HOW UTILITIES HELP BUILDERS

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- What's the Best Road to a Model Code?... page 124
- HOW TO BUILD MORE FOR LESS... page 117

Old clay pit into luxury subdivision... page 164

AMERICAN Builder The Business Book for Builders

Model house atop department store roof in Pittsburgh draws 107,000
If Modernizing is going to be
Remember These

NUTONE ELECTRICAL BUILT-INS FOR THE KITCHEN . . . .

1. EXHAUST FANS
   Keep kitchen air clean and fresh . . . get rid of cooking odors, grease and moisture. 12 basic models. Powerful — yet quiet. H. V. I. Certified.

2. RANGE HOOD FANS
   A style to fit every need . . . exhaust type or non-duct. Wide selection of finishes, 24" - 30" - 36" - 42" - 48" sizes. Also — Fold-Away models.

3. FOOD CENTER
   One concealed power unit to operate six appliances. Interchangeable attachments save space. End the clutter of tangled electric cords.

4. BUILT-IN BARBECUE
   You just can't beat the lip-smacking flavor of a grilled steak, tempting hamburger and golden brown roast you get with NuTone's Barbecue.
Important to Your Business...

NUTONE Features

THE BATHROOM... AND ALL THROUGH THE HOUSE!

5. DOOR CHIMES
This "cheerful earful" makes any home more inviting. 23 models to blend with modern or traditional furnishings...
Also 16 sparkling pushbuttons.

6. ELECTRIC HEATERS
Provide instant heat for the bathroom on chilly mornings or during cool "off-seasons.
Your choice of 7 models for ceiling or wall installation.

7. BUILT-IN STEREO
A new dimension in Hi-Fi music, built into the walls!
Stereo at its best, combined with Intercom... AM-FM radio, record player and tape deck.

8. INTERCOM RADIO
Luxurious new styling plus outstanding performance!
Easy to install in walls 2" or thicker. Remote speakers for Intercom and radio music.

See Next Page
Don't Just "Face-Lift" When You Remodel... RENEW with NUTONE

Smart Modernizers know you have to do more than just "Face-Lift" a Kitchen to make it really modern! The replacement of cabinets and fixtures is not enough.

Every woman wants her NEW Kitchen to be filled with NEW ELECTRIC IDEAS! — and that's where NuTone comes in . . . with these FIVE LOW-COST FEATURES.

BUILT-IN BARBECUE

BARBECUE HOOD-FAN
Dual-Powered ventilation above the Barbecue for heavy duty service. It's super-quiet. Both power units cushion-mounted.

INTERCOM-RADIO
Room-to-room Intercom PLUS Radio music all through the home! AM or AM/FM sets fit walls 2 or more inches thick.

FOOD CENTER
Takes the mess and fuss out of food-preparation! The Motor is recessed. Counters stay neat. No clutter from plug-in cords.

FOLD-AWAY HOOD
Hood folds flush with cabinets when not in use — folds out to become a powerful exhaust fan. The Panel matches the cabinets!

Write for complete literature . . . NUTONE, INC., Dept. RM-9, Cincinnati 27, Ohio
Modern styling and colors together with high quality and moderate price made Gerber fixtures the natural choice for all 56 living units in beautiful Queens Towers Apartments, Charlotte, N. C. Builder: Harry S. Swimmer, Towers Land & Development Company.

Gerber’s Mighty Middle fixture line styling and beauty suits modern building design

The same Gerber fixtures whose sensible price accounts for their selection for moderately priced homes are also widely specified for motels, hotels, expensive homes and other luxury buildings where styling and quality is a must.

By eliminating production of expensive, difficult to make specialty fixtures which raise manufacturing costs, Gerber is able to produce a complete line of basic fixtures for the Mighty Middle mass market at lower cost. Savings are passed on in the form of more for your money through sensible prices and added features that mean greater value.

The complete Gerber line includes brass, steel, cast iron, and vitreous china fixtures . . . in white or six beautiful colors. Massive modern styling in keeping with modern architectural designs, exclusive engineering features, and moderate price are combined in Gerber fixtures to let you put in a better bathroom for less in a wide building price range.

Write for your copy of Gerber’s complete line catalog of fixtures plus complete “packaged” Gerber bathrooms for any building price range. Catalog also shows special Gerber design features that make installation quick, easy, and trouble-free.
Flush block ceiling blends well with other masonry. Long unbroken spans.

SAFE, ECONOMICAL FLOOR AND ROOF SYSTEMS

from the wonderful new world of BLOCK

Fire safe floor and roof systems of concrete block deliver safety first where safety counts—in homes, schools, hospitals and industrial buildings. Combines beauty and practicality. Construction is faster. Provides natural insulation against changing weather conditions. Assures better acoustics. Can be painted or left exposed. Your local NCMA member can give you complete information on the types of systems available.

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

Watch for Concrete Industries Horizon Homes program

Speedy erection immediately forms a dry working area for other trades, cuts building costs.

Recessed block ceiling delivers a handsome exposed beam and acoustical block pattern.

The booklet "Principles of Warm Air Floor Panel Heating" describes how heating systems are particularly adaptable to concrete block floor and roof systems. For your copy, write us direct, enclosing 20c to cover postage and handling.
OPPORTUNITY

Shell house: boon or blight?

However you describe it, the shell or “finish-it-yourself” house business is a booming one. It has exploded into a 100,000 volume in several short depression years—when higher priced houses were in the doldrums. In some areas, shell sales have captured as much as 50% of the house market. Reliable forecasts indicate the up-trend will be skyrocketed still more by better finance plans, new prefab techniques, and super-smart specialty selling.

So what does this mean to builders? Is it a boon or a blight? We think it can be either—or both.

There are dangers in the smell of cheapness, the poor designs and the sky-high financing costs of many shell house operations. There is danger that “fast buck” operators will damage the reputation of all builders, or that shoddy methods, poor quality work, or too-high pressure selling will hurt thousands of buyers.

These are dangers the responsible firms in the business are already trying to avoid. And as more established builders and lumber dealers get into the business, the quality should improve.

On the credit side, there’s no denying that the shell house—or, as a recent NAHB conference called it, the “habitable, incomplete house”—fills a vast void. It brings truly low-cost houses to people where they want them, on scattered lots, in undeveloped areas, in rural or farm areas, or on vacation sites.

Shell house firms have developed a powerful sales, marketing, financing system for the scattered lot buyers: Often shells replace shacks, shambles or slums that no amount of government subsidy has been able to remove.

So whether you like shell homes or not, don’t look down your nose at them. Many builders consider this a good way to diversify. An example is Quincy Lee, of San Antonio, whose operations were described in the May AMERICAN BUILDER. He added 15% to his volume with a shell home line, and expects this to increase. If you plan to get into this business take account of the following:

- Financing is the key to success. Many new developments are under way. Some firms, however, have gone broke because of the contingent liability they incurred in notes receivable.
- Building techniques are important. Standardized parts, components or complete prefabrication represent a trend. Several aluminum companies are now making shell house components.
- Merchandising is a strong point. Most shell homes are sold from models erected along highways or at strategic traffic locations.
- Marketing areas must be studied: Cover a 50-mile radius.
- Flexibility is important. Be equipped to sell the shell house in various stages of completion, priced from $1,500 to $10,000.

JOSEPH B. MASON, Editor
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 basement and garage floor plans.
- Plenty of storage space. Big closet in every bedroom, guest and linen closets, handsome birch wood kitchen cabinets.
- 2" x 4" construction throughout. Cedar shakes factory 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 subdivision . . . at no cost to builder-dealers.

Contact Inland Homes today! Write, wire or phone (PR 3-7550). Neal B. Welch, Jr., Vice President—Sales, Department A-9, Piqua, Ohio.
September 1961

More Flexibility in Suburban Zoning—Developer Gerald D. Lloyd of Westchester, N. Y., discusses how suburbs can open up to low-cost housing, yet control population inflow .......... 13

How Utilities Help You Sell Houses—Not only do they follow national consumer wants, but they translate these desires in terms of your local market. From Lakewood, New Jersey to Milwaukee; from Dallas to the San Fernando Valley, AMERICAN BUILDER'S special report shows how builder-utility cooperation make home sales soar. Included in this 17-page report is a section devoted to the latest in gas products ................................................. 69

How to Build More House for Less Money—That's the biggest problem in building today. George Bell of Seattle's Bell & Valdez finds the faster house a must in order to succeed in today's highly-competitive market. This detailed report shows his cost-cutting methods .............. 117

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From an Abandoned Clay Pit to $10,000 per Lot—St. Louis builder Everett Schneider saw "an opportunity in an eyesore," created a 25-acre lake as prime attraction for his $60,000 homes .................. 164

L-P Gas Dealers Urbanize the Country—How builder Glenn Barriball with help of local L-P utility and pre-fabs opened up outlying areas of Cleveland ............... 167
New Skilsaw 6½" model guaranteed against "burnouts"

... Motor is backed by full year FREE service* warranty

This new compact 6½" Skilsaw Model 856 has an exclusive Skil B-P Motor that gives "Burnout-Protection" even during frequent, excessive overloads. In fact, the motor is actually backed by a full year free service* warranty!

And this rugged new Skilsaw model has plenty of other features, too, like exclusive "Floating Guards" that cover the blade completely even on extremely shallow cuts...exclusive "Vari-Torque" Clutch that protects against kickback...easy-to-use depth and bevel controls...all ball bearing construction. There's even an exclusive blade lock for quick, easy blade changes.

Compare the Model 856 with any top handle saw on the market. And, by all means, call or visit your Skil Distributor soon for a demonstration (he's listed under "Tools-Electric" in the Yellow Pages). Or write: Skil Corporation, 5033 Elston Avenue, Chicago 30, Illinois, Dept. 1061.

4 Top Handle Models
All have the features of Model 856 (see left) including new B-P Motor.

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*Service includes free repair or replacement of field and armature and is subject to return of saw to Skil Factory Service Center and to stipulations indicated on warranty certificate.
Defense stepup has building impact: new highs predicted
Stepped up expenditures for military expansion and defense are carrying the U.S. economy to new highs and pushing home building and construction along with it. Predictions now are that total U.S. construction in 1961 will exceed 1960 by at least 4%—an all time high of $57.8 billion. Home building has lagged behind other segments, but by year's end will catch up and show a total of 1,330,000 starts—a 5% increase.

Guns and butter both—and more low-cost housing
Some economic experts feel the rate of business expansion is so fast that inflation will be a threat, or that serious shortages will occur. The Kennedy administration, however, feels that both guns and butter are possible without undue inflation: They expect a continuing booming economy—and that is the kind that makes home building flourish.

Thus far the impact on mortgage money rates, material and labor costs has not been great. But there's a danger here to watch. Surveys show more builders are moving into lower priced houses, and are building in smaller groups at a time.

Keep a close watch on money costs especially. We may see another "tight money" era if business expands too rapidly. Try to get protected commitments as far ahead as possible.

Fallout shelters—another good way to diversify
Public interest in fallout shelters has taken a sharp rise, and many builders are finding this a good source of new business. Not only for houses, but for schools, public buildings, offices and factories. Quite a few tract builders are offering a shelter as an added sales attraction or as an optional extra. Tri-City Builders of Fresno charge an extra $550 on a $13,500 house.

There's plenty of data available on fallout shelters from trade associations such as Portland Cement Association, Chicago or Structural Clay Products, Washington, D. C. The office of Civil Defense has an excellent booklet. Best procedure: contact your nearest OCD branch.

Advice to builders: diversify, go where the money is
Consulting economist Robinson Newcomb delivered these pertinent thoughts to a group of builders at NAHB's recent shell house conference:

- Shell houses are taking a large chunk of the home market
- Trailers and mobile homes—ditto
- Apartment building is on the increase
- Public housing and slum clearance are up

All of these are taking a bigger share of the U.S. home market—perhaps as much as 40%, Newcomb says.

The moral is clear: builders must keep an eye on the total market; go where the money is. That means also looking into specialized fields such as retirement housing, town houses, remodeling, or small commercial building.

Shell house interest rates under investigation
High interest rates charged by some shell house firms are under fire on several fronts. In New York, the Attorney General has started an investigation of 21 firms. In Washington a "Truth in interest" bill is being pushed to require full disclosure of the true annual rate, which in some shell home sales has run as high as 18% or more.

Lenders want discounts on FHA remodeling loans too
The battle of the discounts is now being carried to FHA remodeling loans. Builders report that many lenders, long accustomed to getting a true in-

continued
Installing Electric Heat?

CHECK

these built-in values first!

✓ UNIQUE EFFICIENT AIR-FLOW PATTERN
Powerful, quiet fan draws air in through bottom louvers, forces it up over heating elements, then out through top louvers which directs the air downward providing uniform room-heat distribution.

✓ REMOVABLE GRILLES
Both top and bottom grilles snap easily in and out for quick access to operating areas. Enables unit to be installed simply and cleaned periodically.

✓ REVOLUTIONARY HELICAL FINS
The helical fin tubular heating element assures maximum heating efficiency. This type of element is especially designed for long life and trouble-free operation.

FASCO FORCED AIR HEATERS

Fasco forced air heaters are styled to please and designed to perform longer and better...just the right space-saving units to provide heat wherever it's needed—recreation room, hall, living room, garage, or anywhere in the house. Built for the comfort of modern living, these thermostatically-controlled heaters are designed around true heating efficiency, giving a flow of even heat. These rugged, well-built heaters add to a room's appearance, give years of trouble-free customer satisfaction...eliminating costly call-backs for service or adjustment. They are compact, simple to wire-in, and fit between standard-spaced studs. Four convenient sizes to match room requirements...1500, 2000, 3000 and 4000 watts (all 240 volts).

FASCO INDUSTRIES, INC.
Rochester 2, N. Y.

“Setting the Pace in Electric Heat”
terest rate of 9.4% on Title I remodeling, want to charge discounts on the new title 203(K) 6% loans. Thus far FHA has not permitted discounts, but does allow the lender a 1% "origination" fee.

Most builders regard discounts as a pernicious "back door" system that permits the charging of usurious rates. They hope the system won't be allowed to spread to 203K remodeling loans.

"A Better Home—A Better Life"

Builders' plans for National Home Week Sept. 23 to Oct. 1 are bigger and better than ever before, and advance reports from NAHB associations indicate record numbers of builders are erecting model homes for display. The slogan "A Better Home—A Better Life" is an appropriate one. This annual event, originated more than a decade ago by American Builder's late editor, Ed Gavin, has become one of the building industry's greatest merchandising assets. No single program does as much to sell the American public on home ownership—and to show the latest advances in home equipment and technology.

When you are displaying your model home during National Home Week, don't forget to get a good set of photographs to enter in American Builder's Quality Model Home Contest. There are 12 awards, including 3 trips to Europe for the winning builders and their wives. See page 139 for contest announcement or send in your request for an entry form to Contest Editor, American Builder, 30 Church St., New York, N. Y.

Nutone buys $100,000 of FHA loans—urges other manufacturers to do so

Manufacturers who derive their business from home building have long been urged to invest their pension funds in FHA mortgages. Builders will applaud the following letter sent by J. Ralph Corbett, chairman of the Board of Nutone to other manufacturers:

"My company just bought $100,000 of FHA insured mortgages for its Pension Fund. We did it because our sales volume is dependent on home building—and a steady volume of building can only be achieved for your company and mine by a continuous supply of FHA mortgage money.

"I feel very deeply that manufacturers in the home building field have long neglected supporting home builders by investing at least a portion of their Pension Funds in FHA insured and VA guaranteed mortgages. Labor unions are now making these investments—why not manufacturers in our own home building field?

"It is the policy of our company to put from 20% to 25% of its total pension monies into home mortgages which currently yield our fund an average net, after servicing, of 5%."

"We used to think that purchasing FHA and VA loans was a complicated procedure—but we learned from NAHB headquarters in Washington that there are mortgage bankers in every part of the country who can completely service FHA mortgage investments for a nominal fee of 1%. As an added liquidity factor, bear in mind that the new Housing Act authorized F.N.M.A. to make short term loans on FHA insured and VA guaranteed mortgages up to 80% of unpaid principal."

Field work helps builders construct a better house for less money

There's good progress on many fronts in cost saving methods. F.H.A. can now insure experimental or research houses. San Antonio builders are putting up a whole community of low-cost houses testing new ideas. Top manufacturers are spending millions for new components. And N.A.H.B.'s Research Institute has just completed reports on two smart ideas: an economical steel-wood header beam for spanning wide openings, and a prefab steel door and frame unit with polystyrene core—both excellent.

For reports on new steel-wood header and door unit, contact Ralph J. Johnson, Director of Research, N.A.H.B., Washington, D. C.
Lau Deluxe Wall Vanities add extra sales appeal to any bathroom. The clean, functional design and many built-in features are unmatched by other cabinets. Two distinctive styles and three builder sizes provide the right unit at the right cost. See the Lau Wall Vanity before you buy...you'll be glad you did.

The LAU BLOWER COMPANY
2027 Home Ave., Dayton 7, Ohio
More Flexibility in Suburban Zoning

Here's how your suburb can open its gates to low-cost housing—and still hold back population inflow. The method is suggested by Gerald D. Lloyd, Westchester (N. Y.) developer. Here he describes his plan to AMERICAN Builder:

Q. Mr. Lloyd, builders in suburban areas all over the country are confronted with zoning ordinances that restrict residential construction. Can anything be done about this?
A. Well, I don't have any quick solution to the problem. But I have proposed a new zoning approach that, in the meantime, would permit greater flexibility in suburban zoning.

Q. What is that?
A. It's called density transfer. It's a way of getting more mileage out of low density zoning ordinances. It permits communities to retain their overall density limitations and, at the same time, permits builders to build on more economical plots.

Q. How would it work?
A. Well, let us say that there are two parcels of land available in a suburban community. One parcel is located near community facilities, such as sewers, water, transportation, shopping centers and schools. It is zoned for 50 homes on 1 acre plots. The other area is situated on the outskirts of town further away from facilities. It is also zoned for 50 homes on large plots.

Q. Both parcels, in other words, would restrict medium priced, smaller-plot homes.
A. That's right. But with density transfer, more families could be grouped in the preferred parcel in less costly homes, and the total density of population would remain exactly the same.

Q. How would you accomplish this?
A. I would propose that a builder be permitted to purchase both tracts and transfer the 50 density units from the remote parcel to the one closer to the center of town.

Q. This would permit the builder to put up 100 homes in an area that was originally zoned for 50 homes?
A. That's right, and at the same time the development rights to the remote parcel would be deeded to the town to prevent anyone from building homes there.

Q. What would be done with this remote land?
A. Well, the builder would retain title to it—under a substantial tax reduction since the land no longer has development rights. The town might permit him, however, to use it for non-residential use, or it might repurchase the land for park use. On the other hand, it might retain a few density units in this land to permit the building of large estates.

Q. Could "density transfer" be used in every suburban community?
A. No. It would work only where acreage costs are low enough to yield, upon transfer of density, a reasonable cost of land per dwelling unit.

Q. Have you been able to get any communities to accept density transfer?
A. In principle: yes. In fact: we expect action soon.
UNDER STUCCO, BRICK OR WOOD, QUALITY BUILDERS USE SHEATHING, AND...

THIS IS THE SHEATHING THAT INSULATES

That's the difference between one sheathing material and another. Insulation board is the one that insulates. In fact, insulation board sheathing meets F.H.A. minimum requirements without supplementary wall insulation.

Now the Insulation Board Institute has established a precise rating system (see chart). Soon these ratings will be stamped on every sheet manufactured by our fourteen member firms. Watch for the "IBI Rated" seal.

Got time for three fast facts? (1) Insulation board sheathing is strong—up to five times as strong as horizontal lumber sheathing! (2) Insulation board requires 50% less labor than lumber sheathing—and involves at least 10% less waste. (3) Insulation board weighs less than half as much as gypsum sheathing.

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<td>IBI RATED INSULATION BOARD SHEATHING (3/16 in.)</td>
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Write for the new booklet, "How to Save with Sheathing."

IBI INSULATION BOARD INSTITUTE
111 West Washington St., Chicago 2, Illinois
MODEL OF NEW PREFAB, slated for completion this fall, uses aluminum frame and 3x9 quartz-faced panels.

Will this be the new look in prefab?

The structural system used in this Detroit house could well bring a new flexibility of design and construction to the prefab home business.

The house—nicknamed the Screwdriver House—is believed to be the first one ever built with an all-aluminum structural frame. Its walls are made of aluminum panels, and it's assembled with nuts, bolts and screws, instead of hammer-driven nails.

Owner of the Screwdriver House is David N. Insley, president of Fisher-Insley Corp., fabricator of aluminum building products. He feels that the aluminum frame could give a prefabricator these advantages:

1. It would make it economically feasible to expand or contract a home as space requirements change.
2. It would let a builder offer a wide variety of designs, and let him adapt designs to varying sites.
3. The home could be disassembled and moved to another site.

It's not likely that this house will find a wide market; it's in the $250,000 class and boasts 8,000 sq. ft. of floor space. However, it's believed the structural system will work with homes in any price range.
Builders Prefer...

Weather for easier-

**Numetal WEATHER STRIP**
Completely packaged set contains sufficient Numetal strips and accessories for one door. Available in bronze or stainless steel, with or without door bottom or with any M-D threshold.

**H-4 FOLD-BACK WEATHER STRIP**
Automatically spaces itself when properly placed against door stop. A smoothly-operating, economical packaged set for all standard doors. Aluminum or bronze—with any door bottom or threshold desired. Nails, screws and instructions furnished in each set.

**Jamb-Up DOOR WEATHER STRIP**
Extruded aluminum strip with durable vinyl insert. Perfect for wood or metal doors. Packaged with strip, nails, screws and instructions. Comes with or without extruded aluminum and vinyl DV-1 Door Bottom.

**Na-GARD AUTOMATIC DOOR BOTTOM**
Raises and lowers automatically. Made especially for doors (wood or metal) where bottom must clear carpet or rug. Comes in silvery-satin or Albras finish. Won't rust or tarnish. Standard lengths, 28, 32, 36, 42 & 48 in.

**CASEMENT WINDOW WEATHER STRIP**
Easy to install on steel or aluminum casements. Slips over window flange. Style No. 1 is used on head and lock side or swinging edge of metal casement windows. Style No. 2 is used on hinge side and the sill.

**DOOR BOTTOMS**
- M-D Numetal Door Bottom made of extra thick wool felt and heavy-gauge stainless steel, brass or aluminum. Standard lengths 28, 32, 36, 42 & 48 in.
- M-D heavy duty extruded aluminum and felt door bottom in Alacrome or Anodized satin, bright or brass colors, in all standard lengths.
- M-D extruded aluminum and vinyl door bottom—in natural Alacrome or Anodized Albras finish—in all standard lengths.
Proofing Products
selling...faster-selling homes!

**Nu-Koil WEATHER STRIP**
Latest advance in weather strip efficiency by the pioneers of the industry. Combines lifetime aluminum with tough, durable vinyl bulb. Lasts indefinitely in any climate. In 17 ft. roll, packed with nails, instructions and handy nailing gauge. Packed 24 rolls to display carton.

**Exclusive WEATHER STRIP**
The "original" coil metal and wool felt weather strip. Widely used because it's so easy to put on. Each 17 ft. roll packaged with nails and instructions. Packed 12 cartons in free display.

**EXTRUDED THRESHOLDS**
Popular AP-3% threshold has replaceable vinyl insert. This is only one of 29 styles and sizes available in Alacrome, Anodized Albras or Brass.

**On-GARD COIL WEATHER STRIP**
These handy rolls come in 8 widths in either stainless steel or bronze in 17 ft. or 100 ft. rolls. Features built-in tension, embossed nail zone and hum-proof edge!

**Combination DRIP CAP AND DOOR BOTTOM**
In one unit. Style DCV, for all exterior swinging doors, combines extruded aluminum drip cap that sheds water with vinyl air-baffles that stop drafts, dust, etc. Also excellent as garage door bottom.

**Vina-Seal GARAGE DOOR WEATHER STRIP**
Made especially for door bottoms, this new vinyl weather strip easily tacks on. Keeps garage dry and clean — also cushions door closing. Individually packaged for every garage door.

**GARAGE DOOR WEATHER STRIP**
Seals all 4 sides of door to keep out rain, dust, etc. Extruded aluminum with durable vinyl strip. For overhead doors but may be used on almost every type garage door. Packaged sets in poly tubing.

MACKLANBURG-DUNCAN CO.
Manufacturers of Quality Building Products
Box 1197 • Oklahoma City 1, Okla.
5 YEAR UNCONDITIONAL GUARANTEE

New Met-L-Pak®
by
Universal-Rundle

Exclusive new metal-to-metal faucet control cartridge uses no washers, packings or threads... makes other systems obsolete... assures home buyer satisfaction... eliminates costly, troublesome repair costs.

Check all the dependable features of this outstanding new unit: A—Extra deep broaching assures secure handle grip. B—Locking lugs provide positive positioning of cartridge. C—Roll-pin stop assures handles shut off in same position. D—Entire unit is sealed with permanent "O" ring. E—Stem is completely isolated from water eliminating possible corrosion. F & G—Precision-honed and matched plates are designed for longer life and maintenance-free service. H—A compression "O" ring seals against line pressure. Lastly, MET-L-PAK can be installed quickly without special tools. For details, write Universal-Rundle Corp., 724 River Road, New Castle, Pa.

Met-L-Pak available on all Universal-Rundle Luxury Trim Fittings

Three-Valve Diverter Bathtub Filler and Shower Combinations. Third valve controls flow of water to either tub or shower.

Automatic Diverter Bathtub Filler and Shower Combinations. New valve body simplifies shower and spout piping... adds longer life to installations.

Combination Lavatory Fittings available for either 8" or 12" centers. Popular 4" centerset fittings also available.

Ledge mounted sink fitting with swinging spout faucet, spray and aerator. Top mounted fittings also available.

THE WORLD'S FINEST PLUMBING FIXTURES FOR OVER 60 YEARS

Universal-Rundle

Plants in Camden, New Jersey; New Castle, Pennsylvania; Redlands, California; Hondo, Texas. Export Sales: 115 Broad Street, New York, New York

AMERICAN BUILDER
SIMPSON PRODUCTS help homes sell faster, at more profit

LIFECOAT® SIDING
Looks better, saves up to 40% in finishing costs

REDWOOD PANELING
Gives any room a look of quiet luxury

SYMPHONIC® DOORS
Gives custom-door style at stock-door prices

EASY-WALL® and ACOUSTICAL CEILINGS
New concept in home interiors

see next three pages for full details...
Simpson Certified Kiln-dried Redwood is one of the world's most highly rated woods for termite and decay resistance, dimensional stability, insulation value, chemical and flame resistance, glue holding, paintability and strength-for-weight. These factors, plus redwood's natural coloring and beautiful grain, make it ideal for nearly every type of construction.

Simpson manufactures redwood lumber in a complete range of finish and construction grades, patterns, dimensions, length assortments and textures to meet every Builder's requirement. Complete technical data on redwood's physical properties, grades, sizes, patterns, dimensions, applications and finishing can be found in the California Redwood Association Catalog 2b Ca, Sweet's Light Construction File, and 5a Ca Sweet's Architectural File.

