

November 1961

Three roads to

THE FASTER HOUSE

...buy the package

...buy the parts

...make the parts

Plus a roundup of latest construction techniques

AMERICAN *Builder* *The Business Book for Builders*

Components help George Arquilla and sons, Chicago, build a faster house . . . p. 58

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WESTERN EDITION



WHAT'S BEHIND THE

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Every time you buy NuTone Exhaust Fans, you're getting solid quality, not just in outward appearance . . . but through and through, right down to the last part. You can see for yourself . . . in these cut-away views.



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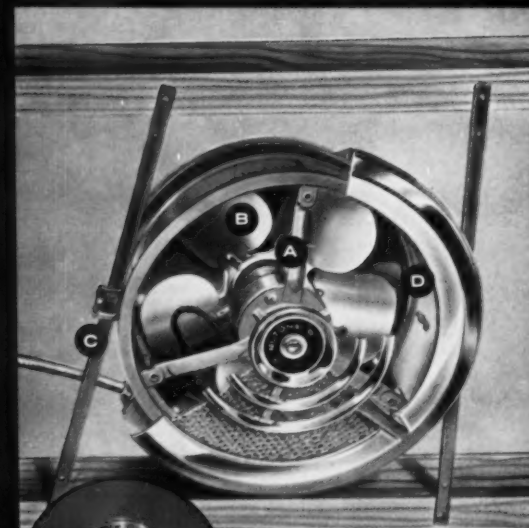
VERTICAL DISCHARGE 8210

- A. Transition-Housing for 7" Duct.
- B. Removable Outlet-Box Cover.
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- D. Self-Lubricating Motor.



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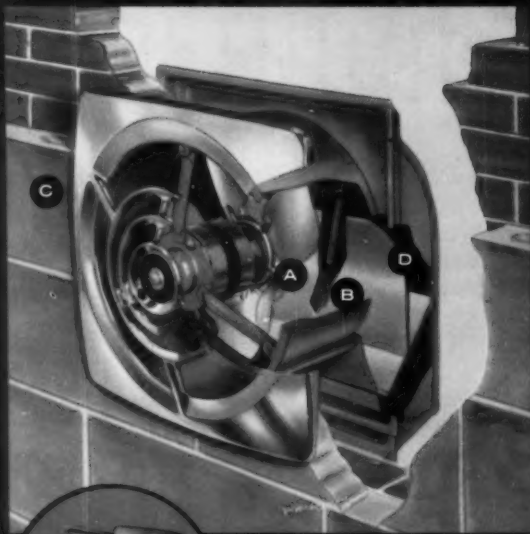
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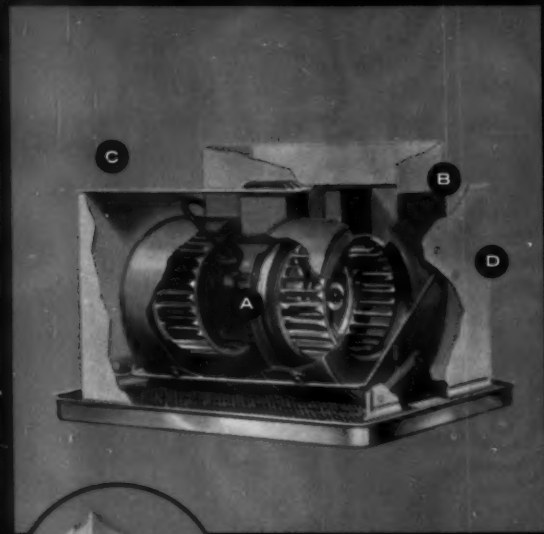
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Here are features you just don't get in other exhaust fans. That's why NuTone is more trouble-free and blessed with longer life. Best of all it doesn't cost you any more to have NuTone dependability!



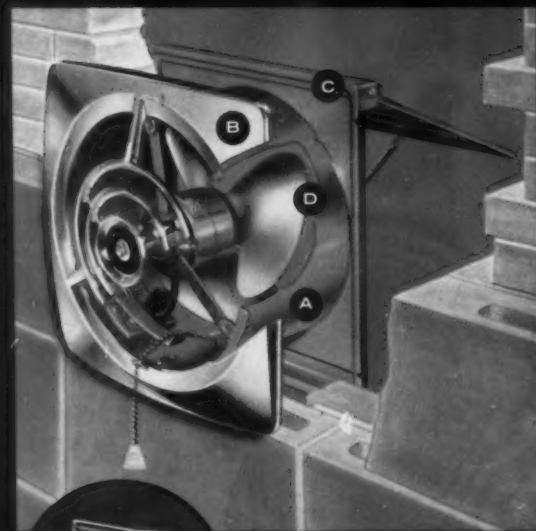
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See Next Page

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Mr. Joseph F. Slavik, Detroit, Michigan. Among his building citations, Mr. Slavik includes awards from *The Saturday Evening Post*, *Look*, *American Home*, *House & Home*, *Practical Builder* and the *NAHB Journal*.



The Americana, Burton Hollow, Livonia, Michigan. Detroit Home Builders Association "Idea Homes Award" winner. House and grounds: \$27,000.

"Good promotion ideas help sell houses. That's why I use concealed telephone wiring"

**SAYS MR. JOSEPH F. SLAVIK,
PRIZE-WINNING BUILDER OF DETROIT, MICHIGAN**

"Concealed telephone wiring with planned outlets is one of our chief sales features," says Mr. Slavik. "People look for it. They know it promises first-class, custom-built telephone service. So we promote it — and we use the Telephone Company's advertising for all it's worth. It all adds up to smart selling when we play up concealed telephone wiring.

"Here in Burton Hollow we've had a lot of success selling telephone planning as an idea that adds to the looks, livability, and resale value of the home. That really puts pre-wiring in the buyer's language."

Mr. Slavik, one of the nation's leading builders, is currently building approximately 300 homes in the Detroit suburbs of Burton Hollow, Ann Arbor Woods and Lotus Lake (near Pontiac). His own sales promotion stresses complete telephone planning.

* * *

Your local Bell Telephone Business Office will gladly help you telephone plan your homes. For more information on telephone planning, see Sweet's Light Construction File, 11c/Be.



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Faster than you think

New ideas and methods are taking hold in the building field faster than most people realize. American Builder editors concluded this after completing their annual National Homes Week tour of dozens of cities and after assembling data for this Faster House issue.

The evidence gathered from hundreds of field visits and 28,000 miles of travel shows that both big and little firms are adopting time and money saving techniques at a record pace—and it's showing up in better quality, faster building and lower costs.

Perhaps the recession speeded up the process. Or buyer resistance. Or perhaps fierce competition did it.

Whatever the cause, builders are using more components, trusses, wall sections, pre-engineered heating and plumbing, pre-fabbed door and window units, pre-fab ducts, pre-fab partitions, packaged kitchen and bath units, pre-finished interiors and a host of other new ideas and products.

It's interesting and important to note also that the smaller volume and custom builders are out in front in adopting new methods. Such engineered systems as Lu-Re-Co, working through local lumber dealers, bring the smaller volume builder the benefits of mass production techniques without detracting from his local independence or identity. Many local builders are also making and selling components to other builders.

American Builder uses the term "the faster house" to describe all the improved systems now in vigorous stages of development and use. They range from simple pre-cutting, or use of panel sections, to complete prefabrication. There is a place for all these types in an industry as diversified, and dispersed as this one.

The important point about any system is that it forces the builder to pre-plan or pre-engineer every step of his job. In doing so he not only saves time, he cuts out waste, turns his capital over more quickly, and gets the house enclosed speedily without delay from bad weather. If the market turns soft, he can cut back production more quickly.

Thus the faster house is truly a more economical house as well as a more precisely engineered and constructed house. Today the need for a better house for less money is greater than ever. Builders are not only in keen competition with each other: they are also in competition with automobiles, TV's and a host of other products for the consumer's dollar. The hammer and saw builder of yesterday has given way to the business builder of today who uses every new tool, technique and improved method he can lay his hands on to do a better—and faster—job.

JOSEPH B. MASON, *Editor*

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The **Buccaneer** is specifically designed for today's housing legislation. You can now take full advantage of the current requirements, and offer the **best terms** available with the **Buccaneer**.

The **3-bedroom Buccaneer** is available with a choice of slab, crawl space or full basement, with or without attached garage.

Ten architect designed elevations in American Ranch, Cape Cod and Colonial.

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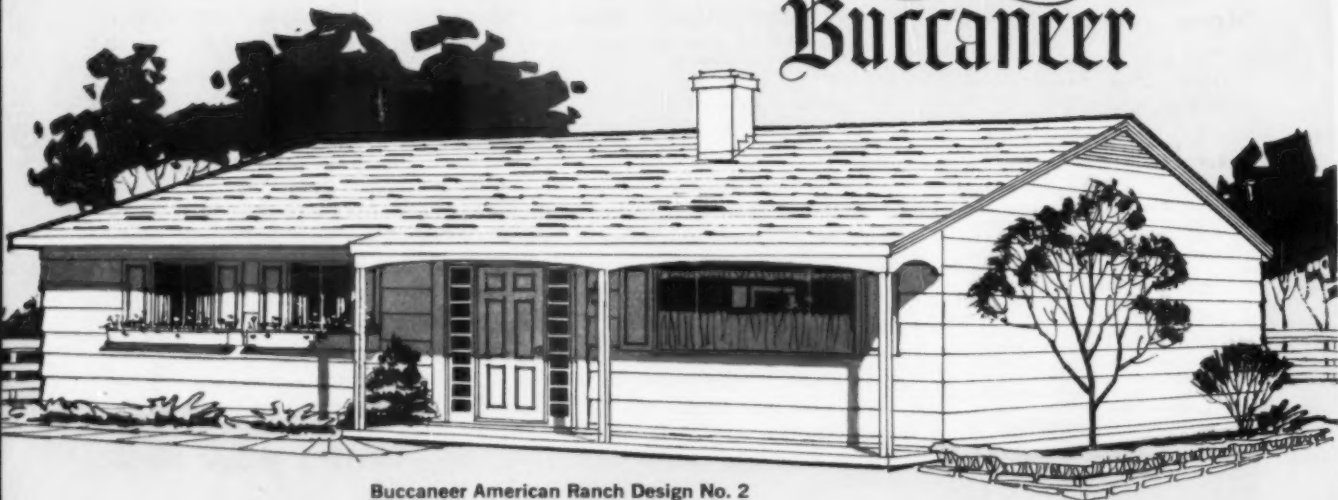


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INLAND HOMES



the 
Buccaneer



Buccaneer American Ranch Design No. 2

November 1961

National Home Week Report—AMERICAN BUILDER editors travelled 28,000 miles, visited scores of Parades of Homes and spoke to hundreds of builders to bring you the very latest in homebuilding trends 9

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New Look in Packaged Houses—The manufactured home has become a custom-tailored package with a kit of special services in the last ten years. Now may be the time for you to join the swelling ranks of prefab builders 66

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A House That Sells Itself: Space for a Family to Grow On—Seattle builders Hebb & Narodick build a completed house with an unfinished area placed to the side, below or above the basic living area. Space-hungry, growing young families go for the idea in a big way 90


New Ways to the Low-Cost House—Here are 28 ways San Antonio builders are trying to build a house for \$6,250. Their demonstration project shows how they could build and sell houses for low income families if left to themselves. Project SARAH is being studied by code authorities, government officials and housing experts. 92

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COVER: Panelized wall section is dropped into place by boom at job site of Burnside Construction Co. in Chicago Heights, Ill., as builder George Arquilla and sons look on. Firm builds its own sub-assemblies and components to gain a faster and more flexible construction schedule. (Photo by Bob Reschke) ... 58



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This remarkable material provides all the advantages of high grade Redwood siding ...at low cost...and *with* a distinctive luxury appearance that attracts home buyers. G-P Hacienda Siding boasts Redwood's resistance to rot, insects and fire—weathers beautifully. It has high insulation value and the ability to take and hold paint or stain. Yet this wonder material is only a fraction of the cost of comparable grade Redwood siding.

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SPECIAL REPORT

National Home Week Highlights

Every year National Home Week provides AMERICAN BUILDER, one of its founders, with a unique opportunity to make a national survey of building trends for you. Once again our editors took advantage of it and covered a great Many Parades of Homes throughout the United States.

One week and hundreds of interviews later, they filed their reports:

Joe Mason reports on the Southwest

"In the more expensive houses, I noted a tendency to separate the kitchen from both the dining room and the family room. This was often done with a straight line kitchen . . . Saw lots of very attractive pre-finished paneling widely used in family rooms. Quite a few builders were using it on bathroom walls . . . One-third of the houses in the Parades this year were two-story as against 99% one-story a few years ago. . . ."

Dick Bullock examines two Midwest cities

"In the St. Louis area, there is a definite trend toward component-type construction. Two of the most successful sellers in the market are the Hill-Behan Lumber Co. and Fischer & Frichtel Construction Co. . . . In Kansas City the split level house is still the most popular seller. It comes in all forms, side by side, front to back, and some houses have as many as five different levels . . . Kansas City is still a land developers' town, but some of the more aggressive builders will probably break this pattern and develop their own land to reduce house prices."

Dick Nunn covers the Southern states

"Although there is some evidence of multi-level structures, the South is pretty well resigned to Colonial design . . . Emphasis is being placed on low-cost housing and rental units for the Negro population—especially in Norfolk, Va. . . . While 'row house' subdivisions are still being built, a lot of builders have finally learned the importance of design difference and land planning: vary the plan and leave in the trees."

Bob Reschke comments on the Chicago scene

"Two design items have renewed emphasis and are stronger than ever before: traditional styling with shutters for all types of

houses and split-level construction . . . Unusual promotions are proving highly effective . . . To draw attention to a remote site, Concannon Construction Co. built a rocket-like space ship and strung it up 20 ft. in the air. A 'first woman astronaut' lived there 24 hours a day and 56 people signed contracts during the first two weeks of her flight."

Bill Hennessey visits Ohio and Kentucky

"There's an increasing demand for two-story homes because it gives the buyer more usable space for the money and compact floor plans fit smaller plots . . . Vacation houses are of interest to prospects and builders. Poor state highways are the main drawback, however—especially in Kentucky, where resort areas are difficult to get to."

Bill Rodd ranges over the Far West

"Many large builders are building in a wide variety of architectural styles and price categories . . . Almost all of them are beautifully furnishing and landscaping their models . . . Apartments are going wild in the things they offer prospects: pools for adults, pools for kids, therapeutic pools, game rooms, etc. Some even keep one apartment vacant for the guests of tenants."

Pete Cooper tours the New England cities

"To discuss homebuilding in Boston is to discuss Route 128. A heavy influx of highly-paid technicians and engineers into the hundreds of new factories along this highway have turned the area into a small builder's dream market . . . In Providence, housing starts were off 20%, but are expected to pick up since this is a big naval center. Due to the U.S. buildup in recent months, the city's civilian and military population is swelling."

