Some mortgage bankers can get loans from only one or two mortgage lenders, others deal with 50 or more institutions.

In any case, you will need a mortgage broker's guidance and you can't get along without his help if you need a permanent loan of $500,000 or more. Even this amount is more than you could get from some major insurance lenders like Mutual of New York, which limits its loans to $300,000.

The best mortgage banker to see about apartment loans is almost always one who specializes in such loans and deals with a
number of major institutions. (You still have a choice, for some specialize in FHA construction and others in conventionals.)

Once you go to a broker, rely on his judgment

Says Vice President George Brady Jr of James W. Rouse & Assoc in Washington: “Lenders tend to trust brokers more than sponsors trust brokers. Some sponsors throw us a set of plans, refuse to tell us what they paid for their land or even what rentals they hope to get, and rush off to show their plans to other brokers. They don’t realize that the more they tell their broker, the easier and sooner he can make the right presentation to the right lender.

“We will not try to get loans on some locations, on some designs, or for some people. We know some locations cannot justify the apartments, some lenders will not accept some designs however sensible, and some sponsors simply cannot be approved on the basis of their credit or some other factor. Lenders are looking harder and harder at sponsors, because they want to be sure the property is managed right for the ten years or more they will hold the mortgage.”

Each presentation prepared by the Rouse staff for lenders contains all the following in a handsome booklet:

1. Aerial photos paid for by the broker showing (with colored tabs) main traffic arteries, schools, churches, parks, and other apartment projects.
2. Several closeup photos of the site and nearby structures.
3. Photos of each nearby apartment house, with date built, number and sizes of units, rent schedule (with or without utilities), and vacancy rate. The Rouse office also gets these data for most apartment projects around Washington.
4. A description of materials to be used in the proposed project.
5. Reduced-scale floor plans with each unit heavily outlined and marked with its area and room count.
6. A detailed analysis of each unit.
7. The cubage, and how arrived at.
8. Pages on room sizes, on estimated income, on expenses (especially how the real estate taxes were arrived at), on an appraisal, on gross annual revenues assuming a 5% vacancy, and a capitalization based on 8% of income.
9. A loan analysis showing all these ratios:
   - loan requested to value
   - loan per unit
   - loan per room
   - gross rent multiplier
   - loan per sq ft
   - building value per room
   - building value per net sq ft
   - building value per gross sq ft
   - value to gross
   - monthly income needed
10. A biography of each partner, plus a credit report on each, and a statement of financial ability.
11. An FHA report on area vacancies.
12. Newspaper clippings on new plants in the area, population trends, etc.
13. The builder’s breakdown of costs.

Note: Rouse does all this for a 1% fee.

END
It took years
(while the trees grew) to give these new communities their established look
It took only hours to give this house its established look

The big olive tree that transformed this newly built house was moved in fast, full-grown, and at low cost.

Moving the tree took less than two hours, cost less than $75. And, say Builders Walker & Donant: “It made the house much more salable.”

More and more builders across the country are realizing how much trees help sell new houses and are transplanting big trees—for as little as $10 each—to give their developments a ten-year-old look on opening day.
Machines long used to destroy trees are now being used to transplant them

By equipping your tractor with the tree-transplanting attachment shown on this page, you can now move a tree 10" in diameter for a time and labor cost as low as $10 (plus the cost of the tree).

This Hawk tree transplanter, designed by Edward Kluckhohn (H&H, Feb '58), can now be attached to 17 different models of six makes of tractor (see list, paragraph 4, opposite). It can be attached in a half-hour by connecting only four pins and four hydraulic lines, the makers say. For more on the Hawk transplanter and other tree-moving equipment, see opposite.

**HOW TRANSPLANter WORKS:** deep cuts are made on all sides of the tree, left; the unit lifts tree and earth ball, center; moves away, right.
Here are the four basic machines you can use to do the job:

1. A backhoe can be used to dig a trench around tree roots. Once the trench is dug, it is easy for a crane to lift the tree right out. Sacramento Builders Walker & Donant, who use this method, figure the average cost per tree at $55. For more about W&D's tree moving, see next page.

2. A tractor shovel, which usually digs no deeper than 3½', can be used to move deciduous trees 4" in diameter or less, evergreens (which have shallower roots) up to 8" in diameter. Builder-Lumber Dealer Sam Slaughter uses his 1½-yd bucket to move trees, figures average cost is $18 per tree. For more about Slaughter's tree moving, see p 127.

3. A small tree digging attachment mounted on a tractor can handle trees up to 4" in diameter. Charles Adair Co of Chicago manufactures the unit shown. It costs as little as $365, can be installed on a tractor in place of a shovel or dozer blade in 15 minutes. The Adair unit can be adapted to these makes of tractor: Ford Major, Allis-Chalmers, Massey-Ferguson, Wagner, Deere, Oliver, Sherman, and Case. Builder Andy Place, who uses a small Adair digger, transplants 4" trees for as little as $7 plus tree cost. For more about Place's tree moving, see p 128.

4. A tree transplanter, which also attaches to tractor or loader, can dig up, transport, and transplant trees from 5" to 15" in diameter, up to 68' tall. The unit shown is manufactured by Harrington-Willimon-Kluckhohn, Lewiston, N.C. Units range in price from $3,075 for a 48" scoop to $8,775 for an 84" scoop, can be attached to these makes of tractors and loaders: Massey-Ferguson, Pettibone-Mulliken, Hough, Michigan, Ford Major, and Caterpillar. Builder Bob Scarborough uses H-W-K unit to move 15" trees, figures it costs $75 to move a tree that would have cost over $350 to move without the new equipment. For more about Scarborough's tree moving, see p 127.

To see how builders use this equipment, turn the page.
How builders move trees, continued

BACKHOE DIGS TRENCH around roots of mature tree in orchard.

TRUCK MOVES TREE along road from the orchard to its new site.

CRANE LIFTS TREE to pull it free, loads it on flat-bed truck.

CRANE LOWERS TREE into machine-dug hole in new-house yard.

Trees in front of houses eliminate construction-site look, are a big asset in selling, report Builders Walker & Donant.

Crane lifts tree to pull it free, loads it on flat-bed truck.

Crane lowers tree into machine-dug hole in new-house yard.

Builders Walker & Donant move extra trees onto orchard lots

Walker & Donant, who sell more than 100 houses a year in one of today's most active and competitive markets (Sacramento), pick choice orchard land for most of their houses, then move in more trees using the system shown above.

"It's worth it," says Floyd Donant, "because one sure way to establish a good reputation in a metropolitan building market is to give your communities an established look. Because our subdivisions don't look raw, buyer interest is greater—we have sold houses from tentative maps, without firm prices, without firm completion dates. Advertising costs are lower. FHA gives us higher valuations. And we attract lenders who are more interested in sound investments than in the size of the discount they can get on our mortgages."

To get these results, Donant reports, "We have our engineers lay out the roads to save us as many good trees as possible. Then we site our houses to disturb as few trees as possible. Finally we move in trees—many of which come from roadways that must be cleared—to fill in the blank spaces." In the several years W&D have been moving trees they have lost only two—both moved on a 104F day.

Trees in front of houses eliminate construction-site look, are a big asset in selling, report Builders Walker & Donant.
Builder Bob Scarborough moves in big trees throughout his subdivision

The Haddonfield, N.J. builder transplants trees that often tower above his two-story houses. He brings in 35-plus footers because, he says, "the bigger the trees, the easier the sale. We give our new houses a look they wouldn't otherwise get for seven or eight years." Scarborough promotes his big trees and his tree-moving operation in all his advertising. He reports that, since he moves such big trees, about 10% die—"but we're doing better all the time."

Builder Sam Slaughter moved in all these trees

"Today's buyers don't want to wait five years for their house to look settled in. They want big trees—and that's what we give them." So says Builder-Dealer Slaughter. He advises: "Orient the big trees you transplant in the same direction you found them. We've never lost a tree since we started doing this."

Here are 12 rules for selecting and transplanting big trees

1. Select trees growing in full sun. If you pick trees growing in shade, wrap their trunks in burlap up to the first branches.
2. Dig the hole for a transplant 1' deeper, 3' wider than the earth ball around the tree roots and line it with the richest topsoil you can find.
3. Mulch the ground around the tree with leaves or salt hay.
4. Cut the branches back 20% to 30% to compensate for the smaller root ball you will take when digging up the tree.
5. Fertilize the first spring after transplanting.
6. Try to do your heaviest transplanting in spring or fall (even though machine digging lengthens the transplanting season right into the winter when the ground is frozen).
7. Use rows of trees for emphasis around street curves.
8. Use big specimen trees at ends of culs de sac, courts.
9. Use random tree groupings where grades change, around slight bends in the street or near big corner lots.
10. Place trees away from utilities so they will not cause a future maintenance problem.
11. Place identification plates on trees to create interest.
12. Establish a year-long maintenance program on all trees.

This advice comes from Landscape Architect John N. Vogley who planned Eichler Homes' "Los Arboles" (The Trees) community in Palo Alto where big trees were used to upgrade the community to match the price of the houses; and Builder Bob Scarborough who now operates a big-tree transplanting service because of the experience he gained putting big trees around his own houses in Haddonfield, N.J.
Builder Andy Place moves in his own trees to create appealing streets

The South Bend builder takes no chances that he won't have enough of the right size or the right kind of trees to transplant into his future communities. He plants fast-growing silver maples, Chinese elms, tulips, hardy birches, locusts, and sycamores on his own tree farm, a 5 1/2 acre site. Says Place: “We grow them close to where we’re building. This way we can get all the fast-growing trees we need—nurseries often don’t stock many softwoods. We plant trees 8’ on center, and that gives us plenty of space to use our tree-moving equipment.”

Builders Fox & Jacobs invite customers to pick their own trees

“Giving people a choice of trees is just like giving them a choice of plans, designs, and equipment,” says Dave Fox. “It helps us sell houses.”

Buyers of F&J’s upper-price (over $25,000) Flair houses in Dallas select additional trees for their lots at a nearby nursery (Trees Inc) owned by the builders.

To encourage new homeowners to plant big trees, F&J quotes bargain prices if they buy several at once. Examples: three $50 trees for $100; three $75 trees (up to 6” in diameter) for $150.

Adds Fox: “The more trees our buyers plant, the better our neighborhoods look. And the better our neighborhoods look, the more new buyers we get.”

/End
In cooperation with LIFE and HOUSE & HOME, THE AMERICAN INSTITUTE OF ARCHITECTS invites architects, builders, and homeowners to enter a nationwide design program for HOMES FOR BETTER LIVING

Custom-built houses
Build-for-sale houses
Garden apartments

Award-winning houses and apartments will be published in HOUSE & HOME, a selection will be published in LIFE. They will be selected in time to be displayed at the AIA convention in Philadelphia, April 24-28, 1961 and will be publicized in newspapers, on radio and television.

For the past five years AIA has sponsored regional and national Homes for Better Living Awards Programs in cooperation with HOUSE & HOME and Sunset (West 1956), Better Homes & Gardens (East 1957), LIFE (Midwest 1958), McCall's (South 1959), and LIFE (National 1960). Last year, for the first time, the program was nationwide, and over 500 outstanding houses were submitted.

Awards will be made in three categories:

1. Houses designed specifically for an individual owner, divided into three classes according to size:
   a. Under 1,600 sq ft of living space; b. Between 1,600 sq ft and 2,800 sq ft; c. Over 2,800 sq ft of living space.

2. Houses designed for a merchant builder and sold speculatively, divided into three classes according to price:
   a. Under $15,000; b. Between $15,000 and $25,000; c. Over $25,000

3. Garden Apartments, built for sale or rent. Height shall not be more than three stories from grade. Sale price or monthly rental of units shall be indicated.

Only houses and apartments designed by registered architects and completed since January 1, 1958 are eligible. Entries may be submitted by the architect, builder, or owner. Entry fee is $10 for each house or apartment, and there is no limit to the number of submissions any individual may enter. There must be no limitation on publication or additional photography.

Entries in the 1960-1961 Western Home Awards Program, sponsored by Sunset and the three western chapters of AIA, may be resubmitted in this program provided they have been built since January 1, 1958.

Winners in each category will be selected by a jury of outstanding architects, housing industry leaders, and the editors of LIFE and HOUSE & HOME. Judges for previous Homes for Better Living Awards have included:

For custom jury: Pietro Belluschi, AIA; John Burchard, dean of humanities, MIT; Eero Saarinen, AIA; Percival Goodman, AIA; Edward Larrabee Barnes, AIA; Carl Koch, AIA; Robert W. McLaughlin, director, School of Architecture, Princeton; Arthur Gallion, dean School of Architecture, University of Southern California; Vincent Kling, AIA.

For builder house jury: Neil Connor, AIA, director of architectural standards for FRA; John Dickerman, executive director NAHB; Carl Münick, past president NAHB; John Noble Richard, AIA, past president AIA; Edward Fickett, AIA; James Lendrum, head, department of architecture, University of Florida; L. Morgan Yost, AIA; Thomas Coogan, past president NAHB.

Entry blanks must be sent in by January 27, 1961, and the entries themselves must be postmarked no later than midnight, February 24, 1961. An entry blank is printed on page 289. On receipt of each entry slip you will be sent a binder for photographs, drawings, and any other material. Full details on size and kind of photographs, written material, and drawings will be sent with the binder.
FORECAST FOR 1961:
by Miles L. Colean
Housing’s No. 1 economist

1961
will be a big year for housing

In dollars 1961 should be the second biggest year yet, second only to the all-time high reached in 1959, much bigger than the two earlier peaks in 1950 and 1955.

In unit starts 1961 will rank either second, third, or fourth, depending on how much the BLS start figures for 1950 and 1955 should be corrected upwards to conform to the changed way of counting starts since housing statistics were transferred from BLS to Census (H&H, July). But the average 1961 start (like the average 1960 start) will be at least 50% bigger and 50% better equipped than the average 1950 start. It will be at least 25% bigger and 25% better equipped than the average 1955 start; and it is likely to involve a 100% bigger dollar investment in housing products than the 1950 average and proportionately more than the 1955 average; so comparing 1961 units with 1950 and 1955 units is like comparing apples with cherries.

Next year should see not less than 1,424,000 housing starts, including not less than 1,375,000 private non-farm, 22,000 farm, 9,000 military, 9,000 federal public housing, 6,000 New York City public housing, and 3,000 college. This would be 75,000 more than 1960 seems likely to hit, but still 128,000—or 9.1%—short of the 1959 record.

The dollar total for new dwelling units in 1961 should hit $19,125,000,000. This is $900 million more than 1960 and less than $900 million below the 1959 peak. It is 61.1% more than the BLS dollar estimate for the peak year of 1950 and 25.4% more than the BLS dollar estimate for the peak year of 1955.

Money will not be the problem

Mortgage money will be available for more than the estimated 1,375,000 private starts, because savings are up, corporate borrowing is not likely to increase, and the federal government will not be competing for funds to finance a big deficit. So the limiting factor next year will not be tight money, but how fast the homebuilders put the newly available money to work, whether or not they can cut their costs to make better housing easier to buy, and how much more livable and desirable they can make their product to compete with the values offered by other industries.

Family incomes have been rising so fast that the average family could qualify FHA to trade up to a home costing something like 71% more than the home where it lives today (see H&H, Jan and Feb).
So, again, the limiting factor next year will be what, if anything, the builders and their realtors do to improve their selling and their sales appeal. There are 11 million families right now who could afford to trade up to a house costing at least $17,500. That is twice as many prospects for $17,500 homes as there are $17,500 homes in the housing inventory for them to buy:

1. if they wanted to spend their increased income for a better home instead of something else, and
2. if they could trade in the equity in their present home to provide the down payment needed for a better home.

Best chance to step up volume far above the level used in this forecast is in rental housing, because:

1. so many of today’s rental units are so bad. Nearly a third are dilapidated or lack private inside plumbing facilities and less than a fifth offer the attractions which are fast becoming standard for new houses, like labor-saving kitchens, indoor-outdoor living, and air conditioning.

2. renters are free to move almost any time they find a home they like better. More than 6 million renters move every year, and most of them could afford to pay much more rent if they saw something they liked enough better.

This year apartment building has been curtailed because the Treasury’s magic fives in the fall of 1959 left the mutuals short of the increased deposits they might otherwise have made available for apartment mortgages. About 195,000 new apartments will be built in 1960—down 32,000 from the 1959 peak. For 1961 the conservative forecast is a rental recovery to about 210,000, but this could go very much higher if the apartment sponsors improve their values and increase their sales appeal enough to stop up the rate at which good new apartments draw in tenants out of bad old apartments. The faster the better, for nearly 6 million of today’s rental units are so bad that they should be taken off the market as fast as possible.

In any event, the rate of increase in apartment building is likely to be slightly more than in single-family houses. The growing availability of land in redevelopment areas, the new FHA acceptance of more small apartments, the greater availability of funds from savings banks and life insurance companies, and the increasing numbers of one- and two-person households in the younger and older age groups all portend a mounting popularity for apartment living.

Stepping up values for new houses and new apartments will be a challenge to the housing industry, because building trades union wages will probably go up about 4% (from 177% of the 1947-49 average to 184%), and building materials prices will probably rise about 2% (from 133.3% of 1947-49 to 136%).

Now that the 1959-1960 housing decline has about run its course, we can see that it was neither so great nor so long as the decline from the earlier peaks in 1950 and 1955. Private starts will probably round out 1960 with a total of little under 1,300,000—down 13% from 1959; dollars spent for new private housing in 1960 will probably be about $17,400,000—down 9.5%. After the 1950 peak these declines were respectively 25% and 15%; after the 1955 peak, 17% and 10%.

continued
Here are the causes of the 1959-1960 drop

To evaluate the prospects of a rise in 1961, it is important to understand the causes of the 1959-1960 drop. A number of reasons stand out:

1. By mid-1959 the stimulus of the FNMA billion-dollar special assistance program was played out.
2. Tightening credit in the second half-year reduced the availability of advance commitments for mortgages and so discouraged plans for expansion in 1960.
3. The combination of high interest rates and high house prices created a sluggish market, further discouraging advance planning. Home seekers who had hoped to trade-up from their present two-bedroom house to a three-bedroom found they could not qualify to buy what they wanted at the higher house prices and higher interest rates, so they decided to stay where they were.
4. A widespread plague of violent weather in February and March 1960 spoiled the start of the building season and caused some permanent reduction in builders' programs for the year.
5. The credit easing in 1960 was too little and too late to stimulate building in the spring and summer.

Here are reasons for expecting improvement in 1961

The steady rise of personal income in face of a greater availability and somewhat lower cost of mortgage money, relatively stable prices, and a greater attention by builders to both price and quality—these are the ingredients of the coming improvement in house-building activity.

1. Higher personal income
   Incomes after taxes have been steadily rising through the year in real terms as well as in current dollars, giving homebuyers a substantial increase in purchasing power despite the bigger bite taken by higher income-tax rates as incomes rise. (Personal taxes increased 7.5% from the fourth quarter of 1959 through the second quarter of 1960, that is, almost twice the rate of increase in gross personal income.)
   The increase in income and the sluggishness of the housing market during that period resulted in an unusual 13% increase in the annual rate of personal savings.
   The capacity to buy or rent more and better dwellings is therefore present. What is needed is more and better inducements. These also are now showing up.

2. Mortgage funds
   The trend in mortgage money during most of 1960 was toward greater ease; but until midsummer this trend was almost imperceptible. More funds gradually became available, but with little change in price. The change is now becoming more apparent and more effective as a stimulant. In contrast to late 1959, when the forward planning period found money at its tightest, in 1960 builders will be able to get assurance of financing for their spring programs.
   Interest rates (or yields on discounted mortgages) will not be low by comparison with early 1958, but they will probably show an average drop of at least 3/4%.
   Savings & loan associations will be more vigorous

3. Prices
   Notwithstanding further increases in land and labor costs, construction costs should be relatively stable. Materials prices will remain strongly competitive, although the cost of some items, such as lumber, may have mild rises with improved conditions. Builders will thus be able to make commitments with unusual confidence. They will also be facing strongly competitive conditions among themselves. It should be possible to persuade buyers that 1961 offers unusual opportunities which may not soon be duplicated.

4. The state of the market
   Through most of 1960 reports of slow sales were common. The disposal of used houses was especially difficult—a factor now of great significance in the new-house market, because so many new-house buyers must obtain their equity from the sale of their present homes. The combination of rising income, high savings, easing credit, and low production in the first half of 1960 is bound to give the 1961 market a better tone.
   The Census reports on vacancies show that the overhang is not serious, taking the country as a whole. Although rental vacancies in the second quarter of 1961 stood at 7.3%, or six basis points above the second quarter of 1959, no increase was shown in the vacancy percentage of single-family houses for sale.

Here is a note on public housing

As tabulated in the official statistics, public or government-owned housing consists mainly of units erected by local housing authorities with or without federal subsidy and units erected on military and defense-related establishments and financed under FHA's Title VIII (Capehart housing).

During the past several years, the military housing sector has represented a substantial part of the total. Since, up to the time House & Home went to press, no new authorization had been given for Capehart construction in the current fiscal year, the prospect is for a decline in this work. At the same time, an increase is expected in local authority housing in New York City, mainly under the provisions of state law.

While it is possible that the next Congress may increase allocations for federally subsidized housing, it is not likely that such enactments will materially affect construction prospects for 1961.

In view of these considerations, we are assuming a total volume of 27,000 government-owned units in 1961, or about the same number as is in prospect for 1960.
The comeback of GAS

A four-part report:
Round table on the use of gas in tomorrow's house ........ overleaf
How gas utilities are helping builders sell .................. p. 140
A portfolio of all-gas promotion houses .................. p. 153
New products ................................................. p. 218
THE PANEL

For the American Gas Assn
Lester T. Potter, president-elect, A.G.A., president, Lone Star Gas Co.
James J. Deely, vice president, The Brooklyn Union Gas Co.
F. W. Batten, vice president, Columbus Gas Service Corp.
John H. Wimberly, president, Houston Natural Gas Co.
Hull M. Henry, president, Northern Illinois Gas Co.
Morris Chandler, president, Northern Illinois Gas Co.
Baron H. Wittmann, vice president, The Peoples Gas Light & Coke Co.
William J. Harvey, vice president, gas operations, Public Service Electric & Gas Co.
Frederick J. Pfuke, superintendent, gas operations, Rochester Gas & Electric Corp.
R. S. Bums, Jr., vice president, Transcontinental Gas Pipe Line Corp.
James A. Wilson, vice president, United Gas Corp.
G. J. Tokesley, president, Western Kentucky Gas Co.

STAFF
Chester Stockdale, managing director
S. F. Wikstrom, director, plan
George Seguler, director, utilization service

For the Gas Appliance Mfrs Assn
Wendell C. Davis, president, GAMA, president, Coblenz & Sexton Co.
Henry Russell, general sales manager, Air Conditioning Div., American-Standard
B. E. Horrell, vice president, Arkansas Louisiana Gas Co.

STAFF
Julius Klein, president, Columbian Appliance Corp.
Lyle C. Harvey, senior vice president, Carrier Corp.
Robbie A. Bell, vice president, general manager, Jantzen Heating & Air Conditioning Div., Midland-Rose Corp.
A. W. Beck, vice president, marketing, Robertshaw-Fulton Controls Co.
Walter W. Stokes, commercial vice president, Formulas Div., A. O. Smith Co.
A. B. Ritchenthal, vice president, The Toppan Co.
George Stevens, merchandising manager, Whirlpool Corp.

For the Housing Industry

APPRAISERS
George Goldstein, past president, American Institute of Real Estate Appraisers
Gene B. Reid, president, Society of Residential Appraisers

BUILDERS
Israel Brodsky, chairman, NAHB Research Institute; past president, NAHB
Gene S. Fisher, president, South Florida IRA
Jacob E. M. Lefferts, chairman, one builder of the year, FLB

INSULATION MANUFACTURERS
James D. Bridgwater, product manager, House Building Industry Sales, Johns-Manville Sales Corp.

LIFE INSURANCE
E. J. Dobson, vice president, Owens-Corning Fiberglas Corp.

REALTORS
Eugene F. Casser, executive vice president, National Assn of Real Estate Clubs
Richard S. Morris, regional vice president, National Assn of Real Estate Clubs
Irving Kem, president, Kem Realty Co Inc

SAVINGS BANKS
S. F. Clark, president, National Assn of Mutual Savings Banks
Samuel W. Howley, first vice president, National Assn of Mutual Savings Banks
Robert Morgan, chairman, Massachusetts Purchasing Group

SAVINGS & LOAN ASSNS
C. Elwood Knopp, president-elect, US S&L League
W. E. McMillan, executive vice president, New Jersey S&L League
Eugene M. Mortlock, president, First Federal S&L Assn

GOVERNMENT OBSERVERS
Julian Zimmerman, FHA commissioner
W. B. Moon, Jr., FHA assistant commissioner for technical standards

MODERATOR
P. I. Prentice, editor & publisher, House & Home
Round Table report on the use of gas in tomorrow's house

Homebuilders and homebuyers both fare better where they can get real competition between gas and electric utilities and between gas and electric appliance suppliers.

"I can't think of anything that is more in the interest of the homebuying public than this kind of competition," said FHA Commissioner Zimmerman. "The more competition develops in this wonderful free market for housing and housing products, the better we like it at FHA."

The comeback of gas in the past decade is good news for everyone concerned with better housing—good news whose importance too many housing professionals have been slow to grasp.

So HOUSE & HOME joined the American Gas Assn (A.G.A.) and the Gas Appliance Manufacturers Assn (GAMA) to sponsor an industry round table on "The use of gas in tomorrow's house." Its twofold purpose was 1) to let the leaders of the housing industry explain its fast-changing needs and markets to the leaders of the gas industry (see pages 137-139 of the Round Table report) and 2) to let the leaders of the gas industry explain to the leaders of the housing industry their fast-changing products and potentials and their plans for future progress (see page 208 and following).

To this Round Table came, among others, the FHA Commissioner and the FHA Assistant Commissioner for Technical Standards; the Chairman of the Research Institute of NAHB and two other builders; the President of the United States Savings & Loan League; the President of the Mortgage Bankers Assn; the President of the Society of Residential Appraisers; the Executive Vice President of the National Assn of Real Estate Boards; the Past Chairman of the Mortgage Finance Committee of the Life Insurance Assn; the President of the National Assn of Mutual Savings Banks; the Chairman of the New England Mortgage Purchasing Group; thirteen chosen spokesmen for the Gas Appliance Manufacturers headed by the President and the Managing Director; and fifteen chosen spokesmen for the A.G.A., headed by the President, the President-elect, and the Managing Director.

The report of the Round Table follows:
Gas is making a big comeback to fight for bigger sales for eight uses in the home

Right after the war gas was so badly outsold that some hasty critics thought gas had passed its peak and started down the same sad road the ice wagon and the coal truck had traveled. Said A.G.A.'s President-elect: "We almost let some big markets go by default."

But now gas is a "resurgent industry," still holding the lead in cooking, lengthening its lead in house heating and water heating, fighting for important new markets in refrigeration, clothes drying, and incineration, selling more outdoor gas lights than it ever sold in the gas-lit era, and answering the challenge of electric heat in winter with a surprise bid for gas cooling in summer.

The comeback of gas began with the conversion from manufactured gas to usually-less-expensive natural gas. This is supplied by a dozen giant pipeline companies who joined the 450-odd local gas utilities in A.G.A. and the 600-odd relatively small manufacturers who make up GAMA to launch a multi-million-dollar industry promotion program and a multi-million-dollar industry research program.

The industry research program in turn made possible a great improvement in the appliances and the other equipment that the gas industry can offer the housing industry—improvements which will be explained briefly on pages 208 to 214 of this Round Table report.

Said the President of GAMA at our Round Table: "We know that in today's market we could not sell the appliances that were 1950's best: and we realize that today's best will not satisfy tomorrow's market."

Here are the underlying facts and figures on how fast the gas industry is growing

During the fifties . . .
Gas more than doubled its sales to 88 billion therms and $5 billion a year.
Gas added nearly ten million more residential customers, extending its mains to a total of some 30 million homes and serving nine million more with bottled (Lp or liquefied petroleum) gas.
Gas more than doubled its plant investment to $20 billion, fifth largest of any US industry.
Gas added a quarter of a million miles to its network of mains and pipelines.
Gas moved up to first place among residential-heating fuels.
Gas tripled its number of residential-heating customers.
Gas increased per capita consumption by residential users 81%.