Lifecoat products are factory-sealed in protective poly-coated wrappers to eliminate weather stains and minimize damage in handling.
LIFECOAT REDWOOD PRODUCTS - AMERICA’S GREATEST SIDING VALUE

Simpson Lifecoat is factory-primed certified kiln-dried redwood especially designed for siding and related exterior application, finished with the best prime coating available. (Clear water repellent sealer also available on order.) An exclusive Simpson process applies a uniform coat of high quality stain or paint prime to the face, edges and ends. The back of each piece is also coated with a water repellent to complete the protective process. The result is an outstanding product that gives builders the following advantages:

SAVES UP TO 40% IN FINISHING COSTS
Lifecoat’s factory-applied prime coat is far superior to job-site applications. The need for backpriming is completely eliminated and only one additional coat of paint or stain is needed to meet FHA requirements for a complete exterior paint system.

ELIMINATES “WEATHER WORRIES”
No construction delays with Lifecoat. It can be applied in any weather, finish-coated when conditions are favorable—up to one full year later, if necessary.

ARRESTS “WICKING.” Wicking (the damaging capillary seepage of water between siding laps) is effectively controlled by the water repellent backcoating of Lifecoat redwood.

STOPS MILDEW AND FUNGUS STAIN.
Lifecoat contains an active fungicide that repels unsightly fungus growth and mildew.

MANY PATTERNS - FOR INTERIORS, TOO.
Simpson offers the Lifecoat finishes illustrated on practically all patterns and dimensions, including S4S for window and door framing, fascia and trim. The attractive redwood graining of the stained patterns makes Lifecoat ideal for interiors, too. Just wax or apply clear sealer—and you have the most beautiful of natural-wood interior finishes.

APPLICATION AND FINISHING. Any redwood Lifecoat pattern may be applied with standard nailing practices. Thin paneling patterns, because of their extreme light weight, may also be applied to sound existing walls with adhesive mastic. Though most builders prefer to retain the natural beauty of redwood by merely waxing or coating it with clear lacquer, its extreme adaptability makes it easy to tint or stain with any good quality commercial finish. If you wish to keep the grain pattern visible, it is recommended that only transparent stains be used.

INTERIOR REDWOOD
The wide variety of Simpson Redwood grades and patterns offers a choice to suit every interior paneling or trim need. Whether your preference is for the creamy white striping of sapwood in “Aye” Grade, the beautiful Clear All Heart VG, Redwood plywood panels or any of the variations between, Simpson delivers it in a complete selection of patterns and dimension... in smooth or rustic saw-textured surface.

SYMPHONIC DOORS
Symphonic Doors offer the “custom-look” of superb styling, yet actually cost little more than ordinary mass-produced doors. Designed by Walter Dorwin Teague Associates to maintain harmony of design throughout a home or office, they keep their distinctive “family resemblance,” even when painted to match individual room decor.

DESIGN VARIATIONS. Symphonic doors offer an endless variety of decorating opportunities. Panels may be varied, colors changed, accents added to achieve distinction in the final appearance of these custom-type doors. Yet no matter how the decorative treatment is varied, the basic style is so distinctive that you achieve overall design continuity.

GUARANTEED. Simpson’s new Symphonic doors are fully guaranteed.

PACKAGED FOR FULL PROTECTION. All Symphonic doors are available individually packed in tough corrugated cartons.

SIZES AND STYLES. Available in two styles: Sonata® (with or without grooved panels) and Concerto®. Interior sizes are: 1' 6" to 3' widths, 6' 8" and 7' heights in 1 3/8" thickness. Exterior sizes are: 2' 6" to 3' 6" widths, 6' 8" and 7' heights in 1 1/4" thickness.
EASY-WALL PARTITION UNITS SAVE LABOR & FINISHING COSTS

If you use truss roof, post and beam or any other system that permits non-bearing partitions, here's a quality prefinished partition unit that can save you up to 50%. Simpson Easy-Wall partitions give you prefinished partitions with the advantages of construction economy, high insulation value, ease of application and the luxury look of fine grain wood—with no finishing costs. In addition, Easy-Wall allows you to adjust room sizes to your customer's specifications. And secondly, it permits your customer at a later date to change the interior arrangement at small cost if he so desires.

EXTREMELY STURDY. Easy-Wall partition units are faced with random grooved, wood-grained hardboard, laminated to a solid core of Simpson insulating board which provides rigidity and eliminates the hollow, drum-like effect of ordinary partition units. The authentic wood-grain is gravure-printed on the reverse side of a tough, vinyl surface permanently bonded to the hardboard. It is a sturdy partition with an attractive, protected finish at lower in place cost.

FINISHES. Easy-Wall surfaces look like hand rubbed wood. Finish has successfully withstood fadeometer tests equivalent to five years of direct sunlight, with no evidence of fading or discoloration. Dirt, grease—even stains—wash off these walls with water and soap or detergent. Available in Cherry Mocha, a rich natural brown finish, or Cherry Mist, a similar grain in warm gray. Easy-Wall is also available in opaque primed hardboard for use when a painted surface is desired.

INSULATION. Compared to other building materials, the thermal insulation properties of Easy-Wall partitions are as much or more than the equivalent of 4½ one-inch fir or pine boards, 13½ layers of ½-inch gypsum board, 39 inches of face brick or 54 inches of concrete. The insulating board core also has excellent sound attenuation properties.

SPECIFICATIONS. Easy-Wall partition is 1⅞” thick, has prefinished hardboard surface on both sides, laminated to solid 1⅞” core of insulating board. Spline joints align and lock units together rigidly. Kerfs on all four edges accommodate wiring, permit base or wall outlets where desired. Easy-Wall needs no studs, framing or finishing. It installs easily with only floor ceiling plates and moulding. Partition units are 2’ x 8’ or 10’, protected by factory sealed carton. Matching panels with flanged tongue and groove edges are also available.

SIMPSON ACOUSTICAL CEILING TILES

Simpson offers a complete range of practical ceiling products headed by Forestone®, the original deep-etched woodfiber acoustical tile that absorbs up to 75% of all sounds striking it. Newest money-saving ceiling product is Simpson Petite, an economical woodfiber tile with dainty random acoustical perforations. This delicate perforated pattern adds to the smart appearance of the finished ceiling and allows endless decorative possibilities. A Petite ceiling is washable, may be painted without loss of sound control and is equally effective for modernization or new construction. Petite, like Forestone, is suitable for nailing, stapling, mastic tape or suspension type installation. Tiles are 12” x 12” x 9/16” for fastest installation.

NEW PETITE TILE. A new Walter Dorwin Teague Associates design of tiny perforations in Simpson woodfiber acoustical tile—efficient, economical and unusually attractive. Available in all standard Simpson sizes and thicknesses.

SIMPSON IS YOUR BEST SOURCE for a complete line of advanced building products manufactured to strictest quality standards. Your Simpson dealer can tell you about our redwood lumber, plywood, acoustical products, doors, and insulating board and hardboard products... or fill in coupon below for full information.
luxury floors at vinyl asbestos prices...

new Vina-Lux® PREMIERE Series

Here's a flooring that's new, exciting and realistically priced — exclusive Premiere Series in Vina-Lux vinyl asbestos tile. It has the subtle elegance housewives desire in floors ... the easy-cleaning, greaseproof qualities they want ... the rugged durability their husbands insist on — all these extra selling features at no extra cost!

Premiere installs quickly and easily, on or below grade over concrete slab, or over wood or plywood subfloors. Write for samples of Premiere... in 9 interior-coordinated colors, including two metallics. Nationally advertised in Life, Ladies Home Journal, Better Homes & Gardens, American Home, House Beautiful.

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<td>V-424 Chantilly</td>
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<tr>
<td>Permanent travertine patterning distributed at every level through full tile thickness</td>
<td></td>
</tr>
<tr>
<td>V-423 Autumn Haze</td>
<td>V-423 Autumn Haze</td>
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AZROCK FLOOR PRODUCTS DIVISION
Specialists in the manufacture of vinyl asbestos tile and asphalt tile flooring
UVALDE ROCK ASPHALT COMPANY • 545A FRONT BANK BUILDING • SAN ANTONIO, TEXAS
Add needed closet space to any house—easily installed, low-cost, last a lifetime!

For the most efficient use of closet space, more and more builders and homeowners are specifying K-V Closet Fixtures. Built to give a lifetime of service, K-V Closet Fixtures are easily installed and keep clothes tailor-fresh. Ask your K-V representative about this complete quality line or write for our catalog.

K-V 8 Adjustable Closet Bar. Fully adjustable, hangs more clothes more neatly. Four stock sizes, 18" to 72", fit all closets up to 96" wide. Durable, low-cost, lasts the lifetime of the house. Easily installed. Bright nickel finish. Hangers can be placed on bar or in nylon glides.

K-V 9 Snap-in Nylon Hanger Glides. Any woman who ever had to straighten out hangers in a closet will appreciate these smooth-riding nylon hanger glides designed so they can be snapped into inner bar even after bar has been mounted.

K-V No. 2 Extension Closet Rod. The most widely accepted closet rod on the market. Especially designed to add more hanging space to closets too shallow for a K-V Clothing Carrier. Five sizes, 18" to 96", to fit all closets up to 120". Bright nickel-plated finish. Easy to install. Will not sag under heaviest clothing weight.

KNAPE & VOGT MANUFACTURING COMPANY, Grand Rapids, Michigan
Manufacturers of closet and kitchen fixtures, drawer slides, adjustable shelf hardware, sliding and folding door hardware, Tite-Joint fasteners and Handy Hooks for perforated board.

24 AMERICAN BUILDER
Designed to take the hesitation out of homebuyers when they see it gleaming in your kitchen, the beautiful, all new Rangaire UC200 is the perfect mate for today's modern appliances. More quality and craftsmanship have gone into its making than any range hood on the market. The all new super-silent double squirrel cage exhaust unit, recessed frosted glass lights and "drop-away" permanent aluminum filter are neatly contained in a single housing under the hood. New, smartly designed push button panel controls lights and two-speed exhaust.

EASIEST TO INSTALL. The all new UC200 is designed for minimum installation time, and vents either top or back. Exclusive Rangaire "Installation Template" eliminates need for time consuming measurements.

See the UC200 at your Rangaire dealer today. We're sure you'll agree it's just what you need for your new home.

For literature and further information write or call

ROBERTS MANUFACTURING COMPANY, CLEBURNE, TEXAS
How About This New 4-Point Nail!

From head to point, Sheffield Dry-Wall nails are new—better 4 ways. They assure you faster and easier dry-wall nailing, lower material and labor costs.

1. **New Nub in the Head Center**
   Saves one hour's labor per house. The nub takes the force of the hammer blows, permits faster nailing, protects the thin conical head from distortion.

2. **New Thin Conical Head**
   Makes it easy to tape joints smoothly. The final hammer blow countersinks the head so the rim fits flush with the wall. Paper breaking is virtually eliminated.

3. **New Position of Annular Rings**
   Resists nail popping. See the rings at the lower section of the shank. Holding power is concentrated deep in the wood. Rings tighten as the wood dries.

4. **New Shank Diameter**
   Faster 25% more dry-wall. The new diameter is .094 instead of .098. You get more nails per cwt.—need not nail so closely.

In Modern Home Construction—Sheffield's new-design Dry-Wall nails make ordinary dry-wall nails as obsolete as lath and plaster.

See your Sheffield Dealer for new-design Sheffield Dry-Wall nails or write Sheffield Division, Armco Steel Corporation, Sheffield Station, Kansas City 25, Missouri.
Watch sales go up when CERAMAFLEX® goes down

The sales magic of ceramic tile takes on new meaning when you install Ceramaflex resilient ceramic flooring in your new homes. Here's all the built-in beauty, permanence and easy care of conventional ceramic floors with two important plus values: Ceramaflex is quiet and comfortable underfoot. It's the perfect floor for kitchen, bath, entrance hall, family room and utility room. Ceramaflex creates an exciting new focal point for your sales efforts. Try it in your next model. Your ceramic tile contractor or nearby Romany-Spartan distributor will be happy to provide more information and samples of the entire Romany-Spartan line of quality wall and floor tile. United States Ceramic Tile Company, Department AB-17, Canton 2, Ohio.

Ceramaflex® is the exclusive product of United States Ceramic Tile Company

Decorative possibilities are limited only by the imagination with the complete range of colors available in Romany-Spartan glazed wall tile. The striking effect shown above was achieved by combining Tawny Beige tile with walnut paneling.

Each 9" x 9" Ceramaflex square is made up of 64 1" x 1" ceramic tiles securely bonded in a pre-formed, flexible rubber grid. Installs quickly and easily on, above or below grade. Because it's pre-grouted, Ceramaflex is ready for use the instant it's laid. Over-all thickness 1/4".
You only pour concrete once with

K&M Asbestos-Cement Air Duct!

K&M Asbestos-Cement Air Duct lays directly on vapor barrier, requires no concrete encasement and no anchoring, AND won't float.

K&M Asbestos-Cement Air Duct trims down your installation cost in slab buildings through its inherent strength and weather-resistance.

For example, you can store it outdoors, and even walk on it during installation. You save on wastage, because you can cut K&M Asbestos-Cement Air Duct to fit right on the job. A chisel or carborundum disk will cut this modern duct for stack head takeoffs for registers and diffusers. Handling is easy because K&M Asbestos-Cement Air Duct is lightweight. Its 13-foot lengths require fewer joints. (Pipe sizes are 4”, 6”, 8”, 10”, 12”, and 14” diameters.) Finally, you can pour the concrete slab floor in one operation, after quickly sealing the pipe joints with K&M Air Duct tape.

Once installed, K&M Asbestos-Cement Air Duct is practically indestructible. Won't corrode or deteriorate. Won't crack or weaken under normal super-imposed loads on the concrete floor. Its bore remains smooth and clean, assuring even, unimpeded air flow.

For more information on the lasting quality, heat transmission efficiency, and overall savings of K&M Asbestos-Cement Air Duct, write to: Keasbey & Mattison Company, Ambler, Pa., Dept. P-3691.
The traditional design beauty of PELLA WOOD CASEMENT WINDOWS leads buyers straight to the discovery of the exclusive Rolscreen feature. Rolscreen is the famous inside screen that rolls up and down like a window shade...a unique convenience women enjoy using and like to demonstrate to their friends. PELLA WOOD CASEMENTS also offer removable muntins that snap in, snap out for easy painting and cleaning. For year 'round comfort, stainless steel, spring-type weather-stripping surrounds all four sides of the sash. And for people who think "big", PELLA provides the largest standard wood casement on the market—up to 68" glass height. See the PELLA distributor listed in your classified telephone directory or mail coupon.
Comparison from the standpoint of safety engineering will show there's no unit in electric heating to match Electromode's exclusive All-Aluminum Safety Grid. Only Electromode has this feature, tested and time-proven to be the safest on the market. It's the grid that boosted Electromode to leadership in the electric heating field. There are no exposed hot wires. No glowing coils. All heating elements are permanently embedded deep inside a cast aluminum sheathing, assuring positive protection against fire, shock or burn.

ELECTROMODE LOW-LEVEL BASEBOARD HEATERS

WALL MODEL DOWN-FLO HEATERS
Utilize Electromode's efficient Down-flo principle. Clean, odorless, fan-circulated heat is evenly distributed throughout the area. Ideal for cold hallways, recreation rooms, and other big rooms. Come in both Recessed and Surface Mounted models. All have Electromode's exclusive Aluminum Safety Grid.

PORTABLE SUSPENSION TYPE
Especially useful for supplying extra heat in widely separated areas. May be plugged in temporarily or suspended from swivel-type brackets. Automatic thermostat. Adjustable louvers permit flexibility in directing fan-forced warmed air where most desired.

MEET EVERY HEATING NEED
Electromode's complete line embraces more than 400 types, models and capacities of flameless electric heating units and systems for every purpose. Included are wide choices for residential, commercial, industrial and farm application.

Comparison from the standpoint of performance will show that Electromode's Aluminum Grid has many other advantages, too. Aluminum is rust resisting, non-corrosive. It is one of the best known metals for conducting and radiating heat. Yet its surface temperatures in operation remain amazingly low. Trouble-free Electromode grids are guaranteed five years against burnout and practically eliminate the need for service calls. More and more contractors are installing Electromode because comparison has shown it is the cleanest, safest and most efficient flameless electric heat on the market today. Continue to install Electromode and build up your dividends in mounting customer satisfaction.

ELECTROMODE LOW-LEVEL BASEBOARD HEATERS

BATHROOM and SMALL ROOM HEATERS
Just right for small rooms. Perfect for bathrooms, where extra warmth is frequently welcomed. Provides quick, economical warmth with the flip of a switch—at the temperature you select. Automatic thermostat keeps it there. Smart styling adds to bathroom beauty.

COMMERCIAL DOWN-FLO TYPE
Here are units that provide the perfect answer for many hard-to-heat areas. These sturdy heaters come in a wide range of capacities. Abundant, evenly fan-circulated warmth is assured for factories, auditoriums, schools, churches. Automatic thermostat is tamper-proof. Complete heat regulation may be arranged from a remote central control point.

On your next heating problem you'll make a wise decision to contact your nearest Electromode representative or write for free literature to:

Electromode
Division of Commercial Controls Corporation
Dept. AB-91, ROCHESTER 3, NEW YORK

AMERICAN BUILDER
SPECIAL ALLOY STEEL

spring hinges run horizontally and are spaced 14-7/10" apart. Panels come together quietly, flat and compact.

PELLA ALSO MAKES QUALITY WOOD FOLDING PARTITIONS, WOOD CASEMENT AND MULTI-PURPOSE WINDOWS, ROLSCREENS AND WOOD SLIDING GLASS DOORS.

Homeowners have both privacy and rich beauty at their fingertips when you install PELLA WOOD FOLDING DOORS. Used as room dividers in open plan living, these handsome folding doors give interiors the natural warmth of genuine wood veneers. You may order PELLA WOOD FOLDING DOORS factory-finished or unfinished for on-the-job painting or staining. Patented "live-action" steel spring hinging assures effortless operation of even the largest units. Solid wood "Lamicor" construction prevents warping. Factory-assembled PELLA WOOD FOLDING DOORS are available for any width and in heights up to 12'—1". Call the PELLA distributor listed in your classified telephone directory or mail coupon.

PELLA PRODUCTS

ARCHITECT: BLAINE DRAKE
CONTRACTOR: HOMES & SON, PHOENIX, ARIZONA

ROLLSCREEN COMPANY, Dept. MB-40, Pella, Iowa
Please send details on PELLA WOOD FOLDING DOORS

NAME
FIRM NAME
ADDRESS
CITY & ZONE
STATE
TO INSURE PROFITS

Long-Bell® Natural Wood Kitchens

When your kitchen customers demand quality cabinet construction, plus the warm beauty of natural wood, PLUS low-cost—you’ll find the solution in Long-Bell’s "Contractor Line" Birch Kitchens.

These attractive, modern, natural wood cabinets fit any size or shape of kitchen. They are ideally suited to new construction and remodeling jobs where economy is an important factor. They’re precision built in 3” modules for fast, simple installation, and smoothly sanded to save time on final finishing.

In spite of their low-cost, Long-Bell "Contractor Line" Birch Kitchens have the eye appeal, the quality feeling and the luxurious appearance that sells on sight—makes satisfied customers every time.

Long-Bell "Contractor Line" Kitchens including the corner lazy susan, wall, base, sink, range, oven and utility cabinets are immediately available, setup or knocked down, from stocks at three conveniently located Long-Bell warehouses. Fastest delivery is assured.

For complete information on low-cost Long-Bell "Contractor Line" and Long-Bell Deluxe Natural Wood Kitchens call, write or wire your Long-Bell representative.

International Paper Division

A Quality Name in Forest Products

Kansas City, Missouri • Longview, Washington • Primos, Pennsylvania
2-WAY RADIO GIVES YOU AN EXTRA HOUR A DAY

The Gonset FM Business Communicator makes 2-way radio communication a practical, economical tool within the means of every business and industry. Gonset 2-way radio saves time and money, makes for greater productivity every business day!

For instant contact between office and cars or trucks, for inter-unit communication, for expediting materials handling Gonset 2-way radio is the modern answer.

Gonset system design, featuring matched components, antennae, co-axial cables and antenna supports, makes it possible to tailor a communication system to fit your exact needs at moderate cost.

Gonset combines a quarter of a century of experience with creative engineering and superlative workmanship to bring you the best in communications equipment. Test procedures unique in the industry permit constant quality control.

An authorized Gonset distributor will install, service and maintain the FM Business Communicator system for you to assure years of trouble-free performance. Write for the facts today.

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An authorized Gonset distributor will install, service and maintain the FM Business Communicator system for you to assure years of trouble-free performance. Write for the facts today.

GONSET, Dept. AB-9, 801 So. Main St., Burbank, Calif.
Now, in a single step, you can provide for quick form release and give your roof a built-in insulation and vapor barrier. Styrofoam brand insulation board—used as a form liner—bonds to concrete with positive keying action. When forms are removed, permanent insulation is in place, ready for finishing!

When you use Styrofoam insulation board as a form liner, you'll save construction time and costs while building in superior insulating values. With this modern technique, conventional forms are first lined with boards of lightweight, rigid Styrofoam. Reinforcing rods or mesh are placed on the insulation, and concrete poured directly on the Styrofoam.

The results: forms release easily, and the section has permanent insulation in place, ready for finishing with no intermediate steps needed. You won't have to install a vapor barrier because Styrofoam acts as its own vapor barrier! Styrofoam insulation offers many advantages for use in modern building techniques, such as thin shell construction. The rigid boards have positive keying action to concrete. They're extremely light in weight, making them easy to handle for rapid installation.

Styrofoam used as a combined form liner and permanent insulation is ideal for many curved surfaces including barrel vaults and hyperbolic paraboloids as shown above, as well as for low-cost, insulated concrete curtain walls and tilt-up sections (right).

Styrofoam insulation also offers outstanding advantages for insulating conventional masonry buildings. For example, Styrofoam insulation can be adhered easily to block or brick walls with portland cement mortar. Then plaster or wallboard may be applied directly to the face of the insulation. No furring or lathing is required! And for insulating in cavity walls, simply adhere Styrofoam to the outside face of the inner wythe. Because of the high moisture resistance of Styrofoam, separate vapor barriers are seldom needed.

Styrofoam insulation provides permanent insulating values because its low “K” factor stays low. The millions of tiny non-interconnecting air cells in this rigid foam keep the passage of heat to a minimum, regardless of humidity conditions. Water and water vapor don’t penetrate Styrofoam and build up inside. When you insulate buildings with Styrofoam, heating and cooling costs stay permanently low. And because Styrofoam is light in weight and
Hyperbolic paraboloid (above) and barrel-vault roof (right) show Styrofoam insulation form liner ready for plastering.

1-step form liner, insulation and vapor barrier provides built-in savings

easy to handle, installation time and costs are low.

Styrofoam and the other Dow Building Products offer positive advantages in performance and construction savings. For complete information on resulting insulation values and installation instructions, write THE DOW CHEMICAL COMPANY, Midland, Michigan, Plastics Sales Department 1510D9.

Other Dow Building Products

Saraloy* 400 flexible sheet flashing. Conforms to almost any shape, adheres to most building materials. Accommodates expansion, contraction.

Roofmate* lightweight insulation for built-up roofs. Acts as its own vapor barrier. Easily handled, quickly installed.

Polyfilm* tough polyethylene film for use as vapor barrier under slab floors, in crawl spaces. Use for equipment cover or temporary enclosure.

Scorbord* (patent applied for) insulation board for perimeters and foundations. Excellent moisture barrier, prescored for easy installation.

Styrofoam is a registered trademark of The Dow Chemical Company. It is applied only to the homogeneous expanded polystyrene made according to an exclusive Dow process. Styrofoam brand insulation board is available only from Dow and its authorized representatives.

THE DOW CHEMICAL COMPANY

Midland, Michigan

SEPTEMBER 1961
“UTILITY GRADE WEST COAST FRAMING LUMBER HAS SERVED ME WELL FOR 18 YEARS,”
says Wes Clausen
Oswego builder of quality homes

“Experience in building and selling homes in the $20,000 to $35,000 class has taught me that top quality at a reasonable price must be built into every unit. I have successfully taken advantage of the 30% savings in lumber costs afforded by Utility grade, and at the same time built a quality reputation for myself. In today’s competitive market, this saving in dimension lumber costs is one way I can give buyers more spacious homes for their money.” Clausen affirms.

There is a place for Utility grade West Coast Lumber in every type of quality construction... residential or commercial. Use it for joists, sub-flooring, rafters, laminated decks and plank roofs*.

Ask your retail lumber dealer about Utility grade West Coast Lumber... he’s your local supply source.

Write for TECHNICAL BUILDING FACTS
Applications are illustrated... contains span tables.

* When used in accordance with FHA Minimum Property Standards for One and Two Living Units, FHA Bulletin No. 300.

UTILITY GRADE WEST COAST LUMBER
WEST COAST DOUGLAS FIR • WEST COAST HEMLOCK
WESTERN RED CEDAR • SITKA SPRUCE • WHITE FIR

WEST COAST LUMBERMEN’S ASSOCIATION
1410 S.W. Morrison Street • Portland 5, Oregon
You'll sleep better, Mr. Builder...

if you stick with the shingle that sticks to your roofs, the mighty BIRD WIND SEAL Shingle

WONDERFUL RELAXED FEELING, to know that you've roofed your houses with the shingles that aren't going to raise a riot of complaints and callbacks to correct raised or blown-off shingles. When you install the mighty Bird Wind Seal, you save plenty of money by eliminating these profit-eating repair jobs. Not to mention keeping up your prestige as a builder of quality homes.

Ask your Bird Salesman for colorful displays and literature to help you cash in on Bird's Saturday Evening Post campaign. BIRD & SON, INC., E. Walpole, Mass., Chicago, Ill., Shreveport, La., Charleston, S. C.

- powerful seals spaced for drainage
- proved to hold in 125 MPH hurricanes
- lay fast in the usual way
- no pulling apart or turning
- long lasting double-surfaced construction
- advertised to your customers in The Saturday Evening Post
NEW!
GRANT "8032"
REVERSIBLE BYPASSING SLIDING DOOR HARDWARE

FASTEST INSTALLATION GRANT QUALITY STANDARDS

One set, available in four track lengths, for 3/4" or 1 3/4" Bypassing Doors.

Heavy gauge steel track is available in 4', 5', 6', and 8' lengths to fit standard openings.

Set includes all necessary hardware: adjustable apron carriers with quiet, self lubricating nylon wheels, adjustable nylon floor guide, brass finger pulls, and all related screws.

Available: (1) individually packed with track, all hardware, screws and easy to follow installation instructions; or (2) track and hardware in bulk.

PARTS & ORDERING DATA

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<td>8032-1</td>
<td>2'0&quot;</td>
<td>1/8&quot; or 1 1/4&quot;</td>
<td>12 sets</td>
<td>4' set complete pkg. = 2 lbs. 12 oz.</td>
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<tr>
<td>8032-6</td>
<td>3'0&quot;</td>
<td>1/8&quot; or 1 1/4&quot;</td>
<td>12 sets</td>
<td>5' set complete pkg. = 3 lbs. 13 oz.</td>
</tr>
<tr>
<td>8032-9</td>
<td>4'0&quot;</td>
<td>1/8&quot; or 1 1/4&quot;</td>
<td>12 sets</td>
<td>6' set complete pkg. = 3 lbs. 15 oz.</td>
</tr>
</tbody>
</table>

*Note: Standard Packaging: Track and all hardware individually packaged. 12 packages per standard carton. Also available bulk packed.