Bog Siegel covers the Eastern states

"Harrisburg, Pa.—although the state capital—is grinding to a standstill in new ideas . . . While the new houses are substantial and well-built, they lack imagination and flair . . . In sharp contrast, Binghamton, N.Y., is a recession-proof, bustling market of high-priced homes . . . Blue chip corporations abound in the area, and builders have no trouble selling to upper-bracket engineers and executives."

Skil's "New Ideas" help contractors bid low! (and still make full profits!)



NEW IDEA—Improved, 2-speed, all-purpose saw!

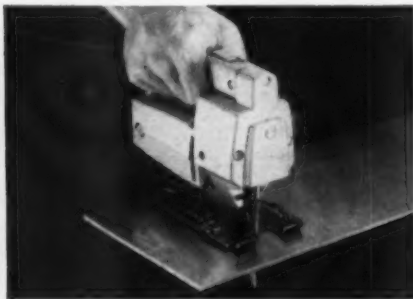
Improved Skil Recipro Saw (Model 700) has two speeds—*high* for fast cutting of wood, compositions, plastic; *low* for routine metal-cutting, top control in all finish work. Replaces hand, keyhole and hacksaws. Cuts openings, holes, notches; reduces on-the-job costs for contractors wherever hand sawing methods have kept labor costs high. Complete with steel carrying case. **\$99.50**

SKIL

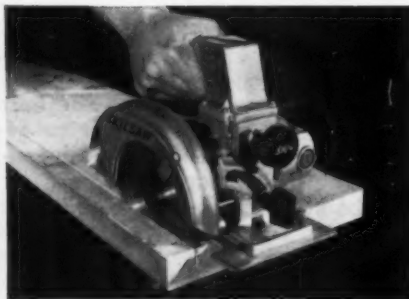
POWER TOOLS



NEW IDEA—electric hacksaw!
New Skil Model 701 Recipro Saw cuts 1" solid steel bar in 23 seconds! Has 2-speeds—low for stainless, other hard alloys, cast iron; high for mild steels, non-ferrous metals. Complete with case. **\$130.00**



NEW IDEA—2-speed jig saw! New Skil Jig Saw (Model 160) is world's fastest cutting portable jig saw—only model with two speeds for cutting wood and metal. Foot tilts for bevel cutting; adjusts to cut plywood without splintering. **\$99.50**



NEW IDEA—"Burnout-Protection" motors! Skilsaw circular saws have motors that give "burnout-protection" even with frequent, excessive overloads. Motors backed by full year service policy. 13 models available.

Ask your Skil distributor for demonstrations—look under "Tools—Electric" in the Yellow Pages.
Or write: Skil Corporation, 5033 Elston Avenue, Chicago 30, Illinois, Dept. 106K.

WHAT'S NEW *and what to do about it*

Housing sales and starts pick up steam

First figures from the Bureau of Census for the month of September, 1961, indicated a 6% gain over the same month a year ago for value of non-farm residential construction put in place. Total value for new housing units plus additions and alterations was approximately \$2.1 billion. To further brighten the general housing picture, more and more sales successes are being reported from all parts of the country. Most are about builders offering something new in house design or promotions.

These success stories show that where markets are dull the builders are often dull, too. Sharp new ideas will sell. For a good example, see what Hebb & Narodick (page 90) have done in competitive Seattle.

What competes most with your houses for the buyer's dollar?

Luxury goods—cars, TV's, foreign travel, etc.—are usually cited. But a recent survey by the U. S. Savings & Loan League of withdrawals of \$1000 or more revealed that 22.7% went for the purchase of stocks and bonds. House buying accounted for only 11.8% on a nationwide basis. Automobiles and other big ticket purchases, however, did get 15.2%.

This simple statistic indicates that builders, individually and collectively, might profitably re-emphasize the investment potentials of buying or owning a new home.

Senate to take a hard look at discounting of FHA-insured loans

Chairman Sparkman of the Senate housing sub-committee is disturbed by high housing costs, including big discounts on FHA mortgages. He feels the practice offsets many of the new housing act benefits. While Congress is adjourned, his group will study the situation.

Greater freedom for federal S&L's could benefit builders

The Federal Home Loan Bank Board's tough new boss Joseph McMurray continues to win praise from builders by liberalizing the rules governing federal savings and loan associations. Latest two changes: (1) Maximum term on non-amortized construction loans increased from 12 to 18 months; (2) limits on non-amortized trade-in loans raised from 60% to 80% of appraised value, repayable in 18 months. McMurray also has another proposal in the works—extending the lending radius for S&L's from 50 to 100 miles. He predicts this move will intensify competition among lenders and force money rates downward.

Watch for approval of this last proposal within the next few weeks. If it goes through, it will open new sources of financing for you that could mean substantial savings.

Everybody wants to board the shell house bandwagon

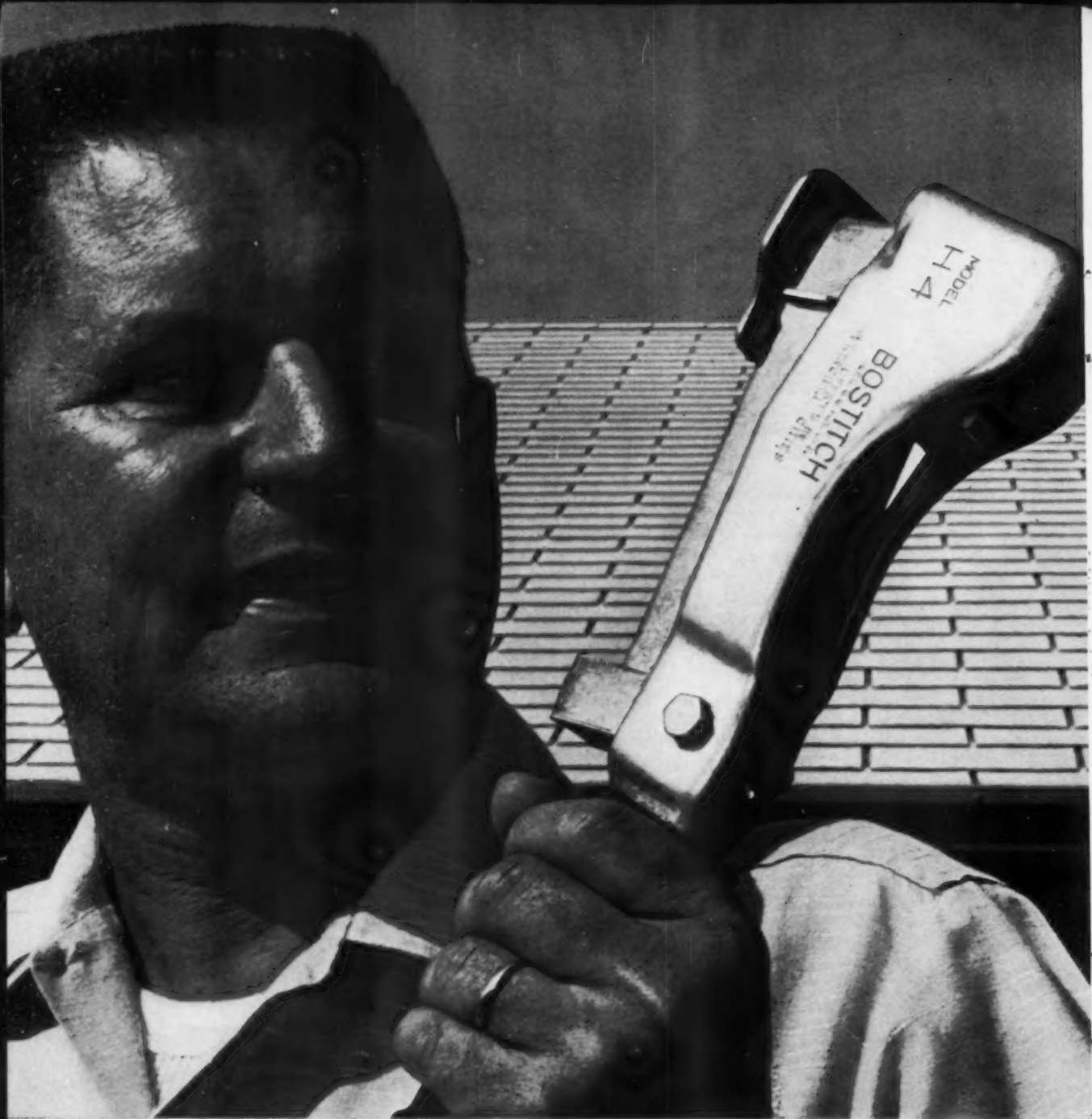
Latest entries into the booming shell-house market are two giants of American business: materials producer Johns-Manville and retailer Montgomery Ward. Both are currently engaged in test marketing programs. If the results of their tests are promising, J-M will probably start looking for builder-dealers throughout the country and Ward will break a major sales campaign through its many new regional shopping centers.

Although the competition is growing keener, this is still an opportunity market—especially for builders with design imagination and merchandising sense.

Central air conditioning still makes a strong sales peg

The first end-of-season reports from the Air-Conditioning & Refrigeration Institute show a growing demand for central air conditioning in the home. Sales to date this year are 9% greater than in 1960. Last year, a strong

continued ▶



I saved \$267.32 on this roof with BOSTITCH

A. M. Rudolph of Max Rudolph & Son, builders in Davenport, Iowa, has used Bostitch H4 Stapling Hammers for his roof shingling for more than four years. In addition to making important savings, he has also appreciated the holding power of staples over nails. "Last spring we were completing the roof on a new motel in Bettendorf, Iowa, when a severe windstorm struck. After the storm we examined the roof and found every shingle intact. Yet in this immediate area there were several houses that lost shingles which had been nailed . . .!"

For your own satisfaction—and your customers'—use Bostitch staplers on your jobs. They can mean an

increase in your profits and give you an edge in competitive bidding. Shingles, foil-type and batt insulation, undercourse shakes, and many other materials are fastened quickly and easily. See the complete line at your building supply dealer.

Fasten it better and faster with

BOSTITCH[®]

STAPLERS AND STAPLES

WHAT'S NEW *and what to do about it*

12% increase over 1959 was reported. Much of the gain is due to growing buyer demand above the southern tier of states, an ARI spokesman says. A good example is the St. Louis market. Bob DeSutter, knowledgeable executive head of the local builders' association there, says 39% of the new houses for sale now include air conditioning.

If you plan to add central a/c to your houses next year, take a tip from the ARI: "Don't offer it as an optional feature. Put it right in the base sales price of the house. This is the best and surest way to make a selling feature of it."

Lumber dealers study the remodeling market and get HAPI

In an effort to make lumber dealers one-stop remodelers, the National Retail Lumber Dealers Association has launched a big new program, HAPI (home and property improvement). To kick off the merchandising phase of the campaign set for early '62, NRLDA held a meeting with leading material manufacturers. Most important proposal: all manufacturers and dealers follow similar advertising themes month-by-month. In March for instance, everyone at both local and national levels would talk about Add-a-Room. Most likely outcome: a season-by-season approach to the tie-in advertising of dealers and producers. While applauding the idea, a number of producers felt the program still was not inclusive enough to really tap the full potential of the market.

If builders and dealers want to capture the lion's share of the remodeling market (and not lose it by default to the suede-shoe boys), there will have to be greater cooperation and coordination of effort—at the local and national or industry level. Both dealers and builders need each other. Both can help one another. Both would profit.

Slowdown in consumer saving—a mixed blessing?

All major categories of savings institutions—commercial banks, mutual savings banks, life insurance companies, savings and loan associations—report a definite slowdown in savings activity. All groups experienced record or near-record gains during the first half of 1961. Savings expert Norman Strunk said the down turn means "consumers are becoming less cautious about the economic outlook and are stepping up their spending plans." While this new consumer optimism could bode well for house sales, it might also mean a firming of interest rates at a high level. For instance, savings and loan associations, which serve as the biggest single source of mortgage money, draw 40%-45% of their loan funds from new savings deposits.

Fallout shelters—everyone talks about them, few people are buying

Despite the barrage of publicity and continuing talk about fallout shelters, reports from most major markets indicate a sales lag far behind early expectations. The two biggest obstacles seem to be restrictive building codes and reluctant financing. However, the FHA which will insure shelter loans until its Title 1 program has taken another step to give shelter building a shot in the arm. Minimum dollar amounts on the new 20-year 6% home improvement loans have been removed when applied to shelters. Only hitch: lenders still have not indicated any interest in the new improvement loans. It is doubtful if they will as long as they can realize better returns elsewhere.

If you're thinking about getting into this new market, take it easy. Don't plunge. It's already highly competitive—and will become tougher if sales don't pick up. Some say shelter building will mark time at its present desultory pace unless the federal government can give it a boost. One way is to make shelters tax deductible. Until this happens, many of the top hands in the building field will continue their "wait-and-see" attitude, and offer shelters only as optional items in new houses.



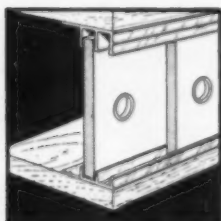
The right track to greater sales...

FOLDING & SLIDING DOOR

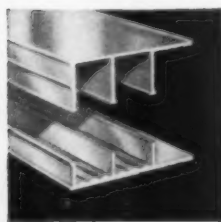


For any size cabinet—any panel material..

Aluma-Slide SLIDING DOOR TRACK SET



Panels glide easily on special supporting ridges of lower track.



For 1/4-, 1/2-, 3/4-, 1- or 1 1/4-in. sliding panels of plywood, hardboard, perforated panels and glass.

Comes in natural Alacrome finish and 3 permanent anodized finishes—Albras, Albright and Anodized Satin that won't rust or tarnish. Enhances the appearance of any cabinet.

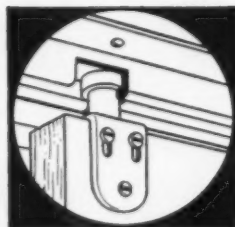
Installs Easily... Requires No Special Tools

Aluma-Slide can be used wherever cabinets are needed... throughout the home, office or shop. In tubular packaged sets of 3-, 4-, 5-, 6- and 8-ft. lengths, with holes drilled, screws and instructions.



For folding doors of any type...

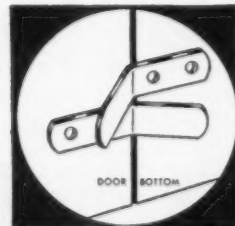
FOLDING DOOR HARDWARE



OPERATES SMOOTHLY
with silent nylon bearing gliding in top quality extruded aluminum track.

Ideal for 4-panel or 2-panel full or half size interior doors of any thickness. For closets, wardrobes, dens, bars, room dividers, etc. Gives full access to closets... yet saves floor and wall space.

Comes in completely packaged sets for 2-, 2 1/2-, 3-, 4-, 5- and 6-ft. openings, ready to install.



PERFECT DOOR ALIGNMENT

With M-D door guide, doors snug together when closed and will not creep open. No bottom track needed.