Gas increased its appliance sales to nine million a year in 1959, raising the total in use to 107 million.

During the sixties, A.G.A. forecasts that . . .
Gas will add another ten million residential customers.
Gas will add 300,000 more miles of main, raising the total to 880,000.
Gas will add over $45 billion
Gas will sell at least 50 million new appliances in the first half of the decade alone. Said GAMA'S President: "The industry believes its appliance sales potential is truly tremendous; for the decade the sales potential is around 150 million, an increase 50% bigger than the total of all the gas appliances now in use."

The gas industry spends $30 million a year to help the housing industry sell with gas

"We believe a house is easier to sell if it has a great big gold star over the gas range to let the homebuyer see at a glance that it has all 32 of the quality features we know women want."

So GAMA'S Managing Director explained the quality programs on whose promotion the gas industry is now spending more than $5 million a year for national advertising and $25 million for local advertising—the Blue Star program which promises good performance on all types of gas equipment and the new Gold Star program which assures the highest quality on ranges and is being considered
for extension to other domestic appliances.

In its first year 11.7% of all gas ranges sold carried the Gold Star emblem and over 85% of all gas appliances carried the Blue Star. This year the sale of Gold Star ranges is up 40% and special local promotions have shown that women are so quality-minded about ranges that the percentage of Gold Star sales can be raised well over 50%.

**The market potential in new houses is much bigger than today’s sales**

The housing industry’s No. 1 problem is to make its product so much more desired and desirable that consumers will want to spend more of their rising incomes to buy better houses or rent better apartments. Says Housing Economist Miles Colean: “The average family could qualify by FHA income requirements to buy a house costing 7½% more than the house where it now lives.”

A good easy-to-clean kitchen with all the labor-saving devices is one of the very best ways to make a new house or a new apartment more desirable. And the package mortgage lets homebuyers buy a $15,000 house with all the appliances included for only a little more cash and only a little more monthly pay-off than the appliances alone would cost on a three-year consumer credit.

So the housing industry wants and welcomes all the selling help it can get from the gas industry and the gas appliance industry.

The housing industry and its suppliers are all in the same boat and they all stand to prosper together if they can make the boat bigger. If the kitchen sells the house (as many builders and real estate men say), the lumber manufacturers, the window manufacturers, the roofing manufacturers, and all the other suppliers profit too, along with the builder. Conversely, the appliance makers benefit if big windows, sliding glass doors, and a screened patio sell the house, just as they benefit if bigger rooms and better storage clinch the sale. And if an electric dish-washer and an electric clothes washer help sell the house, they may thereby also sell a gas clothes dryer and a bigger gas water heater.

Housing is America’s biggest industry; it would be a much bigger industry and a much bigger market if more people were made to realize how much more livable and how much more economical a good new home can be than yesterday’s best.

Gas appliances all go into homes, and 70% of all gas sales go into houses. So, in a very real sense, the gas industry is part of the housing industry that provides its principal market.

**The builders’ model houses offer the finest appliance show rooms**

Each year 39 million different adults shop the show houses that some 4,000 merchant builders furnish and staff (at a cost to the builder of up to $25,000 per model for getting out the crowds and handling the promotion).

Said the past president of NAHB: “Less than ten model-house builders set the standard in every market that all the other builders have followed. What home-shoppers see in the model houses sponsored by these ten-or-less leaders will determine what they will expect every other builder to equal.”

What they see will also change their thinking about what to buy for their present homes if they decide to remodel instead of moving. What they see there will make a big difference in replacement sales—and a big difference in what brands dealers will want to carry and sell.

So nothing is more important to the future of gas than to get gas furnaces, gas air conditioners, gas ranges, gas water heaters, and other gas appliances displayed and featured in as many good model houses as possible.

The builders are making a sizable investment in these models. It will pay the gas industry to make an investment too, selling the equipment used in the actual model at cost, providing interesting displays for the model-house showroom, and paying a competent demonstrator to help the builder and his real estate agent exploit the selling points of the gas units used.

continuea
FHA’s new attitude towards quality makes it easier to sell its economy

Today FHA requires no more income to buy a $15,000-or-more home with all the appliances included than FHA requires to buy a stripped-down model of the same house without the appliances. Today FHA requires less income to buy a house built with quality components and quality equipment (like water heaters, furnaces, etc) than to buy the same house sold for a lower price with inferior equipment —provided the manufacturer can demonstrate that the better equipment will save the homebuyer money in the long run. Said FHA’s Beverley Mason: “If better equipment will cut the operating cost of a house $2.50 a month, FHA will let the buyer qualify to pay $350 more to buy it.”

Today FHA requires no more income to cover the operating cost of air conditioning. Said former FHA Commissioner Norman Mason (now Housing Administrator Mason): “Air conditioning frequently offers savings on health, cleaning, and other items that may well be bigger than its operating cost.”

Today FHA requires only $100 more cash to add an extra $1,000 worth of equipment to a $15,000 house, and allows up to 30 years to pay off the balance.

Said FHA Commissioner Zimmerman at our Round Table: “Homebuyers should buy the quality that is necessary to make the house good and take advantage of the liberal financing that is now available to amortize the cost of quality over up to 30 years.”

Said A.G.A.’s Managing Director: “FHA’s support on quality will be a big help.”

Gas rates to consumers are leveling off leaving gas still the cheapest easy fuel

From 1950 to 1959 the BLS index of gas rates rose 32.2% for heating and 23.8% for other residential uses, but because of bigger consumption homeowners actually paid only 13.4% more per therm—9.65¢ per therm in 1959 vs. 8.51¢ per therm in 1950. This increase was partly due to higher field costs. Fifteen years ago natural gas was being flared in the oil fields just to get rid of it, so producers were glad to get any income at all for it. Said A.G.A.’s President-elect: “Gas was running out of our ears; we welcomed any chance to sell it.” Today, natural gas has a good market everywhere, so the field price has risen from 6.5¢ per M cf in 1950 to 12.1¢ in 1958. “But the field price is not going up forever—we are getting near the stopping point.”

Pipeline costs have remained almost unchanged, at about 10¢ to 15¢ per M cf per 1,000 miles, because the transmission companies have learned to lay bigger pipes that offset higher wage and material costs. Today’s new 36” pipelines can carry 60% more gas than yesterday’s 30” at only 40% more first cost. Now transmission companies are experimenting to develop a field pipe-bender for 42” lines. Pipelines try to operate at almost 100% of capacity, pumping gas into local underground storage or selling it at lower rates to industrial customers in the summer off-season. The average load factor of the distribution gas companies, however, is only about 65% to 70%, so fuller utilization from increased gas sales would produce lower costs for some companies.

Soon the gas companies hope the gas air conditioning will change the whole economics of gas by creating a big new summertime demand, enabling them to sell gas all year round to profitable residential customers instead of dumping gas in the slack season to low-paying industrial customers. Says Arkla’s Harrell: “Air conditioning is the answer to our problem of stopping the increase in the residential cost of gas.”

If gas should lose the new-house market it would lose the replacement market too

The new house sets the standard for fixing up the old, so the most suicidal mistake any industry or any manufacturer can make is to get sales-happy selling replacements into old houses and neglect the style-setting market in new homes and new apartments.

One sale in the new-house market is worth two in the old. Unless women see plenty of gas appliances when they shop the builder’s new model houses and visit their friends’ new homes, they will get the idea that gas is old-fashioned and try to buy something else for their own replacements.
Selling more gas appliances into apartments this year will sell more gas appliances into houses in future years, for today's apartment renters are tomorrow's homebuyers. What they learn to like in their apartments they will want to find in the houses they buy.

Five new houses out of six today are merchant-built for sale. The builders of these houses are professional buyers, so there is no use expecting them to pay the kind of mark-up dealers try to get from homeowners modernizing their houses on installment credit. On the other hand, many builders are so sure that good appliances are a big sales aid that they put appliances into the price of their houses at cost, taking no mark-up on them at all.

The housing industry wants and welcomes all the help it can get for consumer advertising that will make consumers appreciate the new products that make new houses so much better. But . . .

It is foolish and wasteful for any manufacturer to think he can afford to sell his product into the style-setting new-house market without the help of the professionals who control the market, for this much is sure: Nothing but nothing goes into a new house without the approval of the architect who specifies it, the builder who builds it, the lender who finances it, and the appraiser who sets its price.

And extra features and extra quality seldom get built into a new home unless the realty man selling the house knows how to make the extra feature worth more than its added cost in added sales appeal. This reality salesman is the manufacturer's only face-to-face contact with the homebuying consumer. Said Builder-Realtor Alan Brockbank: "The man who plays the biggest part in helping consumers form their opinions and make their decisions is the realty man who sits with them when they get their pencils out. If my salesmen believe in a product used in my houses, I don't have any trouble selling that product; but if the salesmen don't believe in it, they won't promote it to the public and won't use that product to help my sales."

Builders would rather buy gas appliances on a one-price basis from a single source

Messiest problem in housing is the lack of a firm price for anything. Said the president of one of the ten biggest manufacturers serving the industry: "I don't know what my products actually sell for and I can't find out." Said the president of another: "I don't really care any more what builders pay for our products. We know what we get from our distributors; beyond that it's up to them to quote prices that will get the order."

This price chaos is bad for everybody, including homebuyers.

It is bad for builders, because it makes them waste countless hours shopping around for prices if they are to do their job right as purchasing agents for the homebuilding industry and the homebuying public. Says FHA Commissioner Zimmerman: "The builder must and should be completely concerned with getting the lowest available price. That is the major part of his job. He is the professional buyer for the housing industry, and he must resell whatever he buys in a highly competitive free market."

It is bad for dealers, who often find themselves squeezed completely out; it is bad for mortgage lenders and appraisers, because they never know what the builder really spent for better quality; it is bad for manufacturers, because the constant haggling over price drives sales down to the cheapest products FHA will pass.

It is particularly bad for the gas industry and the gas appliance industry because in most areas there is no one place (except sometimes Sears Roebuck and sometimes the local gas company) where a builder can buy all the gas-using components for the houses he builds.

Some he must buy from his heating contractor, who hides their products FHA will pass. Some he can buy direct from a distributor if he shops long enough and hard enough. Some he must buy from his plumbing contractor, who hides their price and quality (or lack of quality) in his bid. Some he must buy from his heating contractor, who likewise hides their price and quality in his bid. Said utility spokesman Wittman: "The subcontractor almost invariably bases his bid on minimum

Gas Round Table continues on p 208
Today's embattled gas utilities are giving builders plenty of effective selling help

The two homebuilders signing in at the Gas Appliance Center in Dallas (left) didn't just wander in off the street. They were brought there by the gas company's architect-builder representative—a new breed of employee of the once-staid gas utilities, now fast becoming one of homebuilding's most helpful timesavers and most effective selling allies.

Before the builders leave the Center they will have seen—lined up for easy comparison and one-stop shopping—380 new gas appliances in every price range offered by 26 manufacturers. They will also have been overwhelmed with the selling points of everything new in gas ovens, gas cooktops, gas water heaters, gas furnaces, gas air conditioners, gas refrigerators, gas dryers, gas incinerators, and ornamental gas lights—and how each can be exploited to sell more houses.

So the odds are better than 2 to 1 that before they leave they will sign on the dotted line to put at least four gas appliances in their model houses and let the gas utility give them a lot of free help to sell more gas-equipped homes.

Dallas' Lone Star Gas Co (like many other embattled gas utilities) has decided that the best way to sell more gas is 1) to help manufacturers sell more gas appliances and other gas equipment and 2) to help the builders who buy those appliances sell more gas-consuming houses.

Almost everywhere gas utilities are working as closely with the builder as his architect, his realtor, and his mortgage lender.

To help builders sell, gas utilities are creating advertising (p 142); supplying signs (p 144) and merchandising displays (p 145); running special promotions (p 146); providing appliances for model houses (p 148); training new-house salesmen (p 148); staffing model houses (p 149); surveying markets (p 150); offering design and engineering services (p 150); stockpiling appliances (p 151); and even taking over some of the builders' callback problems (p 152).
How gas utilities help builders sell

They employ experts to write better ads for builders' houses

Many gas utilities provide builders of all-gas Blue Star houses with a professional quality of advertising few builders could afford on their own.

They take over the job of preparing the builders' sales brochures, newspaper advertising, and—in some markets—TV commercials. In varying degrees they help pay for this promotion—some pay $25 to $100 a house, others pay all costs.

Perhaps the best example of all-out and effective advertising help can be found in Dallas. The photo sequence below and opposite outlines the advertising job Lone Star Gas Co does for 42 builders in its various gas promotional programs.

Because Lone Star does so much work for builders, it requires more of the builders in its Blue Star Home program than most utilities. To qualify for the complete program shown in the photos, the builder must not only meet the basic requirements of the Blue Star promotion program by using gas for heating, water heating, and cooking; he must also install gas air conditioning and a Gold Star (top quality) range.

Builders who have tied in with Lone Star think this is a fair exchange.
4. **PREPARING COPY** for builder’s sales brochure, agency copywriter works to promote the builder and his houses first—then the gas company.

5. **CONFERRING WITH BUILDER** at his office, architect-builder representative gets approval of copy, artwork, and layout for proposed brochure.

6. **CONFERRING WITH PRINTER**, production woman from utility’s agency checks page proofs of builder’s brochure for accuracy, color registry, and high-quality appearance.

7. **FINISHED BROCHURES** are delivered to builder’s sales manager by gas company’s representative well before opening.

8. **VISITING NEWSPAPER OFFICE**, utility’s publicity man delivers release about builder’s houses, answers questions.

9. **TV SPOTS** on prime evening time are paid for by gas company, which shares billing with its latest Blue Star builder.

*OCTOBER 1960*  
continued
How gas utilities help builders sell

They design and supply signs for the model house

SIGN INSIDE MODEL stress benefits of new gas ranges, refrigerators, dryers, and incinerators. They were supplied by Minneapolis Gas Co for a local builder's model house.
They furnish displays for builders’ salesrooms

“There is no better place to sell the public any new product,” says Frank Foster, vice president of Southern California Gas Co (which has set up displays for more than 100 builders, has an average of 175 gas refrigerators on loan in model houses).

“So,” Foster adds, “putting good appliance displays into the model house is good business for appliance manufacturers and for us — as well as for the builder. In our area, some builders don’t include refrigerators or washers and dryers in the basic price, but if we put these appliances in a model house display we encourage prospects to take them as optional extras.”

What does a builder do to get a utility to set up a product display area? Says Foster: “We have no standard requirements. We evaluate factors like the character of his community, his location, his price class, and the promotional opportunities for us. We evaluate what it will take to help him sell more houses. Then we act.”

EDUCATIONAL DISPLAY supplied by gas company explains the source, production and distribution of gas. This is inside display room shown above.

PRODUCT DISPLAY on opposite wall explains advantages of new appliances, stresses brand names. Careful design and lettering gives display a quality look.
How gas utilities help builders sell

AT INFORMATION CENTER, utility employee points out all-gas models in area, helps prospects choose models in the location and price range that suits them.

They bring out prospects with special promotions

One of the most successful new-house promotions is Southern California Gas Co’s “Great Builder Series” which, since May, 1959, has helped promote the “Tour-Tested Homes” (see photos below) of more than 2,000 builders.

The utility has 18 home-information centers around Los Angeles to which new-house prospects can go for information on “Tour-Tested Homes” which the features they want at the price they can afford to pay. Maps show the location of houses by price class. Files hold sales brochures of 600 different builders.

The home-information centers are particularly helpful to newcomers in California’s swelling population.
Crowd-pulling ideas used by gas companies in builder promotion run the gamut from outright stunts to solid marketing ideas (like supplying new-house information to the personnel directors of new or expanding corporations). Most of these promotions are tied in with the opening of new model houses. Here are some examples:

**DOOR PRIZES** donated by Southern California Gas Co are an added inducement for visitors attending model openings.

**DISPLAY CARDS** on gas company trucks give first billing to the name of the building development and basic new-house facts—then promote gas.

**100-YR-OLD GAS LAMPS** in their original London setting were imported by Lone Star for installation at Stonegate Homes in Tarrant County, Tex.

**"TEXAS TORCH,"** with copper tube bubbling lighted natural gas up through bowl of water, is nighttime attraction supplied by Lone Star for model openings.

**CROWD-PULLING CELEBRITY,** Actress Margaret O'Brien, appeared at the opening of builder's all-gas model. Tie-in was arranged by the gas company.
How gas utilities help builders sell

They give or lend the appliances for model houses

Most gas utilities realize that a full array of appliances can help the builder sell more houses, and also help sell more gas. That's why:

1. South Jersey Gas Co lends refrigerators and washer-dryers to 30 builders.
2. Laclede Gas usually has 200 gas dryers out on loan in about 50 builders' model houses.
3. Houston Natural Gas Corp gave a range, oven, vent hood, two bathroom heaters, and an ornamental gas light to each of the 16 builders of all-gas houses in the 1960 Houston Parade; installed gas refrigerators and gas air conditioners at discount prices.
4. Southern California Gas Co helps builders by spray painting hundreds of washers, dryers, and refrigerators to match gas-using appliances in model houses.

GAS REFRIGERATOR IS UNLOADED at model house before weekend opening. Lone Star Gas Co delivers just the model and make requested by builder.

They train salesmen to sell gas-product features

Most gas utilities realize that salesmen who know all the talking points and selling points of the house and its equipment can sell a lot more houses, so they offer sales training courses for builders, realtors, and salesmen.

Some utilities concentrate their training on the good points of gas and gas appliances; others like Southern California Gas Co (which has trained over 2,000 new-house salesmen) include talks by engineers and salesmen for other products used in houses, like millwork and cement blocks.

ATTENDING TRAINING MEETING, builders gather at one of Laclede's home service centers. Meeting is followed by dinner that builders cook.
They help staff the model with men who sell houses—not just appliances

“We’ve learned the best way to sell gas is first to help the builder sell his houses.”

So says Billy Harrell, vice president of Arkansas Louisiana Gas Co, who stations his salesmen right in model houses. He adds: “When a salesman points to a Gold Star quality gas range he is implicitly telling the customer something about quality in the rest of the house.”

Most gas companies concentrate their sales help on opening weekends or during a builder’s heaviest promotions, but some offer year-round sales help and appliance demonstrations by home service advisors.

Says Realtor-Builder Dale Witt of Norfolk, Va.: “The reason I switched to gas was not for the $25 the gas company gave me for each gas range I installed, but because the company’s service girl demonstrated for me as well as for the utility. That kind of help is invaluable.”

1. UTILITY SALESMAN (from Arkansas Louisiana Gas Co) doubles as house salesman at builder’s opening, shows builder’s brochure to house-hunting couple.

2. SHOWING AUTOMATIC MEAT THERMOMETER, gas company salesman urges wife to “see for yourself” how handy the device is.

3. SHOWING GAS AIR CONDITIONER, salesman answers technical questions raised by husband.

4. SHOWING OTHER QUALITY FEATURES, company salesman points out fireplace with built-in spark screen (left photo), bathroom with vanity, big mirror, quality hardware.

OCTOBER 1960
How gas utilities help builders sell

They make surveys to help builders spot the market

Most gas utilities employ builder-architect sales representatives who can advise builders on what types of floor plan, what price range, and what style houses are selling best. But Southern California Gas Co goes a step further, employs a professional marketing organization to conduct market surveys (see bar charts, right). This information is offered to builders as a part of the Great Builder Series program (see p 146).

MARKET SURVEY RESULTS prepared by Southern California Gas Co were developed from curbside interviews in one development during peak traffic hours. Other results showed where prospects live and work, whether they own or rent, how many previous visits they made, which models they prefer, what attracted them to the model houses.

SOLVING ENGINEERING PROBLEM. Lone Star Gas engineer figures heat loss to determine size of furnace and air conditioner needed by builder.

SOLVING DESIGN PROBLEM. Southern California Gas planner (standing) discusses arrangement of kitchen with Builder Richard Henniger.

They offer design and engineering services

Several gas utilities now help builders lay out their kitchens. First they find out how much space a builder has allotted for a kitchen and where he plans to put the doors and windows. Then they prepare colored renderings to show him how appliances will fit into his kitchen and how they will look with different floor and counter materials, kitchen cabinets, and lighting fixtures.

"Gas utilities like Milwaukee Gas & Light, Arkansas Natural Gas, and United Gas Corp offer heating-engineering advice as a standard practice," says Jerry Mullins of A.G.A. And some local utilities give builders special services like the loan of portable gas heaters to thaw frozen ground for a house foundation (H&H, Sept) and temporary heat for houses under construction (photo, left).
WAREHOUSE FULL OF APPLIANCES stockpiled by Arkansas Louisiana Gas Co assures builders of delivery of any make or model on 24-hour notice.

They stockpile appliances to assure fast delivery

By stockpiling appliances themselves or working closely with local distributors, almost all gas utilities make sure a builder can get the make, model, and color of appliances he wants for his model houses.

Arkansas Louisiana Gas Co goes a step further—warehouses enough appliances to act as the distributor for all builders of all-gas houses in its area.

Says Arkla’s Billy Harrel: “We buy in carload lots, and offer 70-odd appliance packages with a combination of seven brands of quality ranges, water heaters, dryers, etc. We have 700 dealers, but we are not competing with them because they don’t sell the new-house market.

“We give a builder a price on one appliance or five, and if he wants to buy a carload, we’ll give him a price on that. We’ve sold as many as 159 gas ranges to one builder at one crack.

“We don’t believe that a builder just wants cheap products. He uses Gold Star quality because we give him carload prices for quality products. Perhaps that is why almost 90% of the gas ranges sold in our area are Gold Star.

“We’ve learned that the builder wants service. He is more interested in finding equipment that he wants than in saving $25. We try to save him the time he would spend shopping around for appliances—so he’s free to build and sell another house. We get the job that he needs done for him. All he has to do is sit in his office and decide what he wants—then call us. Then it’s our problem and we solve it—we can supply him with whatever appliances he wants within 24 hours” (see photos, right).

1. BUILDER CALLS Arkla Gas Co to order appliances for group of new houses.

2. GAS MAN ANSWERS call, promises quick delivery of appliances to builder’s site.

3. GAS MAN CHECKS warehouse stocks to be sure colors in shipment will match.

4. APPLIANCES ARE DELIVERED within 24 hours, installed by gas company men.
How gas utilities help builders sell

They take over the callback problems in gas appliances

Some utilities like the Arkansas Louisiana Gas Co, whose activities are pictured on this page, provide free service on appliances during the warranty period. Other help with post-sales selling, show housewives how to operate appliances after they move in.

SERVICE STICKER pasted on air conditioner by Arkla builds homebuyers' confidence by assuring them of service at any time.

1. POINTING TO SERVICE STICKER. Arkla salesman, assigned to model house, tells prospect about his company's service to homebuyers.

2. ASKING FOR CHECK-UP of air conditioner in her new home, housewife dials phone number on service sticker to call gas company.

3. REACHED BY RADIO PHONE from his headquarters, Arkla serviceman in area closest to woman who requested service arrives at her house.

4. PROMPT ARRIVAL OF SERVICEMAN pleases housewife and builds goodwill for the builder as well as the utility.
On the next four pages you will see FOUR ALL-GAS HOUSES
HILLTOP HOUSE, modified from an original design by Architects John Normile (of Better Homes & Gardens) and Donald Honn has 1,980 sq ft of living space.

THIS $39,500 HOUSE IN MINNEAPOLIS by builder Hugh Thorson was a Better Homes & Gardens Idea Home as well as a gas promotion house. Its price included landscaping, carpets, air conditioning, and appliances.

The Minneapolis Gas Co helped Thorson build and sell this house by 1) installing an air conditioner at half price, 2) providing a free gas range, oven, and barbecue, 3) loaning a combination washer-dryer, 4) supplying an outdoor gas light, 5) preparing brochures to his specifications, 6) providing TV advertising and four-color advertising in a Sunday supplement, and 7) supplying two salesmen to help handle Sunday traffic.

T-SHAPED PLAN puts three bedrooms and bath in the rear, kitchen between living and dining rooms oriented to a patio.

REAR ELEVATION shows how the hillside site was used to turn basement into a daylighted living, work, and play area.

ALL-GAS KITCHEN (left) has refrigerator, twin ovens, barbecue, cooktop, and sink in a compact, efficient work plan.
HILLSIDE HOUSE has a 4'-wide deck surrounding the living-dining-kitchen wing, supported by pillars over the carport. Bedroom wing, rear, is built into hill.

THIS $75,000 HOUSE IN PITTSBURGH helped build prestige for all three gas companies serving the Pittsburgh area and for the builder, Caste Bros Inc.

The house, located in an exclusive Pittsburgh suburb, was shown in well promoted evening openings to a select list of potential customers and to groups of architects, builders, and other housing professionals important to the gas companies. The builders got TV coverage, reduced prices on appliances, and extensive promotional help from the gas companies (People's Natural, Manufacturers' Heat & Light, and Equitable). Architect was Lucian Caste.

TWO-ZONE PLAN has four bedrooms, two baths separated from living-kitchen wing by entry stairs and corridor.

TWO AIR CONDITIONERS—one for each wing of the house—and water heater are in the basement under bedroom wing.

KITCHEN (below) has two sinks equipped with single-handle mixing faucets, glass-door cabinets, gas refrigerator, oven, and range.
L-SHAPED HOUSE has 1,088 sq ft of living space, is the lowest-priced model of six all-gas houses built by Fischer & Frichtel, St Louis.

THIS $15,150 HOUSE IN ST LOUIS is one of six all-gas (and Blue-Star-promoted) models now being built by Fischer & Frichtel of St Louis. The house has a separate entryway that keeps visitors from stepping directly into the living room, an almost circular traffic pattern around its interior kitchen and bath.

Here is how the local utility, Laclede Gas, helps F&F:
1) It helps pay for the gas mains extending out to F&F's subdivision;
2) it provides generous cash rebates for advertising;
3) it loans washers and dryers for F&F's model houses;
4) it supplies attractive displays showing "the economy of heating with gas."

FLOOR PLAN shows that the living area, built around an interior kitchen and bathroom, is almost square (32' x 36').

INTERIOR KITCHEN with a U-shaped appliance arrangement opens onto a family room. Washer and gas dryer are located in a corridor off the bedrooms.

LIVING ROOM can be reached from the entryway (left) or from the bedroom corridor (right). Ceiling-high openings between rooms give house an airy feeling.
THIS $75,000 HOUSE IN TUSTIN, CALIF. is a show house for both builder and gas utility. Builder Ed Nahigan, who specializes in $30,000 to $35,000 houses in Orange County, uses the house to show customers the design and construction to expect in any Nahigan house. His architects, Miller & Miller, made almost full use of the lot by putting a central court in front of the house, a swimming pool (not shown on plan) in the rear. Nahigan's utility, Southern California Gas Co, helped furnish the show house with the latest in gas equipment: a single-unit air conditioner that heats and cools, a refrigerator with automatic ice maker, gas oven with motorized triple rotisserie, a gas range with automatic top burner controls, and a gas barbecue.

U-SHAPED PLAN wraps around a patio and pool in the central entry court visible from almost all parts of the house.

BRICK FIREPLACE AND GAS BARBECUE between kitchen and family room are shared with a small breakfast area, left, overlooking the central courtyard.
The business end of a Bostitch stapler

IT'S BUILT TO DO JOBS WELL...TO DO JOBS PROFITABLY...
TO GIVE YOU MORE TIME FOR MORE JOBS

The quality, ease of operation, and long-lasting usefulness built into each Bostitch stapler mean an increase in your profits.

You'll find there's one for every fastening job. Shingles, foil-type and batt insulation, undercourse shakes, ceiling tile and many other materials are fastened quickly and easily, so you can build better at less cost in time and materials.

See the complete line at your Building Supply Dealer. Buy them—profitably—for your next job.

Profits are better and faster with

BOSTITCH STAPLERS AND STAPLES
Be sure to see NEW WAYS TO BUILD BETTER
A monthly report on home building ideas, products, and techniques

Starting here

Technology

CHURCH in St Louis, by Architects Manske & Dieckmann, has stressed-skin, folded plate roof.

New designs like this boost use of sprayed-on roofing

With steep roofs, the only way to get an outside surface with no joints, laps, or seams is to spray a waterproof plastic membrane onto sheathing or decking.

To do this for the striking church roof above, the architects specified a new three-coat system (primer and two finish coats) developed by Plas-Chem Corp with Union Carbide. Applied to stressed-skin plywood roof panels at ambient temperature, the plastic formed a membrane said to last at least ten years.