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SEPTEMBER 1961 39
Designed as part of a dividing wall between a family room and kitchen, this modern fireplace gains added importance as a focal point because its raised hearth extends, on one side, to become an end table. Because the fire is above floor level its heat is more effective on those seated in the room. Back of fireplace forms an open barbecue on the kitchen side.

Double-duty fireplaces

Two-way design between the living and dining rooms acts as a partial divider, allows fire to be enjoyed in both rooms. Facing to ceiling is of natural finished V-jointed wood to complement far wall in living area. Raised hearth, of sandstone, extends to adjacent wall to form a seat and combines with end planter to complete the geometrical overall pattern.
Brick adds rugged texture and contrast to the simple, flat wall surfaces in this house; hearths of various heights were designed to fit naturally into the different floor levels of two rooms and keep carpeting safe from embers. Two-way opening is a money-saver, warms both rooms and eliminates the need for two separate fireplaces and chimney flues.

that help sell houses

Simplified traditional design combines fireplace and wood box into single unit. Brick facing has been painted white, to contrast with the warm tones of the surrounding butterfly-jointed pine paneling. A molded wood strip frames the unit; hearth is square ceramic tile. Door, at back of wood box, opens into garage to allow storing of wood from outside.
... for more than 70 years the unqualified choice of homeowners who want “only the finest.” Side-matched for precision laying. End-matched, with specially designed tapered tongue, for greater strength and uniform tightness.

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“BUY BRANDS YOU KNOW”
Seattle Plastering Company
Develops New Pre-fab Wall

A workshop-made exterior stone panel wall has been developed by R. L. Morgan Co., Seattle, a plastering firm. The wall achieves desirable "shadow depth" along with versatility for conventional interior insulation and finish. The wall is economical.

Construction starts with a steel channel iron frame, strengthened with steel studs or braces. Backing is sprayed on: it's a bonding material that holds the rock surface to a cement bed. When finished, the panels look similar to huge sections of "brushed" aggregate concrete slabs.

On interior surfaces, the panels have steel studs so lath and plaster can be installed. There is ample space between the two surfaces for insulation and vapor control. The panel has more shadow detail than by the old method of washing cement with acid.

Southwest Builders Confab
Slated in Fort Worth, Texas

Home financing and property improvement will highlight the discussions at the Southwest Area Conference, September 21 and 22 in Fort Worth. The affair will be held in connection with a home builders' home show, which is scheduled for September 21 to 24.

Principal speakers at the meeting will be Jim Burke, NAHB president, and Neil Hardy, FHA commissioner.

Builders, lenders, realtors, and government officials will go into every phase of financing new homes, and multi-family rental projects, Chairman O. L. Conger, of the National Home Show Committee, announced.

Los Angeles Population Heads
For Hills; SC Business Up

The Los Angeles population pattern is continuing to move to the outskirts of the city, reports Chris Dunkle and Associates, Los Angeles. During the '50s the San Fernando Valley population shot up over 400%. Catsworth, Reseda, and Sepulveda reported increases between 200 and 400%. Total figures for Los Angeles at the end of 1960 was 4,051,400, up 36,400 since '60.

In Southern California, business seems to be improving. Greatest activity is taking place in heavy engineering: 146% increase. Non-residential building is up 23%; residential building is following with 14%.

The Faster House? Portland
Builders Got the Job Done
In 72 Hours for '61 Home Show

By combining new building materials and new techniques, members of the Portland, Oregon, Home Builders Assn., took just 72 hours to build a 2,300 sq. ft. model home, plus a 440 sq. ft. attached garage, for their recent 1961 home show.

More than 45,000 visitors attended the event during a 10-day stand. Factory finished panels—plywoods and hardwoods—were credited for the speed with which the home was erected.

Country Club Memberships
Given to Merchandise Homes
in Dallas, Tex., Development

In a plan to merchandise new home sales, Glendale Park Development Co., Dallas, has underwritten the purchase of 500 memberships in the Singing Hills Country Club.

The memberships are free with each new home purchase in the Singing Hills development. The homes are priced up through the $20,000 category.

 Builders in this section are Harrill & Foley, Glynn Phillips, Lawrence Moffat, Guy Sansom, McDonald Homes, J. H. Carpenter, Guy Allen, Jr., Wilson & Chyce, Jake Holmes & Asso., Cliff-Tex Builders, Residential Realty, and George A. Mobley.

2nd Home Market Emphasized

There's a skyrocketing trend over the nation for second home construction for lumber dealers and builders, who use a little initiative. That's the opinion of Richard Peyran, regional sales manager, Potlatch Forests, Inc. Peyran spoke before about 36 lumber dealers recently in Portland. Those attending were from the Northwest area.

Savings & Loan Firm Wins "Beautiful" Award

Great Western Savings and Loan Association's executive office, Los Angeles, was one of 40 buildings selected from more than 300 nominees to win the 4th annual Los Angeles Beautiful Award recently. Quite a departure from the usual heavy architecture, the structure was picked among nominees comprised of factories, warehouses, office buildings, churches, and hospitals. Great Western is the seventh largest S&L firm in the nation.
Bedrooms are located on second floor for extra privacy

House plans include 850 sq. ft. of living space on first floor, 765 sq. ft. on second floor and a 400 sq. ft. garage. Special features include a separate dining room, kitchen-laundry, four bedrooms, two and one-half baths, plus a brick fireplace in living room.

Quality "extras" ring up

VIEW FROM TERRACE shows 31' long area when living and family rooms are combined. Shuttered doors act as dividers.

KITCHEN-LAUNDRY has door to garage (center), dining nook: offers glimpse of dining room through opening at left. Peninsula counter houses the set-in range with concealed vent hood above, built-in oven and cabinets in convenient spot at one end.
sales for California builder

The two-story house, which cuts down on roof and foundation costs, is making a well earned comeback. The house shown here is an example of why its popularity is so deserved. It was built in Claremont, Calif. by Newcastle Homes. Its combined first and second floors show an amazing amount of living space concentrated in the 1,615 sq. ft. plans.

A sheltered entrance leads either directly to the living room or, a few feet away, up the stairway to the bedroom floor. The entrance hall also acts as a buffer between the living room and separate dining room. Since Californians are noted for their hospitality, the living and family rooms are actually one large area, divided by decorative folding doors. When these are joined a 31' room results, one that also opens, through large glass sliding doors, to a rear patio. A brick fireplace, along the outside wall, can be enjoyed in one of both of these rooms. A centrally located half-bath is a convenience for family and guests alike.

In this house, the kitchen is one of its most attractive assets and combines the qualities of a food preparation center, laundry and an informal eating spot. Well lighted and with high-styled birch cabinets, it could well serve as a second family room. Direct access to outdoors and to the garage has been provided. The washer-dryer is neatly set into a counter cabinet and out of sight when not being used. Windows throughout are sliding aluminum.

Gathered about a small central hall, 4 large bedrooms, two baths are on the upper floor. All have more than adequate closet space. Linen and bulk storage space is also included. House is a combination of brick, stucco and painted textured wood siding. Price, without land, is $19,850. The architect, Robert M. King, AIA.

Quality Products
Kitchen and bath floors, Armstrong Cork Co.; windows and sliding glass doors, W. P. Fuller; plumbing fixtures, Universal Rundle; family room floor, Armstrong Cork Co. vinyl; other floors, oak; kitchen cabinets, raised panel birch, Harris Cabinet Company; roof shingles, Red Cedar Shingle Institute; equipment, Frigidaire; ceramic tile, Pacific Tile & Porcelain, Co.; shower pans, Fiat; heat pump (optional), Frazier Johnson; doors, natural birch, Allam Veneer Co.; ventilation fans, Emerson-Powe; hardware, Russwin & Yale; heating system, Frazier Johnson.
Detroit house sparked $300,000 sales during 3-week December showing

Defying tradition, Slavik Builders, Inc of Oak Park, Michigan, opened two models last December, drew over 7,000 visitors and made sales totaling $300,000. This is certain proof that home buyers favor no special season.

Viewers liked the solid, homelike qualities of the house pictured here—its natural brick wall, low rooflines and garage wing that reminded them of Early American carriage houses. The fact, too, that the plan included two bedrooms on the upper floor, an extra bath and a full basement (unfinished) were other sales features.

The main floor, 945 sq. ft. of living space, is a gem of compact planning. Entrance is into the living room and convenient to the stairway. The living room is especially attractive with triple view windows and a wide opening into the family room-kitchen. This combination room has wide sliding glass doors at the rear opening onto a balcony. A similar door is provided in the basement for access to an outdoor terrace. For a change of texture, side and rear outside walls are of concrete block and grooved plywood. All windows have insulated glass.

OUTSTANDING VIRGINIA SPLIT-LEVEL HAS 2,025 SQ. FT. OF LIVING SPACE

This house, a product of Community Builders of Annandale, a firm long noted for quality work, is a prime example of good split-level planning. House and lot have been considered as one; each complements the other. Here a slightly rolling grade offered an opportunity for the right blending of a single-story wing with its two-story companion. Short stair runs combine their plans. Materials accentuate a feeling of oneness with brick and siding painted white to consolidate the whole. Attention to detail too—delicate, slatted shutters, diamond-paned sash and an expansive bay window—indicate the care that went into its design to produce a built to order look.

The floor plans are of particular interest. Entrance is on the lower level, into a foyer that opens into the family room. Breakfast room, located on a mezzanine, is between the family room and kitchen. It has been a conversation piece and sales getter. Upper floor includes an L-shaped living-dining combination, also convenient to the front entrance, plus a kitchen, four bedrooms and two baths. Architect, Cohen-Haft Associates, AIA.
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(Some VW owners get 30 mpg. Our average is about 24.)

But of course your first saving comes the day that you buy a Volkswagen.

The price is $1,885.* Tailgates and all.
Need money for a land purchase? Looking for working capital—or funds for improvements?

The money needn’t be so hard to find. You may be overlooking some out-of-the-way financing devices.

This point was hit home at the Pacific Coast Builders Conference by specialty builder Allan Fuller, from Lafayette, Calif.

But besides recognizing the problem, Fuller offered some concrete solutions to builders:

**Land purchases and improvements**

Fuller said that frequently land can be bought on a subordinated basis. In other words, the builder can make a small down payment and contract to pay the balance. This can be done either on a yearly basis, or the builder may pay for lots as the houses are sold.

“Getting money for improvements presents a little more of a problem,” says Fuller. “But there are three ways that can be tried,” he says.

1. Take the cash out of your pocket.
2. Negotiate a loan from a private investor, or
3. Arrange for improvement bonds.

The first way is out for most builders because all their cash is tied up. The second way is usually expensive and sometimes requires relinquishing part of the profit per house. The third way, although new to most builders, is frequently the best and cheapest way to raise the money.

Fuller says that in California and in many other states a builder can form an “Improvement District,” which, under state laws, can issue bonds secured by unfinished lots. These bonds usually carry interest coupons of 6 or 7%. They are tax-free and, therefore, have appeal for investors. Besides this, the bonds are attractive to land owners because they guarantee that the improvements will be paid for.

The details of forming an Improvement District can be worked out by the builder’s engineer and attorney. There are, of course, fees and commissions to be paid. But the procedure is not complicated, according to Fuller, and frequently, it is the easiest way to obtain improvement money. Furthermore, the method can be used with parcels as small as 25 to 30 lots.

**Getting working capital**

“After you have used up all of your own money and borrowed all you can from your mother-in-law and you still need more—give thought to selling stock in your business,” says Fuller. Many builders feel that stock issues are only for General Motors and AT&T, but this is not true, he said.

He pointed out that the forming of small corporations is quite common. Admittedly, selling of stock is a detailed procedure, but a competent lawyer can guide the builder, says Fuller. Stock can be sold to the public through a broker or the builder may want to dispose of it himself to friends, relatives, suppliers, subs or employees.

“By selling stock, you get money with no due date and no interest payments,” says Fuller.

“On the other hand, you give up part of your profit and ownership,” he acknowledges, “sometimes even control.”

“But even if a builder must give up a half interest in his business, it may only be temporary,” Fuller points out.

“Let us suppose you have some profitable deals lined up, but do not have enough cash to retain a large amount of the stock yourself; then you might secure an option to purchase the remaining 40% or 50% of the stock at its original price, a year or two later.”

“Then suppose the venture succeeds and the stock doubles or triples in value. You then exercise your option to purchase stock—and you make your real profit, not in salary, not in profit which has to be reported as ordinary taxes, but in increased value of the stock on which you can take a capital gain.”

Knowing how to get money makes all the difference in the world to a small builder.

“But many builders have a hazy idea of where they are going and how they intend to get there,” Fuller says.

“Do your planning on paper,” he counsels. “Make a 10-year plan, including your broad goals and general ideas as to how you will reach them.

“Then make a 5-year plan—it should have a little more detail. Then a 1-year plan; now you can really get down to business and you will see whether or not your one-year plan ties in with your five and ten year plans.

Then, prepare a 3-month plan that is really concerned with your immediate problem.”

Fuller said that the builder who does such planning will find that many of his pre-conceived ideas are not practical at all. But he will also find that such plans will enable him to get valuable counsel from his banker and others in whom he has confidence.
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FOUR NEW IDEAS FROM DFPA PLYWOOD RESEARCH

1. A basic structural system for farm and commercial buildings that costs less than $1 a square foot
2. One-step wall method that takes just one thickness of plywood for siding and sheathing
3. Two new plywood floor systems that cut floor construction time in half
4. A new truss that costs less, weighs less and is easier to make

DFPA Tested Quality
Simplest, most economical way to enclose space and get buildings that have clear spans up to 52 ft.

The rigid frame system is a quick, inexpensive way to get basic shelter for less than $1 a sq. ft. It’s economical in material, time, and capital outlay. It’s easy to master, even for unskilled labor. The system consists of a series of load-bearing arches, made of four lumber members rigidly connected by nailed plywood gusset plates, and tied together by plywood walls and roof. Frames are quickly assembled, offsite or on, and quickly set in place.

DFPA has rigid frame building plans for spans from 24’ to 52’, and construction data for over a thousand variations, to conform with conditions in various parts of the country, and commercial as well as farm uses. Included are different spans, leg heights, roof loads, frame spacing, wall treatments, etc.

The first application of the rigid frame was for farm buildings. Poultry houses like the one above in Western Washington have been built for 80c or less per sq. ft. for the basic shell. One of the most recent large-scale farm uses, four 52-ft.-clear-span potato warehouses, cost $2.10 a sq. ft.—including insulation, wall lining, shingles and a ventilation system. But rigid frame buildings need not look utilitarian and plain. The system, when varied with vertical walls and different window and siding treatments, is extremely logical for public buildings, churches, schools, and even residential construction. See examples at right.
One of the first residential applications of the rigid frame was at the Champaign, Illinois Research House built by the Douglas Fir Plywood Association last year. The two-car garage was built with prefabricated rigid frames made up of 2 x 8 West Coast lumber framing and gusset plates of 3/8" plywood. Frames were delivered to the job site as half-sections, assembled on the ground, and quickly tilted up into position, two feet o.c. Roof decking was 3/4" plywood, applied with Plyclips.

Park shelters and school buildings can make good use of the rigid frame system. For a cost of $3.05 per sq. ft. the Little Rock, Ark. Park Department got this 25-foot-clear-span cooking shelter with a concrete slab and large stone fireplace. Rigid frame members are 4 x 10's and rest on concrete footings six feet o.c. Architect Robert Robinson and engineer Scott Farrell worked closely with DFPA engineers in designing the structure so sidewalls could be partially open. Contractor was H. L. Upton.

For more information on the rigid frame system, write Douglas Fir Plywood Association, Tacoma 2, Washington.

This North Carolina chapel demonstrates the adaptability of the rigid frame. It differs from the usual design in its straight sides—DFPA's construction recommendations for builders include details of this variation. The chapel cost $6.96 per sq. ft., including masonry, foundation, Texture One-Eleven siding-sheathing and roof of plywood stressed skin panels.
STURD-I-WALL

A time-and-money saving wall system that gives you both siding and sheathing in one operation

STURD-I-WALL is a one-step building system that uses a single thickness of exterior plywood as both siding and sheathing. By eliminating one whole step in wall construction, you can save in time, labor and materials. Yet you get a strong, good-looking wall. You can suit any taste in siding because plywood can be used in such a wide variety of ways: Texture One-Eleven with distinctive vertical grooves; overlaid plywood for an ultra-smooth, long-lasting paint job; horizontal lapped siding, either regular or overlaid; panel-and-batten; board-and-batten effect, etc. Sturd-i-wall meets FHA requirements, and is in fact even stronger and more rigid than a wall with diagonal sheathing and other siding. Where climate requires it, insulation can be applied between the studs. Sturd-i-wall works well with panelized construction, too.
Sturd-i-wall saved $210 on this new fourplex built by Wimer Construction Co. in Cedar Rapids, Iowa. Ben Wimer says the Texture One-Eleven combined siding-sheathing not only saves time and materials, but builds a better house. In his custom houses, which account for most of his business, Wimer has gone almost entirely to Sturd-i-wall and says that he saves $700 on a house in the $25,000 range. About half his savings are in labor. He feels Sturd-i-wall helps him give his customers more house for the money, both in square footage and quality.

Sturd-i-wall construction helped hold costs to $9 per sq. ft. at this 70-unit, low-rise apartment in Mountain View, California. Combination siding-sheathing was 3/4" medium density overlaid fir plywood, scored 8" o.c. to give a plank effect. It went over 3 x 4's, 16" o.c. Vertical edges of panels were shiplapped to give a continuous groove pattern. Let-in bracing was not required because of plywood's superior bracing strength. Overhangs seen here, a continuation of the ceiling, are relief-grain plywood with a natural finish.

The same structural system will be used for a projected 406 additional apartment units. Jack Douglas, superintendent on the job for Premier Construction Co. of San Jose, said, "Waste in wall construction is practically non-existent. Plywood is the big time-saver on this job. There is no plastering or stucco—the siding is a one-operation deal and it is ready to paint." Overlaid plywood takes and holds a paint job well, too.

For more information on plywood Sturd-i-wall construction, write Douglas Fir Plywood Association, Tacoma 2, Wash. 
**TWO NEW DFPA FIR PLYWOOD FLOOR SYSTEMS**

Two ways to cut floor construction time in half by using plywood over supports on 4-ft. centers

1. **Insta-Floor** is a panelized system with preframed plywood floor sections that cost as little as 35c per sq. ft. in place. Most savings are due to sharply reduced labor requirements, because the system entirely eliminates time-consuming cutting and fitting of hundreds of small pieces on the job. As a demonstration, Chehalis, Wash. builder, George Osborne, laid 1170 sq. ft. of Insta-Floor, including main supporting beams, in just under 10 minutes with a six-man crew. Another builder, C. C. Johnson of Muskegon, Mich., used Insta-Floor and saved $39.40 on his first try. He expects savings per house to come to about $75 when his crew becomes more familiar with the system.

Both for Insta-Floor (above) and the 2.4.1 floor system (at right), supporting beams may be set into pockets in the foundation. This lowers the house, giving it a ground-hugging look, and saves significantly in labor as well as materials for wall sheathing, siding and painting.
FOR BOTH SYSTEMS, supports may be solid or built-up beams or, as on this Insta-Floor job, plywood box beams for long span, light weight, low cost.

**2 Tongue-and-groove 2.4.1:** Now DFPA has engineered a tongue-and-groove joint for 2.4.1, the 1½-in.-thick combination subflooring and underlayment plywood. Standard 2.4.1 requires blocking under panel edges—new t&g panels do not. Plywood floors are firm and solid and make a smooth base for any kind of resilient flooring. The new 2.4.1 system saved one builder in California $100 per 2000-sq. ft. house, compared with 2 x 6 car decking. Another builder, G. E. Chacksfield Construction Co. of Gardena, Calif., used t&g 2.4.1 on a 154-unit development in Rolling Hills, Calif. (above). Chacksfield likes the floor system because it saves three ways over others: in time, labor and cross-blocking. It took only 10 man-hours to install framing and plywood for a 1400-sq.-ft. floor.

For information on both systems, write DFPA, Tacoma 2, Washington.
DFPA FIR PLYWOOD

KING POST TRUSS

Here's a new simplified design that gives you a truss that's lighter-weight... easier and quicker to build... and lower in cost

THIS IMPROVED plywood and lumber king post truss is less expensive to fabricate, easier to install, and does the job as well as or better than trusses with more members and costly metal connectors. Developed by the University of Illinois, it has been tested both in the laboratory and in use. Key to the system is the plywood gusset plate, which insures an absolutely rigid connection. DFPA tests of fastening methods show pressure-glued gusset plates stronger than nail-glued connections. For both, gluing must be done under carefully controlled conditions. For most builders, nail gluing is satisfactory and may be more practical.

Builders who have used these king post trusses with other plywood components have completed the basic shell of a house in three days. Most savings come from simplified roof framing. The truss system also permits non-load-bearing partitions, and simpler, less expensive floor and foundation construction.
King post trusses may have nail-glued or staple-glued plywood gusset plates (as above); or gussets may be pressure-glued; or simply nailed. They're economical because they require only half as many connections as other truss designs. Many component fabricators and lumber dealers supply king post trusses as part of a complete prefabricated house package. Some builders who have used them report savings up to $300 a house due to use of the prefabbed components.

Bell & Vaidez, large Pacific Northwest builders, used king post trusses in 100 houses during a trial run, then converted all their models to this type. Low cost was the chief reason. Trusses were fabricated by Totem Lumber in Seattle. Totem makes the double-gusseted truss 30 at a time in a special manufacturing process and figures costs at about $1 less than for a comparable truss with metal connectors.

For more information about king post trusses, write to Douglas Fir Plywood Association, Tacoma 2, Wash.

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Today, Quality of construction is more critical than ever before. New building systems like those shown here make greater demands on materials, and dependability of performance is absolutely essential. Buyers are more quality conscious. That's why it's more important than ever before for you to specify and buy only DFPA grade trademarked fir plywood. It's the only plywood backed by an industry-wide quality control program, and a quarter century of experience in plywood testing and inspection. This program is supported by the overwhelming majority of fir and western softwood plywood manufacturers, accounting for 85 percent of industry production.

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Your reputation depends on the quality of your construction. That's why it pays to specify only DFPA grade trademarked plywood.

DOUGLAS FIR PLYWOOD ASSOCIATION
TACOMA 2, WASHINGTON
—an industry-wide organization devoted to research, promotion and quality control

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—THE WESTINGHOUSE
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1. The convenience of one single point of contact. This point of contact was the Westinghouse Residential Sales Manager...one of 67 in principal markets, responsible for full-line sales.

2. The selling appeal of one respected brand name...Westinghouse, the best known name in Total Electric Living...for kitchen appliances and year-round heating and cooling.

3. A co-ordinated merchandising plan tailored to the project and market. Effectiveness was proved when over 9000 people visited the preview unit within the first two weeks. More than 70 signed leases during that period. Since then, unit after unit has gone up, completely rented before completion. There will be 394 apartments in all.

Mr. Leon Panitz, president of Panitz Bros., says, "You may be sure Cedonia will not be our only Westinghouse Total Electric project."

Whether you build apartments or single family dwellings, the Westinghouse Residential Marketing Plan is for you. Your Westinghouse Major Appliance Distributor can give you details. Or, if you'd like a copy of our free booklet, "New Direction in New Profit for Builders," write to Westinghouse Electric Corporation, Pittsburgh 30, Pennsylvania.
NOW!

INSULITE PRIMED SIDING AVAILABLE IN A COMPLETE RANGE OF SIZES

Lap siding in 3 widths . . . vertical panels in eights, nines and tens—for design flexibility and economy

Now you get even more versatility with this man-made siding that has proved itself on more than 250,000 homes in just 4 years! Leading builders know from experience that homes built with Insulite Primed Siding are easier and faster to build and sell. Use it on your next start—and you'll use it regularly.

NAILS EASILY—SEATS PERFECTLY. Has no structural grain—which means no knots, pitch or splits. It's easy to saw, easy to nail, easy to put up fast.

COMPLETELY PRIMED AT FACTORY. Deep priming on face, edges, ends and back saves time and cost of on-the-job priming coat. Finish coat goes on easily, bonds firmly, is extremely resistant to paint blistering.

PROVED DIMENSIONAL STABILITY. Four years of experience with exposure to all kinds of climates has demonstrated the superior stability of Insulite Primed Siding. Joints stay butted!

All Insulite Primed Siding is now available for immediate delivery. Call your building materials dealer today. For special information write Insulite, Minneapolis 2, Minn.

3 SIZES
OF HORIZONTAL (LAP) SIDING

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity per Bundle</th>
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<tbody>
<tr>
<td>8&quot; x 16' x 1/2&quot;</td>
<td>10 pieces</td>
</tr>
<tr>
<td>10&quot; x 16' x 1/2&quot;</td>
<td>8 pieces</td>
</tr>
<tr>
<td>12&quot; x 16' x 1/2&quot;</td>
<td>6 pieces</td>
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</tbody>
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Now you have more design opportunities—and you can match existing sidings when adding a garage or an addition to a home. Ten pieces of horizontal siding per bundle of 8"x16' siding; eight pieces of 10" siding; six pieces of 12" siding.
3 SIZES
OF VERTICAL PLAIN PANELS

<table>
<thead>
<tr>
<th>Size</th>
<th>4' x 8' x 1/2&quot;</th>
<th>4' x 9' x 1/2&quot;</th>
<th>4' x 10' x 1/2&quot;</th>
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New 9' and 10' lengths of vertical panels—in addition to the standard 8' length—let you cut down on joints and frieze board, save you money by cutting waste. Use these panels plain—or for board and batten construction. Butt edge. Four panels per bundle.

3 SIZES
VERTICAL GROOVED PANELS

<table>
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<tr>
<th>Size</th>
<th>4' x 8' x 1/2&quot;</th>
<th>4' x 9' x 1/2&quot;</th>
<th>4' x 10' x 1/2&quot;</th>
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</table>

Three sizes—eight, nine and ten-foot lengths—to give you even more design opportunities. Grooves are 1/2" wide and 8" apart—lengthwise. Long edges have shiplapped edge which creates groove at joint for continuous groove pattern. Four panels per bundle.
NEW 5½' CONTOUR BATHTUB has the power to stop prospects. It features the exciting off-center design of the popular 5' recessed and corner Contour. This first new bathtub shape in 25 years has extra space where needed;

corner ledges that can be used as toiletry shelves or a seat; luxurious 5½' length for extra bathing comfort and convenience. The competitively priced Contour is of durable enameled cast iron in white and six colors.

NEW CIRCLYN LAVATORY is a prospect-pleasing drop-in that is ideal for any price house. It has been designed to meet the demand for a high-style, yet economical counter-top installation. The built-in fitting ledge provides quick, easy installation of a spread, centerset or single lever faucet. Of durable cast iron with a thick coating of enamel, the Circlyn is 18" in diameter with a 5½" deep bowl and front overflow. In six decorator colors and white. See your American-Standard representative for more details or write AMERICAN-STANDARD PLUMBING AND HEATING DIVISION, 40 W. 40th St., N.Y.18, N.Y.
"We cut downsout and foundation drainage installation time in half... trimmed costs 35% with Kyova bituminized fiber pipe"

says Dan Wright, Superintendent, Arlington Park Homes, Huntington, W. Va.