BUILDERS

See your leading hardware, lumber or building supply dealer for M-D products!

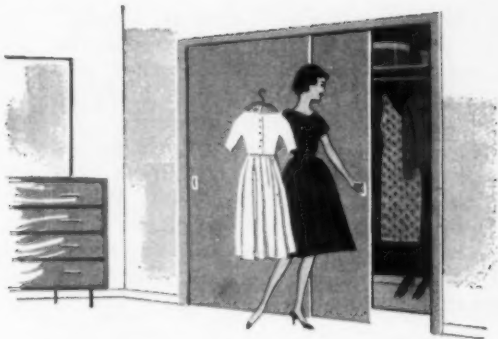
DEALERS

Order today! Your order shipped promptly! All M-D products are fast sellers, nationally advertised.

HARDWARE

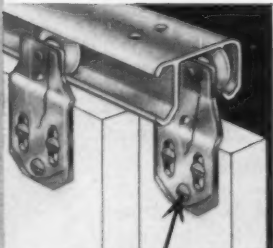


m&d QUALITY
is the difference
THAT HELPS YOU
MAKE MORE SALES

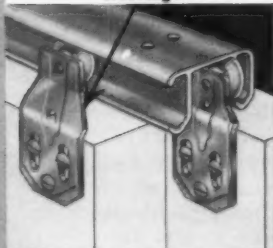


For quiet, efficient operation . . .

m&d OT-400 Reversible
SLIDING DOOR HARDWARE
with easy-to-install features!



USE SAME HANGERS FOR
BOTH 3/4" and 1 1/2" DOORS
Simplifies ordering and
stocking.



Installation saves time . . . cuts costs. Hangers are quickly attached to doors because of a built-in guide on each hanger which automatically positions it for proper alignment. Sturdy extruded aluminum track designed with built-in-no-jump feature. Cadmium steel hangers have silent nylon wheels.

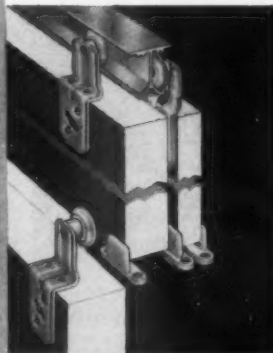
Comes in Poly Tubular Package

Set includes track, hangers, guides, screws and instructions. Packaged in 3-, 4-, 5-, 6- and 8-ft. lengths. Please specify OT-400 REVERSIBLE!



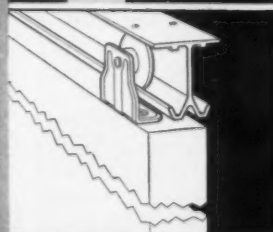
Meets today's quality-economy needs!

m&d OT-200 Overhead Type
SLIDING DOOR HARDWARE
For 3/4", 1 1/8" and 1 3/4" By-Passing Doors



Extra-sturdy extruded aluminum track and hangers. Built-in no-jump track feature. Noiseless, lifetime nylon wheels. Plastic door guides. All instructions and screws furnished. Hardware for each door thickness is individually boxed.

WALL POCKET HARDWARE



Shown here is Hanger TH-2 and Guide No. 13, made especially for Wall Pocket Doors. Packed 2 hangers and 1 guide to envelope, plus screws for hangers, guide and track.

MACKLANBURG-DUNCAN CO.

BOX 1197 • OKLAHOMA CITY 1, OKLAHOMA

OPINION

Advice from the firing line: A realtor

Here are selling ideas from a man who talks houses every day and sells them, too—\$5-million worth every year. Jiggs Lewin runs a real estate firm in Buffalo where he has studied the "ethnic factor" in housing. Here's what he's learned:

What is the difference between a house that will sell and one that won't? Mainly, the degree to which it is custom-built for the person most likely to buy it. When a builder goes to the bother of *loading* a house for the customer, there is never any problem selling it.

The difficulty of selling an ordinary house increases directly in proportion to the number of thought-out houses that are available in the area.

What do you mean by a "thought-out house?"

A house that is designed, priced and presented in a manner to catch the eye of a specific type of buyer. That buyer, of course, is in a certain income bracket, he has a certain taste—or lack of it—and he has certain living habits, some of which may go back three or four generations. Back, even, to the old country.

You believe, then that the recently much-mentioned "ethnic group" factor is important in house selling. Yes. Ethnic group, income group, religious group, culture-level group. Anything that tends to draw people together tends to give them ideas in common—desires in common—which should be strong factors in determining the best house for that group.

For example, in one section of Buffalo there was, years ago, a heavy settling of families from one country in Europe. They still live there, and their children live there. Naturally, the industry had to find land and houses for these people. We have *had* to, because these new generations want to live close by the old folks.

Now this is the interesting part. The old folks had come to America, the promised land. One of the wonders they found was tile on kitchen walls—so easy to keep clean! When they bought homes, they insisted on tile back of the work surfaces. Their children insist on the same tile. Their grandchildren do.

It is utter foolishness to build a house in this area without tiling the kitchen. It would be murder to sell. And if you did sell it, chances

are ten to one the family wouldn't like it.

Doesn't a philosophy like that tend to "freeze" design. Not at all. There are certain features that a group wants in a house—but they will buy those features in many different kinds of houses. But what they do want—give them.

We have a neighborhood here which insists (again, a "group" lives there) on houses that are all brick. In fact, all *yellow* brick. Whatever you build in this area, build it of brick.

Don't do these people a favor and give them a nice little place with cedar shakes. Give them brick—and make it easy on yourself.

How important is location in selling a house?

Where a house is can be more salable than what *kind* of a house it is. People want to live in a certain place because of snob appeal, nearness of friends, and the like. They may *have* to live in a certain place—for instance, within easy distance from work, or close to a thruway.

But the effect of location in salability goes farther than that. It includes our ethnic groups. When you build in an area where a specific kind of person lives, build a house for that specific type.

Don't overshoot in price—or undershoot the neighborhood. Don't get bright design ideas and build a "sore thumb house." These things are important—and too often forgotten.

From the sales standpoint, what is the most important factor in design? To be different enough from the competition so that the salesman has something to talk about—yet not so different that he has to *explain* the difference. This is, of course, assuming that the house is right for the neighborhood and for the group.

Second most important is size. Some places sell almost purely on the basis of size: little more room in bedrooms and kitchens and living room. People got awfully sick of looking at FHA-minimum houses and they won't stand for them any longer.

Especially the second-house buyer who is looking for room. More prospects every day are people who already live in a house.

What you sell them has got to be better than what they now have. This is true even if they are renting a house. They'll balk at anything that isn't nicer than what they are renting.

tells you how to zero in on your market

That old standby, the 24x30 with the unfinished attic is no longer enough, because the customer for it has all but disappeared.

What are the design essentials? Tile baths, tile kitchens, vestibules, full basements, a little curb appeal in the front. It's pretty hard to sell a house if the builder runs up a little place, dry-walls it, paints it, and sticks in FHA shrubbery and grass.

Is a ratio of importance between various rooms making itself felt in today's market? The ratio of importance between rooms hasn't changed much in the past year or so. People want about the same thing. But they want it more violently. They insist on it. They walk out without it.

The prime example is the family room. You've got to have it. People in moderate income brackets used to sigh enviously at the pictures in the women's magazines of the activity room which cut housework in half. Then the family area began to show up in houses at almost any price. Now—you had better have one.

Doesn't this get us into a discussion of cost and price? Any builder today who isn't *always* thinking of price and cost is not likely to linger long in this industry.

First, a house must offer something.

Second, it must offer it at less money than the place down the street.

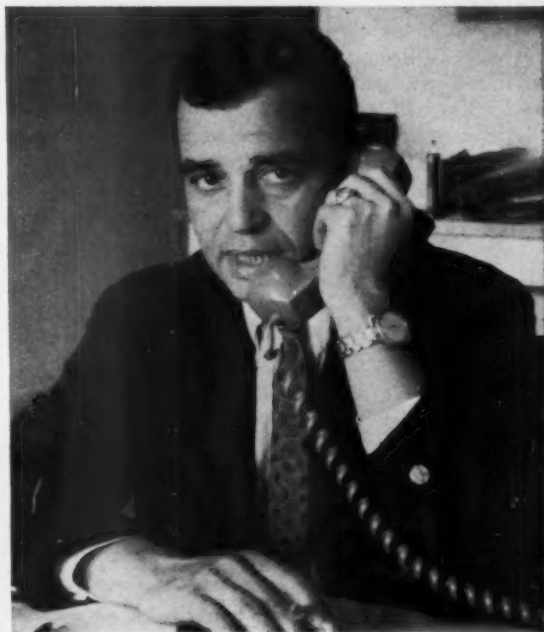
Within a given socio-economic-ethnic group, it is difficult to justify much of a price differential between two houses that offer essentially the same amount and degree of livability. In other words, unless you've got a definable, measurable edge over the other man's house, you'd better meet his price.

Sometimes—and this can be a little painful—the builder has to take a little less profit as a means of showing a price that compares with the man on the other side of the highway. This becomes especially painful with the increasing cost of land cutting into its profits.

Is there any way a small builder can lick the problem of high land costs? There is a simple way—not often enough used—that avoids the profit of the land speculator. Most small builders, even medium-big operators, must buy their

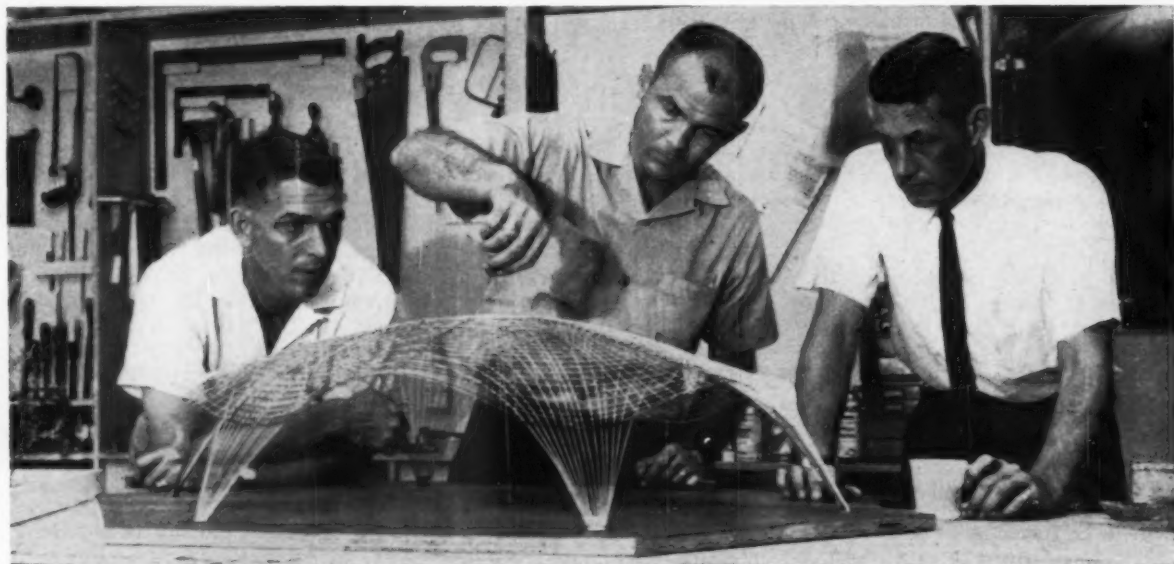
land from someone who has already hiked its price through improvements—and hefty profits. Although the typical small man cannot command enough money to buy raw land and develop it, it is possible for two or more builders to join together, pool their credit worth, and get land at "wholesale." There is hardly any other way for them to compete with the big-scale builder.

As a realtor, what financing problems do you come across most often? The trade-in and the low-down-payment buyer. Everyone who is in a house must buy with some sort of a contingency or trade-in. Most people who do not presently own a house find it difficult to bank much down-payment money. The builder whose sales organization can handle used houses, the builder who can swing financing for low or no down payment has an invaluable selling advantage. The ability to handle these two financing problems will become more and more important in the future.



JIGGS LEWIN markets houses for some 15 builders whose prices range from \$12,000 to \$30,000

TOMORROW'S HOUSE



Developer of lift-shape construction method, James H. Marsh III, Assistant Professor of Architecture, demonstrates scale model.

Assembled on ground, lifted by giant crane

A dramatic new type of building construction was demonstrated last month at Texas Agricultural & Mechanical College. At that time a giant crane was attached to a flat geometric form of metal lath and reinforcing rods and, just as a pair of tweezers can lift a spread-out hand-

kerchief, hoisted the skeleton to its proper height. Workmen then sprung the four legs of the structure into place.

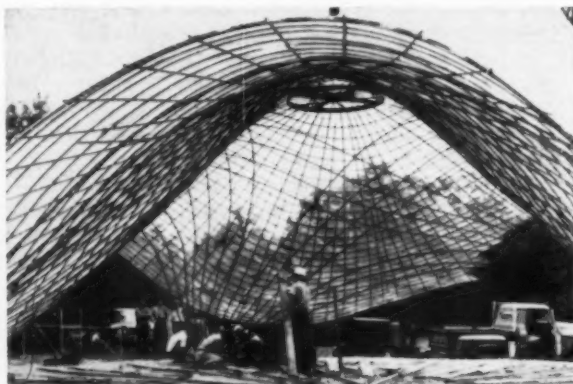
The steel shell was later covered with successive layers of a machine-applied mixture of portland cement and sand to give it form and

rigidity. According to its originators, this "lift-shape" method of building offers unlimited possibilities for forming thin shell reinforced concrete shapes without the use of conventional forms and framework. It could be used for display rooms, garages, houses.



Workmen assemble geometric framework on ground

Projected to a flat surface, the framework of metal lath and steel bars, takes shape directly on the site. Concrete piers for the four legs had been poured previously and allowed to set.