Plas-Chem vinyl roofing is the newest of many spray-on systems worked out in the last two years. Asphalt, polyesters, epoxies, urethanes, as well as vinyls have all been adapted for spray-on roofing. They cost more than many other roofings but solve design problems other roofings cannot solve.

And on the following pages

More Technology

New concrete cuts wall construction costs.... Easy way to vent an island sink.... How to install sewers to avoid downtime and breakage.

What the leaders are doing

New house shows new ideas for built-ins.... Local artists help decorate model houses.... Prefabber's best seller is split level.

New Products

What's new from the gas industry.... New system gives guaranteed termite protection.... New heavy equipment, new nylon lock, new intercoms, new siding and paneling.

Publications

How to sell panel houses.... How to cut vapor transmission.... How to color-coat masonry.... How to specify prefab chimneys.... How to use hardboard.
Electrical outlets aplenty!
More flexible office layout
with new 3-Wire Electrostrip

New 3-Wire Electrostrip® grounds office machines . . . gives you handy outlets you can move.

Here's absolute electrical safety combined with an abundance of outlet convenience. New 3-Wire Electrostrip is UL listed and meets the electrical code requirements for equipment grounding. Electrostrip outlet receptacles twist into place anywhere on the strip. When you relocate machines, you can relocate outlets right where you want them!

See your electrical contractor about 3-Wire Electrostrip. He'll install it swiftly, economically—without mess, without disrupting work schedules. Electrostrip is the safe, modern system for wiring offices, showrooms, shops and institutions. It provides electrical outlets aplenty!


Installs quickly on wall surfaces
Outlets anywhere you need them
How to save 40% to 50% on-site labor on Oak Floors

FINEST FINISH EVER GIVEN HARDWOOD FLOORS

Eliminate floor sanding and finishing to free yourself from a big headache in home construction and to save on-site labor costs. When you use Bruce PREfinished Floors there’s no waiting for sanding, no tieups while finishes dry, no interrupting other work. Bruce PREfinished Flooring is easy to lay (just like plain strip) and the beauty and durability of the factory-applied finish are far superior to on-the-job finishes. Write today for complete facts. See our catalog on all Bruce Floors in Sweet’s File.

BRUCE PREfinished Floors

E. L. BRUCE CO., 1594 Thomas St., Memphis 1, Tenn.
A BIG STEP FORWARD IN REMOVABLE WINDOW EQUIPMENT

Now available
An excellent feature for apartments as well as homes

Today, removable windows have wide appeal. Among the first to realize the value of the removable feature was Zegers, Inc. About five years ago they set out to produce equipment that would provide removability and also assure efficient weatherstripping. The job was not easy, but constant research and testing finally brought the desired results. Now, the Zegers removable equipment, called “Take-out,” is available!

Just a slight sideways pressure of the sash, in either direction, and Take-out equipped window is out.

The problem was solved by combining famous Zegers Dura-seal principles of efficient weatherstripping and dual sash support with a new compressible jamb, so that weather-tight, well-balanced, double-hung wood windows now can be lifted out and put back easily, quickly. No longer will users have to tug and struggle to remove and replace windows. Tests made by independent research laboratories show that windows equipped with Take-out exceed F.H.A. requirements by more than 50 per cent!

Probably one of the most important Take-out features is Dual Balancing* which provides two spring balances on each sash, one on each side, to prevent the sash from tilting. Furthermore, Take-out is coated with Zelite, an exclusive process that keeps the metal bright and beautiful.

With Take-out, cold, drafts, or dirt cannot enter. In the summer, warm air cannot enter air-conditioned homes through the windows and cool air cannot escape.

Builders! Ask your lumber dealer about Take-out or write now for our new folder.

Lumber Dealers: Write for new Take-out folder and ask to see a Take-out Window in operation!

ZEGERS INCORPORATED
8090 South Chicago Ave.
Chicago 17, Illinois
Manufacturers of Dura-seal Weatherstrip and Sash Balance, Take-out, and Dura-glide
*Pat. Applied For
General Electric Textolite adds a touch of beauty and durability to apartment kitchens and baths — counter tops, cabinet fronts, vanities and wall surfacing. Textolite beauty is as important to the apartment resident as Textolite durability is to the apartment owner.

G-E Textolite offers a complete line of counter top patterns, including the original Spungold, as well as a wide range of Woodgrains in both conventional and new textured finishes for cabinet front applications.

For free samples of trendsetting pattern-colors, contact your G-E Textolite representative or distributor . . . they are listed in the Yellow Pages under PLASTICS. Or write, General Electric Company, Coshocton, Ohio.

Progress Is Our Most Important Product

General Electric Company, Dept. HH-100
Coshocton, Ohio
( ) Please send me G-E Textolite samples.
( ) Please send display information.
( ) Please have your representative call.

Name
Address
Firm
City Zone State
"My husband and I had been looking for a home in the $15,000 range around Columbus for a long time," says Mrs. Robert Hart. "But when we went through the Homestead model homes of Jewel Builders, we knew our search was over—almost instantly.

"These homes were air conditioned and were so cool and comfortable. Then we learned that the filtered air meant less pollen, healthier living and easier housekeeping. That's important with three small children! We certainly liked the layout and modern kitchen of the homes—but air conditioning was the feature that really sold us!"

Jewel Builders reports over 50% of the buyers in their Homestead tract cited air conditioning as the key influence in their buying decision. All 300 homes in the tract had it. Mr. Julius Cohen, president of Jewel Builders, says: "All the nearly 1,600 homes we plan to build during 1960 in Columbus, Pittsburgh and Youngstown areas will have air conditioning. They'll be priced from $13,750 to $17,000."

There's proof that air conditioning can help sell homes in northern as well as southern tracts. Summer temperatures for the Columbus area average 85°F., and they range up to 100°F. Pollen count averages 75. These climatic conditions are very similar to those in other northern cities such as Pittsburgh, Chicago, Minneapolis and Detroit.

Top-quality air conditioning units are charged with dependable Du Pont Freon® refrigerants. Call your equipment manufacturer for details about the sales power of air conditioning.

DOES YOUR TRACT FALL IN A CLIMATE SIMILAR TO COLUMBUS, OHIO?

If so, air conditioning can help you sell, just as it did for Jewel Builders. Look at the shaded area on map to left. It includes Columbus and hundreds of communities across the country with the same climatic conditions. Is your tract in this area?

*Freon is Du Pont's registered trademark for its fluorocarbon refrigerants.

BETTER THINGS FOR BETTER LIVING ..., THROUGH CHEMISTRY
TECO is the plywood grade stamp of dependable quality backed by the Timber Engineering Company of Washington, D.C. They are a highly respected engineering and research group known in the forest products field for more than a quarter of a century. This independent FHA-accredited testing agency place their own technician in each participating plant. TECO knows there is more than meets the eye in every sheet of plywood. They check and test on a continuing basis the core material, the kind and type of glue, patching, in fact the whole operation from log to finished product. This is the reason TECO is your best guarantee of a dependable supply of superior plywood.

One of your best sources of TECO TESTED Plywood is:

WILLAMETTE VALLEY LUMBER COMPANY
WILLAMETTE NATIONAL LUMBER COMPANY
Dallas, Oregon, Phone MAYfair 3-2351, TWX 80-U
Announcing, Carrier’s New 5-Dimension Heating Package That...

1. CONTROLS WINTER HUMIDIFICATION—
provides just the right amount of moisture all the time ... never too little or too much.

2. PROVIDES WHOLE-HOUSE ODOR REMOVAL—
whisks away even such smells as cabbage and stale tobacco from every room in minutes.

3. AUTOMATICALLY CLEANS AIR—
reduces dust, dirt and pollen automatically, with constant efficiency, for a healthier home.

4. DELIVERS CONTROLLED HEATING—
maintains constant temperature within 2° of thermostat setting.

5. PROVIDES FOR ADDITION OF COOLING—
future installation of cooling unit is simple and economical.
WITH HOUSEWIFE APPEAL?

When you talk about removing household odors, easing the lady's cleaning problems, and maintaining comfortable, healthful humidity for her family, you're selling the woman on her own terms. And, of course, well-regulated heating and the possibilities of future cooling are considerations that every member of the family is interested in. But the point is: Now, the heating system in your homes need not be just another commodity—it can be a potent, sales-clinching feature when you install the Carrier 5-Dimension Heating Package.

**Here's How 5-Dimension Heating Can Help Sell Your Homes**

Have your salesmen put these questions to all your prospects, especially women:

1. How would you like to cut dusting and cleaning time in half?
2. How would you like to be rid of pungent food odors—like cabbage—as soon as the cabbage is eaten?
3. Is anybody in your family a hay fever or allergy victim?
4. Have you ever found an effective way of removing dense tobacco smoke and close, stale air when you have a party?
5. Do any of your children suffer from dry skin, eczema, croup?
6. Did you ever wish you could find a way to stop your valuable furniture from developing loose, creaky joints in the wintertime?
7. Will you consider installing air conditioning in the future?

You're going to get a lot of “yes” answers to these questions, and it only takes one to establish a big plus for your home... if you have Carrier 5-Dimension Heating.

**Prospects Can't Resist This Nose Test—Smelling Is Believing**

Does the Carrier 5-Dimension Heating system really remove odors? In case your prospects have some reservations, the Carrier nose-test kit is a clincher. Put the odor cartridge in the Odor Control Demonstrator. Let the prospect smell how odors go right through an ordinary filter. Then, you can demonstrate how a few drops of Carrex fluid on a similar filter remove the odors before they reach the prospect's nose. It really works! And your Carrier Dealer has plenty of these kits on hand.

**FOR MORE INFORMATION MAIL THIS COUPON NOW**

<table>
<thead>
<tr>
<th>Carrier Air Conditioning Company</th>
<th>Syracuse, New York</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please send me complete details on Carrier's new 5-Dimension Heating.</td>
<td></td>
</tr>
</tbody>
</table>

Name

Company

Address

City State
another first from **Bilt-Well**

*by Caradco*

The First Truly Modern

**Wood Casement Window**

A casement that incorporates all the latest thinking in fenestration engineering

**Insist on these BILT-WELL Features:**

1. Double weatherstripped for lowest heating and cooling costs.
2. Unitized sill construction facilitates groupings.
4. Angle and radial bays from stock parts.
5. Three glass widths: 16", 20" and 24" and five glass heights: 24", 32", 36", 48" and 60".
7. Single or double insulating glass.
8. Dove-tailed frame joints.

There's more to offer with **BILT-WELL**

*by Caradco*

---

**This concealed hinge is one of the many outstanding features of the BILT-WELL Casement Window**

Permits unbroken exterior lines. Window can't sag or pull loose. It's tamper-proof, too!

---

**The BILT-WELL Line of Building Woodwork—**

WINDOW UNITS, Double-hung, Awning, Casement, Basement. CABINETS, Kitchen, Multiple-use, Wardrobe, Storage, Vanity-Lavatory. DOORS, Exterior, Interior, Screen and Combination.

*manufactured by Caradco, Inc.*

Dubuque, Iowa
America is sold on Oak Floors

...through the pages of House Beautiful

In the home building field trends begin . . . and traditions are preserved . . . by the 900,000-plus* Pace Setter Families in the House Beautiful audience. Their influence spreads over the entire residential construction market.

These style-setting buyers of quality homes have the income (average $15,715) and the desire to specify the best in design, construction and furnishings. Among flooring materials, Oak is a favorite choice.

Oak Floors have been advertised regularly in House Beautiful for many years. Using full-color photographs, the National Oak Flooring Manufacturers' Association does a convincing job of illustrating Oak's decorative style, polished beauty, and warm appearance.

By pre-selling the House Beautiful audience, manufacturers of Oak Flooring and other quality building products add sales-stimulating prestige to the quality features of homes you build.

*PUBLISHER'S PROJECTED AVERAGE, LAST SIX MONTHS 1960.
CLASSIC LOUVER FOLDING DOOR

TRUSCON

TRUSCON TRU-DIAMOND METAL LATH and ACCESSORIES for better living. Straight and true. Precision-made distortion-free, sheets are perfectly rectangular. Each sheet painted individually. Easy to work. Ends are trimmed square and true. Selvage edges are neatly finished. Insure a good fit on the toughest job. Contact your Truscon dealer for the full story, or send coupon.

REPUBLIC ROOF DRAINAGE PRODUCTS for better homebuilding! Your Republic Roof Drainage Products distributor carries a complete line of everything you need—in galvanized steel, ENERO Stainless Steel, tene, or copper, with perfectly matched accessories to assure fast, low-cost installations. See your sheet metal distributor or send coupon for more information.
Low Cost Metal Doors
The Tops in the Industry at low, low prices

Truscon Steel and Aluminum Doors are low in first cost, save installation dollars, require no expensive call-backs. The full line is carried in warehouse stocks for immediate delivery to meet your tightest building schedules.

Order frames and accessories for same-time delivery. Truscon doors can be prepared for panic exit hardware, door closers, double doors—all are available to meet your requirements with no loss of time.

Now from one source, you get the right door to meet your needs. Doors with sales features that add value to everything you build. At prices you can well afford and with delivery when you want them.

Call your local Truscon dealer listed in the Yellow Pages. Or, contact your nearest Truscon representative. Send coupon today for more information about these low cost metal doors.

REPUBLIC STEEL CORPORATION
DEPT. NO-9911R
1441 REPUBLIC BUILDING • CLEVELAND 1, OHIO

Please send more information on the following products:

- Truscon Hollow Metal Doors and Frames—Series 50
- Series 57
- Classic Louver Folding Doors
- Republic Roof Drainage Products and Accessories
- Truscon Tru-Diamond Metal Lath and Accessories
- Truscon Aluminum Sliding Patio Door and Screens

Name
Firm
Address
City Zone State

OCTOBER 1960
Announcing...a new range of ideas: the new WASTE KING UNIVERSAL Built-In. Dreyfuss-designed to look better...as fresh and new as a spring bouquet. Smart new control panels...a choice of 5 kitchen-fresh colors...smart, new burner grates. And it's WASTE KING UNIVERSAL-engineered to cook better, work-saving features in ranges to automatic Roast Guide with clock push-button eliminates hot ing with exclu reaching the Duty burners, burners. A wide variety of models means Universal line will fit your needs. Gas and interchangeable. Quality is obvious...a approach to building. A fast way to put You can't buy and feature better built-ins fications on built-in ranges, drop-in electric matic dishwashers, and the famous Waste King Universal disposers, write, wire or phone today to: WASTE KING CORPORATION, Los Angeles 58, California.
THE SERIES OF COMPLETE 3-BEDROOM HOMES BY PLACE

AT $9,000...HOW MANY CAN YOU SELL?

Complete with lot to sell for $9000! A brand new series of 3-bedroom homes designed to meet all low cost housing requirements including 221 and 206i programs. FHA-approved and ready for action by volume and profit-minded builders!

Let us show you the one complete program designed to put you in the high-volume low-cost profit picture. Everything to help you... filing assistance... field engineering services... 100% construction money... complete interim financing... final mortgage money... and complete merchandising and advertising programs.

If you're in Illinois, Indiana, eastern Iowa, northern Kentucky, Michigan, northern Missouri, Ohio, western Pennsylvania, West Virginia or Wisconsin...

WRITE, WIRE OR PHONE ME...TODAY!

Marc Donaldson
Vice-President—Sales

PLACE HOMES, INC.
1212 S. Walnut Street
South Bend 21, Indiana
Phone ATlantic 8-9111

OCTOBER 1960
Put Caradco’s creativity to work for you!

Pour it on! There’s little chance that wind and weather will get past a Caradco Bilt-Well Casement!

Two independent systems of weatherstripping on each window give exceptional protection from the rain... insure a double seal against dust and air infiltration. With Caradco Bilt-Well Casements, the homes you build will be more comfortable, more convenient, more economical to heat and cool.

This is an extra you can point out with pride. And you’ll also do well to call attention to the distortion-free, quality glass Caradco uses in this advanced line.

American-Saint Gobain—as a supplier of fine window glass to the pre-glazed sash industry—is pleased to salute the creative ideas of Caradco and its fellow manufacturers. A-SG’s business, too, is Creative Ideas in Glass.
How much do you really save on "bargain hardware?"

Another new product from National Manufacturing Co. . . .

National hardware
prevents costly call backs . . .
builds customer satisfaction

Temporary profits don't build a solid business. You may be able to save a few pennies by cutting hardware costs, for instance, but in the long run it's products like National Mfg. Co. hardware that pay off. You stop costly call backs . . . cut installation time and build customer satisfaction that lasts for years. These are some of the reasons so many prominent builders insist on hardware by National.

NATIONAL MANUFACTURING CO.
19010 First Ave., Sterling, Illinois
This new concrete could slash wall construction costs

Baltimore Builder Carroll Martin, who developed the new mixture and is now beginning to use it in his new houses, claims these five big advantages:

1. Walls can be poured with the new concrete at very low cost—up to 40% less than it would cost to build with concrete block stucco, says Martin.

2. The concrete hardens overnight, eliminating costly delays in building. With conventional mixtures, form work must remain in place for three or four days until the concrete hardens.

3. The concrete foams as it sets so outside walls 6" thick have a U factor of only 0.12.

4. The admixtures used to speed the set and foam the concrete generate so much heat during the pour that concrete can be poured even in zero weather.

5. The wall is proof against termites, rot, fire, and water. It is reinforced with 6x6, 6-6 welded wire mesh, is stronger than most conventional walls.

Here is how Builder Martin pours walls using his new mixture:

1. Six-man crew sets Symons forms for both interior and exterior walls on an ordinary slab and foundation wall. Forms are steel with plywood faces, are numbered starting at one corner of the house so crew can follow easily.

2. Windows, door bucks, outlet boxes, and thin wall conduit leading to top of wall are set in forms. (Circuitry leading to the conduit is placed later.)

Steps 1 & 2 take one day for a typical 40'x24' house.

3. Trucks deliver concrete with 40 gal of water per cu yd and a 1/4" maximum aggregate size. At the site, 30 to 40 gallons more water per cu yd are added. Chemical admixtures which speed the set and foam the concrete are added by Martin's crew. Part of the admixtures is put in 25 minutes before the pour, the rest is added about 15 minutes later. The admixtures (which Martin will not identify) cost about $6 a cu yd.

4. The concrete is placed in two hours or less. It sets fast, nearly as quickly as plaster of Paris.

5. Forms are stripped the next day, and the walls are ready for finishing and for the truss roof to be erected. The house is closed in the third day.

To protect his investment in research, Builder Martin expects to keep patents pending on his admixtures as long as possible. He has formed a corporation, Monowall Homes Inc., with a $300,000 public issue, plans to build subdivisions and wholesale them to realty firms. He is also working out plans to license other builders to use his new mixture.
STEEL FORMS WITH PLYWOOD FACES are numbered in sequence for fast erection. Plywood faces are good for 100 homes before renewal.

TRUCK BACKS UP TIMBER RAMP to pour into top of forms. A 40’x24’ house takes 20 yd of concrete. All walls poured in two hours.

CONCRETE FLOWS READILY around prehung windows and doors set in forms (foreground). Diagonal rods are temporary form braces.

SCAFFOLDING FOR WORKMEN who place and screed concrete in forms is made of 4’ sawhorses and planking. Horses are bolted 2x4s.

CONCRETE IS SCREEDED as soon as form is full. Note conduit at top of form.

CONCRETE SURFACE has rough texture that provides a “tooth” for plastering.

INTERIOR PARTITIONS are poured. Martin says they cost $1 per foot less than 4” block.

PREGLAZED WINDOW was set in form before walls were poured, giving a tight fit. Walls can be poured smooth, painted rather than plastered.

FINISHED HOUSE gets standard truss roof with insulated drywall ceiling. This house is the first of an 82-house development. Price: $14,500.
How to build more house for less money

Easy to say but tough to do in this day of spiraling costs. Building better housing at lower cost takes three ingredients: the right ideas, the right materials, and painstaking research and development. These are three reasons why United States Steel works closely with the home builder. In our Monroeville, Pa., Research Center a team of research specialists constantly tackles cost problems by devising better building methods. They have the best accepted building material in the world with which to work: steel. Their ideas are fashioned in steel with fabricating equipment right on the premises, and tested "seven ways to Sunday." Under test, you'll see slim, trim steel windows with neoprene gaskets to keep the weather out, steel doors being slammed for days on end by an intricate mechanical contraption, shining new insulated steel building panels. You'll see architects and engineers hard at work over drawing boards. You'll see stacks of steel strip, sheets and sections waiting to be shaped into cost-cutting components. You'll see everything but useless gadgetry. United States Steel works closely with the National Association of Home Builders' Research Institute. One development that you'll be hearing a lot about is a revolutionary new drywall building method that substantially cuts construction time and costs. And there are many more in the wind that mean more house for your money. Watch for them.

United States Steel

This mark tells you a product is made of modern, dependable Steel.
Here is a good easy way to vent an island sink

The drawing shows a waste line and vent system that puts all plumbing under the floor with no visible waste or vent lines tying it to the wet wall.

Most codes now require a trap located within 2' of the sink waste outlet to prevent waste building up a velocity that might pull the trap and let sewer gases into the kitchen. They also stipulate that the vent line be connected to the fixture drain above the dip of the trap and extend above the fixture rim before connecting to a branch vent or stack. Both of these standard code requirements would expose vent piping to view in the kitchen, spoiling the appearance of an island installation.

In the system diagrammed, although the trap is 4' below the sink outlets, the tail-end discharge of waste water is slow enough to prevent the force of water from pulling the trap because each of the two sinks has a flat bottom area of at least 120 sq in.

Some codes now spell out this island sink modification and most codes have a performance standard that allows this type of installation.

Tests spell out chance of survival in house fires

Tests by Canada's National Research Council show:
1. Chances of survival in a closed bedroom with walls of plaster or drywall are 109% greater than in a bedroom with combustible walls.
2. If the door of the bedroom is left open, the margin for survival is only 39% greater with non-combustible walls than with combustible walls.
3. In a closed bedroom with plaster walls, a fatal concentration of carbon monoxide takes 14.5 to 18.6 minutes to build up. All oxygen is consumed in 20.2 minutes. Within 11.7 minutes, temperature can rise to 300°F. (Average arrival time for the fire department is ten minutes.)

If the bedroom has combustible walls, the above figures are cut to 5.6 to 7.5 minutes for carbon monoxide to build up, 12.9 minutes for oxygen exhaustion, and 8.7 minutes before temperature reaches 300°F. (In other words, a person in a room with combustible walls has much less chance of survival.)

The studies were made on six test houses burned down in January and February of 1958. The houses were made available by the St Lawrence Power Project, Ont. on land that is to be flooded.

How to install sewers to avoid downtime and breakage

If you don't put storm sewers in at the earliest stage of construction, you will be delayed twice: first by muddy roads, then by chopping up your roads to put sewers in later. Yet if you put your sewers in early, heavy trucks can break them under the road, even with a 2' gravel cover.

To solve this problem, Youngstown Builders Cook & Johnson put their storm sewers under the sidewalks at the beginning of the job, as shown in the drawing above. Manholes are right next to the poured concrete curb. A drain tile under the curb drains the road subbase into the sewer.
from Magic Chef
help sell houses and cut installation costs

Both Selected for Display, A. G. A. Convention, October, 1960

Magic Chef Fold-Away introduces custom appearance to surface units. Four burners fold away into less than two feet of counter space. Eliminates carpentry; installs in minutes. Dial-A-Magic Roasting is the newest control on any built-in oven. Calculates roasting period and automatically starts and stops oven at the correct times.

Magic Chef's newest developments in gas built-ins... the Fold-Away and Dial-A-Magic Roasting... add new sales interest, new prestige, new built-in quality to your kitchen. This new sales impact adds another powerful plus to the many sales advantages Magic Chef offers you... outstanding brand familiarity, low-cost installation, dynamic national advertising, merchandising assistance.
how to turn closets into “closers”

How can you use closet space to help sell your homes? First, use classic-inspired closet doors to add a high-styled luxury touch to home interiors. Then, be sure these doors open effortlessly . . . and make storage space easily accessible. Do all this at lowest cost.

Sounds like quite a job, but Fenestra metal folding closet doors provide this economical “extra” that sells homes. There are three styles—Classic (illustrated at left), Louvered, and Flush—one that’s right for every room. Now, you can add a decorator touch to the simplest bedroom or put a distinctive finish on entry hall closets at very modest cost.

Better access—better storage. Fenestra folding closet doors give full-view access. Everything is easier to store, easier to find. These closet doors operate quietly at the touch of your finger . . . require less floor space when opened. They will never warp, splinter or buckle and are available in eight standard sizes, including 6’ 8” and 8’ heights.

And they cost less to buy—less to install. Each door comes complete in one package. No extra parts to buy or store. They can be installed easily in minutes by one man.

Put Fenestra metal folding closet doors to work selling your homes. Call your local Fenestra representative (he’s in the Yellow Pages), or write: Fenestra Incorporated, Department HH-08, 3401 E. Grand Blvd., Detroit 11, Michigan.

write: Fenestra Incorporated, Department HH-010, 3401 E. Grand Blvd., Detroit 11, Michigan.

Fenestra floor to ceiling folding closet doors eliminate costly framing and finishing needed above other closet doors.

PRODUCTS FOR THE NEW AGE IN ARCHITECTURE

Fenestra Incorporated

Steel and aluminum curtain-wall systems
Steel and aluminum residential windows
Engineered windows for industrial, institutional and monumental buildings
Hollow metal doors, metal folding closet doors, garage doors
Light gauge steel structural systems for floors, roofs, walls, and electrified floors
Mr. Builder:
for new construction
for remodeling...

Weyerhaeuser interior
hardboards combine
brawn, beauty and economy

For new construction... homes, offices, commercial buildings, inviting interiors come to life with Weyerhaeuser hardboards. Panels have a hard, tough surface which is dent, scratch and wear resistant. They are easy to saw, fasten and handle... go up fast and paint beautifully or can be left "as is". Your in-place costs go down and the value of your building goes up.

For remodeling... from floor to ceiling... from attic to basement, there's a type and thickness of Weyerhaeuser hardboard made to order for practically every interior job... underlayment, wainscoting, wall paneling, liners, sliding doors, built-ins and ceiling surfaces... just to name a few. Combinations of striated, vee grooved, perforated and prefinished panels offer unlimited possibilities in textural contrasts for distinctive and dramatic interior decor.

Vee Grooved panels have a clean beveled V-cut edge. A full depth groove is formed at the joint when two panels are butted together and a continuous uniform grooved pattern is maintained.

Vee Grooved*  Deep Striated*  Perforated*
Plank pattern wall  Accent wall  Sliding doors
Block ceiling          in entry            Display wall
*These panels also available prefinished.
Use "as is" or finish with a top coat.

For your Application and Specification Guide on the complete line of Weyerhaeuser hardboards write us at Tacoma, Washington.
**What the leaders are doing**

Get a good trademark and then use it everywhere ....... p 200

1,660 sq ft split is now Harnischfeger's best seller ........ p 202

---

**This house shows how far you can go with built-ins**

There are fresh ideas for built-ins in nearly every room of the house, which was designed by Architect Milton Schwartz for Popular Mechanics. The magazine will feature the house in a 22-page article in this month's issue.

All bedrooms have big, fitted storage areas (see drawings left above) and the children's bedrooms have slide-away beds (photo above) that enlarge the rooms for daytime use.

Big divider wall shown in top photo separates the living room from the family room. Kitchen (not shown) has a snack bar that extends the work and cabinet space. And there is plenty of extra storage space throughout the plan.

Fifteen of these houses either have been built or are under construction in cities throughout the country. They will sell for $25,000 to $40,000, depending on land costs and extras.

Architect Schwartz estimates built-ins will account for 10% to 12% of the total cost—though part of their cost will be offset by lower furniture costs.
The success of Ware Aluminum Windows all over the United States is gratifying, but not surprising. Starting from scratch as one of the pioneers in the exclusively aluminum window industry, Ware's present outstanding position is due to steady growth, built on basic design, skilled workmanship, exclusive manufacturing methods, helpful service and a sane price policy. Constant improvement, the result of sound engineering and improved techniques, plus the experience of thousands of installations, are back of today's superlative line of windows bearing the Ware name, your assurance of customer satisfaction, and enhancement of your own reputation.

Write today for complete catalog.
"PLASTER AND PROFITS"....

The house that stands unsold represents a costly investment to its builder, gradually absorbing expected profits in a continuing cycle of interest payments on construction loans.

Genuine Lath and Plaster adds more than quality and eye appeal to the house you build...IT ADDS SALES APPEAL!