Mel Wright, forward-thinking builder of Arlington Park Homes, an $8 million sub-division of 180 Gold Medallion residences in the $20-55,000 class, likes to give home-buyers the most for their money. Wright chose KYOVA Downspout Conductor and KYOVA Drainage Pipe because KYOVA's economical, 10-foot lengths cut installation time in half... slashed labor costs up to 35% per installation. Says Wright, "I use KYOVA because it costs less to install and does a better job than pipe of rigid, brittle materials. There's no breakage from backfilling, either. This means that we have fewer complaints and don't have to dig up the pipe after it's installed... and, often, after landscaping."

There are other reasons for KYOVA's acceptability. It's smooth, clean and seamless... and it's easy to handle. A 10-foot length of KYOVA Downspout Conductor in 3" size weighs just 14 pounds. KYOVA can be cut right on the job site, too, with an ordinary handsaw... no field tooling is required. It resists chemicals... is rootproof and leak-proof... won't damage or loosen because of soil deflections... and it lasts longer than pipe of other materials. Don't take our word for it... try it yourself on your next drainage job. You'll quickly see why KYOVA has won the confidence of Mel Wright and others just like him.
New homes can now be protected against termites for 10 years or more with aldrin — and there's no significant increase in building costs.

Aldrin has proved to be one of the most effective termite controls in use today.

Aldrin schedules easily into construction procedures and allows many units to be treated in each working day.

Aldrin is listed in the minimum property standards of F.H.A. for termite control on all types of new construction—slab, basement and crawl space. The U.S. Forest Service, the Armed Forces and many other Federal, State and local agencies responsible for building construction have listed aldrin for use as a soil poison.

Aldrin is long lasting—proved 100% effective for more than 10 years. Because of this, you can use and specify aldrin chemical termite barriers with complete confidence.

Shell Chemical Company, Agricultural Chemicals Division, 110 West 51st Street, New York 20, N. Y.
“Concealed telephone wiring? I find it a valuable sales aid—especially with second-time buyers”

SAYS JACKSON F. BLACKMAN, BUILDER OF “BRINTON LEA” HOMES NEAR MEDIA, PA.

“The home buyer is becoming more discriminating all the time,” says Jack Blackman, award-winning builder of Media, Pa. “I must plan for as many conveniences as possible in my homes. And one of the most important of these is telephone planning. Prospects recognize its advantages. My salesmen know how promotable it is.”

Mr. Blackman is building more than 100 homes in “Brinton Lea.” He installs concealed telephone wiring outlets in each home, including one over the front door to accommodate the door answering unit of the Bell System’s new Home Interphone. He also puts outlets in garages and laundry rooms, thus providing for every possible telephone location, present and future.

“Most of my customers are second-time buyers who know what they want in a home,” Mr. Blackman adds. “That’s why I call in telephone company representatives on all my jobs. Pre-planning allows me to place concealed telephone wiring where it’s best for the customer—and best for our carpenters.”

Your local Telephone Business Office will gladly help telephone-plan your homes. For details on home telephone installations, see Sweet’s Light Construction File, 11c/Be. For commercial installations, Sweet’s Architectural File, 34a/Be.

BELL TELEPHONE SYSTEM
Use color stains on Oak Floors for added appeal

Match or accent the hues of wood-paneled, painted or papered walls with color-stained Oak Floors. The effect is attractively different because color toning accentuates the warm, rich, natural grain of Oak. Color-staining floors is a distinctive merchandising idea that will attract added interest to your model or display homes. Modern finishing materials provide a wide range of color tones which are easily applied and give distinctive, decorative results.
More new homes have Oak Floors than all other types combined!

Oak remains America's favorite flooring material and that makes it a builder's easiest choice in residential construction. When you use Oak Floors you can be sure of buyer acceptance. Through years of experience most home buyers know that these floors combine beauty, durability and comfort to give maximum livability. They know, too, that Oak stays beautiful with less upkeep than any other type of floor. No synthetic flooring material, even at greater cost, can offer so many merchandisable features. Whatever the design or price of houses you build, always use Oak Floors for style leadership and built-in sales appeal.
NEW FISSURED TRI-DEK

saves up to $17 per 100 sq. ft.
of ceiling area, simplifies open-beam construction

IT'S A ROOF DECK...
insulation...
acoustical ceiling...
all in one!

NEW FISSURED PATTERN not only adds design interest, but also soaks up most of the room noise in its fissures and perforations.

THE LAMINATED WOOD FIBER insulating-board panels are nailed directly to the rafters. Built-up roofing or asphalt composition shingles can be applied over the deck.

STRENGTH AND RIGIDITY of these slabs are built in through Gold Bond's exclusive Fiberloc process. They're tongue-and-groove on all four sides, and have an all-around self-sealing joint (available with vapor barrier) in 2" and 3" thicknesses.

THE "CEILING" SIDE is factory-coated with an ivory-white, flame-resistatnt finish including the bevel on the long edges, thus providing a beautifully finished ceiling of excellent light reflection.

Call your Gold Bond Representative for free technical bulletin and samples. Or write to Dept. AB-91.
How Utilities Help You Sell Houses

They follow national trends and translate them in terms of local markets, and they back this up with everything from local market research to on-site selling.

Your local utility has become one of the most important sources of marketing help you have available.

It's a role that took shape during the past two years—years which saw building staggered by the worse slump to hit it since before World War II. Despite the slump, a respectable number of builders continued to sell "hot". In many cases that success stemmed from the marketing help made available to them by their local utilities.

It's not hard to understand. What these successful builders were doing "right" revealed an acute understanding of their local markets coupled with smart, sophisticated merchandising programs. That kind of understanding comes only from experts.

Marketing experts, though, cost money. Though building collectively represents the second biggest industry in the nation, few builders individually are big enough to afford such help. That's where your local utility enters the picture.

Utilities are big enough and have the machinery to keep you abreast of the market picture both nationally and locally. Added to their value is their close liaison with the nation's major manufacturers, associations, building and advertising professionals.

That help includes everything from local research to promotions as vast and successful as the gas industry's Blue Star Home promotions. No small extra service is the availability of experts who can help select a hot selling house design for your market and to work out a complete merchandising program. Some will even help you diversify into new, profitable markets.

To show the range of utility help American Builder dispatched a team of editors to a variety of market areas around the country. The assignment was to bring back actual case histories showing builder merchandising success after tying in with their local utilities. First stop off was a novel House-on-the-Roof promotion in Pittsburgh.

Here's how utilities helped boost business for builders across the country.
IN PITTSBURGH: UTILITIES HELP

They Sold Houses From A Rooftop

The city's three utilities join forces with builder Edward Ryan, U.S. Steel, and a department store to sell houses from a gas-lit model atop store roof

Why not try to sell houses from a department store roof? That's the simple question Pittsburgh's Ed Ryan asked himself early this year when the homebuilding market failed to reach "sizzling" proportions. So this live wire builder scouted out the idea.

He talked with John A. Lammert, chairman of the new building committee representing Pittsburgh's three gas companies. Lammert liked the idea. Ryan also talked to Robert A. Ritchey, head of U.S. Steel's home building market development division. He liked the idea. So the group formed a team that dreamed up this eye-catching promotion.

They selected one of the hottest designs selling today—a hi-ranch. They had this fabricated into components which were lifted by gin-pole 11 floors to the roof of the department store. There it was assembled complete with lawn, trees, and gas lamps. Walls and ceilings were speedily installed with Bestwall's Steelfast system. Kaufman's furnished the house in an early American decor.

U.S. Steel used the house to showcase more than 20 new products now available to the residential market. These include a steel swimming pool, the Steelfast system, stainless steel sinks and thresholds, doors and fences.

Ryan then qualified the house as a Blue Star All Gas House of Savings. He did this by installing a Tappan Gold Star built-in gas range (featuring the Burner-with-a-Brain) and oven, an RCA-Whirlpool gas refrigerator, Duracrest's matching gas drier and washer, a Rheem gas water heater and forced air heating unit. Extras included Bryant's add-on cooling unit and Warm Morning's waste disposer.

The natural gas companies worked in their highly successful Blue Star All-Gas House of Savings promotion which, despite the bevy of equipment, offers potential fuel savings of up to $7,129 during the course of a 20-year mortgage.

Ryan gave the package a price tag of $19,500 and put up nine identical models throughout the Pittsburgh area. A promotion through television, radio, newspaper, magazines and hand-out pieces followed. Result? From opening day on May 1 through the middle of June, the house drew 107,000 Pittsburghers. Ryan sold 20 houses the first week, both of the roof models and others set up in the city.

Pittsburghers line up for view of roof house
House-on-the-Roof promotion draws 107,000 house hunters despite national home sales lag. Builder Ryan's novel approach not only helped sell promotion-type houses but boosted sales 33% higher than ever before in his business history.
Builder-utility team talk over ways to get promotion benefits from appliances

William Miners of New Jersey Natural Gas Company (left) explains gas company’s promotional tie-in to William Becker, marketing expert, and builder Bob Schmertz. Builder is one of first to incorporate RCA-Whirlpool's new builder appliance package.

IN LAKEWOOD, N. J.: UTILITIES HELP

They sell quality homes at low

Utility shows builder Robert Schmertz how to include complete appliance package in price of houses selling for under $15,000. Smart promotion together with top-flight cooperative sales effort attracts buyers to area

How do you sell a lot of houses with plenty of luxury items to people who can’t afford them?

That’s just what builder Robert Schmertz had to find out before going ahead with Brookwood, a 1200-home community in Lakewood, N. J.

Nine months ago, during the height of the housing recession, Schmertz and his marketing director William Becker made a study of what the few builders around the country who were selling hot were doing that was right. The answer was simple. They were offering a quality house with “a way of life”—extras included with the price of the house i.e., community facilities and area status.

Schmertz and Becker called in William Miners of New Jersey Natural Gas Company to analyze whether this concept could successfully be applied to Lakewood.

First step was to research the local market. This revealed an available market of blue collar workers earning an average of between $6,000 and $8,000 yearly. These were young marrieds, an over-40 group, and a cluster of retirement people. Their housing tastes leaned towards Colonial designs. The limit of their house-buying power probably would be $15,000. This, Schmertz decided, would be the market to which he would direct his selling efforts. The next problem was to create the designs and the “way of life.”

The team called in Keyes-Martin of Springfield, N. J., to plan a promotion campaign around a Colonial “way of life” theme. The agency hired Schur-Apel, design consultants to come up with the designs, Colonials, ranches, splits, high-ranches.

The merchandising team—Becker, the gas company, agencies and the builder—decided to build a gas-lit parade of models around a cul-de-sac.

Approach to the model area would be through an exhibit building that would show the quality products and equipment going into the houses.

Schmertz tied in with the gas company’s Blue Star Home program which combines national promotion and local advertising. Miners provided Schmertz with a fuel-cost analysis on a year-round basis.

But an attractive key to promotion success came about by Miners’ arranging to give Schmertz, RCA-Whirlpool’s builder package. This offers the builder a complete gas appliance setup which both qualifies the house as Blue Star and, included with the price of the house, becomes a big factor in moving houses in that low price range.

Other utility aids will include on-site selling help and advertising in radio, television and newspapers.

The natural gas company’s role was that of a catalyst as well as a supplier. The utility keeps in constant touch with national trends in housing and attempts to translate them in terms of the builder’s local market.

In Schmertz’ case this meant working in close harmony with the builder, agencies and other product suppliers.
Builder's marketing director, Bill Becker checks proofs on extensive advertising campaign

Becker (with utility help) defines his market as blue-collar with an average annual income of between $6,000 and $8,000. These include young marrieds, an over-40 age group, and a retirement group. Decision was to go for under $15,000 homes.

prices to booming rural area

Models for Brookwood, a 1200-home community, take form in the wooded Lakewood area

Designs for most part will be Colonial-ranches. Cape Cods, high-level ranches, splits. Big feature is a complete RCA-Whirlpool appliance package included with the price of each house. Community boasts 9,000 sq. ft. lots, private beach, other facilities.
Before-and-after house sells booming remodeling market

Banner Builders with the help of its local gas company converts an old house into a showcase of what’s possible in home improvement. Added promotional help comes from manufacturers who use house to display their products.

There’s no better way to sell a prospect on a home improvement than to show what a mess it is “before” as compared to its improvement “after.”

Using that approach as a kicker, Ira Safer, president of Banner Builders, with the help of Milwaukee Gas Light Company, embarked on a novel approach to the local $190,000-a-day remodeling business.

It involved buying an old duplex on a well-traveled through street. First and second floors had approximately the same floor plans. First floor plus half of the divided basement was completely modernized at a cost of nearly $15,000. The second floor and half of the basement were left in original condition. Home improvements were completely fitted out with a wide variety of gas appliances and equipment.

Visitors enter the model for a “before” view, then are led to the improvements in the modernized floor. They leave through the basement.

IN MILWAUKEE: UTILITIES HELP

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AFTER:

This remodeling job needs no salesman. Though good design is the key to the remodeling, no small role is played by the handsome array of appliances, fixtures, natural grain wood paneling. All are constant reminders of the continuing efforts on the parts of manufacturers to update and improve the products offered homeowners. These loom as remodeling, new home selling factors.

BEFORE:

Few homeowners plagued with this “antique” (above) can visualize the ease with which it can be converted into living or rec space without the help of a comparative look at a finished basement (right).
IN DALLAS: UTILITIES HELP

They sell $35,000 houses

Lone Star Gas Company shows builders Knighton & Cox that savings in operating costs can be applied to mortgage, help sell prospects more house than they think they can afford. Technique boosts sales in this 'tough' market

Knighton & Cox specialize in building contract homes in the middle $30's price range and up. This is a market which in many places throughout the country has been nearly impossible to sell during the past two years.

Yet, the builder has moved about 30 to 40 houses in this range during each of the past two years.

What helps make the sales? According to the builders it’s the use of quality products and materials throughout the house along with gas appliances.

"Everybody wants more house than they can afford," say the builders. "We make it possible by proving savings which they can apply to their mortgage payments."

Harold Conner, manager of Lone Star Gas Company’s architect-builder assistance section, helped the builders work out a savings schedule which could be incorporated in the sales talk. It literally pinpoints in dollars and cents the savings that accrue over the period of the mortgage because of low fuel costs and maintenance-free modern, quality materials.

The builders show that gas cooling and heating can save the owner at least 38%, over any other fuel on operating costs. Savings result from the use of gas for cooking, clothes drying and water heating. These savings are ap-
Unit's design is simple

Unit fits neatly into wall recess and can be covered or left exposed. Because of multi-use features it proves big space-saver in house, is easy to maintain. Automatic, manual fan-coils mount anywhere.

by cutting operating costs

plied to mortgage payments.

A typical Knighton and Cox home sells in the neighborhood of $54,000 and contains 3,200 sq. ft. of living space. It features a 3.2-ton Arkla-Servel combination heating, cooling unit, a wood-burning fireplace with a gas lighter, Preway kitchen appliances and a Majestic charcoal broiler.

The "team" talks strategy

Harold Conner (left) manager of Lone Star Gas Company's architect-builder assistance section, discusses promotion with builders Bill Knighton and Glen Cox.
IN THE SAN FERNANDO VALLEY: UTILITIES HELP

They sell quality homes with

Southern California Gas Company joins forces with builder Jerry Snyder to sell first-time buyer and retirement market. His formula: (1) a quality product; (2) two-car garage status; (3) smart merchandising

It's not uncommon for builders to moan (regarding national and local markets) that what this country needs is a good, low-cost house.

But Jerry Snyder, 31-year-old president of Signature Homes in Los Angeles, is typical of builders who are taking action. He's enjoying phenomenal success with his low-cost homes.

Snyder's North Oaks development in the San Fernando Valley is a case in point. He offers houses with two-car garages and complete appliance packages to first-time buyers and senior citizens for prices in the neighborhood of $11,995.

Snyder sells the houses at $295 down with payments of $81 per month on the lowest price models. But price alone isn't the key to his sales success. Snyder offers his buyers a lot of house. Each features a two-car garage (which everybody in California wants) and a lot of built-ins.

Snyder researched his market before he went ahead with this subdivision. In this he got considerable help from designers L. C. Major & Associates and the Southern California Gas Company. The big question was how to offer so much house at such a low price.

Snyder got a big break in finding a tract of land in Newhall, a town near the San Fernando Valley. He was able to turn this into building sites priced at between $3,000 and $5,000 less than most land in the San Fernando area.

The savings he gained in the land enabled him to offer more house for the money than his competitors.

His $11,995 home is a typical example. It boasts 1,060 sq. ft. along with the two-car garage. Included in the price of the house are a built-in Gold Star gas range and oven, natural wood cabinets, ceramic tile breakfast bar.

Land savings also enable him to build four schools for the community and a 20-acre shopping center.

Playing an important role in promoting the development is Southern California Gas Company, one of the most aggressive utilities in the country. Southern Cal's representative, Frank Murray cooperated with advertising in all the media and helped in on-site selling with guided tours of model homes. Murray's forces pointed up savings in fuel and operating costs in a balanced power installation that gains maximum cost benefits from gas and other fuels.
two-car garages for $11,995

Salesgirl explains the many community "extras"
North Oaks not only offers quality houses at low prices but features community facilities as well. These include four schools scheduled for construction and shopping center.

Salesman starts prospect on guided tour
Despite low price tag on each house every prospect is given a personal guided tour through different models. Salesman points out "extras" builder Snyder has worked into subdivision.

Built-ins prove a big booster to house sales
Key factor in sales is that Snyder's houses always include such quality details as a two-car garage, built-in gas range and oven, natural wood cabinets, ceramic tile breakfast bar.

It's still true—nothing succeeds like success
North Oaks boast the sale of 217 homes in a 12-day period—and mostly by word-of-mouth advertising. Important to the outstanding price was lot cost: $5,000 below area average.
Advance House opening in Dallas next month has traditional design with many innovations

The house is a joint promotion of the Blue Star Home Program and Parents Magazine. It will open in Dallas next month and showcase available and soon available gas equipment and appliances builders can offer with the price of the house.

Advance House promises surprises

Dual Blue Star Home-Parents Magazine Advance House will showcase variety of gas appliances and equipment

By LESTER T. POTTER
President
The American Gas Association
The Lone Star Gas Company

That house you see peering behind a fence (above) literally will be a house of surprises. It's the Blue Star Home Program and Parents Magazine all-gas Advance House which will open in Dallas next month. When it opens it will serve as a showcase of the many gas appliances and equipment with which a builder can attract buyers by including them in price of the house.

The reason is simple. Nothing is so modern as gas and nothing helps sell homes like gas appliances and equipment. Builder success with the Blue Star Home merchandising program during these past difficult housing years points up that fact. But, more importantly, the buyer has come to demand the quality personified by Gold Star ranges and Blue Star Homes.

Now you can offer prospects their own built-in steam room...

Nord-Craft Specialties has come up with a novel "extra" builders can offer with the price of a house. It's the Sauna—a gas-fired Finnish bath. The unit, which can be installed in any room, provides a bath of hot, dry air. Dampness is increased by spraying water on gas-flame fired stones. (For complete information, circle No. $47, on the reply card.)

A new, gas-fired, waterless, odorless individual toilet...

The new, waterless Destroilet (La Mere Industries, Inc.) combines automation with controlled heat to completely consume human waste. Waste is passed off into the air as colorless, invisible vapors. Eliminates the need for septic systems, sewage pipe. Built-in fan sucks out 100% of odor, resulting in an odorless bathroom. (Circle No. $48, reply Card.)

and a range that cooks eggs on a paper plate without burning...

RCA-Whirlpool's new Blanket-O-Flame gas drop-in range features low temperature gas heat control through a "poured-air" system. Secret is a blower mechanism which provides a cushion of air between the flame and the cooking surface. Unique advance literally makes it possible to cook an egg on a paper plate. Won't scorch pans. (No. $49, reply card.)
Blueprint for more sales...

7 PAGES OF EYE-CATCHING, PROSPECT-CATCHING AUTOMATIC GAS APPLIANCES THAT WILL HELP YOU SELL MORE HOMES
A MODERN GAS RANGE

built to Gold Star standards

A top quality Gas range—bearing the famous Gold Star—costs you less to install, costs the home buyer less to use! And its wealth of helpful features is sure to make a big impression on your prospects.

Gas Burner-with-a-Brain* keeps temperature exactly where set—food won't overcook or burn or boil over. Gas flame means fast, cool, clean cooking. New eye-level oven allows the housewife to supervise comfortably. No stooping to broil, no lifting heavy roasting pans from knee height. A Gas range built to Gold Star standards—on display in your homes—can help clinch the Big Sale!

Because only the finest ranges—regardless of make—can earn the Gold Star, it is a selling symbol in your kitchens. It shows prospective purchasers that you, as a builder, are including only the best in your homes. And don't forget, the Gold Star is promoted nationally and by your local Gas company.

*A.G.A. Mark ©Am. Gas Assoc., Inc.
NEW GAS REFRIGERATOR-FREEZER

All the modern features plus the Big Plus...it's GAS!

A Gas refrigerator-freezer is so modern, so beautiful, so practical that, other things being equal, it may well be the thing that wins her over to your home! Because it's Gas, it's quiet, dependable—and it will save her money. The heart of the refrigeration system is a tiny Gas flame—no moving parts, nothing to wear out or break down...and system is fully protected by a safety shut-off.

Features like these will enchant the women "lookers": The ICE MAKER makes ice automatically, replaces every cube as used. No trays. SWING OUT SHELVES—even the ice-server swings out. NO FROST, even in the freezer! JET COLD SHELF chills food super quick. MODERN BEAUTY—fits flush to walls and cabinets.

SEPTEMBER 1961 (AGA Advertising Continued)
The home laundry that helps make your home her home!

Here's the kind of laundry a woman dreams about for her new home. She loads it, she sets it, and—and that's all. A Gas washer-dryer is faster, more economical because it's Gas! Gas heats the water, fast and hot, for the two wash cycles. Gas dries the wash, soft and fluffy. This Gas dryer lets her "dial the dryness"—damp-dry, fold dry, any dryness she wants. It's safe drying, too, for all fabrics, and the fastest ever!

Because it's Gas, you will find it costs less to install . . . the home buyer will find it costs less to maintain and to use, as well as saving her untold hours of work every week!

Ask your wife, Mr. Builder, how any woman would react to a Gas washer-dryer combination in a new home she was looking at.
Powerful inducement to new house buyers! All-year air conditioning is one of the most appealing features your new home can offer. Women like the cleanliness of Gas—the fact that it heats and cools with fresh, filtered, circulating, dehumidified air. Men like its economy—fewer moving parts, less chance of breakdown, practically no maintenance costs. Often it costs less to cool a whole house with Gas than to cool just part of it with individual units. Build with a single Gas unit that heats and cools the whole house, all year round, with just one turn of a thermostat. Or install a Gas heating unit plus a Gas cooling unit. Or put in a modern Gas heating system that the homeowner can easily convert at any time simply by adding on a Gas cooling unit, using existing ductwork.

It's smart sell to offer your prospects a chance to

LIVE MODERN FOR LESS WITH GAS
Nationally 90% of new home buyers insist on Gas water heaters. No wonder. A Gas water heater gives the whole family the luxury of instant hot water. No time wasted warming up—Gas gives instant heat. The second more hot water is needed, Gas comes on full force, automatically.

Gas water heaters cost you less to buy and install—will cost the buyer of your home far less to operate. And remember—when you install a Gas water heater in your homes, you are installing the kind that nine out of ten new home buyers prefer! Include them in your homes.
OUTDOOR GAS LIGHTS

Impress prospects coming and going!

Before they get inside your house, they'll be impressed! An outdoor Gas light stamps you as an imaginative builder. It's picturesque, yet practical. Gives a different and charming look to your entrances, drives, parking areas, patios. These softly glowing, decorative, modern versions of the Gay 90's are getting so popular they're actually selling better than they did in the old Gas Light Era!

Today's Gas lights come in a wide choice of models... all kinds of styles, finishes, designs, both post and wall bracket... to add prestige and beauty and value (and light!) to any kind of home. Use outdoor Gas lights on your homes... they make an outstanding house stand out even more!

It's smart sell to offer your prospects a chance to

LIVE MODERN FOR LESS WITH GAS
GAS DISPOSER

Saves home owner the nuisance of garbage carrying! What an extra, added attraction to a prospect—the prospect of cleaner, healthier, more convenient living in a new home with a modern Gas waste disposer. Smokeless, odorless, safe, clean, convenient, automatic, foolproof—and economical to use and install. They just drop in burnable trash and garbage, set a dial and Gas goes to work immediately. With a Gas disposer, you can make an interesting point to prospects: no more trips outside in all kinds of weather to get rid of trash and garbage.

It's smart sell to offer your prospects a chance to live modern for less with Gas

See your local Gas company representative now. He knows the area you’re building in, the preference of many of the prospects who will consider your homes. He’ll give you valuable information about sales-starting, local builder and dealer programs sponsored by the Gas company and the American Gas Association. He’ll help you with your planning and with facts about Gas appliances. Take advantage of his services.

(AGA Advertising Continued)
the quality tells to help you sell!
ANNOUNCING ALL-NEW

J-LINE pace-setter in heating

QUALITY • DEPENDABILITY • ECONOMY!

NOW... every home can have true, quality heating at really rock-bottom prices! The new J-Line brings you the many exclusive features and complaint-free engineering that have made the Janitrol name famous for over 50 years.

You save in cost due to the manufacturing economies made possible by Janitrol's new high-production facilities. Also, the savings of modern design and the elimination of useless decorations are passed on to you.

Compare the J-Line feature for feature and dollar for dollar. You'll find the J-Line has many features not even offered in higher priced lines.

check these extra features

Slim-trim styling—compact, crisp modern cabinet design in warm, two-tone neutral colors that add richness to any home.

Compact—space saving—most models take up less than 4 square feet... give you extra floor area.

Quiet—balanced blowers are rubber-cushion supported for quiet air delivery.

Unidrive blower—full capacity air delivery with lower power consumption... saves at least $5.00 per year!

Automatic controls—sensitive thermostat, pilot lighter, and operating controls are standard.

Efficient air filters—replaceable-type, to remove dirt and dust are included.

The J-Line furnaces are available in downflow models, shown here, or in upflow (shown on cover). For extra air delivery, belt drive blowers may be ordered. Sizes from 65,000 to 120,000 Btu hr. meet most requirements for new homes, apartments, home modernization.

EXCLUSIVE BUILDERS'MODEL HOME PROMOTION

DOUBLES YOUR SALES POWER!

1

Feature the nationally advertised, consumer-accepted, Janitrol brand name in your homes, at prices no higher than ordinary "builder model" equipment!

2

FREE...

Model home merchandising aids to help you sell your homes (instead of the furnace)! Do a real selling job on your model homes with this exclusive promotion plan. It's sales-action tested and complete... a powerful traffic-builder and point-of-sale tool to help you build sales and profits. See for yourself! Mail coupon today for facts on this terrific sales booster!

JANITROL HEATING AND AIR CONDITIONING
A Division of Midland-Ross Corp.
Columbus 16, Ohio

Gentlemen:
Please rush me complete information on new Janitrol Line and the powerful model home merchandising aids that will double my sales power!

NAME..............................................................
COMPANY....................................................
ADDRESS....................................................
CITY...........ZONE......STATE....................
YOUR GREATEST ASSET IS OUR QUALITY PERFORMANCE!

NO NEED TO MIX BRANDS!
USE RCA WHIRLPOOL GAS APPLIANCES!