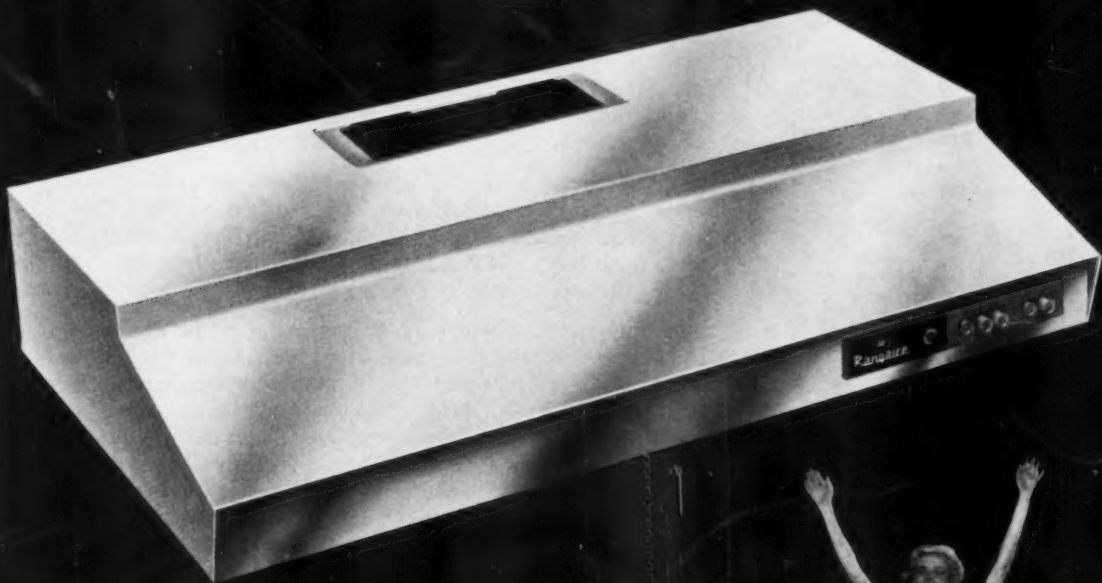


Legs are being anchored to four concrete piers

Test building measured fifty feet in diameter. Structure is shown after being hoisted into place by crane. In lift-shape building, form and reinforcement are combined in a single unit.

All New ... and unquestionably the finest from

Rangaire



Model UC200 with contemporary
Appliance-Mate styling!

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.

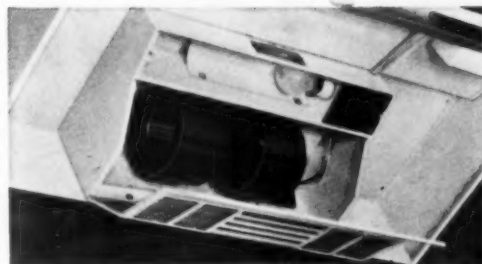
EASIEST TO INSTALL. The all new UC200 is designed for minimum installation time, and vents either top or back. Exclusive Rangaire "Installation Template" eliminates need for time consuming measurements.

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

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All new exhaust-filter design. Powerful, double squirrel cage exhaust unit, recessed frosted glass lights and "drop-away" permanent aluminum filter are all contained in neat housing under the hood for easiest possible maintenance and cleaning.

"For higher quality at lower cost—"

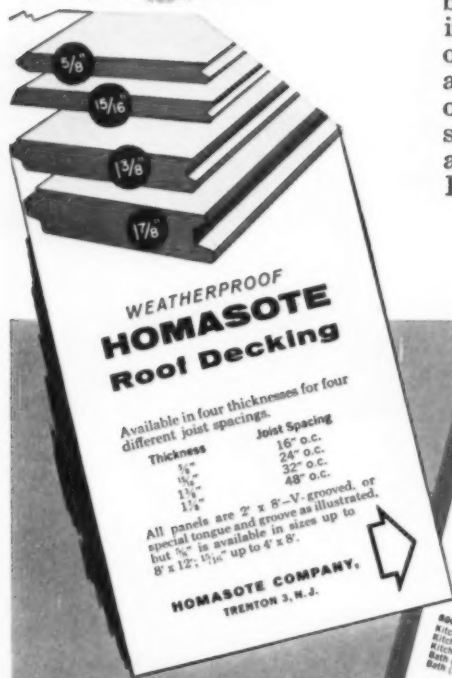
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FOR EXAMPLE:

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on every square of
roof area with

HOMASOTE ROOF DECKING



In one strong piece of weatherproof material, you have top structural strength, insulation, sound-deadening and an attractive finished ceiling. Application is simple and speedy. As evidence of Homasote's strength, note that the 1 7/8" thickness spans 48", where other materials require 3" thickness.

Homasote can help you cut your costs—either step by step or in terms of the whole structure. Both the size of the Big Sheets (up to 8' x 14') and their *weatherproofness* save you money at every point. Moreover, they permit uses not possible with other materials.

The major facts about each Homasote Product are presented in briefest terms—on a colorful Nutshell Card (as pictured below). Handy reference tables—such as fan locations—are included. Ask your Lumber Dealer—or write us—for a set of these cards. Each shows you where you can save money at some point of construction—and still give the home owner higher quality, finer appearance and more lasting satisfaction. And—be sure you always have available a copy of the latest edition of the 72-page Homasote Handbook. Kindly address your request to Department L-1.



Ask your Lumber Dealer
About Homasote P-B Components

HOMASOTE COMPANY

TRENTON 3, NEW JERSEY

Homasote of Canada, Ltd. • 224 Merton Street • Toronto 7, Ontario



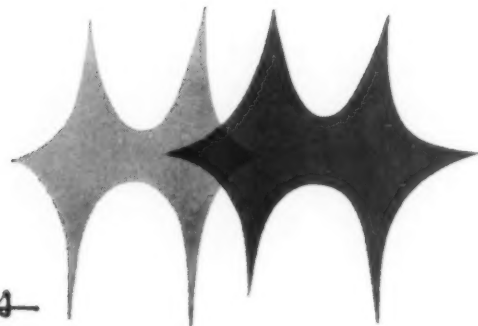
Ceramic Tile...to catch a buyer's eye

This distinctive floor was created with American Olean's new SD-5 design in crystalline scored tile. The lustrous textured surface gives you a different looking floor that becomes a sales feature for the home. It's quick and easy to install, and not expensive. For more design ideas write for new booklet, "Crystalline Glazed Scored Tile."

In the bathroom shown: Wall: 21 Cornflower. Floor: 310 Cr. Blue and 365 Cr. White In SD-5 scored tile. American Standard fixtures in Regency Blue. Plate 123.

CERAMIC TILE
**American
Olean**

Concrete Industries



HORIZON HOMES

Program

Meet the 1961 winners!

Be a 1962 winner yourself! The 1961 Horizon Homes program will come to an exciting finish as the winning architects and builders are announced at the builders' show in December. At the same time, builders will have a chance to sign up for an even bigger and better program next year!

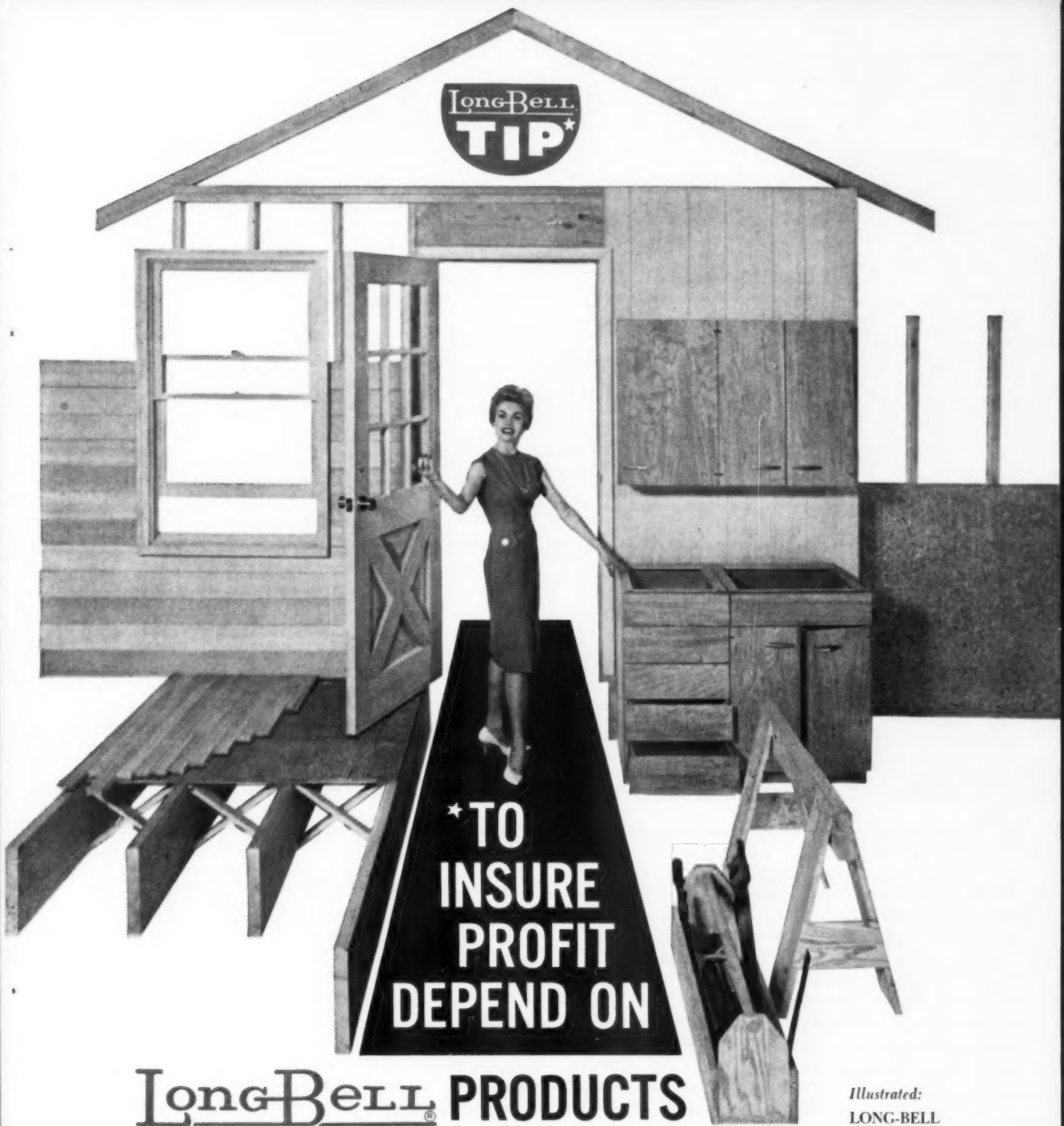
1962 will offer all NAHB builders opportunity to share in this major nationwide program developed expressly to help *sell more homes*. You'll team up with top architectural talent to create bold new concepts in home design, dramatizing the charm and livability of modern concrete. Again, the Horizon Homes Program will be keyed to industry national promotion... the National Home Week activities and "Parade of Homes" showings.

Not only will you compete for national and regional awards—you'll win a bigger share of the great housing market by taking advantage of the aggressive Horizon Homes merchandising program. Developed by experts, free promotion kits include everything you'll need from the early planning stage through model home activity. Be sure to stop by the PCA booth!

PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of concrete

Get the details at
PCA's
BOOTH 1718
NAHB CONVENTION



***TO
INSURE
PROFIT
DEPEND ON**

Long-Bell® PRODUCTS

To insure profits, insist on quality... quality that can be depended upon, year... after year... after year. Long-Bell has been known for this consistent high quality in wood products since 1875. Now, as in the past, you can depend on Long-Bell for quality products and helpful service that makes sales, satisfied customers and profits.



INTERNATIONAL PAPER

Long-Bell Division

A Quality Name in Forest Products

Longview, Washington • Kansas City, Missouri

Illustrated:
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Framing Lumber
Siding
Oak Flooring
Wood Windows
Wood Doors
Plywoods
Ven-O-Woods®
Flakewood®
Natural Wood
Kitchen Cabinets



*An Air Force Base
Capehart housing project
with Gerber Plumbing Fixtures*

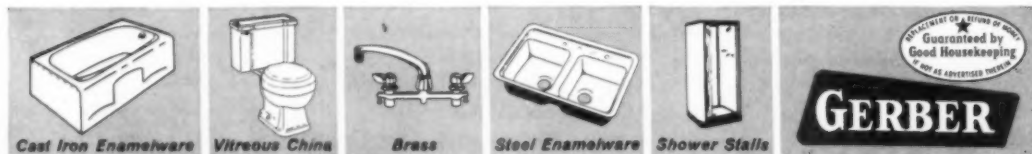
Each of the 636 Wurtsmith Air Force Base housing units in Oscoda, Michigan features a complete Gerber bathroom plus powder room—complete with enamelware, vitreous china and brass. Plumbing Contractor: Maintenance Engineers, Inc., Flint, Mich.; Architects: McCaughan & Johnson, Washington, D. C.; General Contractor: J. W. Bateson Co., Dallas, Tex.; Gerber Wholesaler: A & S Supply Co., Flint, Mich.

Why Gerber fixtures for the Mighty Middle are a better buy for military or other large scale housing

More and more builders are selecting Gerber Plumbing Fixtures not only for their luxury jobs, but for their moderately priced, multiple housing jobs too. This type of housing forms a major segment of the Mighty Middle mass market for which Gerber fixtures were specifically designed and produced. Full production for this specialized market *only* (Gerber makes no expensive-to-make specialty items for the small market that wants them), results in savings passed on in two ways: (1) deluxe quality, styling and added features usually found on more expensive lines, and (2) moderate prices.

Gerber offers a complete line of basic fixtures priced low enough for moderately priced homes, yet highly desirable for expensive homes, motels, hotels, schools and similar applications as well. Colors offered are petal pink, wedgewood blue, forest green, driftwood tan, daffodil yellow, and cloud gray, or white.

Write for our catalog showing the complete line of Gerber brass, steel, cast iron, and vitreous china. Catalog shows special design features that make installation quick and easy, too, plus "packaged" bathrooms available for every building price range ... saves time and money on every job.



Cast Iron Enamelware

Vitreous China

Brass

Steel Enamelware

Shower Stalls

GERBER



SEE OUR EXHIBIT
SPACE NO. 1255-56

"Plumbing Fixtures for The Mighty Middle"

Gerber Plumbing Fixtures Corp., 232 N. Clark St., Chicago 1, Illinois

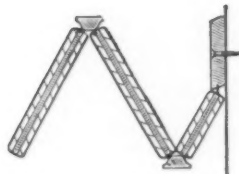
5 Factories: Kokomo, Ind., Woodbridge, N. J., Delphi, Ind., Gadsden, Ala., West Delphi, Ind. • Export Div.: Gerber Int'l. Corp., 500 Green St., Woodbridge, N. J.



DESIGNER: LAMPERT WALLING



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

In this one picture we show PELLA WOOD FOLDING DOORS used three ways. In the foreground, one closes off a bedroom wing. Beyond that, one serves as a closure for well organized storage area. Another PELLA door in the background opens to kitchen and family room. Elsewhere in this exciting home, other PELLA WOOD FOLDING DOORS are used as a divider between kitchen and family room and as a closure for toy storage. You can order PELLA WOOD FOLDING DOORS factory-finished in any of 6 genuine wood veneers. Or, they can be painted or finished to match any color scheme. Solid wood "Lamicor" construction permanently prevents warping. Patented steel spring hinging provides easy operation. See the PELLA distributor listed in your classified telephone directory or mail coupon.

6 Fine Wood Veneers... American Walnut • Philippine Mahogany • White Ash • Birch • Oak • Pine

.....THIS COUPON ANSWERED WITHIN 24 HOURS.....

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ROLSCREEN COMPANY, Dept. MB-53, Pella, Iowa

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FIRM NAME _____

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CITY & ZONE _____

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Compact, lightweight, fits in palm of one hand.
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Subsidiary of Rockwell Manufacturing Company
646L N. Lexington Ave., Pittsburgh 8, Pa.