The argument in favor of walls and ceilings with fire resistance, ease of decoration, permanence and control of the transmission of unwanted noises gives the "plastered" house a strong edge over its less substantially built competitor.

Look to lath and plaster construction...there are new ideas to go along with the old...and for you, all spell "profit:"

NATIONAL BUREAU FOR LATHING AND PLASTERING, INC., 755 Nada Building, 2000 K St. N.W., Washington 6, D.C.
Fischer & Frichtel built this motel entirely of reinforced concrete

"We've done a lot of commercial construction before," says Ed Fischer, president of the St Louis firm, "but we've never used concrete this way: "For the roof, we're using big (13'6" x 32''x4") concrete panels. And the walls and partitions are poured in a form that includes a whole room unit. We think there are possibilities here for houses as well as for other commercial work."

Although construction costs for the concrete are 25% higher than for conventional construction, Fischer cites three advantages: a 75% lower fire insurance rate, lower maintenance costs, and much better soundproofing between the units.

Get a good trademark and then use it everywhere

Builder Tom McGovern of San Antonio chose the arrow-shaped house silhouette shown in these pictures. He uses this trademark on directional signs for his subdivision and display signs in individual houses. In most cases, the shape of the sign echoes the shape of the trademark. He also uses the trademark in all of his newspaper advertising, on his letterheads and brochures.

"It gives us an easily recognizable symbol," says McGovern, "and people have come to associate it with our houses."

How to entertain the kids—and sell your construction

This pipe-and-truss combination serves a dual purpose for St Louis Builders Fischer & Frichotel. Set up in the playground, it helps keep children busy while their parents visit the model houses. "The kids love it—they'll crowd over, under, and around it for an hour," says John Fischer.

"And it helps dramatize the strength of the truss roof construction used in F&F houses."

Leaders continued on p 202
Mr. Jerome Belson, Director of Housing of the Amalgamated Meat Cutters and Butchers Workmen of North America, has achieved the incredible record of operating the $14,000,000 co-op housing sponsored by his organization since 1948 without any increase in tenant carrying charges.

Brand-new Kelvinator refrigerators have replaced the nine-year-old Kelvinators in this 228-unit Harry Silver Cooperative in Brooklyn, N. Y. The reason: maintenance costs averaged a mere $1.00 a year per Kelvinator (an astonishing figure which is far below State Housing average) over the nine year period. Also 420 Kelvinator refrigerators have been installed in the $6,500,000 Earl W. Jimerson development. New projects supervised by Mr. Belson include the 340-unit Patrick E. Gorman development in Brooklyn . . . and the $96,000,000, 5,206-family Concourse Village Co-op to be built in the Bronx this Fall.

As Mr. Belson, leading authority on co-op housing, will tell you, the smart buyer buys a refrigerator on a "total cost basis," meaning the year-round maintenance cost as well as the initial price. He says: "Dependable, trouble-free service is just as important as beauty of design and modern foodkeeping conveniences. Kelvinator rates tops in my book on all counts."

Kelvinator Appliances
Kelvinator Division, American Motors Corporation, Detroit 32, Michigan

REFRIGERATORS • RANGES • AUTOMATIC WASHERS • CLOTHES DRYERS • HOME FREEZERS • ROOM AIR CONDITIONERS • DISHWASHERS • DISPOSERS

OCTOBER 1960
This 1,660-sq ft split is now Harnischfeger's best seller

It has taken over the top spot in the prefabber's line despite a price tag $3,000 to $8,000 higher than the previous best seller—a 900 sq ft ranch.

The Silvercrest sells for $14,990 to $19,990 (depending on land, finished area, and extras). It has three bedrooms and one bath, optional family room and half bath. It presently accounts for a little more than half of Harnischfeger's total house output.

The company is so impressed by the model's sales record that it is planning to bring out an even bigger split—1,750 sq ft—with three bedrooms, two and a half baths.

How to furnish model for less

When you're through with the furniture sell it to your buyers, says Dick Brown, vice president of Chicago's Pacesetter Homes (H&H, Sept). Pacesetter keeps the furniture in the models as long as it looks brand new—about two years. Brown says—then advertises it to buyers in the subdivision at 50% off.

"We can buy it at 40% off," says Brown, "so our net cost is 10%—or even less if you're in a high enough tax bracket. And our buyers get a real bargain. We've never had a bit of trouble selling the furniture very quickly."

Let local artists help you decorate your models

That's how Boston realty man Emil Hanslin gets the paintings for his company's model houses. He suggests three sources: art clubs or associations, galleries, and individual artists.

Says Hanslin: "Original paintings look much richer than the prints you see in most models—and you can borrow them for nothing. The artists are pleased and will often help publicize the house. I suggest changing pictures every couple of months and letting your decorator pick them so they'll go with the rest of the decoration."

Here's a new line for signs

Eichler Homes of Palo Alto makes prospects stop and look with the catch line: "Open for Admiration."

Keep your colors straight

Medema Builders, Oak Forest, Ill. give each buyer color chips plus a small drawing of his house plan marked to show all materials for which there are color choices. "This helps them see what colors will go where," says President Ralph Medema, "and since we keep a carbon of buyers' choices, we have a clear record."

Let them know you called

When a serviceman calls and finds no one home, American Housing Guild of San Diego has him hang a tag on the door knob. It reads: "Dear Homeowner, Sorry we didn't find you at home to service your call. Please call and arrange for an appointment." This speeds future service calls, lets the buyer know he hasn't been forgotten.
Use this "Emblem of Quality" to establish the fact that Amerock hardware is typical of the top-quality products used throughout your homes... it will draw attention to the "eye appeal" of your cabinet hardware. Hang it where your buyers can see it. Send coupon on other side for complete details.

Amerock hardware puts more eye appeal at eye level in our homes—at very low cost. Most women judge the house by the kitchen—so it is just good sales sense to 'dress it up' with beautiful cabinet hardware.
there is an Amerock pattern and finish for every decor...every style...every budget

(a) CONTEMPORARY: Handsome, rich, elegant "matched" designs in all popular finishes.

(b) MODERN PROVINCIAL: Modern yet with the elegance and grace of period styling...pulls, knobs with hinges to match.

COLONIAL (not shown): Authentic design—modern construction and application.

Genuine Amerock Cabinet Hardware is not expensive!

Beautiful new No. 456 Catalina Pull shown at right carries list price of only 26¢ in Polished Chromium—36¢ in Satin Chromium, Satin Copper, Dull Bronze, and Polished Brass finishes (Builder Envelope Pack).

SEE YOUR AMEROCK SUPPLIER OR SEND COUPON

Please send me free samples of:

☐ Catalina ☐ Modern Provincial ☐ Contemporary ☐ Colonial

☐ 1960 Catalog ☐ Amerock emblem details ☐ Have Amerock man contact me

Name __________________________

Company _______________________

Address _______________________

City __________________________  State ______

I buy my hardware from __________________________

Dept. HH10  AMEROCK CORPORATION, ROCKFORD, ILL. • MEAFORD, ONT.
Dazzling Decorator-Design,  
Six Sparkling Fashion Colors! 

Yellow • Pink • Turquoise • Coppertone 
Brushed Chrome • White 

Hardwick offers three styles of surface units for maximum flexibility in price and kitchen design. A new, economical Drop-In Unit has controls on the cooking surface, necessitating only one cabinet cut-out. A Divided Unit consists of two high-speed burners. Two or more of these can be installed. The Cluster Unit, with four high-speed burners, has control panels in front and is used alone or with Divided Units.

No other manufacturer offers anything like the Hardwick two-oven installation. One oven features the famous Hardwick EquaFlo burner for perfect balanced-heat baking and broiling. The other has MicroRay, the sensational ceramic burner, with the thermostatically-controlled rotisserie. This unique combination speeds sales of luxury homes, such as shown in the illustration below.

Write for full information

FOR HOMES IN EVERY PRICE BRACKET

Hardwick, America’s foremost manufacturer of gas ranges, presents a new, greatly expanded line of beautiful Built-Ins... six fashion colors, two ovens and three surface unit designs. The most complete, trouble-free, salable line ever offered. Hardwick Built-Ins accent ease and economy of installation—for budget and luxury homes.

Please send me a full-color folder on the new line of Hardwick Built-In Gas Ranges.

I am a **BUILD**ER  □  **BUILDING** SUPPLIER □  **KITCHEN** SPECIALTY FIRM □
ARCHITECT □

NAME__________________________

ADDRESS__________________________

CITY__________________________STATE__________________________

OCTOBER 1960
The first application of "flip-form" central core construction in the United States has been employed in the erection of the new 101 unit Palo Alto apartment building. With this method, the form in which the concrete is poured rides on high strength steel rods equipped with hydraulic jacks. The slip form is progressively lifted to each elevation after the concrete has been poured and allowed to set. By using this system, the 15 story core of the building was completed in 5 working days at an estimated saving of 8% on labor costs. Pre-stressed slabs, poured in place, serve as both floors and ceilings in the core. This Swedish-originated method has been used extensively in this country for bridge piers and storage silos, but is completely new in the construction of buildings.

Architect for the new Palo Alto apartments is William F. Hempel, AIA. The North State Builders Ltd. own and are constructing the 15 story building; engineering was by R. B. Wally of Modesto with H. B. Brewster, Fresno, consulting. The plumbing is being installed by the Herman Lawson Company of San Francisco. According to Mr. Hempel, the location of the utilities in the central core of a building sometimes creates problems in relation to local codes. But, in the case of the Palo Alto apartments, the city of Palo Alto changed code requirements so all plumbing in the building could be copper.
AND FITTINGS USED FOR SUPPLY AND DRAINAGE PLUMBING APARTMENT BUILDING...

Since the entire supply and drainage plumbing systems are contained in the walls of the new Palo Alto apartments, the smaller size and lighter weight of copper are essential factors. One unique innovation in this piping system is that many of the lines which customarily would be run horizontally have been installed diagonally, thus eliminating the need for pipe hangers. (Note the photo above). Copper was also used for all heating and cooling lines in this modern structure.

Even complex plumbing assemblies can be quickly put together with a minimum number of joints when Streamline DWV copper tube and solder-type fittings are used. The work is faster and the completed job assures a life-time of clog-free, rust-proof, leak-proof plumbing service... and copper costs no more than rustable piping materials. More and more architects and engineers, builders, and owners are specifying Streamline copper tube and solder-type fittings... the modern plumbing material for supply and drainage systems.

PORT HURON 10, MICHIGAN

For all the latest facts on Streamline DWV copper tube and solder-type fittings, the modern sanitary drainage piping material, write today for copy of Catalog D-459.
Gas
Round Table
continued
from p 139

standards — on products homebuyers would not choose if they could do their own buying.”

Said Builder Lefferts, who builds a widely publicized all-gas house: “I had to go into the plumbing and heating business myself to get my prices right.”

Said Builder Fisher: “One reason I came to this Round Table was to raise some hell about the way gas appliances are sold in my area.”

Said A.G.A.’s Stackpole: “We must find a way to organize complete packages that builders can buy. The same way they can buy a complete line of electrical appliances. I believe this can be done only if the gas utilities take a more active part in sales because we have no giant manufacturers in the gas appliance and gas equipment industry big enough to do the job. The primary responsibility for rationalizing gas appliance sales so the builder can buy them on an easy and efficient basis will have to be assumed by the utility companies, just as the primary responsibility for promoting the sale of gas appliances will have to be picked up by the utilities, or it won’t be picked up at all.”

Said Banker Morgan: “If it weren’t for the gas utilities I don’t believe there would be any gas heating or any gas appliance business.”

This dependence on the local gas companies raises a very special problem in areas served by combination gas-and-electric utilities.

Dimensional standardization of appliances
is more important than the makers realize

Said Savings Banker Morgan: “Nothing sells poorer than a kitchen that has five pieces of equipment that don’t match in color and don’t fit in line.”

Said Builder Brockbank: “It is very important to the builders that sizes should be uniform. Even if nothing else comes out of this discussion, this Round Table would be worthwhile if it just establishes the fact that the homebuilding industry needs dimensional uniformity.”

Homebuilding is industrializing faster than even architects, builders, and lenders seem to realize and the stage is thereby set for a great advance in construction efficiency and economy that will let the housing industry offer much better and more salable houses for less or no more money. Already the industry has four of the five prerequisites for a snap-over to industrialization:

1. We have the high-percentage long-term financing that makes volume selling possible—longer and cheaper financing than any other industry can offer. (Appliances sold as part of the house can get up to 30-year financing at interest rates hardly half as high as consumer credit.)

2. We have advance commitments that make it easier to get construction money for 20 houses than it was to get construction money for five in the last big housing boom.

3. We have merchant builders big enough to make factory methods pay off.

4. We have the pressure of almost intolerable on-site labor costs—on-site labor that costs 10¢ a productive minute. Today every smart builder wants to “build with parts instead of pieces”—big factory-made or shop-made components in coordinated standard sizes that can be assembled with minimum waste of erection days and minimum waste of 10¢-a-minute labor to make the parts fit together. These coordinated sizes are even more important to the small builder than to the big builder because the big builder can fabricate many of his own components to fit, whereas the small builder must depend on getting coordination at the factory level. Now what we need is the fifth essential—much wider acceptance of coordinated standard dimensions.

The faster manufacturers fit their products to the housing industry’s fast-standardizing sizes, the faster homebuilding can industrialize. And the faster homebuilding industrializes, the more homes it can sell—and the more appliances it can sell as part of those homes.

Five years ago another industry Round Table recommended that all kitchen components should be standardized to fit together under a standard 8'-plus-tolerance ceiling, with a 2' base cabinet depth, a 36" counter height, and a 2' along-the-wall module (with 1' half-module). Those recommendations were promptly approved by M.A.B. and the Homebuilding Industry Committee of A.I.A. Important then, they are still more important today.

Nearly four out of five new houses
built this year will be heated with gas

Since 1949 the number of gas-heated homes has nearly tripled, from 7,443,000 in 1949 to 19,446,000 in 1959, of which 11,926,300 have central systems. More homes are heated with gas today than are
heated with all other fuels combined.

By 1970 the gas industry projects a total of 39,860,000 gas-heated houses.

Last year 781,000 gas-fired central heating units were installed in new houses, nearly four times as many as any other automatic fuel.

For this increased use of gas for heating there are three basic reasons.

1. In most places gas is the cheapest automatic fuel, whether the system is to be warm air, or hydronic, or something else. In parts of the Ohio Valley, for example, the average cost of heating a moderate-sized home with gas is only $65 a year.
2. Most local gas utilities undertake full responsibility for service and maintenance, usually at no extra cost.
3. Today’s gas heating units are much better. Specifically:

   Today’s gas furnaces are smaller; they are so compact they can be installed in crawl space, in attics, in closets.

   Today’s gas furnaces are more efficient and economical; they have much better controls—outside thermostats, inside thermostats, and zone controls; they come with electrostatic filters, humidifiers, two-stage burners, and two-speed motors to modulate the fan operation.

   "But," said Manufacturer Bell, "we think our biggest responsibility is to keep our equipment as simple and economical as possible—easy to install and easy to service. So we have learned to standardize parts to get our costs down; we have learned that the builder prefers everything factory-assembled, so we ship our furnaces that way in cartons that one man can carry through a door.

   "All today’s good gas furnaces can handle add-on cooling by just turning a damper so the air goes through the added cooling coils instead of going through the heat exchanger.

   "The life of a good gas furnace seems to be indefinite. Many gas furnaces are still in service after 35 years."

Don’t promote the fact that gas heating needs less insulation, for three reasons:

1. Heavier insulation is absolutely essential for summer cooling no matter what fuel is used.
2. Adequate insulation costs very little more than the minimum FHA will approve, because labor is the big cost and heavier insulation requires no more labor. "An added 4½" of insulation costs no more in place than the first 1½" because the labor is the same," said Insulation Manufacturer Betteridge.
3. No matter what fuel is used, adequate insulation costs less than it saves on heating alone. The material should cost a builder of ten houses about 64 to 74¢ a sq ft for 3" batts for the walls and about 11¢ for 6" batts for the ceiling. And it should cost not more than 23¢ a sq ft to install while the house is being built even in the highest wage areas. This is a lot less than it will cost to install after the house has been finished.

Gas plans to give electricity a battle for air conditioning

Said A.G.A. President-elect Potter: "Air conditioning will change the whole economics of the gas industry—if gas gets its share. The fuel that ends up in the dominant position in summer cooling will be in the dominant position in winter heating too." Said GAMA President Davis: "Cooling and heating will be the focal point in the battle of fuels."

Said FHA Commissioner Zimmerman: "In air conditioning you are moving into the biggest new market you have had offered you since people started heating their homes. I think this market is almost here."

Said Builder Alan Brockbank: "We homebuilders believe that air conditioning will become a standard feature even in low-priced homes if the added first cost for cooling can be brought down by $500 to $600."

Today many big buildings are air conditioned with gas, including the Republic Bank Building, the Statler-Hilton Hotel, Memorial Auditorium and Love Field Airport in Dallas, and Idlewild Airport in New York (where the chilled water line is 36" in diameter).

For residential use there are two ways to cool with gas:

continued on p 212
L·O·F announces... pattern glass

This exciting family of patterns (shown approximate size) features twenty-six combinations of patterns and textures, including wired and heat absorbing glass. Two thicknesses in many patterns, three in some. Sizes up to 60” x 120”, one wired pattern 72” x 132”.

Ask your L·O·F Glass Distributor (listed under “Glass” in the Yellow Pages) to show you actual glass samples. Or send the coupon for free booklet which reproduces patterns actual size. It also gives Pattern Glass names, weights, sizes, thicknesses and transmission values of diffused light.
2. The mechanical system in which a natural gas engine in­
get into the gas air conditioning, just as Tecumseh compres-
This will be made available to all manufacturers who want to
growth development of a free-piston compressor developed
Battelle Memorial Institute on a research grant for A.G.A.
This will be made available to all manufacturers who want to
to get into the gas air conditioning, just as Tecumseh compres-

A 1960 gas water heater takes less space
costs less, heats faster, lasts longer

Specifically, a good 1960 gas water heater can offer four big
eadage over 1955's best:

1. Twenty percent faster recovery, due to greater Btu input
made possible by a) using steel that will stand up under
higher tank-bottom temperatures; b) better spacing in the
combustion chamber; and c) better venting.

2. Variable input and output. This means that by stepping
up the Btu input a 30-gallon tank can now be made to deliver
as much hot water as an ordinary 50-gallon tank. This saves
space and ends the need of sizing the tank close to the fami-
ly's needs, which may change at any time and would other-
wise require a costly replacement.

3. Longer life, because the glass lining is better and/or better
applied. The tank is the critical element, because some types
of water will corrode galvanized iron quite quickly and will
even eat through glass. All good makers are now using a more
resistant frit. Added manufacturing cost of the better coating
is less than $1. (The best and most expensive tanks are copper
alloy or some other non-corrosive metal.)

4. More even water temperature throughout the tank. This
is important for both automatic clothes washing (where many
women think the hotter the water the whiter the wash) and
dish washing (where the water should be above 180°F to
avoid soap stains). To get this more even temperature re-
quired major engineering changes. Today you can even buy
water heaters with a valve that supplies 180°F water to the
dishwasher and clothes washer and 140°F water for other uses.

More of these 1960 improvements are offered at no in-
crease in cost over 1955 prices.

The best gas hot water heater will cost
the homeowner a lot less over the years

You can buy a glass-lined 40-gallon water heater with an un-
conditional ten-year warranty for only about $20 more than
you would have to pay for the cheapest heater FHA will
accept; i.e., a heater whose unconditional warranty lasts only
two years, with a proportional warranty covering up to five
years. And the better heater will cost no more to sell.

Replacing the cheaper heater with another like it will prob-
ably cost the homeowner twice as much as the original FHA-
minimum heater cost the builder installed.

This is another way of saying that in many parts of the
country the best water heater will prove by far the cheapest
to own; a $20 saving in the builder's first cost is likely to
require a $200 replacement within five years, which is about the
average life of the cheaper tank in many locations.

Says Commissioner Zimmerman: "If the gas industry does
the selling job it should be doing it can sell quality even if
the quality is hidden in the closet." This quality sell should
be easier when, as, and if A.G.A. develops a Gold Star Stan-
ard to make quality water heaters easy to identify.

The problem of warranties is difficult because local water
conditions make such a big difference in how long a water
heater will last. A galvanized tank that would fail in three
years in parts of Texas or California might well be good for
15 years in Chicago. The danger of corrosion is twice as
great with 170°F outlet water as with 140°F water and it
grows roughly 3% more serious with every added degree.

Two years ago FHA raised its minimum property standard
for water heaters from a one-year warranty to a two- and
five-year warranty. This was a compromise, for both FHA
and the manufacturers thought a still longer warranty should
be required to qualify for long-term financing. Whether or not FHA decides to tighten and raise its minimum higher,
the Round Table is unanimous that:

1. FHA and conventional lenders should reflect the lower
maintenance cost of a better heater in their income require-
ments and the full difference in first cost in their valuations.

2. Builders would be wise to buy only ten-year unconditional
warranty heaters in any area where past experience has
shown that water is hard on tanks; one failure can cost the
builder more to replace than he can save on a dozen not-
good-enough heaters (not to mention the loss in good will).

3. Builders should read the fine print on their warranties
cautiously. FHA has not been able to get clear quality standards
from the industry, so the wording of FHA's warranty require-
ment is so loose that almost any two- and five-year wording
will get by. Builder Alvin Brockbank learned too late that his
warranty covered only the replacement of parts returned to
the factory and pronounced defective by the manufacturer,
with no provision for paying his replacement labor cost and
nothing said about how the homebuyer was to get hot water
while the parts were at the factory for inspection.

Some manufacturers' warranties assure prompt and com-
plete replacement of any unit that fails, and that is what
the builders should look for.

Builders have only themselves to blame if they get into
trouble and expense by buying too-cheap water heaters on
price instead of buying on the quality of the product and the
dependability of the maker.

continued on p 214
MR. ARCHITECT ... MR. BUILDER:

More people can now own their own homes because down payments can now be reduced by $100 or more.

THE REASON:

P-B COMPONENTS
LOWER THE PRICE

Take a 3-bedroom house with 1040 sq. ft. of floor area. Cut your building costs by $1150...cut the down payment by $100...a vast new market is now open to you. P-B Components make up the largest part of the house. By building them out of the weather and under controlled conditions, major savings are inevitable.

Every single P-B Component is custom-built to your specifications—to fit your plan. They are precision-engineered of finest materials in the plant of your near-by building material's distributor—and delivered to your site.

You save many unnecessary handling, storage and re-handling costs...you save by sharing in the distributor's maximum volume discounts...you save at least 200 field-hours per house—17 working days—a minimum of $600...you save your overhead on the components, while they are being built in the distributor's shop—a saving of at least $400.

To save money in conventional building—send us your blueprints for a free Cost-Reduction Analysis. They will be returned with an engineering report on the savings you can make with Homasote Materials. Homasote Board-and-Batten and Grooved Vertical Siding construction are lower in cost than anything else you can use currently for exterior walls.

P-B Components are BIG. It takes four men only 11 seconds longer to put an 8' x 14' component in place—than to position a 4' x 8' "baby panel". But you have completed 3½ times as many square feet! With big components, the average house is enclosed in one day— and you finish out in 3 to 4 weeks.

Exterior and interior walls, ceilings and gables are ready for painting, papering or other decoration. Floor panels are covered with ¼" factory-finished oak flooring (which you protect with Sisal-kraft paper until owner occupies.) Roofs have 3/8 Homasote sheathing already applied—with all joints flashed.

A house built with P-B Components is a quality house, quiet throughout—free from drafts, dampness, mildew, cracking and bathroom noises. It is cooler in Summer and more economical to heat in Winter.

You get customers in fast—sell at a lower figure—make greater profits.

FOR A HOME OF ANY TYPE OR SIZE!

Write or wire today for fully-illustrated 8-page brochure giving the complete details. Kindly address Department K-23.

HOMASOTE COMPANY
TRENTON 3, NEW JERSEY

Homasote of Canada, Ltd. • 224 Merton Street • Toronto 7, Ontario

OCTOBER 1960

213
New controls on the 1960 gas range make cooking much easier and surer

Said GAMA President Davis: "Today's gas range is a far cry from the gas range of ten years ago.

"You can buy wall-hung ranges, built-in ovens that stack, lift-up tops, and removable doors. You can buy ranges in many colors to match the other appliances, with coordinated color schemes for flooring and walls. All today's good gas ranges are much easier to clean.

"But the biggest change is the improvement in ignition and controls.

Explained Manufacturer Klein: "Until 1959 there was no automatic temperature control that would hold oven temperatures below 250°F. Now we have controls that give you a range all the way down to 140°F. That means that if the man of the house is an hour late you can keep his dinner warm without affecting the rare roast beef. It also means that you can put frozen foods in the oven at 140°F and defrost most of them in half an hour without affecting the food; and you can defrost a big turkey in less than three hours.

"Another very important improvement holds oven temperature within a 4° tolerance up or down. This is a tremendous breakthrough. Before we were running 15° or 20° up and down.

"Both these features are now available at no added cost. "We also have automatic temperature controls for top burners. This device was first introduced in 1956. The sensing element sets directly under the vessel and transmits temperatures directly back to the valve to hold the desired temperature with a tolerance of less than 8°. This ends the danger of spill-overs and makes cooking more dependable. This top burner control retails around $15 per burner. It would cost a builder buying in quantity $9 or $9.50. (Usually only one is included.)"

Gas clothes dryers are coming up fast to bid for a bound-to-grow market

Said GAMA President Davis: "Not long ago the gas clothes dryer was being outsold 5-to-1. Now it is outsold only 2-to-1, and many more manufacturers are beginning to make them."

Compared with gas dryers five years ago, gas dryers today cost 20% less for comparable quality. They dry faster because of higher Btu input. They have better arrangements for tumbling (a feature that was new 12 years ago) so they are more dependable because the spinning is simpler. They are easier to install because the vent connection has been re-engineered. They have new controls to regulate the temperature to the fabric being dried. They have electric pilots instead of gas, so they create no heat unless they are working (and then the heat and the moisture get vented outdoors). Their lint filters work better and are easier to reach in their new top location.

Market saturation on all types of clothes dryers is only about 18%, but the growing popularity of rear outdoor living makes it certain that more and more families will want to substitute indoor dryers for outdoor clothes lines. Few women minded the clothes lines when the family spent the summer swinging and rocking on the front porch and left the backyard to the laundress and the servants. But today the front porch is gone, the servants are gone, and the backyard is where the family wants to live when the weather is good—preferably without looking at their own or their neighbors' wash hanging on the line.

Five makers are pushing the return of an improved gas refrigerator

Three years ago gas refrigerator sales fell to 40,000 units and the only US manufacturer quit, eventually using its cash and its big tax-loss carry-back to buy an electric battery maker.

With the field thus cleared, five other manufacturers moved in, including two very big appliance makers.

One of the two big companies began by putting an American box on a gas cooling element imported from Europe, where gas refrigerators were still prosperous.

The other big company bought the erstwhile maker's plant and launched a multi-million dollar research and development program to bring out a new and much better three-fan "air blast" cooling system that operates 20% more economically with a smaller and 46% lighter sealed-system cooling unit that leaves more room for food storage. Meanwhile, the box has been restyled and the separate built-in icemaker has been redesigned with a 6-lb ice storage tray.

Today gas refrigerators are competitive only with deluxe electric refrigerators, but the makers plan to add a moderate-priced line and project a 1963 sales volume of 300,000.

Newly developed afterburners now make gas incinerators smokeless and odorless

Three years research at A.G.A. laboratories and Battelle Memorial Institute solved the problem of how to make a home incinerator that will burn garbage and trash without any odor or smoke at all. This was achieved by adding an afterburner that consumes whatever escapes the first incineration (just as you can consume the smoke from a cigarette by letting the smoke pass through the flame of a match).

This method works so well that the smoke commissioners who witnessed the first test could detect no odor even from burning feathers and old rubber. It works so well that Pittsburgh, today's No. 1 enemy of smoke, has accepted it; even smog-hidden Los Angeles may soon permit its use.

Retail price of these smokeless odorless incinerators ranges from $139.50 to $189.50, plus about $25 for installation. They reduce an average family's garbage and trash to a small trayful of white ashes (mostly epsom salts) every two weeks.

Research is continuing into the apartment house incinerator problem. Here the solution will probably require a water-wash at the roof.