Gas built-in ovens and range tops for the smart, modern look that helps sell houses! Quick to install... with the practical features women look for in colors and brushed chrome... sized to fit standard cabinet dimensions.

The washer that also dries clothes... in gas. RCA WHIRLPOOL Ultimate washer-dryer is counter high as well as counter deep, saves valuable space, and washes clothes clean the way women want. Separate washers and dryers also available.

Free-standing gas ranges, including this special modular unit that looks built-in, yet requires no custom cabinetry. Top-mounted controls and other special features set RCA WHIRLPOOL ranges apart from all others.

First and only No-Frost gas refrigerators complete your kitchens to a queen’s taste, add real value to your homes. Modern beauty and clean styling, the features women want, plus gas economy and quiet operation.

No more mismatching... every appliance is design-coordinated!

Choose from the complete line... the one that offers you a complete range of home appliances that “go together”, blend in to make a harmonious and rich kitchen design. And, you can save money in the bargain by buying from one source. Let your RCA WHIRLPOOL distributor show you how!

New! Amazing Blanket-O-Flame® range top
Cooks with a new kind of air-cushioned flame... the true prestige gas cooking unit that delivers miracles of controlled cooking! See a demonstration.
GAS PRODUCTS

Furnace with 25-year guarantee

Home, commercial incinerators
Complete line of incinerators includes models for home, apartment, motel, estate, commercial and institutional use. Home model has 2½-bushel capacity. Estate type, 4½; all purpose, 10. Giant Garbage Hog takes 12 bushels.—Pomol Incinerator Corp. Circle No. 506, reply card.

Range has “charcoal” broiler
Built-in cooking top features a gas-fired ceramic barbecue grill, plus four regular burners and a polished aluminum griddle. One of the burners has Panromatic temperature control. Optional features are a triple rotisserie and turkey holder. Cooks nine different ways.—O'Keefe & Merritt. Circle No. 573, reply card.

A/c units go indoors or out
Sun Valley line of small-tonnage air conditioning units has been expanded to 12 units, with 3½, 4½, 5 and 6½-ton capacities. All but the 6½-ton are for both indoor and outdoor remote installation. The 3½ and 5-ton units are available in downflow models.—Arkla Air Conditioning Corp. Circle No. 571, reply card.

Range installs three ways
The “Fabulous 600,” a 60” range unit, can be built-in, hung on the wall or mounted on a cabinet. Has five-level oven, broiler, rotisserie, slide-away burners, maple cutting board, other features.—Tappan Co. Circle No. 559, reply card.

NEW Sealed Combustion
SAFTI-VENT Premier
The only really new water heater in half a century! Combustion air drawn from outside through sealed air passage. Combustion products vented directly to outdoors. No gases can escape to room. 100% safe!

Install in any room with exterior wall . . .
utility room, kitchen, playroom or garage.
Ideal for modern ranch homes and other slab or pier construction styles. Safti-Vent Premier is a deluxe glass-lined heater, engineered for trouble-free performance, in white and turquoise baked enamel.

Write for complete specifications!
NOW YOU CAN BUILD "ALL GAS HOMES" BEYOND THE GAS MAINS

Y ou know all the advantages of "an all gas home." But do you know that you can build these same homes with the same "all gas home" advantages on LESS EXPENSIVE, airy, much more picturesque suburban lots? Yes, you CAN build ... "all gas homes" beyond the gas mains. One-half million satisfied customers prove that Suburban Propane Gas Service has ALL the advantages of "city gas."

USE SUBURBAN PROPANE "CITY TYPE" METERED GAS SERVICE
Save money for yourself and for your clients ... give your clients MORE FOR THEIR MONEY ... give yourself happy, satisfied customers.

CONSULT SUBURBAN PROPANE BEFORE YOU START TO BUILD
As a SERVICE and WITHOUT OBLIGATION our local representative will gladly study your blueprints and show you how you and your clients can enjoy all the advantages of an ALL GAS HOME BEYOND THE MAINS.

OUR COMPLETE PACKAGE INCLUDES:
FREE gas service survey • Private "gas well" at every home • "City-Type" metered gas service • Full line of modern gas appliances • SPECIAL BUILDERS' PRICES • ALL appliances CONNECTED to gas service • FREE maintenance service

Contact the office nearest you ... or send for information and reference file

SUBURBAN PROPANE GAS SERVICE
Dept. AB-961 • Whippany, N. J.

A Third of a Century of Dependable Service
DO YOU KNOW ABOUT THE **Hydronics TEAM**?

...the organization which introduces more successful home merchandising methods

Today's home buyer is more critical, more insistent upon greater values for his money. Old appeals are literally old stuff...new ideas are needed to stimulate the urge to buy!

This is the purpose of the Hydronics Team!

How the Team functions to give builders a unique and vigorous selling program is fully explained in the brochure illustrated here. It will show you, as a builder, how to make the "Hydronic Homes Sales Promotion" lift your homes out of the competitive rut.

This plan is built around 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 his prospects.

The plan coordinates all the distinctive and exclusive features of Hydronics into a hard-hitting merchandising program. It enables builders to (1) attract prospects, (2) arouse their interest, (3) prove that a "Hydronic Home" offers infinitely more, (4) close the sale.

Send today for a copy of "Hydronic Homes Sales Promotion for Builders"...there’s no obligation in getting all the facts.

The plans of your homes are carefully studied by members of the Hydronic Team for the way to most economically and effectively make them Hydronic units.
America's NEWEST range idea starts with America's FINEST name...

O'Keefe & Merritt

Give her CONTEMPO...the fresh look of a luxury built-in...save $50 on every house. CONTEMPO is packed full of all the luxury range features, plus a big bonus of unique extras she'll use with pleasure, show with pride. CONTEMPO is just one more in a complete line of fully-coordinated O'Keefe & Merritt kitchen products—built-ins, dishwashers, cooktops, disposers, sinks...each one a symbol of traditional O'Keefe & Merritt quality you know you can trust.
For the Remodeling Contractor
the TEMCO TRIO

PROVIDES LOW COST GAS SUPPLEMENTARY HEAT THAT YOU CAN INSTALL EASILY and quickly!

Here is the easy, low cost, sensible way to heat add-on rooms, apartments, remodeled basements, cottages, motels, etc. Contractors everywhere have hailed the ease of installation and the wide range of heating application covered by the Temco Trio. Each of these units - the Temco Wall Furnace, the Temco Al-Kove, and the Temco Pre-Vent - is engineered with the contractor in mind for fast simple installation. Temco's reputation for quality assures long life and guarantees customer satisfaction.

**TEMCO WALL FURNACE**
The Temco Wall Furnace is the economical way to provide supplementary heat where floor space is at a premium. Revolutionary new thermostatic control principal assures desired room temperature.

**TEMCO AL-KOVE**
The Temco Al-Kove is the sensible answer to heating the big converted garage, the over-sized playroom, the long hallway and other large areas that need supplementary heat. The Temco Al-Kove takes up only 1 1/2 sq. ft. of floor space.

**TEMCO PRE-VENT**
The Temco Pre-Vent is acknowledged America's most wanted thru-the-wall direct vented hermetically sealed gas heater. The Pre-Vent is the perfect answer to heat for add-on rooms, motels and cottages, where quality and style are the prime requisites.

All units in the Temco Trio are equipped with Ceramiclad ® Heat Exchangers which carry a full five-year guarantee against rust and/or burn out. For further details, mail this coupon today.

**GAS PRODUCTS**

Sales maker for the fireplace

Instant kindling is the thinking behind this new gas device—a log lighter for fireplaces that retails for under $5. Lighter has heavy gauge adjustable shutter that provides the correct mixture of gas and air for quick ignition. Fifteen jet burner holes give even fireplace coverage.—Canterbury Enterprises. Circle No. 975, reply card.

For big hot water users

New big capacity gas water heater is this 100-gallon unit, available in single or double thermostat models. Units have A.S.M.E. galvanized or standard galvanized steel tanks; BTU input of 250,000 per hour. Royal (shown) recovers 364 gallons hourly at 80-deg. temperature rise.—Rustian-Morley Co., Inc. Circle No. 976, reply card.

Introduce 8 furnace models

Majestic Co. has introduced 8 new gas furnace models—4 upflow and 4 downflow. They are produced in four sizes, with outputs ranging from 72,000 to 140,000 BTU. Casing widths are 18", 22", 26" and 30". Blowers handle 3, 4 and 5-ton air conditioning. Thermostat is included with every Starline model.—Majestic Co., Circle No. 977, reply card.

New ovens feature-packed

Economical and easy to install, Gaffers & Sattler's new line of built-in gas ovens offer a wide range of wanted features. These include family sized 29" ovens with picture type windows for all-angle visibility, plus Flame Master low temperature control. Available in seven colors—pink, yellow, coppertone, turquoise, white, chrome and sandalwood.—Gaffers & Sattler. Circle No. 978, reply card.

**AMERICAN BUILDER**
The new Caloric Built-ins possess new style and convenience features that are certain to fascinate home buyers. And their fresh color inspirations, coordinating with today's kitchen color trends, are almost irresistible.

Look over the many features you can really get enthusiastic about. Streamlined, modern design accented by graceful sweep of oven handles and a new concept in control panels. New 18" extra capacity Caloric ovens giving two more inches of cooking space in a standard 24" cabinet. And something else women will appreciate. Oven and broiler doors that are a cinch to remove for easier cleaning of the porcelain enamel interiors.

You have Gold Star Award features to point to with pride. Thermo-set top burners, meat thermometer, clock controlled oven, Roto-Roaster rotisserie. And then there's Caloric's Keep Warm oven system, allowing temperatures down to 140 degrees.

Caloric's kitchen color-coordinated range hoods practically sell themselves. They match Caloric's single and double bowl sinks and splash plates. And all match Caloric ranges, in pink, yellow, turquoise, coppertone, satin metal, black and white.

See your Caloric representative for the complete 1961 merchandising facts.
Edwards Answers Some Questions On:

**HOW TO HANDLE HEATING AT A PROFIT**

Q. As a builder, one of my problems in making a profit is to get the heating contractor in and out at the right point in the construction timetable. Do you have any suggestions?

A. Certainly. Make sure you order a packaged hydronic heating system such as Edwards manufactures. Everything — boiler, circulator, zone valves, baseboard radiation, comes to your heating contractor from one source — not from a number of manufacturers scattered all over the country. This means reliable delivery and more profit to you, because there is no delay.

Q. Delivery is important — but my profits also depend on how fast the equipment can be installed.

A. Correct. That's another good reason why you should buy a packaged heating system. A packaged hydronic system makes it possible for your Edwards heating contractor to get in and out much faster. Installation of an Edwards system is fast and simple.

Q. Why should I specify a hydronic system in the first place?

A. A hydronic system will help you sell your homes faster. Today’s home buyers know that a hydronic system means complete satisfaction — even, clean, draft-free heat throughout the house. In addition, an Edwards hydronic system offers Zone Control — a way of heating that will save the home-owner up to 30% in fuel.

Q. Just what is Zone Control? Will it help me sell homes?

A. You bet it will! With inexpensive motorized valves, the home owner can select temperatures in different parts of the house. This means that he will save money on fuel bills. Saving money year after year — is a terrific sales point.

Q. I've heard that you people advocate 1/2" baseboard tubing instead of 3/4" and that I can save as much as $36. per house. Is this true?

A. Certainly ... and it's another chance for you to profit. Half inch baseboard is just as efficient as three quarter inch and half inch is considerably less expensive. You can save as much as $36. per house and you can put this savings into Zone heating.

Q. I also hear you have a great deal of merchandising help available to builders?

A. Right. For instance, we will gladly write, layout and print a brochure for you to send out and hand to prospects. We've done this for many builders with outstanding results. In addition, we have available ad mats and mailers explaining the Edwards hydronic heating system and its advantages to the home owner, also displays for you to put in and around your models. Did you know, in addition, that we will do a complete heating-cooling engineering layout on any job you have — large or small?

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**PACKAGED HYDRONICS THROUGH YOUR CONTRACTOR**

**EDWARDS ENGINEERING CORP.**

Pompton Plains, N. J. — Temple 5-2808

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**PACKAGED HYDRONICS THROUGH YOUR CONTRACTOR**

**EDWARDS ENGINEERING CORP.**

Pompton Plains, N. J. — Temple 5-2808

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**GAS PRODUCTS**

**Full-size cooking in minimum space**

Compact (20") gas ranges feature large (10") oven, smokeless broiler, and automatic lighting of oven and top burners. Deluxe model (right) offers one Tem-Trol Flame-set top burner, three Simmer top burners, Insta-Set control panel, four-hour timer, X-ray oven window, Fashion-line burner controls, and broiler with chrome grill. —George D. Roper Sales Corp. Circle No. 879, reply card.

**Meat every cooking need**

Built-in range and oven offer full cooking service. Double oven has high-speed rotisserie (with rotisserie) and a lower section that automatically shuts off when roast reaches desired temperature. Top-control range has four high-speed burners and simmer values. —Pioneer Mfg. Co. Circle No. 880, reply card.

**Incinerators install easily**

The Eclipse 800 Series standard incinerator burners make installation easy. Suited for all incineration needs in apartment buildings and other structures. Give temperatures above the 1400° F. normally desired for incineration. Input capacities up to 900,000 BTUH. —Eclipse Engineering Co. Circle No. 881, reply card.

**Added heat with compact boiler**

Mueller Climatrol Type 22 boilers are shipped disassembled to assure easy handling at installation site. With improved sections the boilers offer 5% greater BTUH capacity than previous models, but are compact: A seven-section boiler of 450,000 BTUH input requires only 9.4 sq. ft. of floor space. Type 22 boilers are available from 150,000 BTUH (ten section). —Worthington Corp. Circle No. 882, reply card.
unexcelled beauty...for discriminating customers

the Dramatic new "KARE-FREE KOOK-CENTER*" with its own powerful ventilating fan and hood as an integral part of the range. The delightfully contemporary "KARE-FREE KOOK-CENTER" is the only completely new free standing range...so versatile that it is also ideal as a built-in (without the expense of costly remodeling).

The "KARE-FREE KOOK-CENTER," a sparkling smooth, easy-to-clean combination of all of the features that make cooking a delight, takes the "reach out of baking and broiling"

The "KARE-FREE KOOK-CENTER" is truly a design and engineering achievement...the delight of even the most critical kitchen stylist.

*Trade Mark Reg.
Low-profile furnace fits closet
This up-flow gas furnace has been developed specifically for closet installation. It stands 51/4" high. A modification of an earlier furnace, this model has been approved for all gases, including propane and LP-air. Clearances are zero for both sides and rear, 1" on top. Shipped completely assembled.—Lennox Industries Inc. Circle No. 883, reply card.

System uses small boiler
Duo-Service hydronic system supplies heat and domestic hot water with smaller boilers than before. Heat exchanger coil is inside expansion tank instead of boiler itself. This gives larger heat storage, improved boiler transfer, reduced fuel costs. Allows domestic hot water with boiler input ratings as low as 50,000 Btu.—Hydrotherm, Inc. Circle No. 879, reply card.

Disposer is quiet, efficient
Automatic gas-fired disposer works on heavy bones, seafood shells, fruit stones and rinds, old clothes and shoes, waste paper and wood, old flowers, vegetable wastes, table leftovers. Quiet, mechanical operation: 1/4-horsepower capacity; simple installation; no sewer connection.—Locke Stove Co. Circle No. 867, reply card.

Boilers fit small apartments
New series of hot water gas-fired boilers measure 13" wide, 26" high and up to 35" deep. For homes and apartments where space is at a premium.—Roberts-Gordon Appliance Corp. Circle No. 868, reply card.

Ranges look built-in
Trend line of free-standing ranges are designed to slide neatly between two standard kitchen cabinets. This gives a built-in look at lower cost, and means lower remodeling costs for the homeowner. Available in two sizes, in copperstone, pink, turquoise, white and yellow.—Hardwick Stove Co. Circle No. 872, reply card.

SAVE up to $117.50
Single connection save up to $25.00
No oven cabinet save up to 45.00
No 24" base cabinet save up to 20.00
24" counter top covering save up to 20.00
No extra 110 volt outlet save up to 7.50

Water heater bears guarantee
This glass-lined automatic water heater is guaranteed for 10 full years without "mileage" clauses or any pro-rated costs. The Hydra-steel construction—a process that fuses glass to steel—makes this guarantee possible, the manufacturer reports. Available in 50-, 60- and 75-gal. sizes. Operates at input ratings of 20,000 to 50,000 BTU.—A. O. Smith Corp. Circle No. 889, reply card.

Ranges look built-in
Trend line of free-standing ranges are designed to slide neatly between two standard kitchen cabinets. This gives a built-in look at lower cost, and means lower remodeling costs for the homeowner. Available in two sizes, in copperstone, pink, turquoise, white and yellow.—Hardwick Stove Co. Circle No. 872, reply card.
GAS PRODUCTS

Built-in unit with "Square Look"

Commercial hot water boiler
Penn hot water supply boilers are said to be ideal for commercial and industrial buildings, motels, apartment houses, laundries. Seven models available, with capacities to heat 107 to 1,000 gals at temperature rise of 100° per hr.—Pebcco Industries, Inc. Circle No. 562, reply card.

Outdoor barbecue set on post
Outdoor barbecue is mounted on a 5" post. Works on natural or LP gas, with maximum input of 45,000 Btu. Grill size is 19¾"x17½". Gas valve can be padlocked. Cooking unit rotates for varying wind direction, can be removed if desired.—Nord Craft Specialties. Circle No. 563, reply card.

Dryer features moisture control
Model 742C gas clothes dryer has a sensing device that measures the dampness in the clothes, shuts the machine off at just the right time. Can be set for regular fabrics, wash-and-wear or damp dry.—Maytag Co. Circle No. 564, reply card.

High efficiency fireplaces
Two-stage flame saves fuel
Gas saver furnaces have both indoor and outdoor thermostats to control their two-stage flames. Low flame keeps house at desired temperature most of the time; high flame is turned on by outdoor thermostat in cold weather.—The Williamson Co. Circle No. 577, reply card.

Range has advanced features
Epicure range is said to have many advanced features—eye-level ovens, motorized rotisserie, low-temperature oven, concealed lights over burners, a timer, and an appliance outlet. Mounts as a built-in or on optional cabinet base.—George D. Roper Sales Corp. Circle No. 588, reply card.

Light gives better performance
Gas light has two hanging mantles, which are said to give more light, longer service. Uses no chimney. Light adjusts from 25-watt equivalent to 100-watt—bright enough for patio dining. Works on standard household pressure. Manufacturer also makes change-over kits to convert upright-mantle gas lights to hanging style.—Moonglow Gas Light Co. Circle No. 584, reply card.
GAS PRODUCTS

Forced hot water boiler
PBG Series steel boiler is designed for forced hot water heating. Available with A.G.A. input ratings of 120,000, 145,000 and 170,000 BTUH. Fitted as assembled, ready to install. Tankless domestic hot water heater sold as optional equipment. — Thacher Furnace Co. Circle No. 894, reply card.

Floor furnace is compact
Central duct system floor furnace is designed to fit in the opening of most large capacity floor units. Needs no return air or discharge plenums. Accommodates 8 take-offs; no special sheet metal work required. — Temco, Circle No. 893, reply card.

Small bathroom heater
New gas bathroom heater can be installed in half-baths as small as 4'x4'6" with 8' ceiling. Designated as model no. BH-6000, unit has capacity of 4,000 BTU. Comes in chrome finish. — Peerless Mfg. Div., Ducer Corp., Circle No. 892, reply card.

Expand furnace line
Latest addition to an already extensive line of compact furnaces is this new downflow model. It's 51" high, 26" deep and either 16-3/16" or 20-3/16" wide, depending on capacity. Comes in 80,000, 100,000 and 120,000 BTU sizes. — Day & Night Mfg. Co. Circle No. 895, reply card.

Heater installs indoors or out
Gas-fired infra-red radiant heater can be installed at patios, gardens or pool decks. Installation can be permanent, or portable base; for natural or propane gas. Provides heat for an outdoor area up to 25' in diameter and emits orange glow at night. Also available for indoor use. — Solarflo Co., Inc. Circle No. 890, reply card.

When you build beyond the gas mains...

Whenever you build beyond the gas mains, LP-Gas is better for the builder. LP-Gas costs less to install. There's no expensive extra insulation. No special construction. And LP-Gas is the fuel preferred for automatic cooking and home heating. Clothes drying, water heating are fast, automatic, easy on the homeowner’s budget. Before you build, take a new look at LP-Gas, the modern automatic fuel for suburb and country.

For detailed information, write LP-Gas Council, 1515 Chicago Avenue, Evanston, Illinois.

AUTOMATIC LP-GAS

costs less to install
Women who like kitchens, love Tappan built-ins. Ovens are huge. Easy to clean. Chrome-lined for better, more even baking. Finishes are stain-resistant and rust-proof. Lusterloy, copperloy and 4 modern colors make it simple to match your—or your customer's—color ideas.

A **TAPPAN** kitchen says "quality house" to every woman who sees it

Tappan's complete line includes built-in ranges—gas or electric—and in varying widths and prices to suit any plan or budget.
Conversationally quiet—no propellers, no noisy motors, no grunt, grind or squeal. Entire load is drenched in steaming water from all directions thanks to reversing Dual-Drench washing action.

Easy to service—All service—even on controls—is done from front. Impeller and pump slide out as a single unit. Never the need to pull machine out. Color matched panels installed in seconds. And remember—it's a Tappan!

Casual loading—The Tappan dishwasher can be loaded from top, front, left or right. Plenty of room for a whole day's dishes (12 place settings), plus pots, pans and serving plates.

Big capacity, quickly installed, all service from front

Please supply me with complete specification, installation and model information on Tappan:

Built-in dishwashers
Built-in gas ranges
Electronic ranges
The 'Fabulous 400' Gas Range
The 'Fabulous 400' Electric Range

Built-in electric ranges
Built-in refrigerators

Name
Address
City Zone State

Give the woman what she wants... and she wants a Tappan kitchen!

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Robert V. Welch, President of R. V. Welch Associates, Inc., Indianapolis, Indiana, speaks from experience when he says: "Title insurance is as important to a volume builder, because of time saving advantages, as mass production building methods. We need both to continue to out-produce our competition."
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One single unit provides the whole house with clean, healthful, air-conditioned comfort all year long—both heating and cooling. Unit face is attractive, blends with décor.

“I didn’t believe it was possible
... to heat and cool an entire house with one General Electric unit!”

“Frankly, I was skeptical that one unit could cool, let alone heat, one of our houses,” says James Rosati, of Sebring Lakes, Inc., a 9,000-unit project of small, low-cost homes at Sebring, Fla.

“When I saw the General Electric Heat Pump Air Conditioner in action, I was amazed. These built-in units do an exceptionally fine job of both heating and cooling.

“And in this particular locality, their operating cost averages out at about $5.00 per month. With our type of buyer, mostly retired people, this is a mighty important advantage. From now on, it’s strictly General Electric for us.”

In single residence, or in any type of construction, General Electric Heat Pump Air Conditioners provide dependable year-round comfort. There’s no expensive ductwork or plumbing to install. Maintenance is simple and inexpensive.

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What's the biggest problem in building today?

How to Build More House For Less Money

"A year ago, we were taking 60 to 75 days to complete a house; today we are down to 45. The saving in interest charges alone amounts to about $75 per house. A year ago, it took 100 man hours of on-site time to frame a 1,000 sq. ft. house. Today, using wall sections and other components, we've cut the time to 50 to 60 hours." So reports George Bell, president of Bell & Valdez, Seattle home builders. Bell has found that the faster house is a must, if a builder wants to succeed in a highly-competitive market. On the next six pages, you'll find the ideas that made this small builder big: how to build with parts rather than pieces, reducing on-site labor as much as possible to give the customer more house for less and give the builder more profit for his investment. George Bell made this new building technology work by working at it. He started not so long ago with one house. He had one sub: his wife. Since then, the company has constructed thousands of homes in many subdivisions surrounding Seattle. And they have sold them where other companies couldn't. Here's the why behind this success.
Building’s biggest problem: How to build more house for less money

Several years ago, George Bell took a good look at the building business. He saw that new technologies were being developed; new products and machines were available to build better homes for less money. He did more than just look. He converted his organization over to the new ideas. His own men designed and developed many of the new components the firm now uses. He was instrumental in getting other companies to manufacture and assemble component parts for his business.

"To build more houses for less money with new methods and materials," George Bell points out, "the builder must:"

1. Cut labor costs and production time. Bell & Valdez does it by delivering as much pre-built to the job as possible: wall sections, component parts, etc. "When we are building only a few of the same model, we deliver only the window sections. This eliminates a good deal of on-site labor; the only parts we have to handle are pre-cut studs. As the studs are the only parts needed to complete the frame, a crew of eight men can erect one wall and raise it in a "unit."

2. When building a single house of a different model, the firm finds it more practical to buy the complete wall from the component factory. Says Bell: "The reason for this is that it's more practical to have no more than four men working on this house at one time. At the present time, we're building from 30 models and find that these two methods save considerable labor. The component parts can be factory-built at a cost of $2.50 an hour instead of $4.00 an hour in the field."

3. Another cost saving technique Bell uses is component parts in floor panels. Under the firm's old method, 2x10" joists, 16" o.c., were used. The joists would span from 14 to 18 ft., requiring bridging. The labor used in this method cost $4.00 an hour. Today, the method calls for 2x6" panels. They are constructed this way:

   A piece of 3/4" plywood is glued to kiln-dried 2x6 joists, 16" o.c. The panel will span 10' to 12', and doesn't require expensive bridging.

Bell & Valdez' floor panels also can be used for carport roofs

Panels 4' wide and as much as 28' long are used for Floors and flat carport roofs. They're simply 2x6" joints covered with plywood. Panels serve as subfloor, unless carpeting, or resilient covering is used. Here, an underlayment is applied over the panel. Construction costs less, gives firm floor by reducing span from 14' to 8'.

Panels used for carport roofs go up fast, cutting labor costs

In position, here's how floor panels look as carport roof. Ideas like this are born in firm's architectural department, headed by architect John M. Anderson. Anderson has been with company for years, is thoroughly familiar with mass production principles. Bell tries to hold to rectangular plans, keeping offsets, widths, etc., to a tight minimum.
Foundations are placed with a ledge for panels

Eight-inch foundation walls have 4" ledge to accept floor panels. This also reduces height of structure, requires less siding, and facilitates construction as panels fit into spaces without measurement. Note support footings (see drawing, below left).

Nailing system speeds floor panel placement

Last section of plywood is omitted from floor panel so crews can nail into top plate. Average panel has 3/8" set-back on one side and protrudes 4-3/4" on other side so panels can be placed continuously—one joining the other, and so on.

Panels feature easy handling for carpenters

Because of different plans—Bell changes models twice a year to keep abreast of the market—wall sections aren't standardized. They are made in convenient widths to suit designs and for easy handling. Included are top, bottom plates, glazed windows.
Building's biggest problem: How to build more house for less money

Again the labor costs total $2.50 an hour. A typical house 25' wide, for example, requires an additional 4x6 stringer. Spans are then reduced to 8' on centers. This gives a firm floor with 2x6 joists. Using 2x6 kiln-dried joists reduces shrinkage by 50%. Gluing the plywood reduces nail pops, squeaky floors.