In Canada: Porter-Cable, Ltd., Box 817, Kingston, Ontario.
Canadian prices slightly higher.

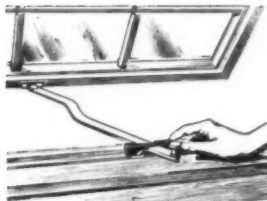


PELLA PRODUCTS

THE FOCAL POINT OF QUALITY



ARCHITECT: RICHARD FITZSIMMONS
BUILDERS: MOUNTAINSIDE PROPERTIES



UNDERSCREEN OPERATOR is of extruded aluminum. Exclusive nylon **GLIDE-LOCK®** permits locking **TWINLITE WINDOW** in 10 positions

VISIT PELLA
N.A.H.B.
BOOTH 1071-1271



wood twinlite® windows

Double-hung? Take a closer look!

Any resemblance between double-hung windows and these PELLA WOOD TWINLITES is purely intentional. These economical wood windows combine the rain protection of bottom awning sash with the traditional appeal of narrow meeting rails. From there, you can dress out PELLA TWINLITES in almost limitless ways. Use removable muntins to vary glass patterns. Add shutters, cornice and baseboard details. PELLA WOOD TWINLITES can also be set as casements. For owner convenience, screens and storm sash are self storing. All hardware is solid aluminum and stainless steel. Underscreen or Roto operator. On your next jobs, put new ideas and traditional appearance both to work with PELLA WOOD TWINLITE WINDOWS. Call the PELLA distributor in your classified telephone directory or mail coupon for literature.

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"JUST MY STYLE"



Honeytone cherry



Natura cherry



Frosted cherry

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Your new homes "give the lady what she wants" when you panel with new Royalcote grains

You know how prospects are: one goes for Contemporary, another Provincial, still another prefers Early American. What's the answer?

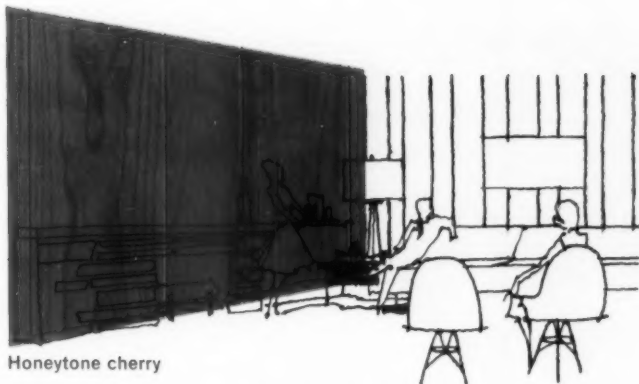
Easy. Give the lady what she wants with Royalcote paneling by Masonite! High fidelity wood-grain reproductions on durable hardboard satisfy the most discriminating tastes. Colors that will make her say: "Just my style."

That style will last, too. Royalcote factory-finished hardboards have a protected surface that lasts a house time. No checks or cracks. No soft spots. Dent and soil resistant for years to come.

It's so easy to close the sale when you give the lady what she wants...give her genuine Masonite Royalcote panels! Your Masonite representative or building materials dealer has the full line waiting for you. Or write for information to Masonite Corp., Dept. AB-11, Box 777, Chicago 90, Ill.

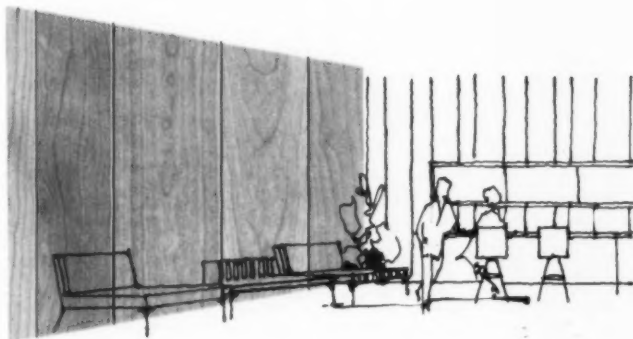


National ads like this in *Better Homes & Gardens*, *American Home* and *Sunset* tell home buyers to look for Royalcote paneling in their new homes.

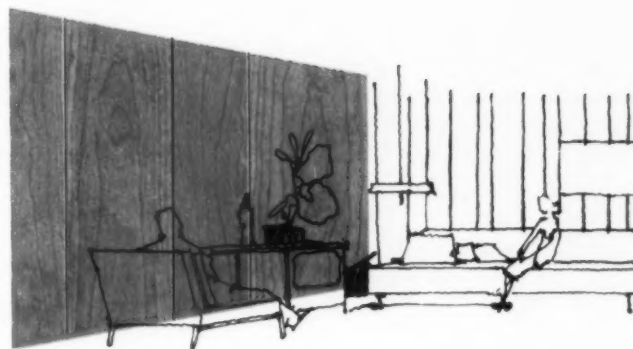


Honeytone cherry

Hit the highlights and your homes make a hit! Nothing attracts more than the luxury appearance of lively wood-grained paneling...and no paneling gives you that luxury look at a more sensible cost than Royalcote factory finished hardboards. Striking cherry grains in three rich tones with remarkable soil and dent resistant finishes. Perfect for family room, den, living room—you name it.



Natura cherry



Frosted cherry

shows the way!

Always look for this trade-mark on the paneling you buy: it says this is genuine Masonite hardboard. It's wood-made-better...made through the exclusive explosion process for unequalled strength, smoothness and uniformity.



wonderful new application ease and flexibility!

LENNOX QC BUILDER-PAC T.M.

Pre-assembled Year 'Round Air Conditioning

SEE IT—NAHB SHOW, BOOTHS 1241-42

- Easy installation never before possible—even with so-called "flexible packages"
- Cooling-heating unit can be located almost anywhere!
- Holes in walls not necessary!
- No refrigerant charging!
- Performance unmatched in this low price range!

Here, at last, is top quality, year 'round air conditioning completely affordable and practical for the new home market. The Lennox QC BUILDER-PAC* consists of a specially designed air-cooled condensing unit, separate precharged refrigerant lines with Quick Couplers, an evaporator coil built into a gas-fired up-flu furnace, complete controls.

New thin style condensing unit provides wonderful new application opportunities.

This new Lennox condensing unit is unique in shape and performance. It's only 13" deep, 38" high and 30" wide. Air enters and leaves the same side. If built into a wall, there is scarcely any projection on either side. Its width requires only two stud spaces. In such installations, only the handsome louvered front shows (ideal for apartments). Can also stand on slab or roof. Refrigerant lines can enter cabinet on top or rear. Can be fully serviced from front or rear. Quietness and efficiency that defy comparison!

Single-unit furnace and coil—No "add-on" look

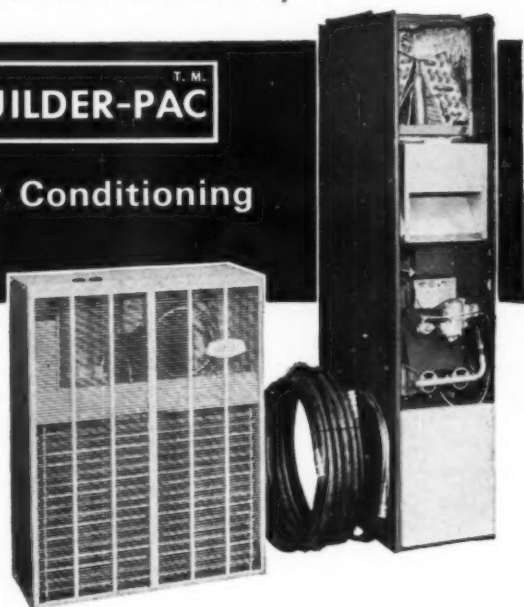
The furnace and coil have that "made for each other" look... one sleek cabinet. Available in 1½ tons cooling with 51,000 Btuh input gas heat, or 2 tons with 80,000 Btuh. Low over-all height permits installation on raised floor with central return, with enough room at the top for a furred duct below the ceiling.

Quick Couplers cut installation time and cost

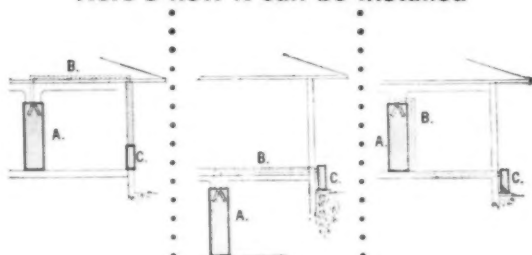
Each package has a 25' suction line and a 35' liquid line, charged with refrigerant and sealed with Quick Couplers on each end. The condensing unit and the evaporator coil have mating halves for the couplers. Even unskilled workers can connect the lines at one end, run them through stud or joist space, then complete the connection at the other end. System remains factory-clean and as dry as a hermetic self contained unit.

For more information, contact your Lennox representative or write Lennox Industries Inc., 315 South 12th Ave., Marshalltown, Iowa.

*Trademark registered



Here's how it can be installed



Build the condensing unit into the outside wall. No slab needed. Put the cooling-heating unit in closet or utility room.

Or, put the condensing unit on a slab at grade level. Cooling-heating unit can go in basement.

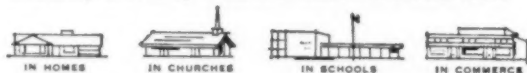
Here again is the condensing unit on a slab. But the cooling-heating unit is installed in a closet or utility room.

A. COOLING-HEATING UNIT B. REFRIGERANT LINES C. CONDENSING UNIT

Don't be satisfied with less than

LENNOX

HEATS, COOLS, TREATS AND MOVES AIR



LENNOX INDUSTRIES INC., EST. 1895—MARSHALLTOWN, IA.; COLUMBUS, O.; SYRACUSE, N.Y.; DECATUR, GA.; FT. WORTH, TEX.; SALT LAKE CITY, UTAH; LOS ANGELES, CALIF. LENNOX INDUSTRIES (CANADA) LTD.—TORONTO, MONTREAL, CALGARY, VANCOUVER, WINNIPEG.



BRUCE Fireside Plank®

*Random floor with
dramatic dark finish*

Look what Bruce has done to strip oak . . . combined a glamour finish and random widths to produce a floor with remarkable decorative effect at little expense. The dramatic Midnight color is definitely modern. Alternating 2¼" and 3¼" widths create an interesting plank effect. Fireside Plank costs little more than regular strip flooring, and its factory finish saves the time and expense of on-the-job sanding and finishing. Laid like regular strip, this distinctive flooring gives your homes far more built-in value and buyer appeal. Write for color booklet. You'll find our catalog in Sweet's Files.



E. L. BRUCE CO.,
MEMPHIS 1, TENN.

World's largest manufacturer
of hardwood flooring

A feature floor for "special" rooms



KITCHEN PROBLEM !

CABBAGE — The food Dad really loves can create an odor problem that turns your beautiful kitchen into a nightmare. Poor Mom has to cook the cabbage, but she doesn't want to be in that kitchen when lingering odor makes it uncomfortable.



BROAN DUAL BLOWER HOOD* attacks cabbage and other cooking odors with a vengeance. Two powerful blowers keep your kitchens antiseptically clean and fresh. Ventilating unit is so quiet, you hardly know it is going. Broan craftsmen Heliarc-weld and hand-finish corner seams for extra beauty and easier cleaning. The ultimate in ventilating design — the product of over 30 years of experience in home ventilating. Ask your distributor about Broan Range Hoods.

BROAN

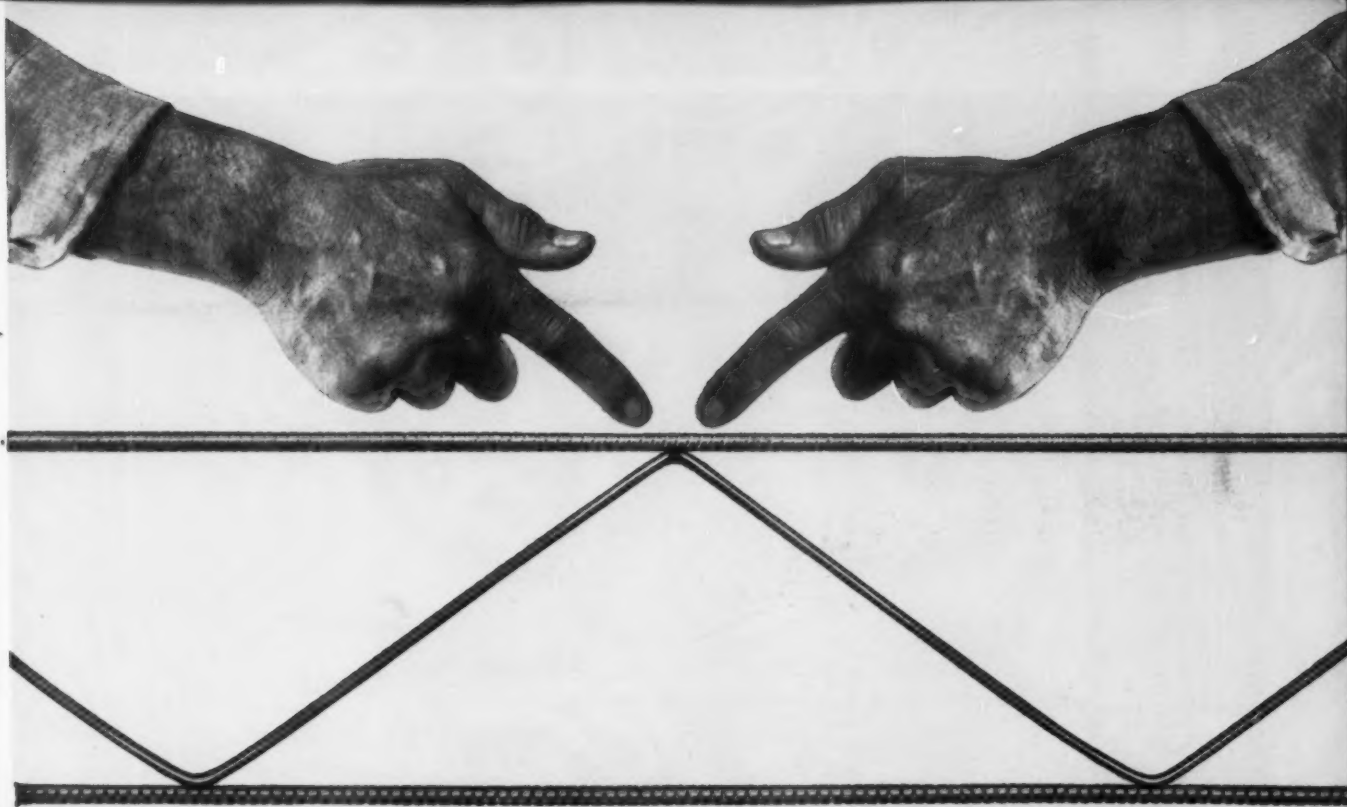
Specialists in Home Ventilating for Over 30 Years

MANUFACTURING CO. 924 W. STATE ST., HARTFORD, WIS.
Manufactured in Canada by Superior Electric, Ltd., Pembroke, Ontario

*Meets HVI and FHA Requirements



AMERICAN BUILDER



This is Dur-o-wal

*the masonry wall reinforcement
with the trussed design*

Don't be misled by the common habit of calling all metal-rod reinforcement "durowal". Look for the trussed design. This distinguishes the real Dur-o-wal, insures maximum flexural strength, with all steel members effectively in tension and working together.