/END
L-M’s Post Top Luminaire Builds Evening Traffic

Line Material’s Post Top Luminaire is an attractive, highly efficient lighting unit with a scientifically designed optical system. It provides excellent illumination where distinctive, high-quality lighting is desired for the better-type place of business—park, pool, estate grounds, restaurant, hotel or motel.

Good lighting increases the hours of use, provides more hours for profit. The PTL is an ideal unit, designed and produced by Line Material, one of the leading manufacturers of scientifically engineered lighting equipment.

Line Material also provides outstanding lighting engineering service, available through your electrical contractor or wholesaler. Ask about L-M lighting equipment—or mail the coupon.

Mail This Coupon

Line Material Industries, Lighting Division, Milwaukee 1, Wisconsin HH-100

Please send me folder on the PTL and name of nearest distributor.

Name ___________________________
Company ________________________
Address __________________________
City __________________ State ________
Type of Business, Please ____________

PTL contains rigid spun-aluminum reflector 20” in diameter with optically correct glass reflector which directs the light downward in an even pattern. Choice of seven IES light patterns; lamps up to 10,000 lumens, or with ballast for mercury lamps to 250 watts. Available with photocell. Choice of six painted colors or natural aluminum. For 3½” or 5½” pole.

SOME OTHER L-M LIGHTING UNITS

Suburbanite

Mall-Glo

Mercury Ovalite

Outdoor Fluorescents
IN CHICAGO...

Al Rubin, leading masonry contractor, gets maximum crack resistance with

KEYWALL

galvanized masonry reinforcement

“You just can’t beat Keywall,” says Al Rubin, president of Arco Construction Company, Chicago, Illinois. “It’s the easiest-to-handle joint reinforcement I know... my men really like to work with it. And I get the results I want. That’s why I always urge the use of Keywall wherever joint reinforcement is specified.”

By using Keywall masonry reinforcement on his jobs, Rubin gets stronger walls with greater crack resistance. This is one of the reasons he’s recognized for quality masonry by leading Chicago architects and builders.

Rubin’s men prefer Keywall. They use it right. Installation details, such as reinforcing corners so they are stronger than the wall itself... lapping joints in straight walls to assure continuous reinforcement... getting full embedment of reinforcement, even when lapping, without increasing thickness of masonry joints... are easily done with Keywall. These superior features, vital in the effectiveness of any reinforcement, make walls reinforced with Keywall stronger and more crack resistant at lower cost.

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".

These two Lake Meadows units on Chicago’s south side are a prime example of Rubin’s fine masonry work. Keywall was used throughout. Architect: Skidmore, Owings & Merrill, Chicago. General Contractor: Turner Construction Co., Chicago.


KEystone steel & Wire Company
Peoria 7, Illinois

Keywall • Keycorner • Keymesh® • Keystrip • Welded Wire
Fabric • Nails
New styling and new controls mark new gas ranges

Roper calls its new cabinet-type built-in gas range Futura (above, left). Ovens for baking and broiling (with rotisserie) are at eye level. Four burners, including one automatic unit, are arranged in line, with all controls on the front panel. Brushed chrome top lifts from the front for easy cleaning and maintenance. Work surface is illuminated by a fluorescent panel behind the burners.

Geo. E. Roper Corp, Kankakee, Ill. For details, check No. 1 on coupon, p 286

Tappan "Fabulous 400", first of the new wall-hung built-ins, is now made in a gas version. It comes in 30" and 40" models to hang on a wall or stand on a cabinet. Control panel is above matched baking and broiling ovens, includes thermostat dial, clock, roast and rotisserie controls. Oven operates as low as 140°F for warming or defrosting foods. Surface burners are concealed by wood worktop when not in use.

Tappan Co, Mansfield, Ohio. For details, check No. 2 on coupon, p 286

O'Keefe & Merritt Contempo was co-developed with Tappan to give built-in look in the space of a conventional 40" range. Surface burners include one thermostat-controlled unit, are concealed by a solid maple cutting board. Ovens can be vented inside or outside the house. Broiler height can be adjusted in use by a front control. Contempo differs from Tappan 400 chiefly in trim and layout.

O'Keefe & Merritt, Los Angeles. For details, check No. 3 on coupon, p 286

Wedgewood-Holly Kook-Center can be mounted on legs or built into a cabinet. Cook top contains four paired burners, including two automatic units and a concealed fifth burner-grill. Matched baking-broiling ovens are controlled from eye-level panel. Backsplash, ventilating hood, and condiment shelf are integral with range.

Wedgewood-Holly, Culver City, Calif. For details, check No. 4 on coupon, p 286

Crown Contemporary offers the built-in look in 30", 36", and 40" free-standing Gold Star ranges. When closed (it's shown open above), recessed top burners and burner controls are hidden by a satin chrome steel top that aligns with 36" high cabinets. Oven and clock controls, fluorescent lamp are in backsplash.

Crown Stove Works, Chicago. For details, check No. 5 on coupon, p 286

Sunray decoRange is built to Gold Star standards plus full porcelain enamel, silicone oven seals, leg levelers, etc. Three lines come in 24", 30", 36" widths: C series has full backguard with clock, light, timer, etc; D models have clock tower instead of backguard; E series (shown) has flush back. Ranges drop-in cabinet cutouts.

Sunray Stove Co, Delaware, Ohio. For details, check No. 6 on coupon, p 286
Waste King Universal gas built-ins are designed by Henry Dreyfuss to match company's dishwashers and disposers. New clock control times roast when set to weight or type of meat. Oven doors are full width, fiberglass insulated. Oven lining is porcelain. Oversize oven windows have patterned glass to help conceal oven interior. Two or four burner surface units have removable burners and bowls, spill-proof edges, inset controls.

Waste King Corp, Los Angeles.
For details, check No. 7 on coupon, p 286

Modern Maid has introduced the first double-oven gas built-in with a ceramic infra-red burner claimed to broil steaks in half the usual time with only two thirds as much gas as a blue flame burner needs. Each oven has its own controls, lower oven will cook down to 140F. Each oven is 18" wide but unit fits 24" cabinet.

Tennessee Stove Works, Chattanooga.
For details, check No. 8 on coupon, p 286

Chambers Built-ins now offer thermostats that can be set as low as 140F for keeping meals warm or thawing frozen food. Oven and broiler compartments are oversize to take the largest domestic roasters. Ovens and control panel are framed in a deep extruded rim. New units match other Chambers appliances.

Chambers Built-ins, Chicago.
For details, check No. 9 on coupon, p 286

Hardwick built-in range line includes three surface units, two ovens. One four-burner top has surface dials, takes only one cutout. Divided units with front controls come in two-burner units. One oven has a standard burner, the other has a Micro Ray ceramic burner for broiling and barbecuing. Micro Ray rotisserie is live-flame thermostat controlled.

Hardwick Stove, Cleveland, Tenn.
For details, check No. 10 on coupon, p 286

Caloric built-in ovens and range tops are colormatched to sink, dishwasher, and other appliances. Gold Star range tops come with front or top controls, with one or two Thermo-set units. Built-in ovens come in single and double types. New "Four" series ranges come in 20", 30", and 36" models with keep-warm ovens, chrome-plated burners, pushbutton switches.

Caloric, Jenkintown, Pa.
For details, check No. 11 on coupon, p 286

Magic Chef Foldaway allows burners to be tipped out of the way to make work space. Units are available with thermostatic burners. All have automatic shut-off, locking control dials, working light, appliance outlet.

Magic Chef, Cleveland, Tenn.
For details, check No. 12 on coupon, p 286

Vernois Shadow Slim three-burner surface units are only 3" deep, fit into 24" base cabinet, need only one cutout. Deluxe models come with thermostatic or center-simmer burners, right or left hand controls. In chrome or colors.

Mt Vernon (Ill.) Furnace & Mfg Co.
For details, check No. 13 on coupon, p 286

Princess compact units are only 22 3/16" wide, 24 3/4" high, 19 3/4" deep, weight only 80 lb, yet have features of full-size range. Unit hangs from countertop by a metal lip; screws in range sides hold it in place. White and six colors.

Pan Pacific Mfg Corp, Los Angeles.
For details, check No. 14 on coupon, p 286

Preway Gold Star oven has automatic clock control, low temperature (140F) oven, built-in rotisserie, large broiler. Control panel is encased in heat-resistant glass, lighted by concealed tubes, holds thermostat, clock, timer, push-buttons.

Preway, Inc, Wisconsin Rapids, Wis.
For details, check No. 15 on coupon, p 286

New Products continued on p 223
How a house looks usually determines how it will sell. That's why so many successful builders feature genuine cedar shingle roofs and cedar shake walls. Because pride of ownership is a mighty potent force. And pride begins with exterior appearance. The natural character and unmistakable thickness of a cedar shingle roof...the rich shadowlines, deep-etched striations and cheerful factory-applied colors of cedar shake walls...appeal to that pride of ownership. When you build with cedar, you build with pride.
New Products

Perfection offers four sizes of lowboy gas furnaces—75,000, 100,000, 125,000, and 150,000 Btuh. A new compact heat exchanger keeps size down so that cooling coils can be top-mounted in low ceilinged space. A big centrifugal blower has extra capacity to handle a cooling load. Full steel bottom adds rigidity, leveling bolts eliminate need for a special base.

For details, check No. 16 on coupon, p 286

Majestic has introduced a compact gas furnace only 18" wide for alcove and closet installation. Upflow and downflow models have full-capacity belt-driven 4½ hp blowers. New square-to-round heat exchanger is welded to the frame to eliminate gaskets and leakage. All components are easy to reach when front panel is removed.

For details, check No. 17 on coupon, p 286

Bard has new models with 75,000 to 150,000 Btuh inputs that are completely packaged and adaptable to air conditioning. Ribbon burners give quiet, cheap operation. Blower slides out of reinforced steel casing for easy servicing. Sectional heat exchangers are prestressed to eliminate expansion noises. The controls are the silent full shut-off type.

For details, check No. 18 on coupon, p 286

Hall-Neal gas furnaces in the new Victorgas line have a thermistor flame control, claimed to be sensitive to 1/10°, that adjusts burner before temperature change is perceptible to homeowner. Furnaces have five-sided finned radiator for greater economy. Dual-speed blowers control drafts during early and late blower stages. Capacities: 100,000 to 175,000 Btuh input.

For details, check No. 19 on coupon, p 286

Burnham has two new lowboy gas series for new or replacement installation. Capacities run from 90,000 to 210,000 Btuh. Heavy-gauge cases finished in baked enamel, fully insulated. Rubber-mounted blower and motor are sized for year-round job. All parts are readily accessible. Unit is fully wired at the factory.

For details, check No. 20 on coupon, p 286

Dearborn has taken over Sequoia's furnace line, is introducing 35,000 and 50,000 Btuh gravity furnaces for small homes and horizontal furnaces of 80,000 to 150,000 Btuh for attic and crawl space installation. Larger units are designed for add-on cooling.

For details, check No. 21 on coupon, p 286

New Products continued on p 225
Why are Frigidaire Appliances a BIG

BECAUSE Frigidaire Flair provides glamorous cooking in rental kitchens

Beautiful Flair Ranges offer See-Level Ovens and exclusive Glide-Up Doors. Roll-To-You Cooking Top at hand-high level, Cook-Master Control for automatic cooking, Heat-Minder Unit, Speed-Heat Unit, and Meat Tender—all these attract renters too. And Flair slides into place between cabinets or in the space occupied by your old range—no carpentry needed. It's available in both 30" and 40" sizes. Base cabinet optional.

BECAUSE Frigidaire Wall Ovens provide cleaning without stretching

French Doors and Pull 'N Clean Lower Ovens add cleanability. The Drop-Leaf Door on other models offers up-close cleaning for hard-to-reach corners. Cook-Master Control (standard on most models) makes cooking automatic; and please note: most models install with only two screws; fit standard 24" cabinets or wall sections. Eight models to choose from—single and double ovens, some with glass window doors.
PLUS with your Prospective Tenants?

Because renters want what you want! Frigidaire quality means less trouble for renters, more economy for you. They want smart, efficient design; you want faster, more economical installation. And—when it's needed—Frigidaire factory-trained service is available everywhere. To add color to your kitchens, most Frigidaire Appliances come in Kitchen Rainbow Colors and White. All in all, Frigidaire offers unbeatable benefits to builder, owner, and tenants.

BECAUSE Frigidaire Cooking Tops provide spacesaving convenience
Speed-Heat Unit gets hot in seconds; Heat-Minder Unit is thermostatically controlled to help you enjoy cooking without burning or boiling over. All other Radiant-Tube Units have “infinite heat” selection. Only two clamps to adjust for easy, fast installation. Four Cooking Top models and three Fold-Back Units offer kitchen planning flexibility.

BECAUSE Frigidaire Dishwashers provide “once-a-day dishwashing”
Capacity for 12 place settings (NEMA standard) plus 15 extra pieces. Roll-To-You Racks glide out all the way for easy, front loading. Swirling Water Action scrubs and sanitizes every surface. Frigidaire Dishwashers fit in with standard cabinets. Freestanding and Dishmobile models available, too.

BECAUSE Frigidaire Disposers provide fast, quiet cleanup
Take care of food waste fast, 30-35% faster than many comparable models. Quiet, too, with an insulated jacket and rubber-cushioned connections. Fits most 3½” conventional drain openings.

BECAUSE Frigidaire Refrigerators provide compact food keeping
For replacement upgrading or new construction, you’ll like the compactness of every model—from niners and elevens right up through the pace-setting Frost-Proof models. Dimensions that fit your needs—all the features that attract renters.

BECAUSE Frigidaire Room Air Conditioners provide cool, dry, quiet comfort
Fast cool-down capacity, filtered fresh air, high moisture removal, quiet operation. Quick, easy installation in windows or thru-the-wall.
New products

Federal boilers come in packaged or knockdown styles with optional jacket extensions. Units come in 105,000, 125,000, and 150,000 Btuh sizes. All have 2,300-gph tankless water heaters, silent circular burners with slow opening solenoid main valves, safety pilot, pressure regulator, etc.

Federal Boiler, Midland Park, N.J.
For details, check No. 30 on coupon, p 286

Hydrotherm P line is completely packaged, comes in 72,000 to 155,000 Btuh capacities. Cast-iron boilers include wired-in circulator, pressurized diaphragm expansion tank, and positive air elimination system that does away with air vents in baseboard or convectors. Honeywell power pile generates its own electricity to operate boiler controls so heater will act as a gravity if power fails.

Hydrotherm Inc, Northvale, N.J.
For details, check No. 27, on coupon, p 286

Federal boilers come in packaged or knockdown styles with optional jacket extensions. Units come in 105,000, 125,000, and 150,000 Btuh sizes. All have 2,300-gph tankless water heaters, silent circular burners with slow opening solenoid main valves, safety pilot, pressure regulator, etc.

Federal Boiler, Midland Park, N.J.
For details, check No. 30 on coupon, p 286

Peerless Heater’s new MM series boiler is only 24” high, comes in 70,000 to 125,000 Btuh input. Units are designed for basementless houses and for individual service to apartments. Jacket is appliance styled in white baked enamel.

Peerless Heater, Boyertown, Pa.
For details, check No. 32 on coupon, p 286

H. C. Little now makes Safti-Vent gas heaters for window or through-the-wall installation. Sealed burners get combustion air and vent exhaust gases directly outdoors. Units come in 8,000, 20,000, and 30,000 Btuh inputs. Cabinets project only 4½”, telescopic vents adjust to any wall thickness.

H. C. Little Burner Co, San Rafael, Calif.
For details, check No. 33 on coupon, p 286
Brixment mortar is far more DURABLE!

Good mortar must be durable—must be able to withstand the alternate freezing and thawing to which it is subjected many times each winter. Brixment mortar is durable. Its greater durability is due partly to the strength and soundness of Brixment mortar—and partly to the fact that an air-entraining and water-repelling agent is completely intermixed into Brixment during manufacture. This helps prevent the mortar from becoming saturated, therefore protects it from the destructive action of freezing and thawing.

But greater durability is only one of the characteristics in mortar necessary to produce top-quality masonry at lowest cost. Several others are listed below—and no other mortar combines ALL these characteristics to such a high degree as Brixment mortar. It is this combination of advantages that makes Brixment superior to any mixture of portland cement and lime—and which also accounts for the fact that Brixment has been the leading masonry cement for over 40 years.

Louisville Cement Company, Louisville 2, Ky.

Brixment Mortar Also Combines These 8 Other Essential Characteristics

- Plasticity
- Water Retention
- Bond
- Strength
- Low Efflorescence
- Impermeability
- Soundness
- Yield

October 1960
newest addition to a complete line of

FIRST AND ONLY NO-FROST

GA-1400, No-Frost
gas refrigerator-freezer.

It's easier to sell RCA WHIRLPOOL equipped homes!
Now! For the modern gas kitchen ... get everything with one brand name at a package price!

1. **No-Frost gas refrigerator-freezer**
   There's nothing else like it. No frost build up in either refrigerator or freezer. Slim, trim, squared-up design for flush fit and built-in look. New foam insulation permits thinner walls and doors; up to 35% more storage in the same floor space.

2. **Built-in gas ovens and surface units**
   Gold Star approved for outstanding performance. Fixed orifices and automatic pressure regulators eliminate fussy adjustments and service callbacks. Oven has removable door for easy cleaning. The surface “Burner with a Brain” makes every utensil automatic.

3. **Free-standing gas ranges**
   For automatic cooking at its best! Offering exclusive, radiant-heat Bar-B-Kewer® meat oven with rotisserie, built-in griddle, thermostatically-controlled top burner, automatic clock controls and removable doors for easy cleaning.

4. **Super-Speed gas dryer**
   Shuts off at “dry enough”. Pamper the clothes with Tempered-Heat. Simple to use and it’s so fast ... a full load dries in less than 27 minutes. Time and temperature are tailored to fit the fabric. All clothes come out fluffier and softer.

5. **“Self-setting” gas washer-dryer**
   Washes and rinses wrinkle-free ... dries wrinkle-free in one continuous operation. There's tailored washing for every fabric—with 5 push-button cycles, tailored drying with 3 separate cycles. Handles a giant 10-pound load.

Write to the Contract Sales Division, Whirlpool Corporation, St. Joseph, Michigan for complete details.
Here is new gas equipment for five jobs

1. Refrigeration

Whirlpool has introduced a gas refrigerator-freezer that meets top standards of modern food storage. The new unit combines air-blast cooling and automatic defrosting to get frost-free operation. A fan-cooled absorber boosts efficiency. A new foamed insulation gives more storage space in less bulk. This redesign of cooling mechanism has saved 46% in weight over old gas refrigerators.

Whirlpool Corp, St Joseph, Mich.
For details, check No. 36 on coupon, p 286

Norco has a new compact gas refrigerator for motels, game rooms, second kitchens, etc. Units come freestanding or built-in in 4 and 6 cu ft sizes. Cabinets are satin-finish aluminum with foamed plastic insulation. Absorption system works without noise or vibration.

Norco, Inc, Los Angeles.
For details, check No. 37 on coupon, p 286

2. Laundry

Hamilton gas dryers feature two air streams, for gentle and fast drying. A three-cycle rotary timer gives different drying cycles for normal, wash and wool drying. Automatic electric ignition or low Btu safety pilot are offered as options. Retail price range: $260 to $340.

Hamilton Mfg Co, Two Rivers, Wis.
For details, check No. 38 on coupon, p 286

Whirlpool gas dryers are claimed to dry 25% more efficiently in machines over 3" smaller than previous models. Maximum temperature is 155F, air flow is 170 cfm. Capacity is full 10-lb (seven bedsheet) load. A new drive and new insulation cut noise to a minimum. Separate units have gas pilot ignition, combinations are electrically ignited. Prices: $210 to $250.

Whirlpool Corp, St Joseph, Mich.
For details, check No. 40 on coupon, p 286

3. Control

Grayson, a division of Robertshaw-Fulton, has a new wall thermostat series. New magnetic dust-free switch is sealed in glass, does not need leveling, resists vibration. Heat anticipator is available on all models. New unit is available at less cost as RT-100 without the sealed switch.

Grayson Controls, Long Beach, Calif.
For details, check No. 41 on coupon, p 286

General Controls is introducing new high-capacity water-heater controls. Built-in pressure regulators give full-range adjustment for main burner (pilot gas flow is unaffected). Rotary reset simplifies relighting. Gas cock is super-hardened to prevent freezing, galling, assure leakproof service.

General Controls, Glendale, Calif.
For details, check No. 42 on coupon, p 286

4. Air conditioning

Arkla model 500C is a complete gas air conditioning system installed outside the house. The condensing unit and the evaporator are included in the same case with the heating sections. The unit circulates hot or chilled water to fan-coil air handlers, or basement, ceiling, or floor radiators, or ducted systems. Capacity: 42,000 Btuh. Average cost: $2,000.

Arkla Air Conditioning Corp, Evansville, Ind.
For details, check No. 44 on coupon, p 286

Bryant cooling unit is designed to add cooling to gas heating. Unit is installed outdoors to keep heat or noise out of the house. Water chilled by absorption method is circulated through plastic pipe to bonnet coils. System is factory-charged, only cooling water needs to be added. In natural gas areas costs favor gas cooling.

Bryant Mfg Co, Indianapolis.
For details, check No. 45 on coupon, p 286

5. Waste disposal

Bastian-Morley is offering a new smokeless, odorless incinerator (see also Mar '58). High input to primary and afterburner compartments assures complete burning of all waste. Appliance finish and insulation allow installation indoors. Capacity, one-bushel price, about $165; operation cost, 3¢ to 4¢ a day.

Bastian-Morley Co, La Porte, Ind.
For details, check No. 46 on coupon, p 286

New products continued on p 234

HOUSE & HOME
Put lively new attraction and quality into your homes with Seadrift “Personality Paneling.” Its deep textured and grooved surface imparts all the richness of weathered wood and can be finished in delightful colors or two-tone effects to express any personality. Use Seadrift for a rustic theme, a tropical atmosphere, an “outdoors” motif. Finishing couldn’t be easier: Seadrift comes with a factory-applied prime coat to make painting and staining fast and permanent.

In 4’ by 8’ size panels, Seadrift is made of genuine Masonite hardboard... the only hardboard manufactured by the exclusive wood chip explosion process. It won’t split, splinter or check; goes up quickly and easily with joints and nails hidden in the grooves. Ideal for family rooms, as an accent wall in living room, bedroom or den. And Seadrift makes an exciting innovation in commercial structures, too. Architects and designers are specifying Seadrift for reception areas, offices, conference rooms, halls, schools and stores.

See Seadrift—and see the personality it can put to work for you. At your local lumber dealer’s or call your Masonite representative. Or, write Masonite Corporation, Dept. HH-10, Box 777, Chicago 90, Ill.
World’s First Combination Gas Heating/Electric Cooling in One Compact Unit that Fits a 3’ x 3’ Closet!

Especially created to solve your heating-cooling problems for apartments, motels, dormitories, nursing homes, medical centers, small commercial jobs

Never before so much in so little space—40,800 Btuh heating output (all gases)—22,000 Btuh cooling at ARI standard—all from a compact unit measuring only 89” high and taking only 3’ x 3’ of floor space. Truly a remarkable achievement—a new climax in 65 years of Lennox engineering leadership!

Matching the compactness of this revolutionary new “package” is its unequalled adaptability. Not only is it ideally suited for installation in a 3’ x 3’ utility closet with exterior wall but, also, it is equally suitable for air-shaft or remote applications. It is so compact, it may be installed when building is in finishing stage.

For full information or the name of your Lennox Technical Representative—address: Lennox Industries Inc., 424 South 12th Avenue, Marshalltown, Iowa.

Refrigerant Quick Connectors

No welding! No screwed joints! No adapters! Only one mechanical joint! Pre-charged refrigerant lines with U.L. listed self-sealing “quick couplers” permit safe storage and greatly simplify the field installation of the factory-charged condenser and evaporator units and their connecting tubing.
from Lennox

40,800 Btuh heating output — 22,000 Btuh cooling at ARI standards — from a unit only 89" high

EVAPORATOR COIL
More than 1 sq. ft. net face area per ton of rated capacity. Low resistance to air travel reduces blower power requirements. High dehumidifying capacity.

HEAT EXCHANGER
Heavy gauge steel, continuous welded construction. Three aluminized steel, ribbon-type gas burners easily removable for cleaning. Factory-installed back draft diverter.

BLOWER
Direct drive; delivers ample cooling air quietly, economically. Blower and resiliently mounted motor operate at low rpm, deliver constant air volume against normal, varying static pressures.

FILTER
Another Lennox "exclusive" — has TWICE the usual filtering area; 74 sq. in. per 100 cfm of delivered air. Throw-away type filter media, 1" thick, easily accessible for changing.

THE MOST INSTALLABLE PACKAGE EVER ENGINEERED
Condenser air may be discharged from coil side of unit or from right- or left-hand side — furnace section may be rotated 180° — permitting terrifically wide range of applications.

MAY BE INSTALLED "MOST ANYWHERE!"

WRITE TODAY FOR INFORMATION OR NAME OF YOUR LENNOX TECHNICAL REPRESENTATIVE.
Lennox Industries Inc.
354 S. 12th Ave., Marshalltown, Iowa

WORLD LEADER IN INDOOR COMFORT FOR HOMES, BUSINESS, SCHOOLS, INDUSTRY

LENNOX

© 1960 Lennox Industries Inc., founded 1895; Marshalltown and Des Moines, Iowa; Syracuse, N.Y.; Columbus, O.; Decatur, Ga.; Ft. Worth; Los Angeles; Salt Lake City. In Canada: Toronto, Montreal, Calgary, Vancouver, Winnipeg.

OCTOBER 1960
Hotstream J-40 is a nominal 40-gallon water heater with the recovery capacity to raise 63 gph 100°F. Yet the unit is only 64" high, 20" in diameter. Combined internal-external flue increases heating area 460% over internal-flue-only types, 13% over external-flue-only types. Design also prevents build up and stacking of too-hot water at the top of the tank. Also new in this model: low contour draft hood, combination thermostat, and automatic safety pilot.

Hotstream Heater Co., Cleveland.

For details, check No. 47 on coupon, p. 286

New water heaters have quick recovery

Why Apartments Use Wood-Mosaic Hardwood Block Floors

Wood-Mosaic Hardwood Block has solved the flooring problems in apartments like The Elise.

LOW COST LUXURY

Wood-Mosaic Hardwood Block floors provide the richness and warmth that only natural woods can give.

LONG LIFE — TOUGH, DURABLE FINISH

The exclusive Wood-Mosaic finishing process protects floors from stains . . . preserves their beauty year after year . . . provides easy maintenance.

FAST, CLEAN INSTALLATION

Wood-Mosaic Hardwood blocks are pre-finished for ready installation with mastic over concrete, wood or asphalt tile . . . are ideally suited for both new construction and remodeling.

Write for all the facts to: Wood-Mosaic Corporation, Dept. HH8, Louisville 9, Ky. In Canada: Woodstock, Ontario.

Wood-Mosaic

BLOCK FLOORS

Architects Refer to Sweet's Catalog 13JW'O

Rheem 30-plus unit can deliver hot water at a 30-gallon to 50-gallon rate to meet changing household needs or to satisfy a wide inventory with a single model. Instead of heating water hotter, Rheem unit has a new Robertshaw-Fulton regulator that allows burner to be set for faster or slower recovery. Heat input is controlled by a thermostat in the unit base or by a remote wall unit. The 30-plus comes in glass-lined or copper models to meet all water conditions.

Rheem Mfg Co., Chicago.

For details, check No. 48 on coupon, p. 286

New Products continued on p 218

New Products

start on p 218

Choose from Walnut,
Cherry, Hard Maple,
Oak (Natural or Brown)
SOLVED: COMFORT COOLING FOR OLD WING...NEW WING

Neatly tucked away on top of the carport, three Bryant 3-ton Gas Air Conditioning units comfort-cool with chilled water the old wing of the Empress Apartments...four 2-bedroom, two 1-bedroom and four efficiency apartments in all. Up through the tree you see three Bryant 4½-ton units on the roof of the brand new wing comfort-cooling one single bedroom apartment, ten efficiency apartments, and fourteen motel rooms.
In winter, hot water heating is provided by the same convectors.
In this installation quietness was essential—and a gas flame is quiet. Maintenance had to be nil or nearly so—there's nothing about a gas flame to wear out, no cooling tower, no condensing water. Actually, Bryant gas units maintain their original efficiency unimpaired by years of service. And no heavy duty wiring is required.
On your next apartment project, take advantage of all that we have to offer you in advanced product and technical assistance. Look us up in the yellow pages or write. Bryant Manufacturing Co., Indianapolis, Indiana • Bryant Manufacturing Ltd., Toronto, Ontario.
FOR PROFESSIONAL AND STUDENT LANDSCAPE ARCHITECTS...