4. "Another cost-saving method we use," Bell said, "is to pour 8" walls with a 4" ledge to accept the floor panels. Why? We reduce the height of the house. Under the old method, all joists were placed on top of the foundation, which required additional siding and more costly porch foundations. Under our old system, it required 40 man hours for a 1,000 sq. ft. home. Under our new panel system, we can erect the same house with only 12 man hours."

5. To clip more costs, Bell uses two types of trusses: (a) The glue-nail plywood king post truss; (b) a Trussomatic steel plate W-truss. The builder finds it more practical to use the glued plywood truss when the quantity is small. For larger volume, the steel plate truss technique is used.

Storage was the big problem with glue trusses, because they have to be made from kiln-dried material. In the Seattle area, material has to be stored in a dry spot, before manufacturing. The truss also has to be stored until it's used. The steel plate truss can be stored in the open, because it's made from green stock. Trusses are being built with $2.50 man hours instead of $4.00 on-site man hours.

6. Bell uses plywood sheathing for all roofs, including wood shingles. He can apply plywood with less man hours by using an air staple gun.

7. "We eliminate all unnecessary window and door headers," says Bell. "It has been common practice to put a solid header above every opening. Simple engineering practices eliminate many of these headers, i.e., use of trusses often eliminates need of headers, except on bearing walls."

8. By using a panel system, the company cuts costs on carport

Truss production: 100 daily, fabricated by two-man crew

Truss jig is completely flexible. Crane and hydraulic press clamps metal connector plates with 20-ton pressing action. Trusses with metal plates use green stock instead of kiln-dried lumber—cutting costs. Using plywood gussets, assembly drops to 65 trusses daily. Added advantage of trusses with metal plates is that they can be stored outside.

Pre-fabricated plumbing runs cut cost of labor for Bell

Plumbing runs are placed in the foundation area, as shown. Later, when floor joists are in place, two men return to job and hang pipe to joists. This operation takes about 45 minutes. Piping is delivered to job site in two pieces. Joists are all made in shop. Plumber's aim is to reduce time at site; job involves about 16 man hours.
Unique saw set-up cuts 11 2x4s at one time

Two arm saws—equipped with chain drive controlling forward and back movement of blades and adapted for air control so they can be operated together by one man—set for straight or angle cuts. Saws can be moved close together or up to 18' apart.

Automatic stapler speeds top-out time

For all roofs—even those where wood shingles will be used—plywood sheathing goes over rafters. Cost is reason: Sheathing is faster with stapler than wood strips. On 1,000 sq. ft. house, sheathing and wood gutter can be installed in 19 man hours.

Plumbing wall is tip-up; connects to under-floor runs

After wall has been fabricated, plumbers place tree in frame and tilt unit into place. Drawing shows how opening is framed by nailing 2x4s to sides of floor joists upon which cross 2x4s can be inserted to support weight of plumbing tree. Two men can set tree in place, make connection. Only one joint needs be caulked to complete the job.
Building's biggest problem: How to build more house for less money

roofs. The construction:

Panels are kiln-dried 2x6 joists, 16" o.c., with ½" exterior grade plywood, glue-nailed, 24" long. Panels are built with a ½" crown span, 20° with no deflection.

9. Bell uses gypsum wallboard instead of plaster, because, in the Seattle area, plaster takes a long time to dry.

10. Bell doesn't case the windows. Crews tape the dry wall to the window liner, which reduces the cost of casing material and the labor to put it up.

11. Ceilings are sprayed with acoustical material, which gives a good acoustical ceiling that doesn't need painting.

12. Bell uses all assembled parts possible. These include: Pre-finished doors, complete with casings; pre-finished kitchen cabinets; pre-finished hardwood floors; pre-assembled windows and liners; pre-assembled plumbing walls; trusses; floor panels; component parts; pre-finished base; pre-assembled bathroom vanities, including a lavatory and valves; a pre-assembled steel sink, which has a built-in rim, garbage disposer, and an instant hot water tank.

Bell's entry in the prefabricated field was complicated by the fact that he builds in all price ranges—from $15,500 to $30,000. He's currently offering 30 different models for sale. Also, most of his land is hilly, and the designs are sometimes dictated by the contour of the ground. As a result, he's unable to use all of his ideas to build a faster house.

However, the builder recently purchased a piece of ground that will be suitable for 30 low-priced homes. Here, Bell expects to come up with some real savings because he can standardize more than he can in his higher-priced houses.

What Bell has accomplished so far is "only a start in the right direction." His men and associates—even the companies from which Bell buys materials and appliances—are constantly going over materials and machines for cutting costs. As soon as an idea is proven practical, it's put into use.

To cut labor, material costs, window units are not cased

Windows are not cased. Instead, crews tape the dry wall to the window liner. Liner (see drawing) is slightly beveled; space is filled with mastic and then taped. Ceiling joints are taped, then surface is sprayed with ¼" of acoustical plaster. Firm says this gives better ceiling for owner; it requires no paint and doesn't show joint marks.
Bell & Valdez “Citation” has 1,150 sq. ft., sells for $17,250; plan includes 3 bedrooms

“Citation” model features three bedrooms, 1½ baths, all hardwood floors, fireplace (optional), storage area, range, and combination washer-dryer. George Bell runs Bell & Valdez alone. Partner decided to live in Hawaii. Bell started business with own home, after resigning as riveter for aircraft firm. After he and his wife completed house, (they even did their own wiring and plumbing) couple sold it and built another. Bell on success: “You can’t be complacent in this business.”

Doors can be hung in less than 20 minutes

Assembly line was set-up for readying doors for quick installation. Crew of four men turns out 70 door units daily—complete with locks and casings. Front door, shown above, was hung in about 20 minutes, including threshold and aluminum stop.

Stud-hung lavatory has variety of designs

Pre-fabricated lavatory made in cabinet shop only needs to be hung on studs. It has sides and top of high-pressure laminate; uses Hudee rim. Doors slide. Bell gives customers choices of cabinet designs, woods and hardware. Some have raised panels.
LUCIAN CASTE, builder architect, is masterminding the well-planned campaign to get broad acceptance of the BOCA building code in the Pittsburgh area.

Want a uniform building code in your area? If so, take a look at what builders in the Pittsburgh metropolitan area are doing. Their story is crammed with lessons for builders everywhere. In just a year and a half, the Pittsburgh builders have fashioned a campaign that is rolling toward its goal: A uniform performance code in all of Allegheny County.

When the Home Builders Association of Metropolitan Pittsburgh decided to come to grips with building codes it found its first need was information. As in almost every county in the United States, there is no accurate record of prevailing building codes. The association decided to create its own record by surveying every community in the county. Do you have a building code? When was it adopted? Revised? Do you have a building inspector? How many? Full time? These and other questions were sent to town officials in Allegheny County.

The search for information did not stop with a survey of communities. The Pittsburgh builders formed a special building code committee to study codes from every angle.

Before long this committee had discovered that inspectors and municipal officials were ignorant of several aspects of their own building codes. Builders, too, did not understand the codes they had to follow.

"They just won't read their codes," one committee member complained to American Builder. "In towns where we find codes, we find them frowning at the codes because they think they require specific materials. But when we read the codes for ourselves, we often find that they actually call for a performance characteristic that is not difficult to meet."

The Pittsburgh Association had decided to plug for universal adoption of the code of the Building Officials Conference of America (the BOCA code). But just what was in this code? Would it meet the needs of Allegheny County? Were modifications needed? To find out, the BOCA code was divided into sections and each committee member was given a section to analyze.

The result of this research: The association had the full story of building code confusion in one hand, and, in the other, it had a workable code.

To bring this story to municipal officials, the homebuilders knew they needed a person who could represent builders, and, at the same time, command the respect of town officials.

Besides, the Pittsburgh builders wanted a man who could win the confidence of architects, engineers, and appraisers, and, at the same time, devote considerable effort to the technical understanding of codes and their importance to city government.

They found their man in Lucian Caste: A thirty-five year old builder, registered architect, member of the Urban Land Institute, the American Institute of Architects, secretary of his home association, and an alternate director of the Pennsylvania HBA and NAHB. He is vice president of the

**A chaos in codes once confronted Pittsburgh builders**

No codes alike. That's what confronted the home builders when they set out to fight for a uniform building code. They surveyed 110 towns in Allegheny County and found a patch-quilt of confusion:

- 37 communities had no code at all.
- 38 communities used local codes—some dating back as far as 1918. Few of these were performance codes. Nearly all were specification codes, none of which were kept up to date.
- 23 towns said they followed a national code—but the facts showed that only two or three of these really used or understood their codes.
- 12 communities said they had codes—but didn't (or couldn't) identify them.
- Some towns that had building codes had no building inspectors to enforce them. Other towns, meanwhile, did have building inspectors but no building code they could follow.
blaze a trail to uniform codes

Caste Companies, and is now building a shopping center in Allegheny County’s South Hills.

Caste not only brings to his job these prestigious credentials, but he is patient in the face of obstinence. “Lucian is a diplomat,” says a fellow builder.

The Pittsburgh builders, besides having such leadership, are fortunate in another respect. They have in the Institute of Local Government, an invaluable aid in promoting uniform building codes. The Institute was established at the University of Pittsburgh in 1944 to serve as a training ground for municipal officers and employees. It also functions as an information clearinghouse for municipalities and conducts studies and research on local government.

“Without the Institute, I doubt that we could have made as much progress in this job as we have,” one builder confided to American Builder recently.

It soon becomes apparent how true this sentiment is: First, it was the Institute that actually conducted the code survey for the Pittsburgh association. Out of the 129 municipalities polled by the Institute, 110 responded.

“I’m certain,” Lucian Caste says, “that most of these towns responded because they saw the Institute’s name on the survey form. They simply reacted as if they were ordered to reply.”

Most of the town officials in Allegheny County attend meetings at the Institute, and many take courses for in-service training there.

This in-service training is another way in which the Institute reinforces the campaign of the Pittsburgh builders. “Uniform building codes,” says Edward Foster, a planning associate at the Institute, “are something that fit in very well with our program. We can promote them in our training because they obviously work toward good government.”

But there is perhaps a more important reason for the value of the Institute to the code campaign. The Institute is one of the prime supporters of a regional Community Growth Conference which has functioned these past two years as a meeting place for the officials, builders, planners and others interested in community growth in western Pennsylvania.

The most recent Growth Conference was devoted, in part, to building codes, and it afforded the homebuilders an invaluable opportunity to plead for a uniform code—without appearing to speak only for themselves. On the contrary, with the benevolent support of the Institute, the builders emerged as unbiased seekers after good local government.

In this setting, their story was impressive. “The officials from one town were so struck with our program that they wanted to adopt the BOCA code right then and there,” Caste recalls. “They couldn’t understand why they had waited so long.”

Of course, not all the officials who attended the conference got the message so resoundingly. To win his campaign with these officials, Caste and his committee members mapped out an intensive program.

Basically, the plan is: “Divide and conquer.” Each committee member is given a sector of Allegheny County in which he is to wage the campaign for uniform codes. To help him, local...
BLAZE TRAIL TO UNIFORM CODES (continued)

builders join in by calling on councilmen and commissioners in their area.

Caste feels that by concentrating on small clusters of communities he can pick up momentum faster. As one community adopt the code, the neighboring community is strengthened.

The vehicle for propelling the code campaign into the community cluster is the regional code meeting. Recently, the code committee met in Mt. Lebanon Township to speak to town officers from nine South Hills communities. This meeting caused much excitement, was generously reported on television and by the local press.

Later, Caste's committee moved into eastern Allegheny County.

These regional meetings save time. They enable the code committee to bring its story to several committees at once.

But the code chairman has not overlooked the importance of a narrower approach: As an adjunct to the building code committee, Caste has established a technical assistance group.

This group calls upon individual building inspectors whenever a builder complains of a knotty problem with codes or enforcement. Acting as a diplomatic mission, the group of troubleshooters explain why they have come, and propose a solution to the problem. In return, the group listens to the inspector (who may invite his assistants or administrator to sit in with him).

In one town, the technical assistance group turned embittered misunderstanding into respect and cooperation.

“Our visit in that one town alone gained us more support than any other meetings could have,” Caste reports.

In visits with other inspectors, Caste has found that technical arguments do not work. Often, he has discovered, building inspectors will oppose a model institution (such as the University of Pittsburgh) can provide the information medium between builders and inspectors. Of course, most builders don’t have an Institute of Local Government ready and able to assist in improving building codes. But, as a spokesman for the Institute pointed out, many builders do overlook the colleges and universities right in their own area.

“Many schools are equipped to provide research,” says Edward Foster, planning associate at the Institute. “State universities are especially prepared, too, to offer aid on questions of local government. And even business schools,” he says, “are working in areas—such as real estate—such could be useful to builders.”

“Builders who are anxious to generate support for their uniform code campaigns would do well to look into these institutions,” says Foster.

Code improvement does not end, however, with the adoption of a model building code. In fact, many times builders face more problems under a model code than they do under a local code. The explanation is simply that a model code is often enforced more conscientiously than a local code. For this reason, builders must form lasting relationships with inspectors. The way to do it: Invite them to become members in builders’ associations.

How you can win a uniform code

Builders who want to clear up the code mess in their area must be prepared for a full-fledged drive.

What’s needed is a campaign of education directed toward both builders and city officials. The campaign must be skillfully led and fully supported from start to finish.

First, you must have information. What codes are used in your area? How are they enforced? A survey of all the municipalities where you build is an invaluable tool in working for a uniform code.

But the job cannot stop here. In the Midwest, for example, the Home Builders Association of Chicago has produced a thorough survey of 120 local communities. But still the progress is discouraging. Why?

Support wanted: to decipher code confusion

“We can’t get builder members to help,” laments an association member. “In fact, we have trouble convincing any members that they should volunteer to aid our code committee.”

In New Jersey, meanwhile, the Home Builders Association of Northern New Jersey (Bergen, Passaic, and Sussex Counties) is proceeding encouragingly toward its goal of a uniform code. The difference is a series of well-supported meetings with officials and inspectors, through which the association is building mutual understanding and respect. Its “softsell” approach is already creating the kind of atmosphere in which builders and officials can resolve their differences on codes.

Too often, however, an ambitious campaign breaks down because inspectors are diffusely organized. It is difficult to approach inspectors one by one. On the other hand, it is often frustrating to convince them collectively to change their thinking.

To overcome this, builders are helping form regional associations of building inspectors. This is what is being done right now in eastern New Jersey.

“If we can get inspectors together, we’ll have a better chance of getting our ideas accepted,” says a spokesman for the New Jersey Shore Builders Assn. “Even if they won’t listen to us, they’ll listen to each other.”

The Pittsburgh builders have shown how an academicassociation is building mutual understanding and respect. But still the progress is discouraging. Why?

Beware the crippling code amendment

Another nettlesome snag is the code amendment. William F. Baker, chairman of the building code committee for the Builders Association of Metropolitan Detroit calls it “the primary problem in code administration. There is always an inclination on the part of some communities to adopt amendments,” he says, “which nullify the standardization we’ve struggled so hard to achieve.”

Sometimes these amendments can be stunning in their effect on builders. For example, builders in New Providence, N. J., awoke recently to find amendments which required them to undergo 12 site inspections on each house they built. The code had formerly called for three.

There is no sure way to guard against such a development. Builders who wish to promote a model code (New Providence follows the National Building Code)
code—not because they object to its principles—but because they fear its difficulty.

Builders often oppose model codes, especially those who work in towns having no codes at all.

In looking back over the progress of his committee these past few months, Caste finds that out of the 129 communities in Allegheny County, his committee is actively pressing its campaigning in 60. Of these, 18 to 20 towns have either adopted the BOCA code already or are moving in that direction.

But even after the BOCA code is adopted, the job of enforcing it remains. To many builders, this presents the most frustrating phase of the code program.

The answer to poor code administration, Caste feels, is a drive to improve the status of building inspectors—to attract young, intelligent men into the field.

As part of this drive, Caste and the Pittsburgh builders have established a building code panel, where builders and manufacturers come together with inspectors to form speaking programs on building codes. “These programs have elevated the building inspector to public prominence,” says Caste, “and have given him an outlet to express his problems and make him our ally and liaison between civic and building officials.”

A building code school for builders, inspectors, town officials is planned. Here inspectors will be given faculty positions which will heighten the prestige of their job.

But perhaps most important, the builders hope to see the salaries of building inspectors improve. Only then can the right men be attracted to the field.

Caste anticipates that a plan for sharing inspectors among two or three communities will provide a shortcut to this higher pay for inspectors.

code in your building market

should also consider tailor-made modifications that will satisfy city officials and still not create unexpected hardships on themselves. In Pittsburgh, for example, where a full set of modifications to the BOCA code were proposed, no communities have insisted on further amendments to the code.

Finally, code improvement requires follow-up support. Builders must be kept aware of code changes in their area. Too often builders are ignorant of the full meaning of their code. They may not even know when a town they are building in has adopted a new code.

Admittedly, it is difficult to keep builders informed on this complex and ever-changing problem. But experience in many regions has shown that a code campaign cannot be considered complete unless there is some regular flow of reports to builders on the status and interpretation of codes. If a code campaign is to be a success, builders must help the community in its enforcement.

Better codes coming—with better local governments

Good codes go hand in hand with good government. And with the increasing improvement in local government, builders can look forward to a favorable underlying trend toward code improvement. Here’s what’s happening:

- More and more communities are beginning to recognize the need for planning—and with this comes an awareness of building codes in the total community picture.
- The move toward urban renewal is forcing communities to adopt building codes so that they can qualify for federal funds.
- The trend toward professionalism in local government is improving the quality of town officials, and, indirectly bringing changes in building codes.

This last factor will perhaps have the most important effect on building codes across the country. Slowly, but consistently, communities are bringing in younger, brighter building inspectors, who are working their own reforms in codes.

In Hillside, N. J., an outstanding case, Carmen J. Monaco (right) became building inspector in 1955 and immediately set out to update his community’s 32-year-old code. Last year, Hillside adopted the 1955 edition of the National Fire Code (with 1957 amendments).

Monaco’s example is being duplicated with increasing numbers throughout the country. Some of the new inspectors are receiving recognition; others, like Monaco are not well-known. However, all give new meaning to codes.
Builder Edward Samojednik: Diversify for your profits

Like a lot of other builders across the nation, Glencove Builders, Inc., is finding new profits in the sidewise market. This year, reports Ed Samojednik, president, the firm expects to build at least 30 farm-commercial structures.

The Farm Market: Builder finds

Only 25 miles from Times Square, New York City, two New Jersey builders found profit in farm structures when their residential market began to sag. Business is so good, they’ve opened a branch office to handle the demand.

Says youthful Ed Samojednik, president of the firm: “Our residential market has picked up considerably this year; we have 39 sold and hope to close out at about 50 units. However, we’re continuing to strengthen our farm market operation as a source of immediate profit and as a hedge against the possibility of a future housing slump.”

To boost both businesses, Glencove has opened a branch office in a nearby town. This year, the company expects to build from 20 to 30 farm and commercial structures.

Selling is difficult

“Farm customers can be more difficult to sell,” reports William T. Cordes, Glencove vice president. But,

Glencove uses a model residence as an office; models of the farm structures

Completely furnished model home, which is used as an office, stops prospective customers along a busy New Jersey highway. In the rear, (photograph above) Glencove has display of farm structures. Exterior treatments vary to show what can be done.
he stresses, there are a number of advantages in the farm building market that are absent in other markets.

"There's money in the market from both government agencies and from private sources. We have found that the buildings must go up quickly to keep site labor costs at a minimum. But, at the same time, this speed of erection is helpful because it also minimizes the length of time our money is tied up."

One more advantage: Building codes generally are more reasonable—and often more modern—than city codes, at least in the New Jersey area.

By using a series of advertisements in two state-circulated farm publications, Glencove has attempted to become recognized as farm builders.

They also have erected a model building at their headquarters in Dunellen, and recently took booth space at the state's largest farm show. The booth helped them develop leads and learn what was new in the market.

Their efforts have paid off in leads and business.

Find a commercial market
Glencove not only has expanded into the farm market. The farm market has helped them expand into the commercial field. For example, after seeing the model, Piscaway Township American Legion Post 261 bought the idea for its new hall. They purchased the shell and did the finishing job themselves.

A church group saw the same model, bought a larger version of it, and put it up for a Sunday school and meeting hall.

To add stressed skin panels
Ed Samojednik says Glencove plans to add plywood stressed skin panels to its plywood and steel truss line.

"At present, we can offer a farm customer anything from 20' to 80' of clear span. With the stressed skin panels, we'll be able to offer an insulated, lined building in the same span—all componentized to keep site labor costs low."

The present model is a conglomerate structure to show the appearance possibilities. One side has clapboard siding with brick trim; one end is concrete block; another is 1-11.

Variety of clear spans is possible with basic building—farm or industrial
For farm interior finishes out like this. For commercial steel frames are boxed with fir plywood. Few components are needed, reducing site work. One wall has 1-11 plywood sheathing-siding. Others have conventional siding over ply sheathing.
Let's Get Rid of the

Fly-by-night operators rob homeowners of millions of dollars, hurt home improvement industry. Here's what you can do to end their unethical practices

By William J. Hennessey, Senior Editor

- Recently commuters passing through New York's Pennsylvania Station were exposed to a poster, citing an award to a Long Island remodeling firm for outstanding work and satisfied customers. Investigations showed that the citation had been given to the company by its advertising agency; there was absolutely no basis for the claim.

- A homeowner, answering a radio announcement extolling the virtues of a $5.88 storm window, found that it had to be regularly cleaned with etching acid, highly injurious to human skin. In a "switch," the agent offered another sash, at twice the price, one that needed only regular household cleansers to keep clean. Better Business Bureau investigators discovered that the cheap sash was non-existent and used as bait for suckers.

- Early this year, the New York State Attorney General's office revealed another fraud aimed at luckless homeowners. This involved the buying of aluminum siding for a house with a guarantee that no charge would be involved if a house was used for advertising purposes. In most cases the owner was both flattered and anxious to sign on the dotted line. A rude awakening occurred when he discovered that, in fine print, the contract obligated him to pay $3,600 for the siding. He was promised, however, that if other homeowners signed similar contracts after seeing the advertisement, he would receive $100 for each contract. An order from the State Supreme Court dissolved the firm and perpetually enjoined its owner from utilizing fraudulent, deceptive and misleading selling techniques.

Public and trade robbed of millions

And so, the suede shoe boys work. In the New York metropolitan and suburban areas alone, 22,000 complaints and inquiries about unethical home improvement companies were received, during 1960, in the office of the Better Business Bureau. No one knows, actually, what their "take" is annually throughout the country, but experts say it runs into millions, money that should have passed to legitimate remodelers and home improvement experts.

NERSICA,* a national association of over 2,000 remodelers organized to maintain fair trade practices in the interest of both contractor and public, warns "even one phony or fraud can result in reams of newspaper columns attacking the industry as a whole. Crooks and 'let the public beware' makes for good copy." Again quoting NERSICA: "The finger always points to the contractor. Representatives of organized ethical construction stress the need for self-policing and self-regulation within the industry.

The Louisville story

Investigation of areas where self-regulation is in force gives evidence that it can and does work. An excellent example is the mode of operation set up by the Associated Home Improvement Contractors of Kentuckiana, Louisville, Kentucky. The Council, organized in 1952 by a group of storm window companies and a siding contractor, today is one of the strongest in the national organization. It boasts a membership of 125, among whom are representatives of advertising media, newspapers, radio and television stations, as well as financial institutions. All banks and lending organizations in Louisville are members of the Council. Suppliers and distributors extend industry control beyond the contractor level. These members work as a team and, interesting to note, there have been no scandals, no bad press or fraudulent operations in the city in years. Here's how they work:

Recently, the Council was alerted to the fact that a fly-by-night organization planned to visit Louisville. The organization had been working its way south and, because of this information, an investigating committee was set up to check on its activities. With findings in hand, a meeting was held and all members, especially the banks, were informed of the pending invasion. The future visitors had been found guilty of unethical practices, based on information gathered in a few cities less than 100 miles away.

Shortly after, the suede shoe boys sent their advance team to Louisville. They made overtures to various financial institutions and, time after time, their demands were refused. Their meetings with bankers showed that they could expect no financing in Louisville and it became evident that, if they were to operate in that city, outside financing would be needed. Since these operators require quick financing, any slowdown would cramp their style. In short, before they could even set up their tents, they stole away in the night.

Self-policing pays off

Says Ollie Windhorst, president of the Louisville Council, "We have a pretty bad reputation with the highbinders. They don't like Louisville. They can't place their bait ads in media here and, so, must rely on cold-canvasing. But, even then, when the banks will not pick up their paper, all they find around here is
Making Louisville fine for the homeowner and the ethical contractor is our aim and we intend to keep higbinders out."

When new contractors seek to set up shop in Louisville or in surrounding areas, they're given all sorts of cooperation if found to be on the up and up. Their credit and reputation is carefully screened through credit checks and investigation by the Better Business Bureau and among former co-workers.

NERSICA members in Akron, Ohio, go even farther in enforcing self-regulation and self-policing. Recently, a series of storm window ads were broadcast over one of the Cleveland stations, one that reaches and serves the Akron area. The ads ran on the late movie show but members of the association were not asleep. The television station was promptly informed that they were encouraging bait advertising and would not be tolerated by ethical Akron contractors. Unless the ads were discontinued, stressed members of the Greater Home Improvement Contractors Association of Akron, the Council would take immediate legal action.

The threat brought the desired results.

Need for public and civic awareness

In Boston, Massachusetts, the NERSICA Council commended the Boston Herald, a newspaper that had been running a series of front page ads declaring its policy on bait and misleading advertising. Under the heading, "Caveat Emptor" the ad said, "Yes, let the buyer beware of ads that are false, misleading, deceptive or against the public interest. We endeavor to exclude such advertising from our papers. We refuse to publish any advertisements cited by the Boston Better Business Bureau. It's a matter of integrity ... integrity in our news columns ... integrity in our advertising." Following this example, in June of this year, all Boston newspapers joined in an agreement to screen ads and refuse any bait or misleading ones.

New code of Standards available

It is evident that self-policing does work. To clarify the situation and make the jobs of ethical builders and home improvement concerns easier, the Better Business Bureau of Metropolitan New York, Inc., has recently issued a set of Standards For the Advertising and Selling of Home Improvements which covers all types of remodeling jobs—attics, awnings, basements, bombshelters, central heating systems, dormers, extensions, fencing and railings, to name but a few. With such a guide, the legitimate contractor is well-equipped to judge his competition and evaluate his operation. Over 400 members of the home improvement industry from New York, Westchester, Nassau and Suffolk counties overwhelmingly adopted these advertising and selling standards in August of this year.

At a "kickoff" meeting with members of the industry, Hugh R. Jackson, BBB President, described the home improvement industry as the metropolitan area's No. 1 problem. He told builders attending the meeting that complaints in the field were continuing at an alarming rate, far ahead of those in other lines of business. By adopting the new code, homebuilders he said, had an opportunity of curbing a serious loss of public confidence caused by misrepresentation, deception and unfair competitive practices by a small, but active minority of unscrupulous operators.

Though NERSICA and the Better Business Bureau are working around the clock to stamp out this menace, they'll be hampered in their endeavors unless everyone interested in homebuilding cooperates. With future construction figures encouraging, everything must be done to maintain and increase public confidence. Sharpies are still among us and will continue to remain stumbling blocks along the way. They must go!