Impartial tests have proved that truss-designed Dur-o-wal exceeds accepted standards—increases the flexural strength of a masonry wall 71 to 261 per cent, depending on weight Dur-o-wal used, type of mortar, number of courses.

A study by the Armour Research Foundation indicates that Dur-o-wal tied walls outfunction brick-header tied walls. Write to any Dur-o-wal address below for a copy of Armour's 44-page report.



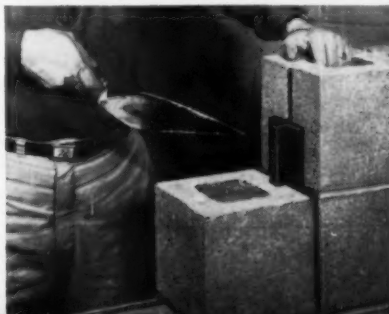
Two engineered products that meet a need. Dur-o-wal reinforcement, shown above, and Rapid Control Joint, below. This ready-made control structure flexes with the wall. Recommended by construction engineers especially for concrete block.

DUR-O-WAL[®] Masonry Wall Reinforcement and Rapid Control Joint

RIGID BACKBONE OF STEEL FOR EVERY MASONRY WALL

DUR-O-WAL MANUFACTURING PLANTS

- Dur-o-wal Div., Cedar Rapids Block Co., CEDAR RAPIDS, IA.
- Dur-o-wal of Ill., 260 S. Highland Ave., AURORA, ILL.
- Dur-o-wal Prod., Inc., Box 628, SYRACUSE, N. Y.
- Dur-o-wal Prod. of Ala., Inc., Box 5446, BIRMINGHAM, ALA.
- Dur-o-wal Div., Frontier Mfg. Co., Box 49, PHOENIX, ARIZ.
- Dur-o-wal of Colorado, 29th and Court St., PUEBLO, COLO.
- Dur-o-wal Prod., Inc., 4500 E. Lombard St., BALTIMORE, MD.
- Dur-o-wal Inc., 1678 Norwood Ave., TOLEDO, OHIO
- Dur-o-wal of Minnesota, 2653 - 37th Ave., South, MINNEAPOLIS 6, MINNESOTA
- Dur-o-wal Ltd., 789 Woodward Avenue, HAMILTON, ONTARIO, CANADA





Whatever the room, whatever the building — there's a Marlite Paneling to do the job best

Marlite is ideal for residential interiors, but it also provides outstanding beauty, durability, variety of sizes and economy in offices, restrooms, stores, restaurants, medical buildings, schools, churches, and many more.

Beauty? You can select from a wide variety of fashionable colors, luxurious Trendwood® reproductions, marble and decorator patterns.

Durability? Unlike many "finished" materials, Marlite's baked plastic finish provides remarkable resistance to grease, stains, mars, dents—even heat.

Sizes? Choose from large 4x8 sheets; 16" wide tongued and grooved Marlite planks and blocks; rigid 5/8" thick hollow-core Marlite Korelock 2x8

panels, tongued and grooved on all edges.

Economy? Marlite is reasonably priced, and installation is fast and easy. When Marlite is up, the wall is finished. No painting or further protection—ever. And Marlite stays like new for years with an occasional damp cloth wiping.

Get complete details from your building materials dealer, Sweet's File, or write Marlite Division of Masonite Corporation, Dept. 1103, Dover, Ohio.

Marlite®
plastic-finished paneling

ANOTHER QUALITY PRODUCT OF MASONITE® RESEARCH

MARLITE BRANCH OFFICES AND WAREHOUSES: 204 Permalume Place N.W., Atlanta 16, Georgia • 16 Moulton Street, Cambridge 38, Mass. • 4545 James Place, Melrose Park, Illinois (Chicago) • 8908 Chancellor Row, Dallas 25, Texas • 1657 Powell Street, Emeryville, California (Oakland) • 3050 Lebin Blvd., Los Angeles 58, California • 29 Windsor Avenue, Mineola, L. I. (New York) • 2440 Sixth Avenue So., Seattle 4, Washington

New JOHN DEERE 3010



Built for the big jobs

Built to stand up and keep dishing it out on tract building jobs, commercial and industrial construction, the new John Deere "3010" works with the advantage of a big margin in weight, strength, and power.

The "3010" loader has everything it takes to keep going right on into the pile until the 7/8-yard bucket comes up spilling over. A big bucket-level indicator and new single operating lever controlling both bucket and lift arms help make loading fast and easy.

In high compliment to the "3010," a backhoe operator remarked, "It just sits there!" Five and a half tons doesn't bounce or sway much during trenching work. Natural two-lever backhoe con-

trol is not only more convenient, but it's cushion-smooth, too, with as many as four cylinders working together.

At the engine, the "3010" rates at 69 h.p. in Diesel, 64 h.p. in gasoline. Constant-mesh transmission provides 8 speeds forward, 3 reverse. Operator can reverse the tractor or shift into high and low ranges with either hand. And no executive ever worked from a finer seat. Try it yourself—and the new fiberglas backhoe seat, too.

Get in touch with your dealer through the yellow pages. He has good news for you about credit buying and long-term leasing, too.

John Deere, 3300 River Drive, Moline, Illinois.



**LOADERS
BULLDOZERS
BACKHOES
AND
EARTHMOVING
EQUIPMENT**



PRESIDENTIAL HOMES of Pemberton, N. J. manufactures the components for these Dover, Delaware homes by Walter J. Ellis. Shown here, shell components being delivered to the

site. Mr. Ellis particularly likes the way Insulite Sheathing strengthens the panels—also provides ideal backing for any siding (brick is used for floor level).

“Panels with Insulite Sheathing... a finish of Insulite Siding

HERE IS QUALITY I CAN SELL!”

SAYS WALTER J. ELLIS, Builder, Dover, Delaware: “Insulite Sheathing provides the extra strength and insulation. Insulite Primed Siding gives the attractive appearance that sells buyers—and the durability that keeps them sold.”

Mr. Ellis is one of the leading builders in Dover, Delaware. His current project is Woodbrook, an attractive development of homes in the \$21 to \$29 thousand bracket. He is presently building at the rate of 75 homes a year.

USES PREFABRICATED PANELS

Mr. Ellis says, “I’m all for panelized construction—if you start with good components and put them up right.

I use panels made by Presidential Homes—and they’re delivered right to the site—on time. Presidential fabricates the panels with rugged Insulite Sheathing—which I believe to be an outstanding product.”

SIDING IS INSULITE, TOO

Over the insulated shell, Mr. Ellis applies Insulite Primed Siding—the man-made siding that handles and works like wood, and goes up fast and easy. Because Insulite Primed Siding has no structural grain, it has no knots or split ends—will not warp or splinter. Insulite Primed Siding is *completely* primed at the factory. It takes finish coats easily, is highly resistant to paint blistering.

NOW—A COMPLETE RANGE OF SIZES

As a lap siding, Insulite Primed Siding is available in 16’ lengths—8”, 10” or 12” wide. It also comes in plain panels for board and batten construction—and in vertical grooved panels with grooves $\frac{1}{2}$ ” wide and 8” on centers. Panel sizes are 4’ x 8’, 4’ x 9’ and 4’ x 10’.

build better with
INSULITE[®]
 Building Products



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



2 **INSULITE SIDING GOES ON.** A quick, easy job with Insulite Primed Siding say Mr. Ellis (holding board), and partner, Frank Gentile, Jr. No splits, knots or waste with this siding.

3 **READY FOR OCCUPANCY.** Here is the completed Ellis home. Notice how rich, warm look is made even more inviting by deep shadow lines cast by the Insulite Siding. Here is a home built to satisfy!



Beefed up for hardest

Construction jobs are rough on generators . . . but not as tough as Onan's own tests. That's why Onan plants mean reduced downtime and maintenance. Over-sized bearings, Stellite valves, shorter, stronger crankshafts and connecting rods keep Onan on the job when others can't take it. Put an Onan on the job along-side the plants you're now using. Your own records will prove Onan best.



Stellite coated exhaust valves and valve seats. One of toughest alloys known. Gives you up to 300% longer valve life than uncoated valves. It's the important details like this that make Onan more economical in the long run.

Exact standards govern manufacture—years of specialized experience and extensive testing facilities control the quality of Onan Power Plants. Over 1000 different types and sizes of plants are produced by Onan.



use...even abuse

Onan electric plant still delivers full power after 12,197 hour test—equal to 487,888 miles

A grueling endurance test that lasted one year, nine months and 12 days could not stop Onan test plant #1068. Onan engineers used this production-built unit for an endurance run—and after it was all over, it still generated the full rated power promised on the nameplate. Proof that Onan's exacting standards and production testing give you a power plant with long, dependable life built in.

Over 1,700 other endurance units have been run by Onan engineers. In these tests every design feature and part has to prove itself before it can become a part of the Onan you buy. In addition, every type and size Onan plant is tested under all operating conditions which

could conceivably affect performance on your job.

Hours of running in and testing under full load are given every Onan before it is shipped. An independent testing laboratory then spot tests Onan Plants that have already been tested by Onan—double assurance that every Onan will deliver its full nameplate rating. Only then does an Onan production run qualify for Performance Certification.

Buy *proven performance* when you buy an Electric Plant. See your authorized Onan distributor or dealer. You can depend on him for a lifetime of factory parts and service. He's listed in the Yellow Pages.

ONLY ONAN GIVES YOU THIS CERTIFICATION



**World's Leading Builder
of Electric Power Plants**

ONAN DIVISION, STUDEBAKER-PACKARD CORPORATION • 2555 UNIVERSITY AVE. S. E., MINNEAPOLIS 14, MINNESOTA

"Ford Econolines cost us 23% less to buy... save us almost 50% on gas"

says Mr. L. LeRoy Highbaugh, Jr., L. LeRoy Highbaugh & Son, Louisville, Kentucky

"Our first Ford Econoline truck convinced us we should replace all 11 units in our repair and maintenance fleet with Econoline Vans and Pickups.

"We saved from \$300 to \$500 apiece on initial cost, and this lower price also means a fleet savings of \$200 in city taxes and several hundred dollars each year in state taxes.

"We also found that our gasoline bill has been cut almost in half. These Ford Econolines are getting about 20 miles to the gallon, compared to the 10 miles our standard 1/2-tonners used to average. It looks like we'll save 15% yearly on tire costs. In fact, our total maintenance expense is way down. So much so, we've been able to cut our staff of mechanics from three to two.

"Many other Ford advantages have shown up—

besides economy. Our drivers report the Econolines are much more maneuverable, and they're easier to operate in snow than the standard trucks we've had.


"Each driver-repairman carries all the supplies and equipment needed to plaster, paint, fix plumbing, secure sagging hinges or handle any emergency. They need plenty of room to keep everything where it can be reached quickly and easily. The Econoline's flat floor, larger loadspace and convenient double doors (side and rear) are big timesavers.

"We have 12 other Ford Trucks, including dumps and mixers for construction work and Falcon Rancheros in our nursery operation, all doing an excellent job for us."

Solid testimony that Ford's full-time economy only starts with low price!

FORD TRUCKS COST LESS



PRODUCTS OF  MOTOR COMPANY



NOVEMBER 1961



Moving ahead with fast-growing suburbs. As America's exploding population expands into the suburbs, Curtis products are increasingly in demand. Here, in a 600-home Omaha, Neb., suburban housing project, Curtis wood windows, doors and kitchen cabinets, purchased through Lumber Sales & Service, Inc. and Major Appliance Co. are being used exclusively to provide reliability and quality.

WOODWORK NEWS FROM CURTIS®

New products—new distributors and dealers—vigorous new marketing and merchandising—new sales and advertising plans, campaigns, promotions. That's the picture today at Curtis Companies Incorporated. Here, on these pages, are some of the evidences of that Curtis progress. Watch for others to follow!

Coming up—the new Curtis casement. Proud Curtis employee shows the new Curtis casement, styled to enhance its famous weather-protection and easy operating features. Available in several different styles, these wood casements are shipped ready for quick, easy assembly.





Smart background for famous food brands. Curtis FashionWood® cabinets are used as permanent kitchen sets by three prominent Chicago art studios. FashionWood cabinets are available in five glamorous colors.

Sneak preview. Plan of new Curtis exhibit for December NAHB show in Chicago is shown to Acton Chalu, Curtis vice-president and general manager, by Ivan Ramsey, manager of advertising and promotion.

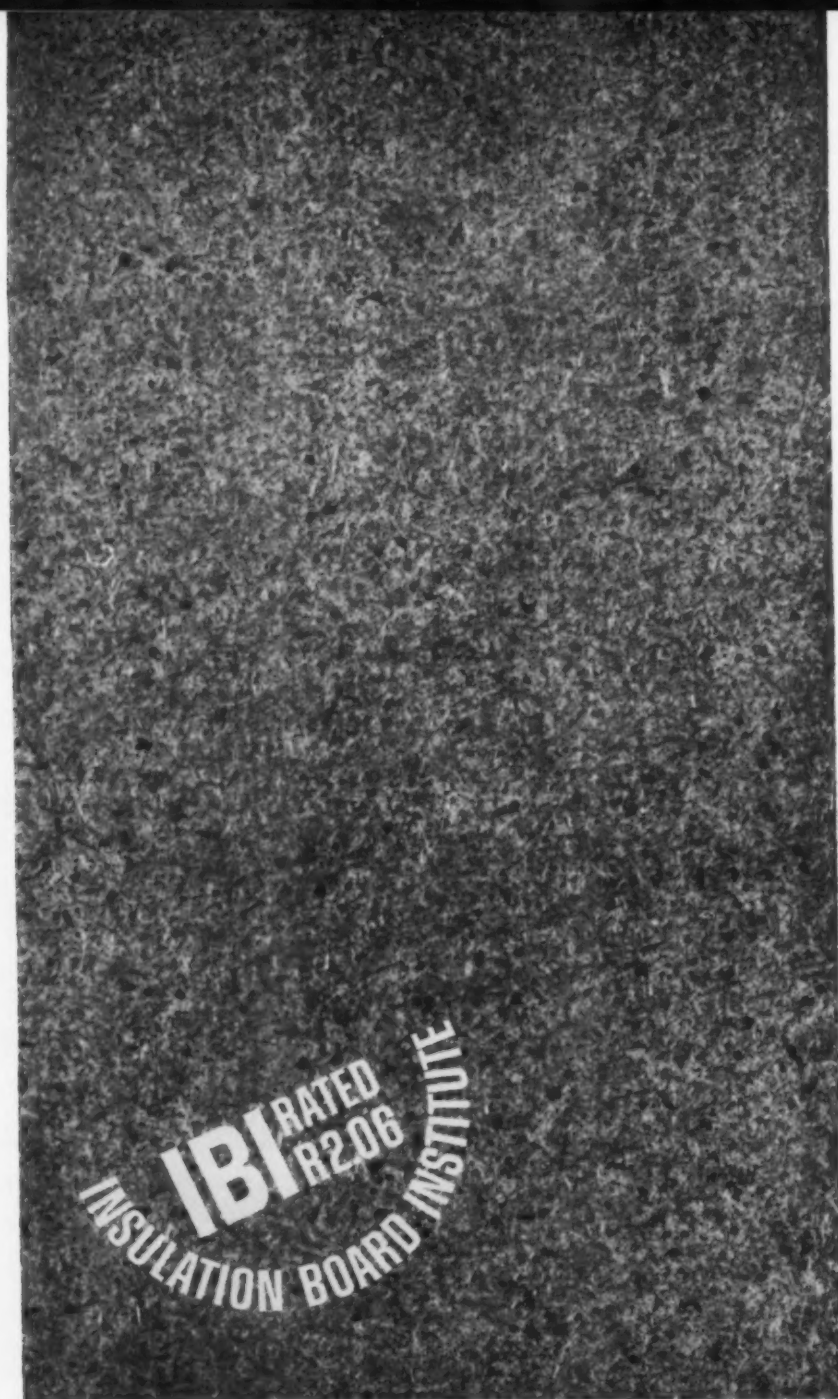


New window lock concept. A Curtis exclusive, this lock snaps shut at a touch to lock a window securely—yet snaps open at a finger's flick. Lock makes it possible to lock a window safely in partly open position.