Announcing
Competitions in Creative Planning
for New Mobile Home Park Designs

PROFESSIONAL CATEGORY:
First prize—$4,000
plus a consultant contract opportunity if your design is used.
Second prize—$2,000
Third prize—$1,000

STUDENT COMPETITION:
First prize—$1,000
Second prize—$500
Third prize—$250
3 Fourth prizes—$100
Six honorable mentions—$50

This competition seeks an entirely new concept in community design... that will provide more desirable living in mobile home areas and attractively integrate mobile home parks into existing communities.

This is an industry that increasingly recognizes the importance of aesthetic values in community planning, the need for the professional guidance of landscape architects. And this is a growing field. Today 1 out of every 9 new housing starts is a mobile home. At least 5000 new parks are needed right now.

The competition is endorsed by American Society of Landscape Architects and will be judged by Vernon DeMars, Professor & Chairman of the Department of Architecture, University of California, Berkeley, Firm of DeMars & Reay; Eugene R. Martini, Member of ASLA—Pres. of Southeastern Chapter ASLA, Firm of Martini & Assoc. Inc. Atlanta; George F. Miles, Treas. Vagabond Coach, New Hudson, Michigan, Founding Member Mobile Home Research Foundation; *Hideo Sasaki, Professor & Chairman of Dept. of Landscape Architecture, Harvard Graduate School of Design, Firm of Sasaki, Walker & Assoc. Inc., ASLA Member; Stanley Hart White, Professor emeritus Univ. of Illinois, College of Fine Arts, Department of Landscape Architecture.

*Mr. Sasaki will serve on the jury for the professional competition only.

Student competition is open to students in landscape architecture, architecture and city planning.

For application forms send to Mr. John L. Bloom, Professional Advisor, Mobile Home Park Competition, 20 N. Wacker Drive, Room 656, Chicago 6, Illinois. Reference material and topography will then be forwarded. All registrations must be completed by Dec. 31, 1960.

Sponsored jointly by
Mobile Homes Research Foundation and Rogers Industries of Detroit
Anaconda drainage fittings are designed to match Anaconda tube for fast, easy solder connections.

Unretouched photo of 3" dia. copper tube removed after 13 years' service in a soil line.

WASTES FLOW FREELY IN COPPER DRAINAGE SYSTEMS AND YOU SAVE MONEY. Compare the condition on the inside of this copper tube with what you might expect to find in ordinary piping after 15 years in service. Rust-caused troubles such as reduced flow or stoppages do not occur inside copper drainage lines. That is why many plumbing codes allow the use of 3" diameter copper tube for soil line and vent. Material costs are reduced and, because a 3" copper tube stack with fittings fits inside a standard 4" partition, the need for expensive, space-consuming plumbing walls is eliminated. Save time, effort, and money—install the modern drainage system with Anaconda copper tube and fittings. For information, write: Anaconda American Brass Co., Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.

ANAConDA®

COPPER TUBE AND FITTINGS for soil, waste and vent lines
Available through plumbing wholesalers. Anaconda American Brass Company

Longer Lengths—Fewer Joints
Preassembly—Saves Time
Lightweight Copper—Easier Installation
Compact Connections—Save Space
New termite barrier gets FHA acceptance

Bird & Sons' new Termibar offers three-way protection against termite infestation and moisture damage:

1. An asphalted felt and polyethylene vapor barrier impregnated with dieldrin prevents invasion through slab, crawl space, or basement, is used as a shield over foundation walls. Sheet comes in 550-sq-ft rolls, 6' wide, 90' long.

2. Termibar liquid poured in soil around house and in block-wall voids bars access up foundation. Liquid contains 4 lb of aldrin per gallon, is diluted with water 95 parts to one and used at a 2-gal-per-lin-ft rate.

3. Termibar caulk, an asphalt-dieldrin compound, is laid down around pipes, structural members, and other openings in the foundation. Caulk comes in standard cartridges.

System is covered by FHA Materials Release 246a, five-year guaranty.

Bird & Sons, Waltham, Mass.

For details, check No. 49 on coupon, p 286
Cover your investment with colorful Olin Aluminum

Building? For apartment house curtain wall treatments that spark a quick sale, check out the myriad designs, textures, finishes and long-range cost-cutting characteristics of products made with Olin Aluminum. Buying? The dazzling design departures you get with aluminum are sure-fire lures for beauty-conscious tenants... while upkeep is low because aluminum building products have proved themselves over the years as minimum-maintenance materials for both interior and exterior applications—and today's aluminum products are better than ever. Backing? When you finance apartment house construction, suggest to architects and contractors that they contact Olin Aluminum. We and our customers, who produce finished building products from our special alloys, will help them realize aluminum's potentialities to the hilt... from concept to construction.

OLIN ALUMINUM

There's valuable information for builders, buyers and backers in our free, comprehensive booklet, "Aluminum for Architecture." Just write.

OLIN MATHIESON • METALS DIVISION • 400 PARK AVENUE, NEW YORK 22, NEW YORK
This Polaroid Land Camera—yours FREE when you order 6 NAUTILUS NO-DUCT HOODS

Builders and kitchen specialists, here you are—a versatile Polaroid Land Camera to use right on the job! Snap before and after installations . . . you'll get finished photos to aid your selling efforts in just 60 seconds!

To get your free $76.85 Polaroid Camera (80 B) just order 6 NAUTILUS DeLuxe NO-DUCT HOODS (P Model). You'll find it's easy to sell this nationally advertised hood that's known everywhere. The NAUTILUS sells best because it works best . . . saves time, trouble and money for you because it goes up in minutes!

$142 Polaroid Model 500 Presentation Set Free with order of 12 NAUTILUS HOODS!
Quality leader in the Polaroid line, guaranteed for 10 years. Beautifully packaged, complete with Wink-Light for perfect indoor photos without flashbulbs, and a 4-S Filter. Takes big, 3 1/4" x 4 1/4" prints.

Cash in on the big NAUTILUS market in your town—and get your free Polaroid camera. Place your order for NAUTILUS DeLuxe (P Model) NO-DUCT HOODS today!

MAJOR INDUSTRIES, INC.
505 N. LaSalle St., Chicago 10, Ill.
YES! I want in on your Polaroid Camera offer. Please send me all the details. I'm interested in 6-Hood order □ 12-Hood order □

Name__________________________
Firm__________________________
Address__________________________
City__________________________ Zone________ State________

*Patent Pending
New lock has nylon works

The widest use yet of nylon lock parts is shown by Lockwood Hardware in its new Rocket series residential locksets. Latch shoe case, cam, and bolt (everything in fact but the spring and pin) are molded of DuPont Zytel resin. Because nylon is resilient and has a low friction coefficient, no oiling is needed, lock parts absorb severe impact loads, and lock is expected to outwear metal locks several times. Nylon is also rust and electrolysis free. Installation is claimed to be simplified: Misassembly is said to be impossible (round and square sleeves mate with round and square grooves). Latch case is self-aligning, lets installer swivel latch to compensate for bevel-edge doors or improper boring.

Lockwood Hardware Mfg Co, Fitchburg, Mass.

For details, check No. 50 on coupon, p 286

continued on p 246

Launched with great new advertising and merchandising in: GOOD HOUSEKEEPING, AMERICAN HOME, SUNSET and BETTER HOMES AND GARDENS to presell your heating prospects!

You can afford the timeless beauty and reliability of the new ROBERTSHAW élégante WALL THERMOSTAT

Simply ask your builder or heating contractor!

Guaranteed by Good Housekeeping

Beautiful, reliable UNITROL water heater controls

Space and central heating controls

Grayson Controls Division

Long Beach 5, California
The overwhelming leader in the combination washer-dryer field

ANNOUNCES THE ALL NEW 1961

PHILCO® Bendix

HI-SPEED GAS

DUOMATIC®

Washer-Dryer Combination

Washes better than a washer!
Easily handles any load, safely washes every fabric—cleaner, lint-free, sand-free. Washes a heavy 5' x 7' shag rug, never cuts off because of off-balance loads. 2 cycles . . . 3 rinses (2 more than most washers) . . . automatic sand ejection . . . exclusive Automatic Soak Cycle—a must for diapers!

Outfeatures any dryer!
Gas drying is faster . . . most automatic ever! Exclusive Philco Moisture Measure lets you "dial any dryness"—shuts the Duomatic off and delivers clothes fold-dry for immediate storing, damp-dry for ironing without sprinkling. 2300 RPM air impeller for the fastest gas drying ever!

Outperforms every other combination!
Only the Duomatic, of all Washer-Dryer Combinations, gives you true high-speed spin (550 RPM) for safe, thorough water removal after washing and rinsing—assures cleanest washing, faster, more uniform and most economical drying. Washes and dries average family load (2 sheets included!) in approximately 50 minutes . . . even less on those "hurry-up" loads!

NEW! AUTOMATIC DELAYED BLEACH
AND FABRIC SOFTENER DISPENSING!

Stores up to 3 weeks' supply of liquid bleach and fabric softener in built-in separate reservoirs!

“Only Philco has it!”

FOR THE MOST ADVANCED FEATURES IN HOME LAUNDARY
YOU NEED PHILCO®
The new wood formed board

**Duraflake**

helps you build

better... faster...

at lower cost!

provides greater internal strength and a smoother, flawless surface.

Duraflake is an ideal building material for floor underlayment, partitions, single-wall construction, cabinets and counter tops. Duraflake will not telegraph or indent when properly installed. It is easy to work and has excellent cutting, drilling, routing and nail holding qualities. Duraflake is a stronger board because of its ingenious formation. You'll find there are dozens of practical, economical uses for this superior board.

These are Duraflake's Superior Features:

- Fine surface eliminates telegraphing.
- Excellent screw holding properties.
- Strong internal bond.
- Maximum dimensional stability.
- Tight core for outstanding edge and face cutting.
- Machinability.
- Superior modulus of rupture.
- Uniform density.
- 5' x 16' press for great latitude.
- Teco quality control.

Mail coupon today for Duraflake sample and information on specific application:

Wood Fibreboard Company

P. O. Box 245 • Albany, Oregon

Telephone WAbash 8-3341 • TWX Alby 696

**Wood Fibreboard Company**
Kewanee’s Fast Installation
Steel Door Frames Will Save You Labor Time (Money)

INSTALLS BEFORE PLASTERING

SNAPS OVER DRYWALL

KEWANEE PLASTERITE
Quick 3-piece installation. Nail holes on flanges of frame spaced 7 inches apart—provide secure anchorage. Galvanized finish protects metal frame from wet plaster. Full range of sizes to fit standard 1 5/8" and 1 3/4" doors, over 2 x 3" or 2 x 4" studs. Swing, sliding and folding doors... cased openings.

KEWANEE UNIVERSAL “KWIK-FIT”

Both Kewanee steel door frames feature low “first” costs and a trim, modern appearance. Easily adapted to pre-fit doors—available for use in low-cost, pre-hung units. Shipped mortised and punched, and with mitered corners... ready for fast installation. Handy packaging—complete frame packed in individual carton to protect against damage in transit or at job site. Clearly marked with size and installation details. See your dealer or...

WRITE FOR STEEL DOOR FRAME LITERATURE

Kewanee Manufacturing Co.
1060 Fuller Avenue • Kewanee, Illinois

UNIVERSAL “KWIK-FIT”
Contour edges... looks like ranch trim

PLASTERITE
Note simplicity of line

ALSO NEW
KEWANEE MASONRY DOOR FRAMES
All welded unit frame (Write for details)
A DISTINCTIVELY COLOR-KEYED TILE

For Walls, Floors . . . Interiors and Exteriors

In An Unusual Selection Of BUCKSHOT SPATTER PATTERNS And New BUCKSHOT BLENDS

Here is an outstandingly different, cushion-edged tile in Modern Decorator Patterns suitable for any installation, any decor... and can be Mixed or Matched as preferred. Use VICO BUCKSHOT anywhere a high-quality, easy-to-install, durable, and popular-priced Tile is required. We recommend its use in Kitchens, Back Splashes, Recreation Rooms, Living Rooms, Dining Rooms, Entrance Areas, Bathrooms, etc... wherever originality in design, color and expression is desired.

VICO BUCKSHOTS are available in 2 ft. by 1 ft. square sheets of 1 inch tiles... all cushion-edged and paper-backed. Trims are also stocked.

Contact your local Distributor for Samples, Prices, Color Literature and further information, or write direct to:

AMSTERDAM CORPORATION 285 Madison Avenue • New York 17, N. Y.
New products

**HEAVY BLOCK LOAD** is handled by new Ford forklift over rough or wet ground. Check No. 51 on coupon, p. 286.

**Ford adds to industrial line**

Three new earthmoving and materials-handling tools are being offered the housing industry by Ford's Tractor & Implement Division. A new forklift capable of working on rough ground will handle 4,000-lb loads, will stack to 21'. Power is 172 cu in. diesel or gasoline engine. A new scraper to fit most tractor linkage systems has reinforced frame, 6' or 8' fully adjustable blade. A new rotary tiller in models 36" to 60" wide will prepare soil for compaction or lawn development to 6" depth.


**REINFORCED BLADE** takes advantage of greater power of new industrial tractors. Check No. 52 on coupon, p. 286.

**EARTH PULVERIZING** for any job needing homogeneous soil is job of Ford Tillit. Check No. 53 on coupon, p. 286.
MIXED-FLO HOOD
with optional Charcoal Converter for Duct-Free Service
- Mixed-Flo principle features extremely low sound level performance . . . plus extra pressure for long duct runs similar to that of a centrifugal blower.
- Vertical or horizontal discharge to 3¼" x 10" duct.
- Fully unitized — no lost cabinet space.
- Fast running installation — comes prewired, preassembled . . . just remove outlet box cover to hook up power supply.
- Available in 4 sizes, in coppertone, antique coppertone, genuine stainless steel.

Charcoal Converter can be mounted on Mixed-Flo for duct-free installation.

DUCT-FREE HOOD COMBINATION
with Air Refreshing Charcoal Converter
- Slim line converter mounts directly atop any Broan Dual Blower Hood or Mixed-Flo Hood for Duct-Free service.
- Converter removable should a ducted outlet be desired later.
- Converter comes equipped with oversized charcoal filter that adsorbs odors and smoke . . . refreshes air.
- Louvers are completely concealed, so that Duct-Free looks like a conventional hood.
- Available in 5 sizes, in coppertone, antique coppertone, genuine stainless steel; also decorator colors on special order.

Broan Range Hoods
— provide unmatched versatility
To meet your needs
To match your budget
To build your good name

DUAL-BLOWER ISLAND HOOD
- A complete package — hood, blowers, light . . . factory prewired for fast, economical installation.
- Combines the engineering features and advantages of the regular Broan Dual Blower Hood.
- Available in coppertone, antique coppertone, genuine stainless steel; also decorator colors on special order.
- 36" and 42" sizes only.

DUAL-BLOWER HOOD
- Vertical or horizontal discharge to 3¼" x 10" duct without reducers or fittings.
- Heliarc welded construction.
- Spring-loaded backdraft damper prevents cold drafts and damper flutter.
- Combined blower and hood saves on cabinet space.
- Twin air intake with twin aluminum filters.
- Blower, light removable without tools.
- Available in 5 sizes, in coppertone, antique coppertone, genuine stainless steel; also decorator colors on special order.

MANUFACTURING COMPANY, INC.
924 West State Street, Hartford, Wisconsin (near Milwaukee)

OCTOBER 1960
ANNOUNCING THE 1961 FORD FALCON PICKUP

LOW IN PRICE - AMERICA'S LOWEST-PRICED COMPACT PICKUP!

What a Falcon saves you on price* could keep your gas tank filled for thousands of miles! And there's more savings to come! Main underbody members are Zinclad-protected against rust and corrosion. Front fenders bolt on for ease of replacement—cost just $29.95 each. Insurance is as much as 15% less. Aluminized muffler lasts up to three times as long as ordinary types. You save on tires, on brakes, on oil . . . you name it and your Falcon saves it!

*Based on latest available manufacturers' suggested retail delivered prices

ECONOMY NEVER HAD SUCH STYLE
1961 Falcon Ranchero, shown here in Montecarlo Red, is available in 8 handsome colors with Color-Keyed Luxury interiors.

LOW GAS COSTS—OVER 30 MILES PER GALLON IN CERTIFIED TESTS!

In certified tests by the country's foremost independent automotive experts, the Falcon Pickup with 144-cu. in. Six scored as high as 38.3 miles per gallon! Average of all tests combined—hills and traffic, as well as moderate speeds on the level—was 30.5 mpg! Low oil costs, too—change it only every 4000 miles!

- Roomy comfort for 3 husky passengers!
- Rides, handles like a passenger car!
- High Falcon fashion inside as well as out!
- Optional Fordomatic Drive available!

NEW HIGH-PERFORMANCE OPTIONAL SIX!

For '61 Ford's new Falcon Ranchero offers a choice of two modern gas-saving engines—144 Economy Six and, as an option, a new high-performance 170 Six. Both available with standard or Fordomatic transmissions. And thanks to the simplicity of their proven design, servicing is fast, low in cost!

See your Ford Dealer's Certified Economy Book... it proves FORD TRUCKS COST LESS

LOW LOADING HEIGHT

Cargo floor to the ground measures a scant 25.2 inches... that means easy loading. And what a load! The Falcon Ranchero has a full 800-lb. load capacity! In its big six-foot box—over 7½ feet with tailgate flat—there's room to spare for just about any pickup job! You can open or close the tailgate with one hand... it locks tight and rattle-free automatically!
new Square D E-Z STACK

Plan Your Own Arrangement — Available wall space for the service and grouping of meters is frequently limited—and of a particular size and shape. Required locations of service and load conduits vary with each job. With E-Z STACK you have freedom of arrangement.

Template Layout — For installation convenience E-Z STACK devices include a full size template and wall mounting hanger brackets. Templates, attached to the wall, accurately position the hanger brackets for each device. Brackets on the wall interlock with clips on the back of the device.

Availability — All E-Z STACK devices can be ordered by catalog number from authorized Square D Distributors as they are needed. Individually cartoned, the final decision as to the meter arrangement and size of the circuit breaker disconnect for

easy as hanging a picture...

and in stock at authorized distributors
each apartment can be determined at the Distributor's counter.

**MAN-POWER** — Unit assembly of the final configuration permits easier handling of all components. The wall brackets support each unit — in its proper place — while permanently securing and inter-connecting the entire installation.

**WE CALL IT E-Z STACK BECAUSE** — the basic meter-breaker devices easily stack one on top of the other. All devices are "meant for each other" — and bracket suspended. Knockouts in adjacent devices line up; bushings protect inter-connecting wiring. Load lug assemblies in disconnects and service entrance terminal boxes are pad-mounted in the right quantity for every E-Z STACK installation. All devices are designed for a specific purpose — multiple-metering installations.

*Underwriters' Laboratories Approved*

---

**GET ALL THE FACTS!** Send for new Service Equipment Bulletin No. SL-27 featuring E-Z STACK design multi-metering devices, a complete cataloging of features, specifications, suggested arrangements, and bills of material.

*SQUARE D COMPANY • c/o Department SA-150
Mercer Road, Lexington, Kentucky*

NAME __________________________

COMPANY ________________________

ADDRESS ________________________

CITY _______________ ZONE __________ STATE ______________

*wherever electricity is distributed and controlled
NEW...

low cost sewage plant
furnished ready-to-run,
on a "single
responsibility" basis

Here at last—"Suburbia," a sewage treatment plant installed in your new sub-division and ready-to-run within 120 days! What's more, you deal with just one company from start to completion—one source of responsibility for furnishing and installation.

Individually planned and installed under the direction of your consulting engineer, "Suburbia" serves communities of 200 to more than 10,000 homes. Units conform to requirements of your State Department of Health; can be used permanently or as an interim measure (and then be re-erected elsewhere).

"Suburbia" is so simple that unskilled help can operate it; yet, with minimum maintenance, units produce no objectionable odor or bacteria-laden foam. Best of all, "Suburbia" involves less initial and operating capital than any other type of sewage treatment plant.

Let us show you how to buy community sewage treatment at sensible cost—and have it installed quickly, efficiently, without adding the confusion of multiple contracts. "Suburbia" is furnished and installed on a turnkey basis only, by...

MUNICIPAL SERVICE COMPANY
Your sewage service—our full responsibility
4623 Roanoke Parkway • Kansas City 12, Missouri

TYPICAL SOUTHERN-STATES INSTALLATION can go above-ground. Costs drop when tanks need not be buried, true of most of the South. This installation serves 300 homes (105,000 gallons per day) in the Corrine Terrace Development, Orange County, Florida.

TYPICAL NORTHERN INSTALLATION goes below-grade to take advantage of residual ground-warmth during colder winters. This one serves 700 homes (245,000 gallons per day) in the Gracemor Subdivision, Kansas City North, Missouri. Other installations range as far north as Michigan.

Bell Telephone's home interphone adds the virtues of an intercom—door answering, baby-sitting, hands-free room-to-room communication—to the normal outside telephone service. Equipment consists of phones, small separate speakers, microphone-speaker combinations, signal chimes, control unit, and transformer. Regular desk or wall phones, as well as the new Princess phone, are available. Instruments are supplied and serviced by the local telephone company for an installation charge and a monthly service charge. Bell Telephone System, New York City.

For details, check No. 54 on coupon, p 286

Here are two new intercoms

Rittenhouse has just introduced a complete, transistorized, high-fidelity or stereo home music and intercom system. Elements include a 14-transistor, 5 diode AM-FM radio with drift-free tuning and automatic volume control; deluxe remote stations with 8" extended-range speakers; master unit to control eight remote and four entrance stations; electronic door chime that sounds above radio or phonograph. Private two-way communication is possible between any two remote units. Parts can be added to basic set-up at any time. List prices: master station with radio, $225; deluxe remotes, $39.50 to $49.50.

Rittenhouse Co, Honeoye Falls, N.Y.

For details, check No. 55 on coupon, p 286

New Products continued on p 256

HOUSE & HOME
STUCCO...

whether you build contemporary or traditional

stucco can help you sell homes faster! No matter what type you build—contemporary or traditional—add extra sales appeal with stucco. You can easily get wide varieties of interesting patterns and designs, including “combed” stucco—sure-fire ways to speed the sale! And for that special attraction, remember: with tinted white portland cement you can have any color you want. For sales-making beauty at low cost, no wonder more and more builders are turning to concrete... material of modern living.

For the newest in homes...

PORTLAND CEMENT ASSOCIATION... a national organization to improve and extend the uses of concrete
Pegged plank flooring adds the congeniality of colonial rusticity brought up-to-date. Blending beautifully with brick fireplace and paneled walls, this pegged plank flooring forms a solid basis for quick sale.
Because wood floors do so much more to upgrade the whole house . . .

built of WOOD means built to sell

Your perpetual problem, as a builder, is how to give buyers what they want—and still maintain your profit margin. Wood floors are a case in point. As one of the most asked-for features, wood floors readily prove their worth in the salability they add to any house. New ideas in wood flooring cut costs, speed installation time. Pre-finished parquet squares, for example, can be laid quickly and economically for a luxury touch. Pegged plank flooring provides customized, informal, colonial styling.

Whether you select these new floors or lay standard strips, wood floors guarantee the unparalleled wearability, ease of maintenance, resilience and good looks that home buyers recognize as quality features. You build more value into a home with floors and stairs of wood—value that commands, and gets, a premium price. For more information on better homes of wood, write to:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1319 18th St., N.W., Washington 6, D.C.

For built-in sales appeal, nothing takes the place of wood

Parquet flooring, with its attractive geometric designs, is eye-catching and customer-catching, too. You can parlay the easy elegance and enduring beauty of parquet flooring into a strong and sure selling point.

Wood flooring of 2¼" strips is the most popular flooring in America. It, like all wood floors, is easy to install, easy to care for, and easy to live with. Put your best foot forward—foot after foot of wood flooring.
Lindenwood Village Cooperative Apartments feature ultra-modern facilities for gracious living. Fittingly, HI-LO dimswitches by Slater were installed in the living and bedrooms of these apartments providing occupants with dramatic 2-stage lighting. "HI" for party brightness..."LO" for relaxation and mood effects.

The HI-LO dimswitch fits any standard switch box—requires no special wiring or costly installation procedures. It is available in a wide range of ratings and may be used singly, ganged, 3-way, 4-way and in combination with other HI-LO's or ordinary switches.

For additional information on the Slater HI-LO dimswitch and over 600 other wiring devices—simply mail the coupon today.

**SLATER ELECTRIC & MANUFACTURING CO., INC.**

**GLEN COVE, NEW YORK**

- Please send me full information on the HI-LO dimswitch and 600 other wiring devices.
- I would like to have Slater dimswitches for my own home at the special professional discount of 50%, and the names of nearby Slater distributors.

NAME........................................TITLE..........................
COMPANY.................................................................
ADDRESS.................................................................
CITY........................................ZONE............STATE.....

---

**Here's a new nailable siding from Masonite**

Called X siding (until a builder contest names it) the new lap siding is 12"x16'x7/16", needs few joints, gives heavy shadow line and wide exposure. Faces and edges are factory primed, backs are sealed. Siding's homogeneous texture is easy to work and paint, gives good dimensional stability. Guide lines along edges allow quick alignment for 10½" or 11½" exposure.

Masonite Corp, Chicago.
For details, check No. 56 on p 286

---

**Here's a door, paneling, and moulding package**

All elements have the same surface treatment so matching finishes are assured and on-site labor cut. Basic door is Bellwood's hardboard-faced hollow-core. Basic paneling is Plywall's quality plywood. Finish is Plywall's PolyClad, a highly durable plastic surfacing that resists damage in transit and use. Stock grainings are English walnut and rock maple; other wood grains on order.

Evans Products, Corona, Calif.
For details, check No. 57 on p 286

---

New Products continued on p 258
Potlatch lumber scores high on all standards of quality… That’s because it’s 100% Kiln-Dried. Kiln-Dried lumber is stronger, straighter and more stable. Builders concerned with cost know it’s easier and less expensive to use the best—and Kiln-Dried Potlatch lumber is competitively priced. Ask your dealer about quality-controlled Potlatch lumber, produced from scientifically managed tree farms. Remember, when you order Potlatch lumber, every piece is Kiln-Dried before finishing.
New products

**Demand Fine TV Reception**

because today's APARTMENT HOUSE TENANTS

Master Antenna Systems are specified in over 60% of installations!

Here's a low cost "utility" that keeps paying dividends in good tenant relations! Jerrold Master Antenna Systems, for all types of dwelling-units, assure sparkling TV and matchless sound, in any signal area. Many builders report that today's tenants consider such TV reception as important as standard utilities! To provide such superior reception in your building or modernization plans, be sure you specify the best, Jerrold . . . the Master Antenna Systems that are engineered for apartments, motels and trailer courts, tract housing . . . and for private homes.

From one antenna, the Jerrold Master Antenna System amplifies the multi-channel signals and delivers them at full strength to every unit in your operation. Factory-trained installers and service personnel across America assure you of initial and continuing satisfaction. In weak or strong signal areas, Jerrold techniques and equipment are your guarantee of performance!

Jerrold is the World's largest manufacturer of TV distribution systems and equipment—and is the creator of the revolutionary new "Magic Carpet" Antenna System for the home.

**Jerrold Electronics Corporation**

Distributor Sales Division, Dept. IDS-84

Gentlemen:

I am interested in complete information on Jerrold Master Antenna Systems for the following type of installation . . .

- Vertical Apartments
- Garden Court Apartments
- Hotels
- Trailer Courts
- Individual Homes

Name:

Company:

Address:

City, State:

ELECTRONICS CORPORATION • Philadelphia 32, Pa.
Another Roddis “First!”

New 7/16" Architectural Craftwall

FIRE RETARDANT

One Hour
Fire-Retardant, Load-Bearing Interior Wall

LABELED AND LISTED BY UNDERWRITERS’ LABORATORIES

Official tests prove FR Architectural Craftwall, in combination with U.L. labeled gypsum wallboard and wood studs, will form a wall that affords one hour protection against the passage of flame or dangerous heat transmission.