Your best weapon is your local civic and trade organizations. Louisville, Akron and Boston point a direction and show how powerful concerted effort can be at the local level. If this doesn't do the job or proves only partially successful, call on NERSICA or your Better Business Bureau. They're only too willing to help. Since a weak link in any chain can prove disastrous, present a solid front in battling the chiselers who threaten your future and profession. Newspapers, radio and television can be powerful allies in any campaign. Make use of them; see to it, also, that everyone who makes an honest dollar in homebuilding is behind you. With these you're bound to win.
“Extras” spur sales...

Success of The Perine Development Corporation of Indianapolis is largely due to the many “extras” they offer prospective buyers. These niceties add up to more efficient, comfortable living. A pantry, directly off the breakfast room, a fully equipped laundry and a large space in the garage for outdoor furniture and tools are so needed in basementless houses and so often omitted; they make all the difference in the world to an active family. A study of the floor plan shows that great care has also been given to the general layout of its main rooms. We find a 26’-6” long living-dining room, a separate family room and a kitchen with built-in table as well as three large bedrooms and two baths, one of which is combined with a dressing room and linen closet.

Orientation allows plenty of privacy for outdoor living at the rear where terrace is located.

Often neglected in many development houses, the rear elevation, shown above, offers a wide expanse of attractive brick wall, large sliding glass doors and triple windows in living-dining room. Flush door offers access to heater-utility room. Garage entrance, placed here, frees front of house for more living space in family room, kitchen and laundry.

Indiana builder sells separate
TYPICAL WALL SECTION

SECTION AT PORCH

SECTION AT GABLE END
Kitchen opens into pantry and laundry, has direct access to the garage for convenient deliveries.

Large enough for family meals, the L-shaped kitchen has a large dining-work table with a durable plastic top. Counters are also of the same material; wall space, above, is covered with aluminum tile for a decorative effect and easy maintenance. Base and wall cabinets are maple, the latter joined above the window by an attractive scalloped valance. Floor is of asphalt tile.

Kitchen has a built-in dining-work table

Outside walls of the house are a combination of natural brick and plywood boards, joints covered by wood battens. The same materials line the end and front gables. Roof is of white asphalt shingles. Structural framing throughout is hemlock; all rooms finished with dry wall panels. Principal doors are of flush mahogany; those to closets are folding-type of steel with a factory finish. Prefabricated hemlock trusses carry roof load to outside walls. The house is completely insulated—in the ceilings with fiber glass, in the walls with rigid fiber board. Heat is provided by a gas-fired, forced warm air system. A gas range, oven and hot water heater are also included. For those who want a living room fireplace, the builders offer one of brick, along the rear wall, for an extra fee. An alternate type, for inside walls, with a stainless steel chimney, is also available. The entire house rests on a 4" concrete slab, concrete foundations.

Estimating materials take-off list

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<tr>
<th>Description</th>
<th>Quantity</th>
<th>Price</th>
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<tr>
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<td>1 3 Morter 3&quot; Chimney Cap. &amp; Finish</td>
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<td>Acid &amp; Morter Expos. Brick Clean &amp; Polt</td>
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<td>Cast Alum. 4x4x2&quot; Post Plinth</td>
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continued on p. 138
WE'RE IN BUSINESS FOR YOUR HEALTH...

...and your employees' health. Doctors estimate that 1 in 4 of your employees (whether key executives, skilled workers, experienced secretaries or valued clerks) will develop cancer at some time in their lives. What is worse, many of them may die needlessly, unless they know how to guard themselves against cancer.

To help save their lives, call or write our nearest office for information about a free employee education program, geared to your particular factory or office.

AMERICAN CANCER SOCIETY
Do you wonder how your model homes stack up with other builders? Then plan now to enter American Builder's Quality Model Home Contest. It's the only one designed for builders everywhere. It can mean prestige, publicity, a free trip to Europe and added sales for you.

AMERICAN BUILDER established its quality model home contest more than ten years ago. Its main purpose then, as now, was to encourage better house design, improved construction techniques and the use of the best quality building products and materials.

It was designed to give all builders—whether big or small—an equal chance at winning a top prize.

This year's contest, however, has been revised slightly. Each house entered will compete only with houses of similar square footage regardless of price. Thus, the heavily insulated 1500 sq. ft. house built on a basement for the North Central market will be able to compete directly with the lightly insulated slab house of similar size built for a southern market.

Each house entered will be classified in one of three groups: (A) under 1200 sq. ft.; (B) between 1201 and 1800 sq. ft.; and (C) over 1801 sq. ft. The editors felt this method of judging would give builders in each part of the country an equal chance at winning. Regional variations in the cost of design, construction and labor will be eliminated.

Four winners will be selected in each category by a five-man panel of judges.

The judges will use three yardsticks in picking the winners: (1) quality of floor plan; (2) quality of exterior and interior design; and, (3) quality of construction and products used in the house. Winners will get national and local publicity.

It's easy to enter the contest. Here are the rules you will need to follow.

- To qualify, your model house must have been completed and opened to the public for at least one week between October 1, 1960 and October 1, 1961.
- Each entry should include the following:
  1. Completed data sheet
  2. Working drawings of the house
  3. One exterior and two interior photos
  4. Photo of the builder
  5. Samples of merchandising material
- Entries need not be mounted. But, if mounted no larger than 24”x36”.
- You may enter more than one house. But, each house should be entered separately.
- Each entry should be in the AMERICAN BUILDER editorial office by October 4, 1961.
- Contest data sheets are available from the Contest Editor, American Builder, 30 Church Street, New York 7, New York.

Here's what winning in 1960 meant to a few—

"We feel sure that it has helped us sell houses."—Brown & Kaufman, Palo Alto, Calif.

"We found our award invaluable in building our public image..."—Richard Prows, Bountiful, Utah

"Our brisk sales during the ten-week period following receipt of our award were undoubtedly due in no small measure to our Quality Home Award."—Bennett Construction Co., Bethesda, Maryland

"... gives us an extreme advantage over our competitors by being singled out among thousands of builders to receive this honor."—Huber Homes, Inc., Dayton, Ohio

"... a real prestige builder and very valuable from a promotional point of view."—Bollenbacher & Kelton, Beverly Hills, California.

"Our salesmen are always well informed about them (awards), and actually use them as selling tools."—Centennial Construction, Dallas.

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SPECIAL BONUS PRIZE

Top winners in each class will receive free round trips for two to Europe via Icelandic Airlines. Winners will receive a choice of visits to Norway, Sweden, Denmark, Holland, Germany, England, Scotland.
These are 16 'Freedom'-designed Features

As the floor plan shows, the House of Freedom has been designed to eliminate difficult housekeeping. Lighting is good. Dangerously slick floors and steps also have been eliminated. New building techniques have cut price; new materials are strong and durable and easy to maintain, at the least expense to the owner. Plan: 1. No step at entrance. 2. Master light switches at 3 points. 3. Non-skid floors throughout. 4. All doors and half-walls at least 3' wide. 5. All light switches and doorknobs 36" above floor level. 6. All electrical outlets 18" above floor level. 7. Dressing seat next to bathtub. 8. Strategically located grab bars in bathroom for safety. 9. Lower cabinets in kitchen raised off floor, upper cabinets within easy arm’s reach. 10. Low sink permits sit-down dishwashing. 11. Pull-down lighting fixtures for easy bulb replacement. 12. Perimeter heating for warm floors. 13. Extra storage space in garage. 14. Hobby-workshop area in garage. 15. All outside water faucets at least 12" above ground. 16. Wide roof overhang to protect walkways from the weather, and lower house maintenance cost.

Personal experience led Klock into the retirement house business

Trying to find a comfortable home after his son married convinced builder C. E. Klock of the potential in the middle-aged bracket. In three days after he opened his model (right) sales stood at impressive 17. Reaction to house was outstanding.

RETIREMENT'S 'HOUSE OF FREEDOM'

The over-50 buyer becomes

After opening a model home for the middle-aged market and selling 17 of them in three days, C. E. Klock, Portland, Ore., says he’s through with building for the young family business and all the problems that go with it.

Once upon a time, C. E. Klock built 25 “standard” houses a year in the Portland, Ore., area. Today he’s building houses for the “neglected market”—the middle-aged couple whose children are now young adults. The result: Despite a requirement that buyers locate their own land, Klock made 17 sales in three days. Shortly before, a 160-house tract in the same area, aimed at the $50-down buyer in the same price range—$12,850 with appliances, carpets—had four sales in three days.

Response like this has convinced Klock to abandon his efforts to sell the low-down-payment buyer. He adds that he’ll never again build for the young adult or family market.

Said Klock: “We had the best group of ‘lookers’ I’ve ever seen. They all own their present homes, they’re responsible people, and they respect the property. Nobody tried to twist a door off or see how strong the drawers were. Nothing broken or stolen.”

To enter the retirement market, Klock had several hurdles to jump. A lack of land was the first one. He made no arrangements for FHA financing, but offered conventional loans with a minimum 20% down payment. Only two buyers so far have asked for FHA. Two paid cash. The rest were more interested in small monthly payments than in low initial outlay. Another problem was the 2-bedroom house, considered unsaleable by many builders.

Klock credits design for much of the success he’s having. It’s the House of Freedom, a retirement home developed by the Douglas Fir Plywood Ass’n, for the White House Conference on the Aging. (One of the members of the design team was Joseph B. Mason, editor of AMERICAN BUILDER.)

Klock got into the retirement building business after he read about the plans for the House of Freedom. Through this publicity, he is able to better merchandise his product. “The people who came in response to our advertising (a full page ad and several small ones) already had read about the House in newspapers or magazines, or had seen it on television.” (The model for the White House Conference was built in downtown Washington, D.C. It has received national attention in the press since last January.)
big business for builders

Distinctive courtyard adds touch of style to small 'Freedom' house in Oregon

Dining area faces courtyard, which divides living room, master bedroom in Klock model. Kitchen is right of dining area, behind room divider that houses kitchen, stove and refrigerator on one side, television and storage space on the other.
Clever use of architecture and design

Klock offers customers a big selection of appliances in his $12,850 (plus land) houses

Stand in the kitchen-to-garage doorway and this is the view of Klock's version of the 'Freedom' house. Note cathedral ceiling in living area, which opens room to light, air. Everything shown here—except table—is included in price: refrigerator, wall oven countertop stove and vented fan, dishwasher, garbage disposer, and washer-dryer combination.

East Coast 'Freedom' house visited by 6,000 prospects in one day; sales are hot

New Jersey Builder, Carl Mitnick, reports turn-away crowds every day at model. Six additional salesmen were hired 90% of whom were in the retirement age bracket. Three models were opened to the public at the same time.

In July, builder Carl Mitnick, Cape May, N. J., opened three models of the House of Freedom. More than 6,000 lookers attended the affair; since then, he has had turn-away crowds every day. At one model, the doors have to be locked at 9:30 p.m. to break up the crowds. The builder reports seven sales so far—six for cash—and expects to sell about 70 retirement houses before the summer is over.

"Not only is the House of Freedom creating a stir, but it has made it possible for me to sell a large number of my other models. The 'Freedom' house is a top promotional gimmick."

Three billboards on a major highway, newspaper and radio ads, and a special disk jockey show for the opening were used to promote the house.
make small ‘Freedom’ houses look bigger

“I only half believed in the retirement market at first,” Klock said. “The half I did believe in came after talking to a lot of house hunters in the same boat my wife and I were in. We didn’t want a big house after our son was married, but we did want something with curb appeal and with enough comfort and design to satisfy our egos.”

The realtors and mortgage people told the builder that the market was in houses with three bedrooms and more and with family rooms. “But I figured there couldn’t be as many misfits as we were encountering,” he said.

After further investigation, reading about the House of Freedom, and talking with DFPA architects and project directors, Klock was convinced of the market.

From foundation to finish, Klock uses four carpenters for 26 working days, and a laborer for 10. Specifications call for the use of about 8,000 sq. ft. of plywood (3/4” basis.) Klock says the plywood cost more initially, but in most cases, the labor cost of other materials figured about triple with approximately 15% waste.

For storage space, box trick was worked out

Protruding box below the kitchen windows houses counter-height cabinets. By using this technique, cabinets are located so the homeowner’s view isn’t blocked from the inside.

Special safety features highlight bathroom

Bathroom safety bars and tub seat are big features. Klock eliminated bathroom window, lights room through combination skylight and luminous ceiling. Skylight exhaust fan gives ventilation.

Two types of siding used for easy maintenance

Two types of fir plywood were used: smooth-surfaced medium density overlaid panels, finished with a resin-fiber sheet, and “resawn” panels used as board-and-batten finish.

Big names in building field highlight opening

Those attending opening included (l. to r.) W. C. Fitch and Dr. Ethel Andrus, of National Assn. of Retired Persons; W. E. Dif- ford, DFPA; Neal Hardy, FHA, R. C. Weaver, HHFA; Mitnick.

Three display models opened simultaneously

This version of DFPA-developed retirement house was built near Somers Point, N. J. Others are located at Mitnick’s North Cape May development, and at Haddonfield, N. J., near Philadelphia.
A-FRAME HOUSE:

Designed to meet rugged

Indian logic, modern insulation, air conditioning keep desert house comfortable during hot days, cold nights. Borrowing old Indian customs—the use of a mountainside and thick masonry walls—Don Bland, of Phoenix, adapted an A-frame design to meet modern demands for comfort. A steep roof covered with heavy cedar shingles, rigid insulation, and air-conditioning helped further to gain his ends. The vertical plan, which concentrated rooms within a compact area, cuts building and operating costs. Original design was by Royal Barry Wills & Associates.

Master bedroom (upper level) has private deck
Large glass wall and ceiling that follows pitch of roof add sense of space to this second floor room. As in rest of house, beams are exposed; underside of insulating plank painted white.

Suspended stair has built-in reflecting pool
Open staircase can be seen from all main floor rooms and acts as vertical axis to design. Guest room-study, shown at left, is up two steps, has folding doors for extra privacy.
Living-dining-kitchen has panel ceiling lights
Up two steps from living room, this area opens onto street side, has shadow-free lighting. Board ceiling, built-up beams support open balcony often used as extra sleeping quarters.

Featured in all rooms—built-in storage units
Line of closets and drawers in guest room—study cuts down on movable furniture, gives room neat, trim appearance. Units have ash-faced flush doors. Strip lighting used between ceiling beams.

climate challenge

Photographs by Arizona Photographic Assoc.

VIEW FROM ABOVE shows stone wall in living room, metal fireplace hood. Living room and balcony are carpeted; all other areas have resilient tile floors. Stairway treads are terrazzo-type material.
Double profits from central a/c

Two people—the builder and the tenant—profit from a centrally located air-conditioning plant in a large garden apartment project. This is the view of J. W. O'Donnell who is presently building Ansley Forest, a 269-unit development in Atlanta, Ga. Using a gas-fired absorption chiller system, O'Donnell estimates that he will realize $3 more per apartment by contracting from the local utility on a large-volume commercial rate, and selling the gas at the domestic price. In addition, the gas center will service the garden units' hot water heat, kitchen equipment, decorative gas lighting, laundry equipment and incinerators.

The tenant will find central a/c more effective because of its unlimited cooling capacity, according to O'Donnell.

Heart of the system is a 310-ton absorption chiller located in an underground equipment room near the project's pool. The unit requires an eight million Btu steam input; the chilled water circulates at 44° with a 10° temperature rise. Room outlets come in three sizes, each having three fan speeds which operate manually or thermostatically.

Center of the heating system is a 12 million Btu input low pressure steam boiler with hot water heat exchanger which circulates at 160° with a 20° temperature drop. Heat loss for the entire project is calculated at 6,491,000 Btu; heat gain at 3,862,000. Although gas absorption chillers come at a higher initial cost (about $10,000 more than other central systems and including oil standby equipment) O'Donnell feels the costs are justified. He points to availability of steam, lower fuel costs, quietness as reasons. And he found that cost per unit/mo for the gas system is $7.29, as against $16.03 for another central system and $16.71 for individual room units.

Ansley Forest has 15 buildings, none of which exceed four stories. Apartments rent for $90 per mo (efficiency) to $175 (three bedrooms) including all utilities.
How big a tractor do you need for basements, materials-handling, grading?

If you build 5 to 25 houses a year, you may not need as big an outfit as you think.

Why use a big expensive tractor that costs you $27 per day or more, when your general excavating, grading and materials-handling work can just as easily be done by a Case 310 Utility Loader... for only around $9 per day? These per-day costs are an estimate of what it would cost you for depreciation, taxes, insurance and interest every day, for a 200-day work-season. Even if you use a different accounting method, you'll find the relationship still true... over 60% per-day saving in favor of the Case 310.

Consider these jobs:

BASEMENTS — Let's agree that a bigger rig may dig a basement faster than a 310. But if the larger rig finishes the job and then "sits idle", the high daily "ownership" cost quickly offsets extra operator-time for the Case 310. So in reality, your "310-dug" basement costs the same or less, and yet you have reduced your investment cost over 60%.

EXPEDITING, MATERIALS-HANDLING — You probably couldn't afford to have a $135-a-week machine "sitting" on your job while you're framing and finishing a house. But a $45-a-week Case 310 offers constant opportunities for extra cost-savings, if used just a couple hours a week — to move dirt-piles for easier access by employees and subcontractors, for closer unloading of materials, and to carry lumber, siding, roofing, block, brick and mortar right to workmen... even through deep mud.

GRADING — You can readily see that a utility-size machine offers cost-savings in its speed, maneuverability, and precise control of finish grade around houses. But a Case 310 will also make extra money on larger-yardage dirtmoving, too... whenever "sit-idle" costs of a larger rig exceed added operator expense for the 310.

A low-cost Case 310 Utility Loader develops 5815 lbs draw-bar pull. Available with high-torque Case gasoline or diesel engine, it digs easily, gets heaped ¾-yd bucketloads. Machine reverses direction instantly... turns short smoothly with power on both tracks. Loader lifts 3500 lbs to full height, dumps clean with 8'10" clearance for fast dump-go. This unit may be equipped with scarifier or winch, and interchangeable front pallet fork, log fork or dozer blade for specialized or off-season work. And, in addition, it costs less to move the 310 from job to job, than a bigger rig.

See how Case 310 Loader can make extra profit on your general excavating, grading and materials-handling, at 60% saving in outlay. Ask for free demonstration right on your job. Or send coupon for machine details.

310 Power-Angling Dozer
Case 310 tractor with wide-mount hydraulically-operated 92" blade pushes dirt quickly where you want it. Blade angles to 25° right or left on-the-go, offers blade "float" for easy pushing of rough-grade dirt and for fine "back-blade" finishing.
Prefinished—for permanence! Poly-Clad Plywall wood paneling helps provide the combination of quality, beauty and value that home buyers are seeking. And it shows! In the richness of Poly-Clad protected wood-grain finishes that never fade—that resist mars, scuffs, stains—that stay beautiful without bother. In the warmly wonderful influence that wood paneling adds to any room, any home. And Poly-Clad Plywall emphasizes quality with a written guarantee against fading, structural defects and delamination. Now you can put new “sell” in your homes, and cut costs, too. Simple to install. Requires no finishing. Reduces handling problems. Available from your dealer in a selection of 12 beautiful wood-grain finishes, in 4’ x 7’, 4’ x 8’ and 4’ x 10’ ¼-inch panels, and in ¾-inch cabinet stock.

Sales power going to waste

The customers wanted to buy. But Brown and Kauffman couldn’t sell to them—until they had changed their building philosophy

Too many buyers.

That’s the frustrating problem that gnawed at two prospering builders in Palo Alto, California.

Wayne Brown and Sam Kauffman had turned their business into a substantial success. They were building over 360 homes a year—better than a start-a-day.

By shaving costs from their homes with efficient mass production methods, these two Californians were able to market exceptionally good values in their price range—from $25,000 to $30,000. Their values were so good, in fact, that home buyers with higher-class tastes couldn’t help noticing.

These home buyers wanted a Brown & Kauffman home. But they wanted some other things, too. Some wanted extensive model changes. Some liked the models all right, but did not want to live in a development. Some of them had lots of their own.

Here was potent sales power. But it was being wasted. The two California builders—hand-cuffed as they were to their mass-production techniques—could not alter their operation to answer any of these requests. Mass production methods do not permit many changes from the basic model.

But Brown and Kauffman began to wonder: Weren’t they being deluded by the philosophy that had ruined so many doors—with exceptional beauty, unusual other businessmen? Weren’t they allowing production considerations to dictate to marketing policy?

Once they began thinking in this direction, Brown and Kauffman found themselves changing over their whole building approach. Instead of sticking only to mass production, why couldn’t they add a custom line, too?

They realized, of course, that custom buyers are a sensitive, tedious market. They had heard about the frequent design changes, the enormous detail, and the constant supervision.

The custom market, they finally agreed, required someone who could give it his full time. They needed a man who could handle custom buyers from start to completed house.

They found their man in H. W. Houd, Jr.—and gave him complete charge of their new custom line—the American Heritage Homes.

Houd set to work and organized his own architectural department and carpentry crew—to enhance his custom approach.

The prospects streamed in. Half of them from Cherryhill West, Brown and Kauffman’s current subdivision. These customers had seen the models but they had become interested in custom building. Occasionally, these buyers were surprised when they were not given a $5,000 or $6,000 allowance for owning their own lot. Houd, for example, would only reduce a $26,750 model to $24,800 when he sold it without a lot. But he could convincingly point out that American Heritage Homes feature individualized attention and better quality in such things as hardware, fixtures and inside finish.

How’s Houd doing?

With the running start that Brown and Kauffman’s reputation had given the Heritage homes, Houd was able to build up sales to a home a week in a few months. Some of these homes ranged in price to $90,000. But most of them were just basic Cherryhill models—with larger rooms, and, perhaps, a breezeway between the house and the garage.

But they have something extra: They were built with the marketing consideration uppermost. They were custom built.
Here's the formal beauty of the Far East captured in the classic sweep of line... and created by Dexter into beautiful and functional cabinet hardware. Knobs and backplates are interchangeable. Choice of finishes—Polished Brass, Polished Chrome, Satin Bronze, Satin Black, Satin Chrome, and Antique Copper.

Take advantage of display offer. Write for new brochure.

No. 676 Knob
No. 711 Backplate

No. 679 Knob
No. 722 Backplate

No. 675 Knob
No. 706 Backplate

NO. 800 PROMOTION . . . Beautiful picture frame display. No charge with one dozen of each item. Order NO. 800 PROMOTION (includes display and stock), specify finish.

No. 711 Backplate

DEXTERR LOCK DIVISION Dexter Industries, Inc., Grand Rapids, Michigan

IN CANADA: Dexter Lock Canada, Ltd., Galt, Ontario. IN MEXICO: Dexter Locks, Plata Elegante, S.A. de C.V. Monterrey. Dexter Locks are also manufactured in Sydney, Australia and Milan, Italy.
GUIDE TO NEW PRODUCTS

Soffit panels go in fast, need no painting

System uses snap-in aluminum components with baked enamel finish; built-in louvers provide ventilation

Big news in products this month is a snap-in aluminum soffit system from Kaiser Aluminum & Chemical Sales, Inc. For the builder, the system promises savings in on-site labor. For the buyer, easier maintenance.

The system uses pre-enameled, embossed panels that span from wall to fascia. Kaiser says it has these advantages:

- Needs no fascia groove, frieze board.
- Leaves no exposed nails.
- Since each panel has ventilating louvers along the outer edge, it eliminates on-site installation of louvers.
- Works with frame, brick veneer or masonry houses.
- The panels' baked-on enamel finish requires no painting by the builder, and, says Kaiser, will last many years without painting by the owner.
- Panels are ribbed for extra rigidity and strength. This eliminates the need for outlookers.
- Any panel can be removed, for ready access to the eaves area. This simplifies maintenance work for the buyer.

The panels are made to fit most standard soffit dimensions. They come in 4' lengths and widths of 12", 16" and 24". However, says the manufacturer, they cut easily to fit non-standard dimensions.

Accessories include wall molding, core and snap-on molding—all in 8' lengths—all inside and outside corners. Miter molding comes in 99" lengths. Here's how the system works:

1. Molding core is nailed to the inside of the fascia.
2. Wall molding is levelled and nailed to the siding.
3. Panels are inserted into wall molding (see drawing).
4. Snap-on molding goes into core to hold panels in place.

Result is a neat, trim soffit that will enhance either a new or an existing home.

The manufacturer says this system works equally well in both straight and boxed-in applications. For more details, circle No. 51, reply card.

Soffit held in place by moldings on fascia and wall

Panels are inserted in wall molding, snapped into core molding on fascia. Then molding strips like this go into core molding, with special right angle pieces at corners.

Panels are mitered at site for attractive corner treatment

Manufacturer says cutting is quick and easy with standard tools. Miter molding covers joint. Note ample vents along panel edges.

Completed installation shows careful engineering

Note absence of outlookers, fascia groove and frieze board on this frame dwelling. System also works with masonry, and for both straight and sloping soffits.
Even the operator's seat is improved on new John Deere 2010 Backhoe Units

Put a man on a smooth, adjustable contoured fiberglas seat, give him just two levers that put him in complete charge of the backhoe, and he'll show you a new kind of digging efficiency.

Give a man a new kind of loader like the Heavy-Duty John Deere "2010" that's self-leveling, with lift arms and all bucket action controlled by a single lever—and you'll see a new kind of loading performance.

Put the new 50-engine-h.p. "2010" on nearly any job where you've used other machines, and see the big difference that John Deere design makes. It's yours in two loaders, two backhoes, two rear blades, scarifier-scaper, landscape rake, seed-fertilizer applicator and other earthmoving and landscape equipment power-matched to the "2010."

With any equipment, working or in transport, you get the advantage of a new constant-mesh transmission providing 8 speeds forward, 3 reverse.

For detailed specifications on new John Deere "2010" Wheel Tractors and credit-plan information, contact your John Deere dealer through the classified telephone directory. John Deere, 3300 River Drive, Moline, Illinois.
You can shop by postcard in
American Builder's Supermarket

Help yourself... to the wide variety of manufacturer’s literature shown on the pages ahead. You don’t have to write, just circle the numbers on one of the cards below. Then drop the card in the mail (no stamp needed). AMERICAN BUILDER will forward your request to each manufacturer and he’ll send you complete data, free of charge. So... get out your pencil and help yourself.

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Just circle the numbers at right and you'll receive the information you want FREE from the manufacturers.

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Mail one of these postcards today to get free product information.
Service on September reply cards expires December 1, 1961.
Curtain wall snaps together, costs $2.30 per sq. ft.

This new aluminum curtain wall system erects without nuts and bolts, and is said to give an average in-place cost of $2.30 per sq. ft. The manufacturer, Pacific Curtainwall, Inc., says all components of the wall, including panels and ventilators, lap and interlock to form a solid, watertight unit. Members are precut to specified dimensions, and require no site fabrication. Firm installed prices can be quoted a few days after examination of plans and consultation with the architect. Called PAC/WALL 710 Series. Circle No. 82, reply card.

Speaker unit broadcasts music through ductwork

The unique “Background Music System,” by California Kitchens, Inc., sends music, via the heating or cooling ducts, to every room in the house. It’s a compact unit that’s screw mounted to the dome of the furnace or air conditioner. Installation is said to take only 12 minutes. Works with record players or AM/FM radio. Can be used to broadcast music or a builder’s own commercial in model homes, or as an unusual sales feature in unsold homes.