New savings for Harding High School, Fairport, Ohio, gaining comfort and fuel economy by replacing the old with weathertight easy-to-operate Curtis Convertible wood windows.

CURTIS COMPANIES INCORPORATED / CLINTON, IOWA
Individuality and Quality
in Windows, Doors, Cabinets and Fixtures.



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.

HEAT RESISTANCE RATINGS (R)	
IBI RATED INSULATION BOARD SHEATHING (25/32 IN.)	R 2.06
IBI RATED INSULATION BOARD SHEATHING (1/2 IN.)	R 1.32
LUMBER (NOM. 1 IN.)	R 0.98
GYPNUM (1/2 IN.)	R 0.45
PLYWOOD (5/16 IN.)	R 0.39

Write for the new booklet, "How to Save with Sheathing."

IBI INSULATION BOARD INSTITUTE

111 West Washington St., Chicago 2, Illinois

WESTERN NEWS

Houston Builder Analyzes Impulse to Move



What makes the prospective home buyer move? A Houston builder recently analyzed this question with the 169 prospects who visited his model houses. The buyers' report:

1. Newspaper ads: 52.
2. Just driving around: 50.
3. Recommended by friend: 34.
4. Highway signs: 12.
5. Radio: 8.
6. Television: 7.
7. Direct mail: 6.

California Builder Seeks Military Market

Builder Jerry Houser, Sabre City, Calif., is designing a complete city solely for the nation's swelling ranks of retired military personnel. The entire housing development has varied house designs—from Swiss Chalet homes (above) to a

Pacific Aloha model.

Houser, a builder specializing in military customers, has spent years on researching just-retired veterans' needs. Sabre City is his answer. By 1965, his research figures show, the number of retiring military personnel is expected to double to 444,000. By 1983, the ranks will swell to a total of 1,163,000. To help the vets with employment, his firm is offering a free placement service.

Big California Builder Starts Construction on Airport Motel

Building has started on a new \$5 million hotel, near the Los Angeles International Airport and the new Marina. Fritz B. Burns & Associates are owners and developers of the project. The hotel will be called the "Airport-Marina."

Home Buyer School To Feature Financing, Construction Data

Persons interested in buying a home will receive up-to-date data on home financing plans, new building techniques, and the latest design methods at five sessions next March in Los Angeles. Top builders, men from financial and loan firms, architects, manufacturers, etc., will act as "instructors."

San Diego County Estimates 10,000 Housing Units in '61

Home builders in San Diego County, Calif., will build about 10,000 dwelling units this year, the City Planning Dept. estimates. This is based on a six-month forecast.

Oahu, Hawaii Will Need 51,000 Housing Units

By 1970, more than 51,000 dwelling units will be needed in Oahu, Hawaii, estimates John Child Co., international real estate firm. This figure is based on the reduction of the state's housing density to mainland standards. Projections indicate a 683,761 population by 1970, up 183,367.



Twin concrete slabs "sandwiching" cores of foamed plastic insulation board have been used for the first time in tilt-up wall construction at the United Control Corp. 136,000 sq. ft. factory in Bellevue, Wash. Fabricated at the building site, the panels are in two sizes—9'x12' and 22'x12'. Each is 5" thick. The process—concrete and plastic—for outer wall construction prevents vapor transmission through the panels.

SELECTED WESTERN HOUSE



House that broke all sales

Offering far more than four walls and a roof, house with new ideas, flexible floor plan and wealth of "extras" stopped traffic on opening day, producing record-breaking sales for D. C. Oliver & Son of Dallas

Remember the baker's dozen—the little "extra" that kept many a neighborhood shop crowded with customers? The same principle applies to home building too. Witness the house shown on these pages. Its price is \$23,300 but the extra benefits it offers a buyer would fill pages. As proof, let's itemize a few.

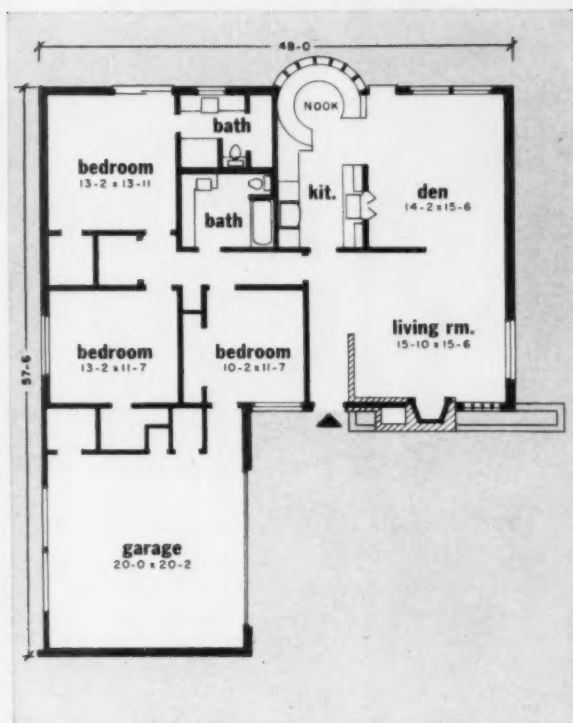
In addition to attractive exterior and what viewers call a living-conditioned plan, we find central heating and air-conditioning extending to the workshop-garage, a

dishwasher, disposal, wall oven and surface range, a built-in blender, intercom and radio, drying cabinet in the kitchen, a circular breakfast booth with plastic-top table, carpets, draperies, patio and a host of other buyer-appeal items. Entrance into the garage is protected by safety stop doors and all closets have stacked hanging rods for doubling storage. A washer-dryer in the hall closet is also included. The house is a Living Magazine's Living-Conditioned Award winner.



Built-in equipment saves space

Refrigerator and oven become a part of the wood cabineted kitchen, fit flush into the wall, match cupboards, drawers.



Living extends beyond walls onto rear patio

Outside walls are of Granbury stone, rough board and batten siding and double red cedar shingles roof. Landscaping, fence, patio and planters are included in price. James M. Schroeder, Jr. landscape architect.

records for Texas builder



Circular breakfast nook featured in kitchen

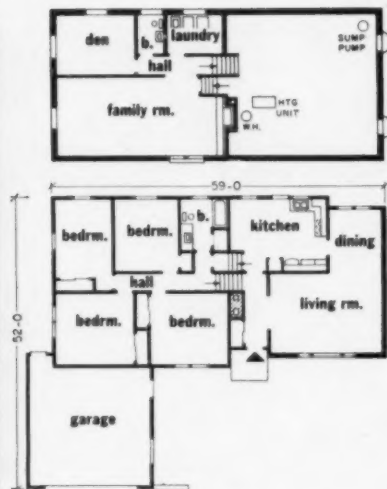
A best selling feature is the built-in dining area with its dropped ceiling, semicircular bench and plastic top table. Heating grills in sill blanket bow and prevent glass sweating.



Mosaic ceramic tile forms backsplash

Decorative touches are found throughout house. Here mosaic tile runs from counter to wall cabinets, forms dramatic accent for natural wood and wallpaper. Undercounter dryer attracted buyers.

SELECTED NORTHERN HOUSE



Good design and lots of space—success formula for second-time buyers

Several years of research proved to Brookside Builders, Inc. of Milwaukee, that a steadily growing market existed for many families with growing children. Their first homes, once considered cozy, were overcrowded. What was needed, above all, was more space. These

owners were experienced enough, too, to appreciate good construction and design. It is at this market that Brookside is now aiming its sights.

The house, shown here, appears to be one answer to the problem if sales are any indication. It has a custom-built look, offers 2,500 sq.

ft. of good modern living and can be adapted to many outside finishes. The price, under \$22,500 without land, is attractive. Its four bedrooms, large family room and one and a half baths have definite buyer appeal. Windows can be varied to meet individual tastes.

SELECTED SOUTHERN HOUSE



L-shaped award winner in Kentucky places main rooms at back for quiet living

The \$19,950 price tag on this house includes 1,970 sq. ft. of living space, land, ground planting and a black-top driveway. Its exterior is of brick, relieved by a delicate wood porch which forms an entrance into the main house. A slate-floored foyer leads to the living room, din-

ing room, kitchen and bedroom wing. In addition to these areas, there are three large bedrooms, two baths, a dressing room and utility closet. Though the main rooms may be used separately, they can be combined for large entertaining. Such multi-purpose use adds immeasur-

ably to the usefulness of the floor space.

Buyers are offered a choice of a one or two-car garage, each with plenty of space for a workshop or outdoor storage, each incorporated as integral part of the house. Bolinger-Martin, Inc. built it.



*a
totally new
heating
concept...*

NEW! THE ULTIMATE IN HEATING COMFORT NEW! DELUXE HYDRONIC HEATING
SYSTEM USING ELECTRICAL ENERGY NEW! ABSOLUTE SIMPLICITY IN CONCEPT
AND DESIGN COMPETITIVE COST-
WISE TO ANY HEATING SYSTEM NEW!



Aqua Electric



New homes ... multiple dwellings ... remodeling ... add-on units ... vacation

New! The Ultimate in Heating Comfort

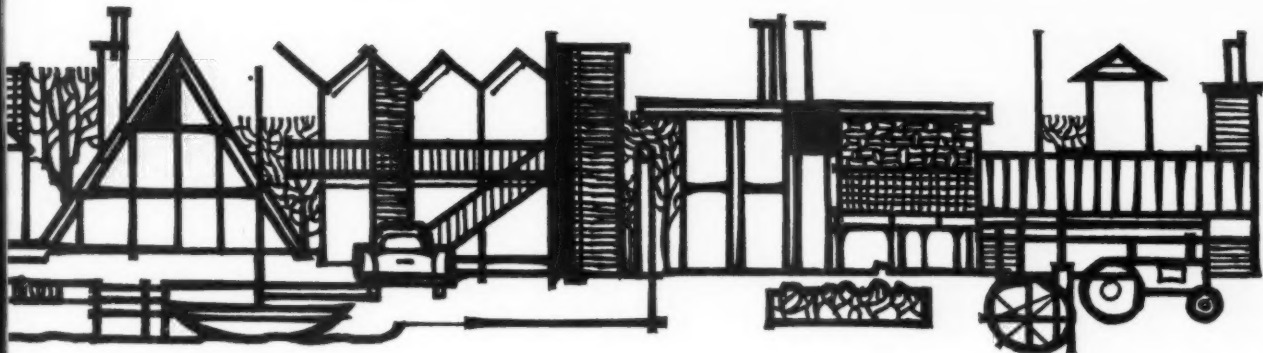
AQUA-LECTRIC is a totally new heating concept that sweeps away antiquated, limited thinking on heating systems. AQUA-LECTRIC was conceived and designed purely to do one job better than any heating system known—to provide heating that gives the ultimate in *human* comfort. To achieve this, AQUA-LECTRIC combines the most desirable features of the two most acceptable systems known today—the proven qualities of a deluxe hydronic heating system and all-electric heating—with *none of the disadvantages!* With AQUA-LECTRIC, you can control temperatures *within ¼ of a degree at all times* room by room. You can have your kitchen at 70°... bedrooms 68°... nursery 74°... living rooms 72°... basement 65°... simply by dialing the exact temperature you want on the thermostat in that area. Heat is constant—always precisely the temperature you want with no “offs or ons” or delayed responses to temperature changes as with other systems. The heat is radiant—it warms the floors, walls, ceilings and objects in the room, *not the air itself*—variation from floor to ceiling is within 1½ degrees compared with up to 12 degrees and more with most systems. It is *healthful*—airborne bacteria, pollen dust, smoke are not pulled in and circulated as with forced air systems. In test homes, average humidity was maintained at a blessed 49% during a typical northern winter. You can have the ultimate in heating comfort *now* with

aqualectric

New! Deluxe Hydronic Heating System Using Electrical Energy

The unique advantages of AQUA-LECTRIC—along with its amazingly low cost—result from its utter simplicity of design and concept. You'll see very little evidence of AQUA-LECTRIC in a home because it consists of so very few elements. In any room or area, you'll see only the handsome cast baseboard (that takes no usable space whatsoever) and the decorator-designed wall-mounted thermostat. This cast baseboard unit completely contains the hydronic system from which heat is radiated evenly and constantly with electrical energy supplying the heating power. The electric heat producing element is within the radiation chamber itself. The liquid in the chamber transfers the energy from this element to the radiant heating surface. It's as simple as that! The thermostat is one of the two unique control units that work in unison to provide positive temperature control. This exceptionally-responsive wall thermostat sends rapid, frequent heat signals to a *second* thermostat built into the relay of the Master Control Panel. This thermostat-relay combination precisely *anticipates* comfort requirements. Electric heat is automatically increased or decreased *before* any changes can upset the comfort balance. Room temperature stays at a precise, stable level within ¼ of a degree regardless of sudden weather changes or other factors that determine heat demand with new