1. Wood studs: 2" x 4", 16" on center
2. U.L. labeled gypsum wallboard: 1/2" thick, nailed horizontally
3. FR 7/16" Architectural Craftwall, nailed to studs

(Complete construction details available. Write for new Roddis Fire Retardant Bulletin)

Find out more about FR Architectural Craftwall or other Roddis products. Write: Roddis Plywood Corporation, Marshfield, Wisconsin.

Roddis does such wonderful new things with wood

Now all the richness and beauty of genuine wood paneling, plus amazing new fire safety, can be yours with Fire-Retardant Architectural Craftwall. Because its unique, new center core is Roddis’ man-made board—Timblend—treated with special fire-retarding chemicals. It’s the first particle-core paneling to be listed and labeled by Underwriters’ Laboratories!

New FR Architectural Craftwall is designed particularly for offices, or for schools, hospitals, public buildings — anywhere where fire safety is of vital concern. Choose from a wide range of hardwoods. Available prefinished the exclusive Roddis way for lasting beauty and durability. And at a considerable savings over ordinary fire-retardant plywood 7/16” paneling.

FR is just one achievement of Roddis’ pioneering with wood. There are others. Such as man-made Timblend . . . wood doors, guaranteed never to warp . . . veneers . . . custom paneling . . . special wood finishes . . . modern woodworking adhesives.
Rental units can cost less with ALFOL insulation

Yes... with ALFOL Aluminum Foil Insulation you save in many cost-reducing ways. Installation time is 15% to 20% less than for bulk insulations. Rapid, efficient installation lets other trades move in faster, too. ALFOL's all-around heat stopping efficiency—both summer and winter is unequalled. This means you can install smaller tonnage, less expensive cooling units if you air condition. Also, whether you heat by gas or any other fuel, your operating costs will be at a minimum.

Don't forget... franchised ALFOL distributor-applicators are insulation experts. They can help builders insulate and build better... for less. Ask them.

REFLECTAL CORPORATION, DEPARTMENT A-84
A subsidiary of Borg-Warner Corporation
200 South Michigan Avenue, Chicago 4, Illinois

Please send
FREE ALFOL Brochure:
"The Modern Insulation for Today's Apartment Construction Needs"
BUILDERS WHO LIKE happy customers

...LIKE G-B DUCT

“Prefab” Glass Fiber Duct Provides Year ‘Round “Living Comfort” At Less Cost To You and The Homeowner

Happy is the builder who has discovered G-B Duct, the round prefabricated duct that is made entirely of glass fiber insulation encased in a vapor barrier vinyl sleeve. When it comes to transmitting air evenly and efficiently throughout the home, nothing does it better than G-B Duct. And the same goes for its acoustical properties — G-B Duct soaks up objectionable noises before they’re ever heard. If you like stories with happy endings, read on:

BUILDERS like G-B Duct because it adds a definite sales feature to their homes. It may take a modern, convenient kitchen to sell the housewife, but it’s a sure bet that the man-of-the-house will be impressed when you tell him about the added comfort and economy he’ll get with G-B Duct. And what’s more, your sub-contractor will verify the fact that G-B Duct can usually be installed at less cost than an insulated metal duct system.

FATHERS really go for G-B Duct when it comes time to pay the monthly utility bills. This “prefab” glass fiber duct just doesn’t waste heated or cooled air. Consequently, furnaces and air conditioning units operate more efficiently, requiring less fuel or electricity to keep a home comfortable.

MOTHERS may not understand too much about the duct system, but they sure can appreciate the fact that G-B Duct puts an end to the annoying noises that usually drift into the house from the furnace or air conditioner.

BROTHERS AND SISTERS think G-B Duct is the “most”, too! They know that G-B Duct keeps temperatures constant in every room of the house, regardless of outside temperatures.

THE WHOLE FAMILY will think you’re the smartest builder ever for putting G-B Duct in their home. So, if happy customers are your goal, we suggest you write us for more information on G-B Duct today. You’ll be happier, too, if you do.

Gustine-Bacon
258 W. 10TH STREET, KANSAS CITY, MO.

Thermal and acoustical glass fiber insulations • Molded glass fiber pipe insulation • Couplings and fittings for plain and grooved end pipe
because first impressions are lasting...

ILCO PHILIPPINE MAHOGANY

With many prospective homebuyers you have only one chance to make good. A casual first inspection and either your model is just another one on their list... or one that's worth investigating thoroughly because it's clearly quality built. That's where Ilco Philippine Mahogany comes in.

Ilco is, of course, solid hardwood—not plywood or veneer. Thus, with Ilco paneling, your homes take on an appearance of true richness that sets them far above the ordinary. Each piece, though blending harmoniously with every other, is still unique as far as figure is concerned, reflecting different aspects of growth characteristics, grain angles, subtle interplay of light and shadow.

Perfectly complementing this handsome paneling are Ilco moldings, which also are solid hardwood. And with Ilco you enjoy the widest selection of Philippine Mahogany moldings—77 different patterns, enough to do any job.

WRITE FOR FREE CATALOG

All-new illustrated catalog of the entire Ilco line, with special emphasis on moldings.

TRACINGING DRAPES are made of small squares of rigid plastic. Small slots in molded sections admit air. Light and heat are controlled by traversing drape or by a choice of opaque or translucent colors. Heat transfer is claimed to be 1/1000 that of aluminum. New drape stacks one foot to the inch, i.e., a 10' drape stacks in 10" space.

Jaylis Industries, Los Angeles.
For details, check No. 60 on coupon, p 286

BUILT-IN HAMPER takes no floor space, can be concealed behind a door or in a closet. Capacity is more than two washer loads. Heavy gauge steel will not absorb odors. Vents top and bottom allow free air circulation. Price, about the same as wall tile it replaces.

Quality Line, Los Angeles.
For details, check No. 61 on coupon, p 286

BIG MEDICINE CABINET has 4,400 cu in of storage space behind its double sliding mirrors. Fixed shelves for linen in one half will hold five bath towels, eight face towels, 12 washcloths. Adjustable shelves take tall bottles. Frames are stainless steel, glass is polished plate or crystal. Rough in is 30"x20". 8" depth gives 4" projection.

Jensen Industries, Los Angeles.
For details, check No. 62 on coupon, p 286

continued on p 270
Today's Garage

your biggest bargain in space

Needed storage space, work space, play space—homebuyers are finding it in the garage, the place you can find more sales, more profits. For both you and the homebuyer, today's garage is a big bargain in space.

It's a bargain to build. Nationwide comparisons show the square foot cost of an attached garage is \( \frac{1}{3} \) the square foot cost of the rest of the house... $3 to $5 for the garage compared with $9 to $15 for the house.

It's a bargain to sell. Surveys show homebuyers prefer garages to carports and certain built-ins. And it's space they can afford. Under FHA, a double garage adds only $260 to the down payment of a $15,000 home. To a $16,000 home it adds only $360. This is less than half the out-of-pocket cash most homeowners pay to a garage contractor within the first year of their home purchase.

A "Convertible-Garage-Room" makes it a bigger bargain—a bigger sales opportunity. A second door on the side or backwall makes your garage into a "Convertible-Garage-Room." Total cost: less than $100 additional for a 16' door. The garage gains light, ventilation, wide access to the backyard. It becomes a covered patio, workshop, play pavilion, family room, as well as storage space. The reason it's such a bargain to build? Materials and labor saved in the wall will make up most of the cost of the second door. Builders report greater garage evaluations, too. And "OVERHEAD DOOR" provides exciting sales tools FREE to help you make the most of this idea.

The "OVERHEAD DOOR" backs your bargain with a guaranteed product. You're guaranteed of dependable quality, reliable service—no callbacks. Any trouble will be efficiently handled by your local distributor. See your distributor soon. You'll find his name listed under "OVERHEAD Door" in the white pages of your phone book... or write Overhead Door Corporation, Dept. HH-10, Hartford City, Indiana.
Now! Complete home heating and cooling with Trane “big system know-how!”

At down-to-earth prices! A TRANE Climate Changer in any home... in any climate lets you sell competitively and fast!

You'll sell your homes faster, easier with Trane quality air conditioning. Trane enables you to meet the demands of today's quality-conscious buyers. And meet them head-on competitively because Trane costs no more. Yet Trane brings you all the experience and know-how of a leader in air conditioning every thing from skyscrapers to jet planes to subway trains!

Trane Climate Changer units give you a wide choice of systems for heating, cooling—or both. And each Trane Furnace is designed from the beginning for the easy addition of air conditioning—now or later! Let Trane Air Conditioning help you sell! It's quality air conditioning... matched equipment, designed and built together to work together. And the name Trane on your heating-cooling system helps mark yours as a quality home.

Complete facts are available from your nearby Trane Sales Office. Call the number listed under “Air Conditioning” in the Yellow Pages. Or write Trane, La Crosse, Wisconsin.

2. NEW HEAT PUMP HEATS, COOLS. TRANE air-to-air Heat Pump operates electrically for heating and cooling an entire home. Uses no water, requires no fuel. Sizes for any home. Outside compressor unit features upward air discharge for quiet operation, freedom of location.

1. FOR HEATING AND COOLING ANY TYPE HOME—combination furnace and air conditioner. This Trane Climate Changer may be oil or gas-fired warm-air type (upflow or downflow). Matched cooling unit shown on furnace; may be added later if owner desires. Capacities available: Heating—from 77,000 to 154,000 Btu; Cooling—2, 3, 4, 5 or 71/2 tons.

With Trane you can:

Heat and Cool any type home with a Trane matched Furnace and Air Conditioner. (Picture #1.) Cooling may be optional. Owner can add matching cooling unit later, using same ductwork.

Heat and Cool entire home electrically with a Trane Heat Pump. (Picture #2.) Central duct system distributes both heating, cooling. Uses no fuel, needs no chimney.

Provide separate cooling for entire home with a Trane Fan-coil unit. (Picture #3.) Ideal for use with Trane Baseboard or other hot water heat, where there is no central duct system, or with electric resistance heating.

For any air condition, turn to

TRANE

MANUFACTURING ENGINEERS OF AIR CONDITIONING, HEATING, VENTILATING AND HEAT TRANSFER EQUIPMENT

THE TRANE COMPANY, LA CROSSE, WIS. • MOTION MFG. CO., SCRANTON, PA. • CLARKSVILLE MFG. CO., CLARKSVILLE, TENN. • TRANE COMPANY OF CANADA, LIMITED, TORONTO

3. FOR SEPARATE COOLING. This Trane Fan-coil unit nestsles into attic, crawl space, basement, utility room or garage. Cools entire home through its own ductwork system, matched refrigeration unit located outside. Available in 2, 3, 5 and 71/2-ton models.
Howard Miller

Howard Miller Built-In Clocks tell much more than just the time; they bespeak excellent taste and discernment!

Model 6737—New...polished brass or black finish. 9" to 12" diameter. $17.95

Model 6721—Satin Brass, Copper, Chrome or Black Finish. 9" to 12" diameter. $15.95

Model 6735—Polished brass hour markers mounted on mat finished white or black polystyrene panel. Brass hands. 11" overall. $15.95

Two-way radio for directing field operations requires no FCC license, operates on Citizen Band communications system. Two-pound unit is milk-bottle size, can be one-hand operated. Four battery types give operating life of 50 to 300 hours. Price: under $130.

Kaar Engineering, Palo Alto, Calif.

For details, check No. 63 on coupon, p 286

New gypsum lath from Kaiser gives fire-resistant construction. Duralath comes in standard 5/8"x16.2"x46" gypsum-lath size but new core composition changes its properties. Standard tests give one-hour fire rating for Duralath on wood stud construction. It is approved as an alternate to perforated lath by icira code.

Kaiser Gypsum, Oakland, Calif.

For details, check No. 64 on coupon, p 286

Automatic humidifier disperses seven gallons of water a day through ducts of any forced-air furnace up to 125,000-Btuh capacity. Water flows into the atomizer whenever the furnace blower starts up. Bendix-Fries humidistat controls the humidity level; an automatic control adds water on demand.

Burgess Vibrocrafters, Grayslake, Ill.

For details, check No. 65 on coupon, p 286

continued on p 275
WELDWOOD ACOUSTICAL DOOR. For the first time, an effective low-cost sound-retarding door with beautiful hardwood faces is practical for applications that could not justify the higher cost of earlier types. Blends with other wood doors and paneled walls. Like any Weldwood door, it can be ordered pre-finished and machined for size and hardware.

WELDWOOD STAY-STRATE® DOOR. Faces of beautiful hardwoods give a handsome exterior and match interior wood paneling. The fireproof, inert Weldrok® mineral core is so stable that the door will be easy to operate for the life of the building. Ends costly door adjustments.

at a price you can afford
For every opening there's a Weldwood Door

The complete line of Weldwood® doors gives you one-source convenience—and responsibility—for all your door needs. Interior, exterior, wood faces, paint grade, acoustical, fire, Paniflex® bifold—these are but some of the doors available. Every Weldwood door is specifically designed and constructed for superior performance in its own applications.

The Weldwood Door Guarantee
United States Plywood unconditionally guarantees the Weldwood Stay-Strate, Acoustical, and Duraply Exterior Paint Grade doors against warping, twisting, or manufacturing defects for the life of the installation, when accorded treatment which is considered good practice as far as storage, installation, and maintenance are concerned. If any of these doors should fail to meet these standards, United States Plywood will replace it without charge, including labor costs of hanging and refinishing involved.

WELDWOOD DOORS

MAIL COUPON FOR FREE WELDWOOD DOOR BOOKLET

United States Plywood
55 West 44th Street, New York 36, N. Y.

Please send free copies of new 12-page booklet, "Weldwood Architectural Doors"—#2010.

Name

Firm

Address

City

Zone

State
Here's how exclusive Honeycomb Heat Exchanger increases warm air delivery

In the new R&M-Hunter Convection Baseboard, heating engineers have combined a fast-action, highly efficient rod-type heating unit with newly designed Honeycomb heat cells of non-corrosive aluminized steel. The result: greater metal-to-air ratios provide more efficient heat transfer at lower surface temperatures. Directional outlet speeds circulation of warm air into room, away from wall. This advanced design achieves a 9-to-1 ratio of warm air delivery to radiant heat.

**FEATURES**

- **High and low density**—For concentrated heat loss area, higher wattage sections may be used (below a window, for example). Low wattage sections spread heat source evenly for normal areas.
- **Room-by-room controls**—Individual built-in thermostat section controls comfort levels in each room. Eliminates wasteful overheating in one area to provide comfort in another. Insures efficient use of power.
- **Complete safety**—Surface temperatures are always low. Can't harm sensitive skin of children. Won't damage fabrics that can be ironed with "medium" setting.
- **Thermal cut-out**—Each baseboard section has a thermal cut-out switch. This prevents any overheating that might occur if air flow were restricted or shut off.
- **Silent operation**—Heat exchange assemblies and baffles are separately spring mounted to prevent expansion or contraction sounds resulting from cycle operation.
- **Accessories**—Convenience Outlet Sections (240 or 120 Volt). Dummy Sections. Matching End Caps and Corner Pieces. Built-in Thermostat Sections. Wall Thermostats also available for use where desired.
- **Other Data**—240 and 208 volt sections available. 32" and 48" long, 6½" high x 2½" deep.

Send today
for catalog

Hunter Division—Robbins & Myers, Inc.
2724 Frisco Avenue, Memphis 14, Tenn.

Send complete data on new R&M-Hunter Convection Baseboard to:

Name  

Address  

OCTOBER 196
A Wall For Every Purpose

The clay masonry cavity wall offers the beauty of exposed interiors, plus outstanding fire safety, insulation, and maintenance-free economy. The 4" exterior brick wythe is separated from 4" brick or tile interior wythe by 2" air space, effectively minimizing heat loss and gain, and moisture penetration. Cavity walls can be insulated for maximum results.

The brick veneer wall offers new or remodeled homes the prestige, freedom from maintenance, and high value of a beautiful, permanent, and preferred brick facing at low cost.

The 6-inch "SCR brick" wall provides finish and structure in one, eliminating need for backup materials. Savings in time, labor, and materials make it one of the most economical, yet permanent, walls available for one-story construction.

The reinforced brick masonry wall contains steel reinforcing rods to provide extra strength for resisting lateral forces from earthquakes, tornadoes, hurricanes, and nuclear blasts. RBM is particularly desirable as a "safety zone" within the home; it also offers interior brick "accent" walls.

For further information, see your brick supplier or write to Structural Clay Products Institute
1520 18th St., N.W., Washington 6, D. C.
Flush ceiling heater warms by radiation and convection without circulating fan. Radiant panel has 9"x36" face, is only 2¾" deep. Vents allow air to circulate between heating element and fiberglass ceiling insulation, beam heat toward corners of the room. Unit draws 500 w on either 120 or 240 v. Frame is satin anodized aluminum; face is speckled beige steel. Price: $54.95. Sun-Tron Corp. Chicago. For details, check No. 66 on coupon, p 286.

Thin-wall switch is specifically designed to go in thin, space-saving partitions. New ¾" deep Quietie model fits a 1¼" box, leaves ample space for wiring. New features include two anchor holes to hold wire during looping, extra-large binding screws, handle enclosure that fills wall plate. Available in single-pole, double-pole, three-way, and four-way types. Arrow-Hart & Hegeman, Hartford. For details, check No. 67 on coupon, p 286.

Wall-washer light is a new 40° recessed fixture to light walls, pictures, planter areas, etc. Die-cast one-piece frame is 7½" square, finish opening 6¾" square, housing is 6¾"x10⅜"x5¼". Unit is completely prewired, comes in matte white or aluminum finish. Prescolite Mfg. Berkeley, Calif. For details, check No. 68 on coupon, p 286.

IDA THERMALINER prevents condensation problems because it is actually two prime windows, set into a toxic-treated wood liner and separated by a three-inch-plus thermal barrier. IDA THERMALINER comes completely assembled. Outside window has rigid fixed meeting rail to reduce out-of-square installations. Interior sash are roller bearing units which lock individually (at both head and sill) to assure prowler-proof protection. NO PLASTER OR DRY-WALL RETURNS NEEDED, NO STOOLS OR APRONS NECESSARY! Here's a window that REDUCES builders' costs.

Our sales representatives will be pleased to show you our window. Call, wire or write today!

IDA PRODUCTS COMPANY

3001 Miller Avenue
Detroit 11, Mich.
TRinity 3-8700
NOTHING SELLS A WOMAN LIKE A GOLD STAR AWARD

TAPPAN

Wait 'til she sees it in your kitchen. A Tappan Gas Built-In with all the things that are important to women. The Banquet-Size Visualite Oven that can hold a 24-lb. turkey. Tappan's exclusive Sizzle-Simmer Burners that never clog. Automatic controls that cook while she's out. The Set-'n-Forget Top Burner that never lets food burn or overcook. The Roast-Meter that times standing rib roasts and other meats to perfection, automatically. Lift-Off Doors that really make oven cleaning easy. A total of 28 wonderful Gold Star Award conveniences that make cooking with Tappan a joy instead of a chore.

Mail the coupon for free information.

NOTHING COOKS, LOOKS OR SELLS LIKE A TAPPAN

The Tappan Company, Department HH 10-0, Mansfield, Ohio
Please supply me with complete specifications, installation and model information on Tappan: Built-In Gas Ranges ◆ Tappan's 'Fabulous 400' Gas Range ◆ Built-In Refrigerators ◆.

Name
Address
City
Zone State

Leaving Delaware Home Builder Sells Faster and Saves $25,000 a year!

USES SIMPLEX FORMS TO POUR OWN CONCRETE BASEMENTS IN TRADITIONALLY BLOCK AREA

When Gordy Enterprises, Inc. decided to modernize their basements, as they had their kitchens, sales began to soar. Featuring full basements formed of poured concrete, in what until now was a traditionally block area, proved to be the attraction that brought new buyers to his projects.

- Sales of his 3 and 4 bedroom houses, in the $11,000 to $14,000 price range, have reached new heights... customers get more for their money... and, as an added bonus, the Gordy firm is saving $25,000 this year on 500 homes through using Simplex — the world's fastest and most flexible system of concrete forming.
- As a result of Gordy's terrific success, other builders and even block masons in Delaware are converting to Simplex so they can pocket more cash, too! How about you... isn't it time you enjoyed the extra profits Simplex can bring?

Make more money from your operation with the fastest, most flexible method of concrete forming

With Simplex, you don't have to skimp or cut corners to make a neat profit! The system is so easy, so quick, so simple that workmanlike jobs come naturally to anyone who has just a basic knowledge of concrete. Look at these superior features of the Simplex System!

- Accurate Foundations
  Because Simplex panels are drawn together by patented hardware, forms set-up straight and true... seam marks are at a minimum. Homes become more salable!
- Best for Pre-Fabs
  Here's where accuracy really counts! Simplex assures positive wall dimension... specifications are easily met... above grade work naturally goes faster!
- Time-Saving Features
  Patented levers and hardware are bolted firmly to panels. Levers lock or unlock with the tap of a hammer. With Simplex, vital parts can't be lost or misplaced... saves stripping and moving time. Cuts parts replacement costs.
- Rugged, Long-Life
  Panels are 9-ply, 1 1/2 plastic-impregnated ply-glue and are strengthened by horizontal steel backing bars. Users report excellent results after hundreds of pours.

Send For the Complete Story
SIMPLEX FORMS SYSTEM, INC.
5625 Industrial Avenue
Rockford (Loves Park) Illinois

Simplex Forms System
Patented hardware bolde in place
Patented locking levers
Steel bars give added strength
All locking hardware bolted in place

Make more money from your operation with the fastest, most flexible method of concrete forming

With Simplex, you don't have to skimp or cut corners to make a neat profit! The system is so easy, so quick, so simple that workmanlike jobs come naturally to anyone who has just a basic knowledge of concrete. Look at these superior features of the Simplex System!

- Accurate Foundations
  Because Simplex panels are drawn together by patented hardware, forms set-up straight and true... seam marks are at a minimum. Homes become more salable!
- Best for Pre-Fabs
  Here's where accuracy really counts! Simplex assures positive wall dimension... specifications are easily met... above grade work naturally goes faster!
- Time-Saving Features
  Patented levers and hardware are bolted firmly to panels. Levers lock or unlock with the tap of a hammer. With Simplex, vital parts can't be lost or misplaced... saves stripping and moving time. Cuts parts replacement costs.
- Rugged, Long-Life
  Panels are 9-ply, 1 1/2 plastic-impregnated ply-glue and are strengthened by horizontal steel backing bars. Users report excellent results after hundreds of pours.

Send For the Complete Story
SIMPLEX FORMS SYSTEM, INC.
5625 Industrial Avenue
Rockford (Loves Park) Illinois

Leading Delaware Home Builder Sells Faster and Saves $25,000 a year!
Provides full power for 4 appliances at one time... completely grounded... decorative styling... low cost

New General Electric outlet center adds extra sales appeal to your kitchens!

Here's a new idea to make your kitchens more convenient!

This new GE4106-2 appliance center provides up to 5000 watts at 125 volts — provides full operating power to as many as 4 portable cooking appliances at one time. It uses the new 20-amp ASA standard grounding outlet that will accept all 4 popular types of caps used on today's — and tomorrow's — appliances: the standard parallel cap, the polarized cap, the 15-amp 125-V grounding cap, and the 20-amp 125-V grounding cap.

The G-E appliance center comes complete with an attractive “Decorator Series” wall plate, with ivory frame and a reversible textured metal insert — colored gold on one side, silver on the other. It is pre-wired in the factory for economical installation.

Ask your electrical contractor about this new low-cost kitchen convenience — or write to General Electric Company, Wiring Device Department, Providence 7, R. I.

General Electric is your headquarters for new, low-cost wiring device ideas

New G-E 4-Plug Outlets take twice as many plugs, in same space.
New G-E Decorator Wall Plates beautify switches and outlets.
New G-E Push-Button Switches have built-in pilot lights.
New G-E Lighted House Number and Doorbell Button.
G-E Silent Mercury Switches have soft, luxurious action.

Progress Is Our Most Important Product

GENERAL ELECTRIC

OCTOBER 1960
New PC Sculptured Glass Modules for

The material is glass, and that means translucency and durability. The product gives you much more—color, pattern, and texture all in one. Used in apartment planning, PC Sculptured Glass Modules control light as they achieve design. The patterns enrich the interior, distinguish the exterior through a visual play-back of light and shade that is bold, yet not aggressive; decorative, yet subtle. And all this without sacrificing that “open feeling” so essential to apartment environments. The product’s light transmitting qualities range from the transparent to the translucent, to partially opaque tones.

Considerations of economy favor this product, too. One operation gives you a finished wall, decorated on both sides. The high insulation factor, equivalent to a 12” thick masonry block wall, suggests economy in

Bedroom—Leaf pattern in panel brings light with privacy.

Balcony—Pyramid pattern enriches exterior; transmits light.
Flair and Flexibility in Apartments

Lobby—Harlequin pattern accents the entrance area.

Entrance—Wedge pattern adds charm to reception divider.

Air conditioning or electric heating. Mortared construction practically eliminates maintenance. And expensive accessories such as drapes, curtains and other sun shades are often unnecessary.

PC Sculptured Glass Modules are available in the four face patterns shown above. The patterns are pressed into both sides of the unit to a depth of approximately 1½ inches. All four patterns come in clear glass, plus eleven ceramic colors applied to one face only. The unit is 12 inches square. It is available on architects' specifications only.

We would like to send you our new folder which presents several panel design interpretations. Write: Pittsburgh Corning Corporation, Dept. HH-100, One Gateway Center, Pittsburgh 22, Pa. In Canada: 3333 Cavendish Blvd., Montreal, Quebec.
New products

**Proven Quality... Radiant-Ray**

For modernization of present structures or installation in new building, specify and insist on Radiant-Ray baseboard radiation. Get all the cost-saving advantages of hydronic heating plus the proven quality of Radiant-Ray, the most complete baseboard line in the industry... IBR approved ratings. Buy from this one source and fulfill every heating requirement in home, apartment building or institution.

Qualify with Quality

Bright new colors in vinyl are feature of Kentile's Designer Palette series. All colors are solids in black, white, and blended tones called hot canary, avocado, burnt orange, Bristol blue, Bangkok pink, sagebrush. Tiles come 9"x9" or in 36" strips 1/4", 1/2", 1 1/2", and 1" wide in .080" or .14" gauge.

Kentile, Brooklyn.

For details, check No. 69 on coupon, p 286

Luxury flooring is offered in Armstrong's latest Hydrocord-backed Vinyl Corlon. Palatial is a marbleized pattern with veins of clear and translucent vinyl in a textured field of ground vinyl particles. It has, the company claims, the finest maintenance characteristics of any flooring Armstrong makes. Cost: about $1.10 a sq ft installed.

Armstrong Cork, Lancaster, Pa.

For details, check No. 70 on coupon, p 286

Narrow clapboards are now reproduced in Alcoa's aluminum siding. New material has two 4" boards in each 8" wide panel. Like Alcoa's 8" horizontal and 12" vertical siding, double four is made of Alumalure-coated alclad, in white, grey, green, yellow, charcoal grey, maroon.

Alcoa, Pittsburgh.

For details, check No. 71 on coupon, p 286

Publications start on p 284
ME...again chosen for important installations!

ACME...
REFRIGERATOR-RANGE-SINK-COMBINATIONS
Architects everywhere find ACME Space-Saving Units ideally suited for apartment conversions, homes, motels, hotels, cabins, resorts, playrooms, etc. Send for our fully illustrated catalog with complete specifications and prices.

See our complete line in SWEET'S CATALOG 25 AC

ACME NATIONAL REFRIGERATION CO., INC.
OFFICES & FACTORY: 19-26 Hazen Street, Astoria 5, N. Y. Mailing Address: P. O. Box 188, Astoria 5, N. Y.

THE ORIGINAL DUCTLESS HOOD
Cleans and purifies air best

EVERY kitchen can now include a Ductless Hood and all the benefits that magic name implies: Fresh kitchen air—odors, smoke, grease and pollen banished! NO COSTLY DUCTS OR OUTSIDE VENTS NEEDED. Ductless Hood purifies air by the time-proved method of recirculation through activated charcoal filters. The original Ductless Hood surpasses all others in performance—performance based on patented design impossible to copy. Permits total freedom in kitchen design. Sizes and finishes for every decor.

For information:
THE DUCTLESS HOOD CO., INC.
601 Plandome Road
Manhasset 27, N. Y.

BUTLER JR. & SR. DUMBWAITERS
higher profits at lower bids

Priced for the home. Built for commercial loads of 200 to 400 lbs.