Single units cost $20 each, which includes mounting template, self-tapping screws and 50’ of wire. Quantity discounts given. For details, circle No. 83 reply card.

The Market Place for buying and selling used merchandise, help wanted, positions wanted, and other classified listings.

Rates—$7.50 minimum for 40 words or less. 15¢ for each additional word.

Display Classified—$35.00 per inch. Reverse plates not accepted. No illustrations. No agency commission or cash discount. One column only—2⅞ inches wide. 2 inches maximum. Signature and trade names allowed.

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POST OFFICE WILL NOT FORWARD MAGAZINES!

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Charles Clotfelter of Marietta, Georgia, is cured of cancer, like more than 1,000,000 other Americans. He owes his life to his own vigilance. He went to his doctor in time. Charles Clotfelter is living proof that many cancers can be cured if detected and treated early. Do you protect yourself with an annual health checkup? It’s your best insurance against cancer.

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Cabot’s OLD VIRGINIA TINTS®

A uniform, flat finish developed especially for shakes and shingles, pre-treated or untreated.

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924 S. Terminal Trust Bldg., Boston 10, Mass. Please send color card on Cabot’s Old Virginia Tints.
MORGAN-WIGHTMAN

Everything from Hinges to Modular Homes
including the tools to build 'em

in your M-W Catalog and Modular Homes Portfolio

Gracious-living sales maker: a TV barrier

Strong merchandising aids today are custom features that assure privacy for the buyer. One such feature is this transparent TV barrier between living and recreation rooms. It lets the kids enjoy a rip-sront' western, complete with gunfire, while the parents observe them from the peace and quiet of the living room.

The barrier is made from wood-framed Pella sliding glass doors from the Rolscreen Co. Doors are said to be non-warping and trouble free. They come with single or double glazing, for interior or exterior use.

Also available are transom units that extend the glass to the ceiling without the need for an extra header over the doors. Circle No. 84, reply card.

Rotary cutter clears heavy brush

Heavy duty rotary cutter works on brush up to 5" in diameter. High speed gear box permits faster travel of tractor. Said to give clean cut. Available in lift or pull types.—Servis Equipment Co. Circle No. 85, reply card.

Aluminum door cuts, planes like wood

Prime aluminum door is a full 1/4" thick and has a wood core. Recommended for use where appearance and durability of aluminum are desired, but said to install and work just like wood doors.—Hess Mfg. Co. Circle No. 836, reply card.

Timer makes appliances automatic

Appliance Minder makes all small appliances automatic. Turns them on or off within a 12-hr. period. Fits into standard 4-gang box. Units are ideal for kitchens of new and remodeled homes—also workshops, recreation rooms, etc.—M. H. Riddles, Inc. Circle No. 832, reply card.

Dryer needs no venting or plumbing

Custom Imperial dryer does not require venting or plumbing, as it eliminates excess moisture and heat from exhaust air. Has special settings for wash-and-wear clothes, timed and automatic drying cycles, special fluffing cycle, plus an automatic sprinkler to prepare clothes for ironing.—Frigidaire. Circle No. 833, reply card.

Anodized aluminum mail drop

Mail drop, for door or wall mounting, is made of extruded anodized aluminum, has stylish flush design. Comes in four finishes—said never to rust, tarnish or need polishing. These are: Satin, Albron, Albras and Alblack.—Macklanburg-Duncan Co. Circle No. 834, reply card.

Acoustical door only 3/4" thick

New door-and-frame package is said to be the lowest cost, maintenance-free interior unit available. Features a finished acoustical core door only 3/4" thick, which is said to have passed very extensive use tests.—Truscon. Circle No. 837, reply card.

AM/FM intercom fits 2" walls

Built-in AM/FM radio-intercom is said to be the first designed for new 2" walls. It features increased power and sensitivity, plus noise rejection, "meter tuning" and high fidelity speaker. Silver or copper finished aluminum panel controls up to 10 remote stations. Remote speakers available in 4", 5" and 8" sizes.—NuTone, Inc. Circle No. 838, reply card.

Steel buildings help you diversify

Design of Truscon steel buildings has been completely revised to simplify construction. Said to offer the homebuilder an ideal way to diversify into light commercial. Design uses conventional columns, trusses and joint construction, is said to require no specialized erection techniques. Masonry walls may be substituted.—Truscon Div., Republic Steel. Circle No. 840, reply card.
The Crane Economy Group: Priced for the development builder's budget...styled to please fastidious buyers.

What can you get from low-cost bathroom fixtures besides low cost? Styling? Color? Long-lasting quality? Customer appeal? Yes — with the Crane Economy Group you get them all. And you get the advantage of the famous Crane name — a name homeowners have favored for over 100 years.

The Fermont Lavatory is made of porcelain enameled lifetime cast iron. Comes in seven colors and white. Smart rectangular basin so popular today. Exclusive Crane controls.

The Fairfax Recessed Bath is five feet long with either left or right hand outlets. Gleaming porcelain enamel finish on a cast-iron base. Equipped with Crane bath and shower fittings. Comes with deviator spout, ball joint shower head, and pop-up drain. Seven pastel colors and white.

The Oxford Closet is smooth, lustrous vitreous china. Whirlpool flushing action. Solid, unbreakable molded Crane plastic seat and cover. Choice of seven decorator colors and white.

For more details on Crane quality plumbing, heating and air conditioning equipment for builders, see your contractor or architect. Or write Crane Co., Box 780, Johnstown, Pennsylvania.
“CHROMALOX electric heating helped sell this home 5 times the first day we showed it”
says E. N. Roberson
Builder, Longview, Texas

“We have 108 lots in our Rolling Meadows tracts, and from the way we’re selling all-electric homes now, we’ll be building all year long!” That’s E. N. (Eddie) Roberson’s reaction to a selling idea suggested and urged by Chromalox Distributor Carl Hagen. 1,000 adults visited Roberson’s all-electric 3 bedroom model home the first weekend it was on view. Five bought, many others went on the active prospect list.

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Your customers will go for safe, clean, efficient electric heat and the neat, modern appearance of the new, only 6” high, Chromalox PRIM TRIM® electric baseboard heaters. And you’ll go for the savings in installation costs—up to $500, per house.

To learn more about Chromalox electric comfort heating, send for new Bulletin No. 975, or ask for name of nearest Chromalox Sales Engineering Representative.

EDWIN L. WEGAND COMPANY
7742 Thomas Boulevard, Pittsburgh Pa.
CHROMALOX ELECTRIC HEAT

NOW...
CUT PLYWOOD FORM COSTS
WITH THOMPSON'S WATER SEAL

Note these cost-saving features:

■ Prevents absorption of water in concrete forms. Forms last longer.
■ Saves labor. Eliminates cost of cleaning, sanding and recoating after each pour.
■ Thompson's Water Seal permits eight or more pours per plywood form (min. 4 pours per side).
■ Eliminates form damage during stripping. Forms can't stick. Won't soften wood, prevents deflection.
■ Easy to apply by brushing, dipping or spraying.

Thompson’s Water Seal is deep penetrating, colorless, leaves no residue, won’t stain concrete; surface is dust-free, ready for painting.

Available in 5 and 55 gallon drums from suppliers to the construction industry.

See catalog in Sweets Architectural file and Light Construction file.

NOW...
CUT PLYWOOD FORM COSTS
WITH THOMPSON'S WATER SEAL

Complete kitchen in one small unit
Kitchen unit—for summer homes, efficiency apartments, recreation rooms or offices—measures only 48"x41"x21½". Yet, it contains a refrigerator, 2-burner cook top, freezer, sink and storage. Comes in walnut, mahogany or blond wood-grain finish.—Crane Co. Circle No. 541, reply card.

Patio door installs in 5 minutes
Manufacturer says its new sliding patio door can be completely installed in five minutes. The door and screen unit is pre-assembled and adjusted, is shipped fully glazed and ready to be set in the rough opening. Permanently positioned by 10 nails through the trim.—American Duralite Corp. Circle No. 542, reply card.

A writing desk for trucks, cars
Mishek Car Desk quickly installs in any car, truck or station wagon with no tools. Said to adjust to anyone’s writing habits. Measures 12½”x20”, lifts away from mounting to make a clip board. Comes with hardboard or plastic writing surface. Special introductory price.—Mishek Supply Co. Circle No. 543, reply card.

Liquid solidifies soil
New liquid solidifies previous soils, gives sandy soil appearance and characteristics of soft sandstone. Has been used to increase load-bearing capacity of soil, and for sub-surface water control.—Diamond Alkali Co. Circle No. 545, reply card.

Sales extra for the bathroom
Dental lavatory measures only 14½”x14”, offers extra sanitation and convenience. Flushes rim, vitreous china construction make for easy cleaning.—Kohler. Circle No. 547, reply card.

New vinyl asbestos floor tiles
Premier Series vinyl asbestos floor tiles have travertine-effect pattern. Come in seven colors, in 9½x9½ size. Thicknesses are 1/16", 3/32" and 1/8". Pattern can’t wear out, as it extends through entire thickness of tile.—Uvalde Rock Asphalt Co. Circle No. 546, reply card.

Mail box sports new design
Design of this apartment house mail box has just received Post Office approval. Smart styling is said to complement today’s architect-designed apartment buildings. Door pivots are rust-free. Doors open to the side, permitting one-hand operation. Boxes accommodate large magazines. Installs quickly.—Steel Prods, Co. Circle No. 539, reply card.

NOW...
CUT PLYWOOD FORM COSTS
WITH THOMPSON'S WATER SEAL

Note these cost-saving features:

■ Prevents absorption of water in concrete forms. Forms last longer.
■ Saves labor. Eliminates cost of cleaning, sanding and recoating after each pour.
■ Thompson's Water Seal permits eight or more pours per plywood form (min. 4 pours per side).
■ Eliminates form damage during stripping. Forms can't stick. Won't soften wood, prevents deflection.
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Thompson’s Water Seal is deep penetrating, colorless, leaves no residue, won’t stain concrete; surface is dust-free, ready for painting.

Available in 5 and 55 gallon drums from suppliers to the construction industry.

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Whenever people see this famous emblem, they're reminded to 'find it fast' in the Yellow Pages. And when you associate your business . . . your name . . . with this emblem, you're reminding prospects to find you in the Yellow Pages when they're ready to buy. So—if you're advertising in the Yellow Pages now, it's just good sense to display this emblem in your other advertising, on your business vehicles, at your place of business. And if you aren't advertising in the Yellow Pages yet, it's high time you did. Call the Yellow Pages man at your Bell Telephone Business Office for details on how you can put this emblem to work.
CATALOGS

PRICE LIST and catalog contains complete line of diamond core bits. Also features electric, gasoline and air powered models of core drilling accessories—Clipper Mfg. Co. Circle No. S6, reply card.

CANVAS AWNINGS: 24-page color booklet shows over 60 types of sunshades for windows, doorways, patios, etc.—Canvas Awning Inst. Circle No. S7, reply card.

COLOR SELECTOR shows how over 500 different color combinations can be achieved with Ceramic liquid tile masonry coatings. Coatings are said to give appearance and durability of ceramic tile—Preco Chemical Corp. Circle No. S8, reply card.


RESIDENTIAL INSULATION is discussed in a comprehensive 24-page manual for builders and architects. Contains wide range of design data, explains simplified methods of estimating heating-cooling loads and costs.—Owens-Corning Fiberglas Corp. Circle No. S10, reply card.


CONCRETE CONSTRUCTION handbook is believed to be the most comprehensive ever published. Consists of 12 separate sections of 4 to 24 pages each. Contains over 400 products, including form ties, anchors, inserts, supports, etc.—Master Builders Co. Circle No. S12, reply card.

WATERTIGHT MASONRY: 6-page publication (OM-80) tells how to achieve a weathertight job. Lists mortar ingredients, discusses mixing, proportioning, shrinkage control, additives.—Master Builders Co. Circle No. S13, reply card.

SAVE $10 TO $50 A HOUSE: 12-page catalog shows how builders can save money with manufacturer's line of nails. Nails are boiled twice in zinc, are said to be rust proof—W. H. Maze Co. Circle No. S22, reply card.

FIRE-SAFE CONSTRUCTION is discussed in a 4-page folder. Tells how fire-protected studs save time and money in commercial buildings.—Koppers Co., Inc. Circle No. S15, reply card.


FRAMING DEVICES are presented in a well-illustrated 12-page catalog. Contains split rings, framing anchors, joint hangers, bridging, etc. Many design and load tables.—Timber Engineering Co. Circle No. S17, reply card.

INSULATED DOOR STOPS: Literature outlines advantages of a wood door stop that comes with vinyl weatherstrip permanently attached. Needs no sanding or mitering, has a smooth beveled finish.—The Roberts Co. Circle No. S18, reply card.

PREFINISHED SIDINGS are shown in a color brochure. Includes clear bevel, insulated, board-and-batten, channel, hand-bead and shake types. Gives installation instructions and explains how these products eliminate need for painting—Olympic Stained Products Co., No. S19, reply card.
Your analysis of downtime and maintenance costs will prove Onan outperforms other electric plants. Stellite valves, bigger bearings, beefed-up connecting rods and crankshafts keep Onan on the job when others wear out. Equally important, only Onan is Performance Certified to deliver all the power the nameplate promises.

Only Onan is certified to give you all the power promised by its nameplate

It's a fact that many electric plants on the market today do not deliver the output promised by their nameplate rating.

Every Onan plant is given a rugged workout under full load before it is shipped—your assurance that the Onan you buy is ready for hard work the day you get it.

But this isn't enough. Independent laboratory inspectors pull surprise inspections to double-check our tests and testing methods. They pull a plant off the line, run it, stop it, load it, overload it, check and recheck. Their torture test gives positive proof of Onan's quality. End result: Onan's exclusive Performance Certification . . . your assurance of getting every watt of power you pay for.

So when you're tempted by an electric plant "bargain," make sure its nameplate rating is not "inflated." Be sure you're getting full measure for your money. Remember, the electric plant that shortchanges you in power output is no bargain at any price! Only Onan is Performance Certified to deliver everything the nameplate promises.

See Onan electric plants soon. Compare before you buy. You'll find your Onan distributor listed in the Yellow Pages. Call him or write direct.

ONAN Division, Studebaker-Packard Corporation, 2555 University Ave. S.E., Minneapolis 14, Minn.

SEPTEMBER 1961

PERFORMANCE CERTIFIED

We certify that when properly installed and operated this Onan electric plant will deliver the full power and the voltage and frequency regulation power and the voltage and frequency regulation promised by its nameplate and published specifications. This plant has undergone several hours of running-in and testing under realistic load conditions, in accordance with procedures certified by an independent testing laboratory.
Rigid frames give long, clear span

**QUESTION:** I'd like to build a store-showroom about 36x60', with windows and door across the front and one window on the left side. As a clear span is needed, I was wondering if a 2x4 truss would be adequate for the 36' span, or if post-and-beam construction would be more suitable.

Also, I would like to know if a building of this size needs cross partitions. Framing will be conventional 2x4 studs, 16” o.c., with plywood sheathing.

Finally, can you give me a sketch of a building of this type?

**Charles E. Sherk**
Hilton Beach, Ontario

**ANSWER:** Why not go to a rigid frame design? By using 2x8 framing members, you can easily get a clear 36' span with a 4-12 pitch roof and stud height of 8', 10' or 12'. Spacing of the frames must not exceed 1'-6". Fabricate them as shown in Fig. 1, above, using gussets of 5/8" plywood.

Each frame is designed as a two-hinged arch, and joints of eaves and ridge must be perfectly rigid.

**William J. Hornung**
Director of Training
National Technical Inst.

Exposed beams give rustic look

**QUESTION:** I plan to put a ceiling in a 24x30' log cabin. At present, there are two 8x8' beams running through benders 8' apart.

Should I put the ceiling below the 8' square beams, or leave the beams exposed? I want to keep it as rustic as possible.

**Ed Steffen**
Milwaukee, Wis.

**ANSWER:** By all means, leave the 8' beams exposed. Nothing is more rustic than exposed heavy timbers. For an extra rustic look, add 2x4's running in the same direction as the beams and stain all exposed woodwork the same color.

The Editors

Nails silence floor squeaks

**QUESTION:** How can I take the pops and squeaks out of the hard-wood floors of a 10-year-old house?

**Mrs. J. D. Sawyer**
Mt. Pleasant, Tex.

**ANSWER:** Nail down the flooring strips with ordinary finishing nails long enough to go through flooring and subfloor into the framing. Sometimes squeaks are caused by spaces between the underfloor and the framing beams. In that case, wood wedges hammered into the spaces will do the trick.

The Editors

Insulation dampens sound

**QUESTION:** How would you soundproof a duplex to cut noise transmission between apartments?

The building has a solid double floor running through both units. The center partition has 1/2” composition board on both sides and is filled with insulation. Other walls are knotty pine, with no insulation.

Should I cut the floor on one side of the partition and put insulation in the outside walls on each side of the partition? Or would it be better to put a composition-board wall in the attic above the center partition?

**Herbert Wilschewski**
Vergos, Minn.

**ANSWER:** Nail horizontal 1x2 furring strips on one side of the center partition, from floor to ceiling. Space them about 2" apart. Lay blanket insulation over the strips, then apply a new finished wall.

The Editors
WHAT EVERY BUILDER WANTS FROM A FLOOR

- ELEGANCE
- LOWER HOME BUILDING COSTS
- INCREASED HOME VALUE
- HOME OWNER SATISFACTION
- EXTRA SALES POWER

...only Par-TILE has it!

Par-TILE—9" x 9" x 3/8" tongue and grooved blocks are designed for QUICK and EASY installation.
Par-TILE—prefinished—ready to walk on.
Par-TILE—real wood finished in Natural or Walnut wood tones—complements any color or decor.
Par-TILE—spot and stain resistant—easy to maintain—women love it.
Par-TILE—warm and beautiful...a quiet floor because of its exclusive Flexo-Grid (pat. pend.) back.
Par-TILE—dent and mar resistant...no expensive refinishing after brutal open house traffic.

INCREASE CUSTOMER SATISFACTION—REDUCE COSTLY CALL BACKS WITH A QUALITY FLOOR...
Par-TILE HAS IT!

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Featured in SWEET'S Light Construction Catalog 8d and Architectural Catalog 14j

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SEPTEMBER 1961
SIX YEARS AGO the 40-acre pit was "an odious blotch" in the path of development: it almost became a city dump.

LAND PLANNING

From an abandoned clay pit

St. Louis builder saw an opportunity in an eyesore, moved 400,000 cubic yards of dirt to create a 25-acre lake as prime attraction for his $60,000 houses.

St. Louis builder Everett Schneider bought his abandoned clay pit in 1955—three to five years ahead of the predicted growth for that area. His friends said he was crazy. And into the building business via the remodeling of an old factory.

But Schneider saw the clay pit as an opportunity. His action was typical of this man who, in 1947, borrowed $3500 on his insurance policies to go into the building business via the remodeling of an old factory.

Schneider has always taken the "imaginative approach" to building houses, communities, and most re-

---

HELICOPTER VIEW OF WESTCHESTER ESTATES IN 1961. 21 of the 32 lake sites were sold before utilities were completed.
that nobody wanted

cently shopping centers. (He is active in civic and builder affairs, in 1959 received the St. Louis' "Man of the Year" award.

The unsightly clay pit occupied some 40 acres of the 140 Schneider acquired. His first step was to lay out 25 acres as a lake and 15 acres as a park. The remaining hundred acres were expertly designed for one-acre home sites.

Since the only other appreciable body of water in St. Louis is the Mississippi river, Schneider figured that a lake would make a highly appealing central core for his project, which he called Westchester Estates. All sorts of doubts and problems arose, but he kept pushing on.

His energy and enterprise more than paid off. Buyers were extremely interested in the lake and its surrounding area. Schneider built his own $50,000 house on one of the sites. And before the utilities were in and completed, he had actually sold 21 of the 32 lake sites at prices from $10,000 to $14,000—without any advertising.

The carefully laid out project has curving streets, with each house sited with respect to its lake location. Schneider does a complete "one stop" job for the buyers: he designs the houses, does the building with his own crews, handles the selling and arranges the financing.

Scheduling the operation was highly important. Schneider spread the work over enough years so that the lots came on the market as the surrounding neighborhood matured. His first step was to lease the largest dragline he could find and proceed to dredge huge piles of shale to create an attractive shoreline. An elaborate pumping system had to be kept operating all the

$10,000 per lot subdivision

Remaining one-acre sites now being developed, will have access to lake and 15 acre park. Houses priced at $45,000 to $80,000.
LAND PLANNING: CLAY PIT TO LUXURIOUS SUBDIVISION

Boat dock, sail boats prove irresistible as buyers rush to get lakeside lots

Schneider designs and builds houses to take full advantage of private lake. View shows $75,000 tri-level with circular patio and steps leading to dock. He stocked lake with fish, encourages swimming, boating, ice-skating.

time to keep the pit from filling.

After months of dragline work, dozers and scrapers were brought in to form the lake lots and cover both the lake bottom and the surrounding area with a good layer of clay. As soon as possible, areas were seeded and shrubbery planted so that the "odious botchery" would begin to look like something attractive.

Schneider's dream of making the pit into a lake good for fishing and swimming was aided by the discovery of numerous fresh water springs. He had to build a small dam, straighten a creek and install storm water culverts to maintain a steady fresh-water level. All of these took constant planning, supervision, imagination—and money. More than 400,000 cubic yards of dirt were moved. Some of the items of cost include the following:

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<th>Item</th>
<th>Cost</th>
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<tr>
<td>Engineering</td>
<td>$24,000</td>
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<td>26' concrete streets</td>
<td>$80,000</td>
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<tr>
<td>Storm and sanitary sewers</td>
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<td>Lateral to house</td>
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<tr>
<td>Water mains</td>
<td>$25,000</td>
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<tr>
<td>Grading</td>
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<tr>
<td>Seeding park</td>
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<td>Concrete culverts</td>
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Today, Westchester Estates has become one of St. Louis' most luxurious and desirable home communities. Most of the lake sites are now sold and are being covered with $45,000 to $80,000 houses. The surrounding area is being developed so that owners will have access to the lake and can participate in the fishing, boating, swimming, ice-skating and many other sport. Result: a high degree of community participation.

The 40 acres of lake and park are retained as a non-profit corporation in which the trustees of the corporation are officers and the owners are share holders and contributors toward the maintenance.

Schneider sums it up this way: "We had to buy the land at a reasonable figure and our profits also had to be reasonable. We're still far from completion, but it has been a real challenge—and a lot of fun."

"We built the lake—we design, build and sell the houses—and arrange the financing."

Westchester Estates with its lake and park has become a top-level subdivision. Schneider exercises close control to maintain the quality all the way, delivers a "one stop" service which includes both design and construction of each home.
Builder Barriball poses alongside one of the fully-equipped homes he builds outside Cleveland
Builder's package homes arrive at the site in three sections ready for erection. Interiors arrive fully finished complete with wall-to-wall carpeting in living and dining areas, tiling and linoleum in kitchens, bathrooms, and full appliance package.

LAND PLANNING: Beyond the Mains

L-P gas dealers urbanize "the country"

Builder Glenn Barriball opens up outlying areas of Cleveland with the help of liquefied-petroleum gas and pre-fab homes complete from carpeting to gas equipment

Cleveland Builder Glenn Barriball often asks his liquefied-petroleum gas dealer for help ranging from construction problems to actual on-site selling.

Framgas Company of Chagrin Falls, Barriball's dealer, moves into the job early to install the L-P gas storage tank layout, pipeline and fuel system. When the builder's manufactured home package arrives for erection the L-P gas dealer installs the builder's appliance package and ties it into the lines. When the model home opens Framgas goes to work promoting sales through newspaper and radio advertising plus on-site selling.

Prospect studies compactness of heating unit
Big part of selling homes in "the country" is to include array of living "extras" in the full price of the house package.

Builder shows prospect complete appliance array
L-P gas dealer provides builder with installed fuel lines and connects all gas equipment and appliances to these lines.

Barriball explains L-P fuel system to prospects
Dealer service to builder includes installation of fuel tanks, lines as well as meters that register owner's fuel consumption.
New gypsum wallboard system uses steel channels

United States Steel Corp. has recently developed and marketed a new system for installing interior gypsum wallboard. It uses formed steel channels, which hold the edges of the wallboard at ceiling and corner joints, as pictured. By using the channels, the need for back-up lumber for nailing surface is eliminated. Taping and spackling at ceiling, corner joints is eliminated. The rugged channel holds edges of the wallboard firmly in position, providing level and plumb corner and ceiling lines. The system was used by the firm for the "House on the Roof," Pittsburgh. (See page 70.)

Steel bracing and supports for joists lower building costs

Also introduced by U.S. Steel for "The House on the Roof" were two steel components: galvanized steel bridging (above) which snaps into place to provide permanent lateral bracing for floor framing, and steel joist supports (bottom). No nailing is required for the bridging, cutting labor costs and materials. The steel joist supports slip into place quickly, and provide sure, firm support that won't work loose as the house settles. The supports are nailed to the framing.

Builder uses new trick for curved gypsum board walls

Builder Tige Lankford, Los Angeles put this idea to work for a curved movie screen at Disneyland: Instead of wetting the board to make it flexible, sheets were propped against the wall with their bases several feet from the wall, depending on curvature desired. Two thicknesses of wallboard were used. The top layer was fastened on with fast-acting adhesive. For a slipsheet, plastic film was used to prevent premature adhesion. The first layer of wallboard was conventionally nailed; both layers were \( \frac{3}{4} \)" stock.
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A time for planning...

And the time couldn’t be better. Look at the building picture. The business slump of the past two years draws rapidly to a close. President Kennedy’s housing legislation promises to stimulate the market. Remodeling is taking on boom proportions. Commercial markets are opening new opportunities to builders. Antiquated building codes in increasing numbers of communities are being replaced by the more workable performance codes. Years of manufacturer research are making available new materials which, with updated codes, promise more house for less money. There are other optimistic signs. And they all add up to one important fact: next year should provide the real “sizzling” start to the promised “sizzling” 60’s.

So where do you begin your planning?

There’s probably no better place in the world than with a careful study of next month’s American Builder 1962 Builder’s Planning issue. It couldn’t be coming at a more opportune time. It will spotlight trends in management, merchandising, materials, methods, men and markets. It will help you pick your house designs for next year from the hottest selling ones on the market. It will show you how to take business advantage of the booming “sidewise” markets—remodeling, urban renewal, commercial building, apartment house construction. That issue may well prove your closest partner for next year’s business.

Planning to build this winter?

With next year looking so promising, why not put this year’s cold weather months to work for you? Building through the winter isn’t so tough if you take the necessary precautions. Last year, award-winning builder Tom Dillon, in Akron, did his building under an old circus tent. Heating salamanders kept both workmen and materials warm and dry. The tent stood Dillon’s winter efforts well. But your efforts don’t have to be so spectacular. Polyethylene film costs little but can be converted into tenting for winter work. Then, there’s building foundations with precast, pre-stressed concrete beams that solve the problem of winter concreting. And, of course, designing for component construction means you can build rapidly all winter with little on-site work.

Important to remember is that technological advances in building techniques have taken winter building out of the realm of the impractical. It needs just a little planning for you to turn those cold months into profitable ones.

IN NOVEMBER:

- The Faster House—The tough 60’s market will demand speedy, but quality construction. American Builder’s special report will detail new methods for quick construction and cost reduction through every phase of homebuilding. It’s must reading for everyone in the industry.
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