Get better acquainted with Butler Jr. & Sr. by writing...

FLINCHBAUGH/MURRAY CORP. 390 Eberts Lane, York, Pa.
Weyerhaeuser 4-Square Bevel Sidings combine quality and style with economy and durability

- Selection of widths
- Kiln-drying
- Water Repellent Treatment
- Made-to-measure bevel siding

The many advantages of wood as a siding material are easy to see in the bevel sidings manufactured by Weyerhaeuser. They are grouped as narrow bevels, having a nominal thickness of $\frac{1}{4}$" and a choice of 4", 6", and 8" widths... and wide bevels, having a nominal thickness of $\frac{3}{4}$" and a choice of 8", 10", and 12" widths. Although they are available in several species, this is generally not a consideration because Weyerhaeuser’s high standards of quality and uniformity in manufacture give them all very similar strength and performance characteristics.

Selection of the bevel width to be used is principally a matter of the architectural style of the home and individual preference. In general, the narrow bevels are commonly specified for the traditional styles, and the wide bevels for modern and contemporary styles (like the popular Rambler and Ranch-Type homes). One further consideration is the selection of bevel width to give an impression of greater over-all length to a home, to make it look lower, closer to the ground. The two drawings are identical in size, yet the width of the bevel siding (horizontal lines) tends to fool the eye.

An important process commonly used in addition to kiln-drying is Weyerhaeuser’s Water Repellent Treatment, which effectively increases moisture resistance, also provides added resistance to termites, stains, molds, and decay-forming fungi. Whether bevel siding is to be painted or finished natural, there are many good reasons to specify 4-Square WRT sidings.

Another Weyerhaeuser development is Nu-Loc bevel siding—made to measure in widths to 10" and lengths to 20'. Nu-Loc is kiln-dried lumber that is end- and/or edge-glued, then precision finished to close tolerances. Its use will often provide an improved, more uniform finished appearance... and greatly reduce application costs by ending much on-the-job sawing and fitting, practically eliminating waste.

For further information on the selection, qualities, performance, application, and availability of Weyerhaeuser 4-Square wood sidings, write: Weyerhaeuser Company, Dept. B-50, Tacoma Building, Tacoma 1, Wash.
Weyerhaeuser 4-Square Bevel Sidings: for economical first costs and low maintenance

Wood is today's number one siding choice for several very important reasons. From the point of view of construction, it is easy and economical to apply to any style home. Its natural insulation value increases the total insulation built into the exterior walls. Properly installed and finished, it requires little maintenance, increases the structural strength of the home.

Wood bevel siding patterns have been widely imitated. Yet on the basis of appearance alone, wood siding imparts a rich, natural beauty so desirable in modern home styling. And wood combines all the desirable application and performance characteristics of good building practice. See facing page for further information . . . see your Weyerhaeuser 4-Square Lumber Dealer for samples and estimates of both wide and narrow bevel siding patterns.

Weyerhaeuser Company
Lumber and Plywood Division

OCTOBER 1960
Publications

Profitable Planning starts with PLAN HOLD®

Vertical and Roll Files for PLANS, PRINTS, DRAWINGS
You increase efficiency and cut expense with PLAN HOLD filing equipment:
1. Systematic filing is practically automatic; you find the plan you want in seconds ... no clerical time wasted.
2. Your investment in valuable plans is protected: sheets never get mutilated or lost ... no replacement expense.

Plan Hold Corporation, Dept. 603
5204 Chakemco St., South Gate, Calif.
Please send me your current catalog and price list.
Name
Company
Street
City Zone State

How to sell panel homes
A 14-item package of merchandising aids has been put together by Koppers to show how to conduct a sales campaign for Dylite panel homes. The kit contains sample newspaper ads, radio commercials, billboard layouts, site sign ideas, publicity and promotion ideas, etc. Also included is the Dylite catalog and plans book.
Koppers Co., Pittsburgh.
For copy, check No. 72 on coupon, p 286

Avoiding moisture damage
A 20-page pamphlet from W. R. Meadows, Inc, outlines the dangers to a house from condensation. It then goes on to tell the story of Premoulded Membrane, the company's heavy asphalted vapor seal, and Corkite perimeter insulation. The booklet is written for consumers but contains a lot of information about vapor barriers of interest to housing professionals.
W. R. Meadows Inc, Elgin, Ill.
For copy, check No. 73 on coupon, p 286

Color coatings for masonry
An 8-page color brochure from Sonneborn describes Hydrocide Colorcoat, a new durable, water-repellent coating for masonry above grade. The material is offered for use on concrete, stucco, block, and brick, as well as plaster and drywall. Full application data for brush, spray, or roller, and range of color chips is included.
Sonneborn Chemical, New York City.
For copy, check No. 74 on coupon, p 286

Prefabbed chimneys for all fuels
A comprehensive catalog of new Metalbestos chimneys gives all specifications detail, shows the complete line of chimney pipe and fittings, roof assemblies and housings. Erection procedure for one-man installation and sample details for different types of construction are fully illustrated. Measuring and ordering information is tabulated.
William Wallace Co., Belmont, Calif.
For copy, check No. 75 on coupon, p 286

How to install paneling
"Suggestions for proper handling and installing factory finished paneling." an 8-page brochure, has been prepared by Georgia-Pacific to tell you how to use G-P's product. How to figure a room, how to handle and store the sheets, how to prepare walls, and how to apply panels are covered in full. Though G-P panels are prefinished, lists of finishing materials are included.
Georgia-Pacific, Portland, Ore.
For copy, check No. 76 on coupon, p 286

Subdivision sewage plants
Yeomans 8-page catalog 300 gives full data on Spirahoff primary sewage treatment plants. The single plant is fully described, the operation of each phase is outlined, specifications are unusually complete. Two pages show a detailed assembly drawing and tabulate design data.
Yeomans Bros, Melrose Park, Ill.
For copy, check No. 77 on coupon, p 286
**Cut your closet costs**

**with Leigh FULL-VU STEEL FOLDING DOORS and closet accessories!**

_IN FLUSH PANEL OR LOUVER STYLE_  
Excellent for any type of closet or compartment ... in beautiful baked enamel beige prime coat or handsome birch grain finish (Philippine Mahogany grain available in orders of 50 sets or more at same price as birch grain).

_Holds FULL-VU doors in perfect alignment. No dragging or binding. No chance of door jumping the track or going out of adjustment... yet easily removed for decorating. Easy, cost-cutting installation. Entire assembly installed at one time. Decorative facia strip available as an accessory._

**ADJUSTABLE CLOSET RODS**
A complete line to fit any closet ...no cutting, fitting or waste ... heavy-gauge telescoping sections won't bend or sag ... with formed end plate that can't come loose. 3 beautiful finishes.

**RECESSED SHOE RACK**
Built-in convenience for the closet ... holds up to 6 pairs of shoes ... easy-to-clean white baked enamel finish, heavy-gauge welded steel construction, fits 14" x 36" opening.

**ADJUSTABLE STEEL WARDROBE SHELF**
with built-in closet valet*. Spaces clothes to avoid wrinkling... costs less than wooden shelves ... 12" deep ... heavy-gauge steel ... gloss finished in ivory baked enamel ... won't buckle or slip ... includes wall supports ... 5 extension ranges.

**ADJUSTABLE LINEN CLOSET SHELF**
All metal ... no rough edges or corners ... no splinters ... prevents damage to stored fabrics ... easy to install ... 14" deep ... ivory baked enamel finish ... 2 extension ranges.

**STEEL CLOSET VALET**
Less than 1/2 the cost of most closet rods ... spaces clothes to avoid crushing and wrinkling ... installs easily... girder-like design strengthens shelf... bright electro-plated finish ... 2 models.

For a FREE copy of Leigh Catalog 300-L covering our complete line, clip this coupon to a postcard and mail to:

Leigh Building Products  
2560 Lee Street, Coopersville, Michigan

NAME.  
ADDRESS.  
CITY.  
STATE.  

Also manufacturers of a complete line of sliding, folding and pocket door hardware and accessories ... and many other metal building products.

NEW GLASSILL
FIBERGLASS WINDOW SILLS

An exciting new concept in window beauty, Glassill Fiberglass Window Sills give you the look, the elegance of costly marble ... at less than half the price! Home buyers will appreciate the economy, the distinctiveness, the lasting richness of materials ... at less than half the price!

Glassill Fiberglass Window Sills

- Looks and feels like natural marble!
- Quickly, easily installed in minutes!
- Made of tough, specially processed fiber-glass for lifetime service and beauty!
- Resists chips, burns, streaks, or stains!
- Made of tough, specially processed fiber-glass!
- Completely maintenance free!
- Choice of grey or brown marble colors!

NEW GLASSILL can be used on new or existing window installations, or as a jamb liner for entire window areas, back splash for kitchen units, etc. Available in 9 ft. lengths, 4 1/2" or 5 1/4" wide. Easily cut with backsaw or abrasive disc.

Write for complete information.

GLASSILL CO., P.O. BOX 4025, DEARBORN, MICH.

WANT MORE INFORMATION?
The numbers below are keyed to the items described on the New Products and Publications pages. Check the ones that interest you and mail the coupon to:

House & Home Room 1960, Time & Life Building Rockefeller Center, New York 20, N.Y.

NEW PRODUCTS • October

1. Roper Futura range
2. Tappan gas range
3. Guess Contempo range
4. Wedgewood-Holly Cook-Center
5. Crown Contempo range
6. Sunray decoRange
7. Waste King Universal range
8. Modern Maid double oven
9. Chambers built-in ranges
10. Hardwick built-in ranges
11. Galerie built-in ranges
12. Magic Chef Fawdaway units
13. Princess electric units
14. Princess compact ranges
15. Princess double oven
16. Perfection gas furnaces
17. Majestic gas furnaces
18. Hurl gas furnaces
19. Hall-Nap gas furnaces
20. Burnham lowboy furnaces
21. Beamton furnace line
22. Armstrong series 700 furnaces
23. Mueller Climatrol furnaces
24. H.C. Little gas furnaces
25. Lennox lowboy furnace
26. Avest gas boiler
27. Hydrotherm gas boiler
28. Coleman wall heater
29. Suburban Norvent wall heater
30. Federal gas boiler
31. Poirier Gordon gas boiler
32. Peerless Heat-Er gas heater
33. H.C. Little Saf-T-Vent heater
34. Sunmills Suburban wall heater
35. Martin Duo-Vent heater
36. Whirlpool gas refrigerator
37. Norco gas refrigerators
38. Humilite gas dryers
39. Philco gas dryers
40. Whirlpool gas dryers
41. Grayson wall thermostat

PUBLICATIONS

42. General Controls' valves
43. Control Co's valves
44. Arlin gas air conditioner
45. Burnham gas air conditioner
46. Bastian-Morley gas dryer
47. Wabash-Jeppson gas dryer
48. Rheem 25-gal water heater
49. Bird Termidor system
50. Lockwood nylon lockset
51. Ford floorklip
52. Ford trim
53. Bell System Home Interphone
54. Rittenhouse music system
55. Masonite X siding
56. Bellwood Plywood Package
57. Virginia Temp-Glas doors
58. Doorcraft door machine
59. Jayhills plastic drapes
60. Quality Line built-in banjo
61. Jensen medicine cabinet
62. Saafford two-way radio
63. Kaiser Durnath
64. Burpless humidifier
65. Suntron ceiling heater
66. Quietilet slim-wall switch
67. Pseudoflute wall-wash light
68. Kentile design papers
69. Armstrong Palatial vinyl
70. Alocs double-four siding
71. •

PUBLICATIONS

72. O'Keefe & Merritt Contempo range
73. Tappan 400 range
74. Waste King Universal range
75. Modern Maid double oven
76. Chambers built-in ranges
77. Hardwick built-in ranges
78. Galerie built-in ranges
79. Magic Chef Fawdaway units
80. Princess electric units
81. Princess compact ranges
82. Princess double oven
83. Perfection gas furnaces
84. Majestic gas furnaces
85. Hurl gas furnaces
86. Hall-Nap gas furnaces
87. Burnham lowboy furnaces
88. Beamton furnace line
89. Armstrong series 700 furnaces
90. Mueller Climatrol furnaces
91. H.C. Little gas furnaces
92. Lennox lowboy furnace
93. Avest gas boiler
94. Hydrotherm gas boiler
95. Coleman wall heater
96. Suburban Norvent wall heater
97. Federal gas boiler
98. Poirier Gordon gas boiler
99. Peerless Heat-Er gas heater
100. H.C. Little Saf-T-Vent heater
101. Sunmills Suburban wall heater
102. Martin Duo-Vent heater
103. Whirlpool gas refrigerator
104. Norco gas refrigerators
105. Humilite gas dryers
106. Philco gas dryers
107. Whirlpool gas dryers
108. Grayson wall thermostat

NAME

POSITION

FIRM

ADDRESS

CITY

STATE

IMPORTANT: House & Home's servicing of this coupon expires Jan, 1961. In addressing direct inquiries please mention House & Home and the issue in which you saw the product or publication.

I wish to enter a subscription to House & Home for 1 year, $6 2 years, $8 US and possessions and Canada only

□ New □ Renewal

Signature

HOUSE & HOME
"With Transite Pipe, our first cost was the last cost,"


"For the 2,500 homeowners in the burgeoning community of Northglenn, Colorado, we selected Transite® Pipe for water supply and distribution lines. We feel our choice insured a lifetime of trouble-free service. In addition to offering us the best value, we found real savings in installation. Lightweight Transite was moved to and distributed on the job site faster, easier and less expensively. Its long lengths and simple coupling method substantially reduced assembly time and costs.

"To keep our 18-hole golf course in top shape, we have installed Transite underground mains for the sprinkler-irrigated system. And, Northglenn telephone service is protected by an installation of over 250,000 feet of Transite Telephone Duct.

"We're still in the process of completing the initially planned 5,000 homes, recreation areas, churches, schools and shopping city. Our long-range plan is to make Northglenn a community future generations can enjoy. That's why we're using modern methods and quality materials."

Get the full Transite story by sending for our builders' "kit" of ideas for volume profits and sales. Write Johns-Manville, Box 14, HH-10, New York 16, N.Y. In Canada: Port Credit, Ontario. Offices throughout the world. Cable: Johnmanvil.

JOHNS-MANVILLE
Put yourself in the buyers' place. When they see luxurious wall-to-wall carpeting they see a "home"...cozy, livable, easy to move into. Carpeted homes even "sound" better...quieter, more solid and secure. Aren't these the reasons why one house is selected over another when price and location are equal? Most folks want that quality touch...carpeting...especially by Luxor.

DIRECT-TO-BUILDER
Only Luxor offers carpeting direct-to-builder...and at a price competitive to any other floor covering material.

EASILY INSTALLED BY BUILDER'S CREW
Complete, easy-to-follow instructions are supplied...no skilled help needed.

COMPLETE CARPET SERVICE
Luxor offers free layout service from your dimensions, prompt shipment geared to your building schedule and samples of all fabrics and colors.

LOW-COST
Beautiful, long, long-wearing Luxor foam-backed carpeting is low in initial cost (from 2.95 sq. yd.), low in installation cost (no padding needed) and virtually eliminates call backs.

Write for Complete Story

1507 COLEY RD. • AKRON 20, OHIO
Temple 6-5331

For interior Wood Paneling...a better finish at less cost!

For complete details write:
THE COLUMBIA MILLS, INC.
368 S. WARREN STREET • SYRACUSE 1, NEW YORK

For interior Wood Paneling...a better finish at less cost!

CABOT'S STAIN WAX
The "three-in-one" finish
Stains • Waxes • Seals in one easy operation.

The beauty of a stain, the luster of a wax, the protection of a sealer...all in one finish, Cabot's Stain Wax. Cuts costs to a minimum; easy to apply and maintain; enhances the beauty of the wood grain. Choice of twelve rich colors, plus natural.

SAMUEL CABOT, INC.
1030 South Terminal Trust Bldg., Boston 10, Mass.
Please send Stain Wax color card.
ADD QUALITY SALES APPEAL FOR DISCRIMINATING HOME BUYERS
With The Thermo-Rite
FIREPLACE ENCLOSURE

SOLID BRASS FRAME
BEAUTY - Solid brass frame blends with modern or traditional decor.
SAFETY - Protects children and pets from flying sparks.
CONVENIENCE - Piano-hinged doors open easily. Sliding draft doors control for
TEMPERED GLASS DOORS
COMFORT - Eliminates drafts...radiates even heat.
ECONOMY - Burns wood, coal or gas and saves on fuel bills. No loss of room heat.
CLEANLINESS - Seals in smoke, ash and hot soot to prevent rug and furniture damage

FITS ANY SIZE OR TYPE FIREPLACE...AVAILABLE IN 32 SIZES.

For complete details Write Dept. HH-1060
MANUFACTURING CO. AKRON
9, OHIO
Canadian Plant: St. Catharines, Ontario

HOMES FOR BETTER LIVING AWARDS
ENTRY SLIP

Entry slip and fee must be in the hands of the committee by January 27, 1961
To the Committee for the Homes for Better Living Awards
American Institute of Architects
1735 New York Avenue NW, Washington 6, D.C.

Category
Class
Location
Owner
Architect
Builder
Submitted by
Address

Enclosed is (check) (money order) in the amount of $10 covering this entry.

For additional entry slips or copies of the program, write The American Institute of Architects, or House & Home, Rockefeller Center, New York 20, N.Y.
Add the Luxury of Hardwood at the Cost of "Substitutes"

Now you can offer homes and apartments with the rich, mellow beauty of solid Appalachian Hardwood parquet flooring at no increase in cost! Prefinished Hartco Wood FLOR-TILE® make it possible for you to gain this real selling advantage and turn it into profit. Investigate this newest flooring development now. Check these important features:

- **SOLID HARDWOOD TILE . . . 5/16" x 6" x 6"**
- **PREFINISHED . . . no on-the-job finishing**
- **EASY ADHESIVE INSTALLATION . . . no forcing**
- **STABILITY . . . guaranteed to stay down**
- **TWO GRADES, FOUR WOODS . . . Oak, Ash, Walnut, Maple**

SEND FOR SAMPLES AND LITERATURE!

Hartco WOOD FLOR-TILE®
with DURA-TEST Finish

Put the Selling in Your Dwelling...

TIBBALS FLOORING COMPANY
Dept. HH-1 Oneida, Tennessee

ADVERTISERS INDEX:

This advertisers index published by HOUSE & HOME is an editorial service to its readers. HOUSE & HOME does not assume responsibility to advertisers for errors or omissions in preparation of these listings.

<table>
<thead>
<tr>
<th>Page</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>259</td>
<td>Barber-Coleman Co.</td>
</tr>
<tr>
<td>52</td>
<td>Barrett Div. (Allied Chemical Corp.)</td>
</tr>
<tr>
<td>78</td>
<td>Berg-Warner Corp. (Norge Sales Corp. Div.)</td>
</tr>
<tr>
<td>158</td>
<td>Bostitch, Inc.</td>
</tr>
<tr>
<td>247</td>
<td>Broan Manufacturing Co.</td>
</tr>
<tr>
<td>161</td>
<td>Bruce Co. E. L.</td>
</tr>
<tr>
<td>235</td>
<td>Bryant Manufacturing Co.</td>
</tr>
<tr>
<td>160</td>
<td>Bulldog Electric Products Co.</td>
</tr>
<tr>
<td>288</td>
<td>Cabot, Inc., Samuel</td>
</tr>
<tr>
<td>18</td>
<td>Caloric Appliance Corp.</td>
</tr>
<tr>
<td>70</td>
<td>CARADCO, Inc.</td>
</tr>
<tr>
<td>168</td>
<td>Carrier Corp.</td>
</tr>
<tr>
<td>160W6</td>
<td>Cleverdale Plywood</td>
</tr>
<tr>
<td>288</td>
<td>Columbia Mills, Inc., The</td>
</tr>
<tr>
<td>269</td>
<td>Crown Zellerbach Corp.</td>
</tr>
<tr>
<td>178</td>
<td>Cutler-Hammer, Inc.</td>
</tr>
<tr>
<td>246</td>
<td>Delta Faucet Corp.</td>
</tr>
<tr>
<td>160W4</td>
<td>DeMarco Cabinet Mfg., Co.</td>
</tr>
<tr>
<td>48</td>
<td>DeSo'a Chemical Coatings, Inc. (United Wallpaper Co. Div.)</td>
</tr>
<tr>
<td>9-17</td>
<td>Douglas Fir Plywood Assn.</td>
</tr>
<tr>
<td>281</td>
<td>Ductless Hood Co., Inc.</td>
</tr>
<tr>
<td>164</td>
<td>DuPont de Nemours &amp; Co., Inc., E. I.</td>
</tr>
<tr>
<td>274</td>
<td>Edwards Engineering Co.</td>
</tr>
<tr>
<td>7</td>
<td>Eljer Division (Murray Corp. of America)</td>
</tr>
<tr>
<td>54</td>
<td>Farley &amp; Loetscher Manufacturing Co.</td>
</tr>
<tr>
<td>74</td>
<td>Fedders Corp.</td>
</tr>
<tr>
<td>194</td>
<td>Fenestra, Inc.</td>
</tr>
<tr>
<td>281</td>
<td>Flinkbaugh/Murray Corp.</td>
</tr>
<tr>
<td>62</td>
<td>Float Away Door Co.</td>
</tr>
<tr>
<td>292</td>
<td>Follansbee Steel Corp.</td>
</tr>
<tr>
<td>248</td>
<td>Ford Motor Co.</td>
</tr>
<tr>
<td>224</td>
<td>Frigidaire Division (General Motors Corp.)</td>
</tr>
<tr>
<td>277</td>
<td>General Electric Co.</td>
</tr>
<tr>
<td>163</td>
<td>General Electric Co. (Laminated Products Div.)</td>
</tr>
<tr>
<td>224</td>
<td>General Motors Corp. (Frigidaire Div.)</td>
</tr>
<tr>
<td>160WS</td>
<td>Gladding, McBean &amp; Co. (Hermosa Tile Div.)</td>
</tr>
<tr>
<td>286</td>
<td>Glassill Co.</td>
</tr>
<tr>
<td>2</td>
<td>Gold Seal Division (Congoileum-Nairn, Inc.)</td>
</tr>
<tr>
<td>241</td>
<td>Grayson Controls Div. (Robertshaw-Fulton Controls Co.)</td>
</tr>
<tr>
<td>263</td>
<td>Gustin Bacon Mfg. Co.</td>
</tr>
<tr>
<td>205</td>
<td>Hardwick Stove Co.</td>
</tr>
<tr>
<td>289</td>
<td>Hardwood Plywood Institute</td>
</tr>
<tr>
<td>160WS</td>
<td>Hermosa Tile Div. (Gladding, McBean &amp; Co.)</td>
</tr>
<tr>
<td>56, 57</td>
<td>Hines Lumber Co.</td>
</tr>
<tr>
<td>213</td>
<td>Homasote Co.</td>
</tr>
<tr>
<td>171</td>
<td>House Beautiful Magazine</td>
</tr>
<tr>
<td>280</td>
<td>House &amp; Home</td>
</tr>
<tr>
<td>270</td>
<td>Howard Miller Clock Co. (Built-in Div.)</td>
</tr>
<tr>
<td>273</td>
<td>Hunter Division (Robbins &amp; Myers, Inc.)</td>
</tr>
<tr>
<td>275</td>
<td>Ida Products Co.</td>
</tr>
<tr>
<td>264</td>
<td>Inland Homes Corp.</td>
</tr>
<tr>
<td>258</td>
<td>Jerrold Electronics Corp.</td>
</tr>
<tr>
<td>19-22, 287</td>
<td>Johns-Manville Corp.</td>
</tr>
<tr>
<td>40, 41</td>
<td>Kaiser Aluminum &amp; Chemical Corp.</td>
</tr>
<tr>
<td>201</td>
<td>Kelvinator Division (American Motor Corp.)</td>
</tr>
<tr>
<td>201</td>
<td>Kentile, Inc.</td>
</tr>
<tr>
<td>244</td>
<td>Kewanee Manufacturing Co.</td>
</tr>
<tr>
<td>216, 217</td>
<td>Keystone Steel &amp; Wire Co.</td>
</tr>
<tr>
<td>70</td>
<td>Kohler Co.</td>
</tr>
<tr>
<td>285</td>
<td>Leigh Building Products Division (Air Control Products, Inc.)</td>
</tr>
<tr>
<td>232, 233</td>
<td>Lennox Industries Inc.</td>
</tr>
</tbody>
</table>
SONOCO MODUCT COMPANY, HARTSVILLE, SOUTH CAROLINA • La Puente, Calif. • Monticello, N.Y. • Blairstown, Ind. • Longview, Texas • Atlanta, Ga. • Brantford, Ont. • Mexico, D.F.

SONOCO MODDUCT® FIBRE DUCT

Low first cost, faster installation, highest quality—you get all three when you use F.H.A.-permitted SONOAIRDUCT Fibre Duct for slab perimeter heating, cooling, or combination systems.

SONOAIRDUCT handles easily, levels and joins quickly ... saving time and labor on the job. Long lengths mean fewer joints to make, and there are no sharp cutting edges to worry about. Every piece is usable, because SONOAIRDUCT won't chip, crack, or break when dropped. Highest quality is assured, too, because SONOAIRDUCT has been subjected to F.H.A. testing procedures—meeting or exceeding all criteria and test requirements for products in this category. Year in and year out, aluminum foil-lined SONOAIRDUCT is America's best selling Fibre Duct—proof of its dependable performance.

Order SONOAIRDUCT Fibre Duct in 23 sizes, 2" to 36" I.D., in standard 18' lengths—special sizes to order. Can be sawed.

See our catalog in Sweet's, or write for complete information.

FREE INSTALLATION MANUAL

Contains latest, detailed, step-by-step installation data for SONOAIRDUCT Fibre Duct. For copy, send us name, address on company letterhead.

See our catalog in Sweet's.
Beautiful Roofing and Beautiful Dreamers

It used to be that the roof of a house was a very unimaginative thing—installed mainly to afford protection against the elements. It was given little consideration in the overall aesthetic expression of the house.

Then, a number of beautiful dreamers—architects and builders who felt that the roof was a significant design feature—began to design roofs that became the focal point of the house's beauty.

Follansbee Terne, an architectural roofing metal, has been used as the roofing material for many of these houses because its use places no limit on the imagination of the designer. Terne is versatile, allowing the desired expression of form, function and color because it can be applied in so many ways.

Follansbee Terne is a very practical roofing material, too. Properly installed and painted, it will last more than a lifetime. It can be painted any color, any time, to harmonize with other aesthetic changes. Painted a light color, it will reflect most of the sun's heat. And Follansbee Terne is completely fireproof.

Materializing a beautiful dream with Follansbee Terne is the practical way to a distinctive roof—one which makes a house an outstanding and beautiful structure. If you do not have the latest information on Follansbee Terne, we would be very pleased to send it to you.

Follansbee is the world's pioneer producer of seamless terne roofing.
“Sure, folks like carpet—but how can I afford it in my $12,000 homes?”

Give them the look of carpet...the value of vinyl asbestos in Vina-Lux® carpet tones

Your flooring dollar buys the most—in sales appeal and performance—when you install Vina-Lux Carpet Tones...available in 5 decorator-designed colors.

Here is the true deep-textured look of fine carpet in long-wearing, easy-cleaning vinyl asbestos tile. And Vina-Lux beauty is matched by solid economy, because it's ideal for installation on or below grade over concrete slab, or over wood and plywood subfloors.

Want to sell more houses—faster—at a better profit? Free Vina-Lux model home merchandising kit, samples and "Floor Styling Handbook" can help you! Write today!

Over 50 colors and a style for every builder requirement
TO ALL BUILDERS:  

AUG. 26, 1960

NATIONAL HOMES ANNOUNCES MOST COMPETITIVELY PRICED LINE IT HAS EVER OFFERED BUILDERS. NEW "CORVETTE" SERIES FOR 1961. "PRICED TO SELL" HOUSES NOW OFFERED WITH MORE OPTIONAL ADDS AND DEDUCTIONS THAN EVER BEFORE. BASIC SPECIFICATIONS ALLOW THEM TO BE OFFERED TO MEET STANDARDS OF LOWEST COST HOMES IN YOUR MARKET...BUT CAN ALSO BE ALTERED TO OFFER THE MANY FINE QUALITY FEATURES WE HAVE DEVELOPED THROUGH THE YEARS. WRITE FOR FULL DETAILS.

NATIONAL HOMES CORP.