aqualectric



homes ... motels ... office and commercial buildings ... machinery protection

New! Absolute Simplicity in Concept & Design

The AQUA-LECTRIC system is all function. The self-contained units which couple the best features of hydronic and electric heating provide the finest heating system available today. Yet, because AQUA-LECTRIC eliminates $\frac{2}{3}$ of the costly materials used in other systems, it can be afforded by buyers with the most modest budgets. AQUA-LECTRIC does away with furnaces, boilers, fuel storage facilities, heating ducts, flues or chimneys, gas service entries and such accessories as circulating or heat pumps, flow fittings, distribution pipes, special wiring, etc. The system offers complete flexibility in design, planning and arranging. Elimination of bulky furnaces, boilers and ducts allows valuable space and headroom to be put to better use. The baseboard units *take no usable space* in any room. You can arrange furniture as you like—paint the baseboard any color. The classic simplicity of the design fits into any home—contemporary, traditional or conventional. While AQUA-LECTRIC is permanent as far as length of life is concerned, it is still *flexible*—it can be removed for remodeling purposes, for instance, easily and without jeopardizing the system. Because of AQUA-LECTRIC's exclusive Master Control Panel, each heating unit functions as an independent system. If one unit should fail, it would not affect the total system as with others. Each unit is fused separately at Master Control Panel. Nothing could be simpler—

aqua@lectric

New! Competitive Costwise to any Heating System

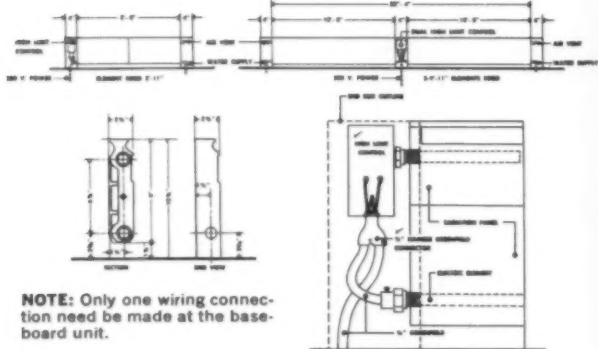
It takes a while to adjust to the fact that even with the many exclusive, luxurious features of AQUA-LECTRIC, it is available at a cost *considerably lower* than most heating systems. Because of its extreme simplicity, installation requires a minimum of labor, which conserves valuable time for contractors. AQUA-LECTRIC eliminates up to 60% of costly materials used in other systems and *importantly*, at the same time eliminates areas where maintenance most likely would occur. While costs for material and labor vary from region to region, you will find that you can have AQUA-LECTRIC at a cost *lower than quality forced air installations ... lower than the cheapest hot water installations ... and considerably below the quality hydronic circulating systems*. AQUA-LECTRIC is *economical to operate*, too. Heating electrically is on a competitive cost basis with all fuels now even in areas where electric rates are the highest. In many areas, power companies offer preferential rates for all-electric homes, cutting costs even more. This trend can be expected to continue ... while costs for fuel oil, LP and natural gas continue to spiral upward. AQUA-LECTRIC is practically maintenance-free. There are no trouble-spots and every portion of the system is easily accessible. AQUA-LECTRIC has the highest life expectancy obtainable—satisfies *all building requirement codes*. All these savings are extra, because nothing compares in quality with

aqua@lectric

AQUA-LECTRIC . . . Wherever Heat is Required for Comfort and Protection

Home buyers and home builders in every price range can now have something that's been merely a fond dream until now—a truly deluxe heating system that provides the ultimate in comfort at a moderate cost. But, AQUA-LECTRIC is ideally suited for more than just new home construction. The simplicity of the system can mean tremendous savings in multiple-dwelling units such as apartments and motels because each apartment or unit has its own fully-contained heating system. There's no need for complex, expensive heating structures. For remodeling, reconverting and adding-on rooms or units to present homes, AQUA-LECTRIC is most efficient, inexpensive and easily installed. It solves the heretofore costly problem where existing heating systems cannot adequately handle additional heat requirements. AQUA-LECTRIC

Flexible units cover all installation requirements



NOTE: Only one wiring connection need be made at the baseboard unit.

There's no limit to AQUA-LECTRIC's flexibility. It can meet unusual heating requirements with additional panel length. Units come in a wide range of sizes with connections made at either the right or left of the panel. Units can be installed on the walls, ceiling, anywhere and because the heat is radiant, heating efficiency is not affected. Shown here are typical combination baseboard panels, simple schematic diagrams of the baseboard panel and electrical connections and a typical home installation.

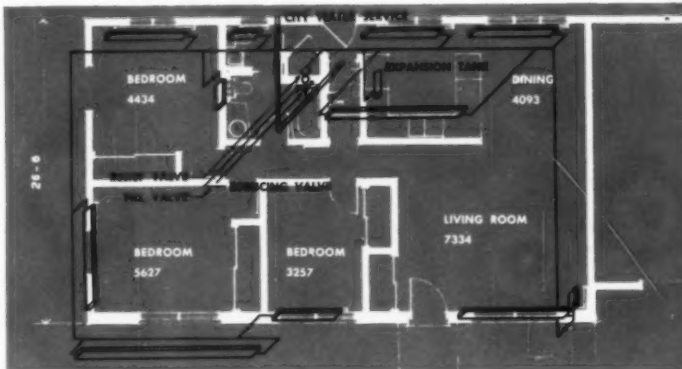
This typical home has 1,160 sq. ft. of floor space with 32,640 BTU's per hour heat loss and 17,920 BTU's for the basement. Over the floor plan, the piping diagram shows location and distribution of the 50 lineal feet of baseboard upstairs and the 28 lineal feet in the basement. Only one 1/4\"/>

aqualectric available now for installation by authorized plumbing and heating contractors

is equally well suited to the demands of light non-residential office and commercial structures. For protection of vital machinery and equipment in isolated areas where dependability is absolutely necessary, AQUA-LECTRIC, again, provides the perfect answer.

NON-FREEZE Liquid Available Where Heat is Needed Only Occasionally

Here's the ideal and practicable answer for cabins, resorts, lodges, country homes and other dwellings where heat is needed only occasionally. A non-freeze liquid in the heating chamber is also available with AQUA-LECTRIC so you can use the system when you wish regardless of the weather. And, think of the extra space you gain in addition to the savings in cost because furnaces, boilers, ducts and other bulky, expensive basic elements of other systems are eliminated with AQUA-LECTRIC.



Control Panel make up the entire system.

Exclusive Master Control Panel

AQUA-LECTRIC's Master Control Panel is the heart of the system enabling each heating area to function as an independent system. The relay with a built-in thermostat at the Master Control Panel works in unison with the individual thermostats in each heating area and provides positive temperature control. No special wiring is necessary and all connections are safe within the baseboard units or the Master Control Panel eliminating "hot spots" or danger zones in wiring as with some systems. Each baseboard unit is fused separately—so any undue load on the electrical element would simply blow a fuse in the Master Control Panel. In fact, AQUA-LECTRIC has four separate controls throughout the system making it completely safe in every aspect. In addition, the entire system forms one of the most complete electrical systems on the market today. Absolute comfort with absolute safety.

AQUA-LECTRIC, INC., 5724 W. 36th St., St. Louis Park, Minn.

Please send me promptly additional information on the new AQUA-LECTRIC System. I am especially interested in information on _____

Name _____ Title _____
 Firm _____
 Address _____
 City _____ Zone _____ State _____

Write for complete information on dealerships, prices for single or multiple installations, availability, etc. to:



5724 W. 36th Street
 St. Louis Park, Minnesota

SPECIAL WESTERN SECTION

Retired buyers will take one out of every six houses, builder predicts

by Bill Rodd

NELS SEVERIN SEES MUSHROOMING RETIREMENT MARKET. In a talk to the HBA of Los Angeles, builder Nels Severin showed that in the past 20 years the 50-and-over population group increased by 69%; he predicted that this group will take a quarter million homes in 1961 or about one-sixth of all housing starts.

Nels Severin, who has made an outstanding success with his retirement community in Palm City, Calif., says there is no one way to meet the needs and desires of this market. He urged builders to study their particular area to determine whether to build homes, apartments, or a mixture of the two.

In Palm City, Severin offers homes priced from \$12,995. His apartment units are designed to appeal to the families who do not care for yard work. They are restricted to persons over 50.

HILLSIDE LOTS SHOULD EXTEND FROM STREET TO STREET, SAYS BUILDER GENE MEMMLER. Instead of requiring 80' wide streets for hillside subdivisions, as many communities now do, it would be better to have much narrower streets and limit them to one-way traffic, Gene Memmler believes. He also sees a need for more streets, so that lots can go from street to street. This would make all lots downhill lots, the builder says, with sewers going to the street below. It would reduce building costs, he feels. And, most important, it would actually get more

houses built, says Memmler. Uphill lots are too often left vacant because of construction problems and buyers aversion.

NEW FHA DIRECTOR IN LOS ANGELES INDICATES "NEW LOOK." After returning from a conference in San Francisco with key people of HHFA, C. H. Andrews, Jr., newly appointed director, said: "We are interested in new ideas as they apply to elderly housing needs . . . we want to get away from the bulldozer approach in urban renewal and to promote an expanded rehabilitation program . . . we want to encourage construction of nursing homes . . . we will encourage high-rise units in order to conserve land."

STILL GOING UP. A Costa Mesa, Calif., builder reports that just a year ago he paid \$8000 per acre for a piece of land, but when he tried to buy an adjacent chunk recently he found the price had jumped to \$15,000. He gets four lots to the acre and cost of improvement is around \$1800 per lot. No chance for low priced homes here—especially since FHA refused to appraise the ground at the new price.

SMALLER LOT SIZES URGED. The Home Builders Council of California has adopted a resolution urging planning commissioners and departments to recommend smaller lot sizes to their respective legislative bodies. It stated that the tendency among some planners to have

even wider lots and deeper setbacks increases the costs of homes.

CALIFORNIA WILL VOTE ON LOW RENT HOUSING FOR AGED. The November general election ballot next year will ask voters to approve \$100,000,000 to be loaned for the construction of 75,000 or more rental units. The money will be loaned to individuals, private corporations and public agencies and the program is expected to be self-liquidating as are the state's low interest loans to veterans for homes and farms.

State senator Burns stated that the state is now paying out \$25,000,000 annually to indigent oldsters for rent alone—and this money goes to landlords in slum areas who pay very little in taxes.

ELECTRIC "MIRACLES" ON HORIZON. T. M. McDaniels, Jr., V.P. of Southern California Edison Co., says that by the year 2000 we'll have kitchens which can "program" and produce meals for days on end without any human assistance; lighting which will automatically adjust to time of day or weather.

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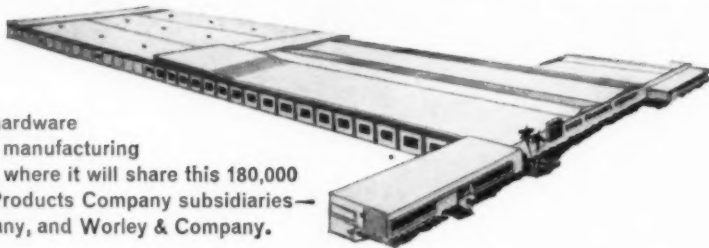
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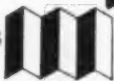

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KENNATRACK GOES WEST!

OPENS WHITTIER, CALIFORNIA FACTORY



Kennatrack Corporation, world's leading sliding and folding door hardware manufacturer, has started branch manufacturing operations at Whittier, California, where it will share this 180,000 sq. ft. plant with two other Ekco Products Company subsidiaries—McClintock Manufacturing Company, and Worley & Company.

K Kennatrack goes West!  Kennatrack's western states customers, particularly those in California,  Arizona  and Utah  can now expect "back-yard"  service and speedy  deliveries on the COMPLETE Kennatrack line. Now you can order,  **DIRECT** from Whittier, complete hardware sets for folding doors,  pocket doors,  by-passing doors;  and pre-assembled steel pocket-door frames.  Many new  products, too, including the remarkable Scotamatic by-pass hanger,  Kennamatic steel frame hanger,  Kennarama two and four-panel folding door units  and, NEWEST of all, Kennavider door panel room dividers  complete with hardware, all in one package. 

Get acquainted  with the top-value hardware and folding door unit line. Get acquainted with West Coast Sales Manager Sid Sterne,  802 W. Whittier Blvd., Whittier, California, or phone  OXbow 3-8221.

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A SUBSIDIARY OF **EKCO** PRODUCTS CO.

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Custom Look

with

ROBERTS-FOLD[®]

**METAL FOLDING
CLOSET DOORS**

**OFFER THE
"DECORATOR STYLES" WOMEN WANT**

- Closets sell homes! And ROBERTS-FOLD Metal Folding Closet Doors make every closet closing a glamour wall
- Three handsome styles to suit every type of home
- Whisper-quiet performance... fingertip pressure opens doors wide to give 100% accessibility to storage areas
- Heavy steel construction... won't warp or buckle, assures years of trouble-free service

YOU SAVE TIME AND MONEY

- ROBERTS-FOLD Doors are delivered complete with hardware, can be installed by one man in less than 20 minutes
- Exclusive, reversible top and bottom twin-tracks eliminate threshold costs
- Prime coat finish takes all types of decor... paint, wallpaper, etc.

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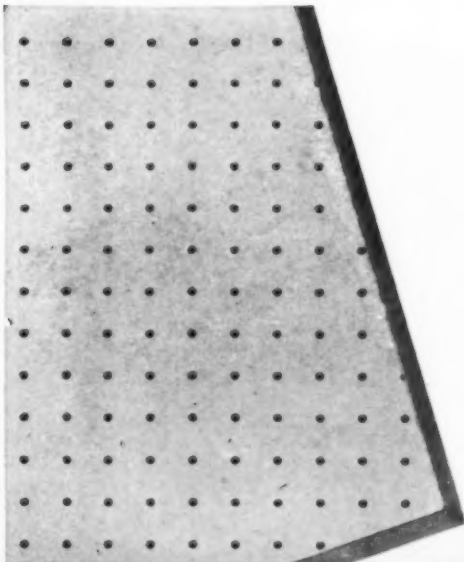
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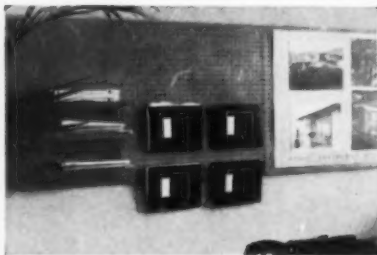
Quality Products for Home & Industry for over 20 years

PUNCHED Forest Sandalwood HARDBOARD

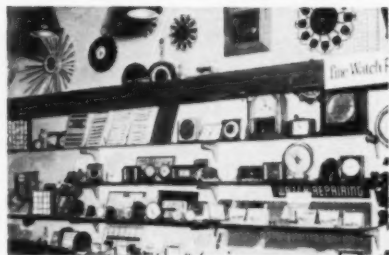
*A superior panel that
builds quality into any application*



Ventilation. Sliding doors made from Punched Forest Sandalwood Hardboard *breathe*. They are ideal under sinks. Sandalwood needs no paint and will withstand knocks and bumps.



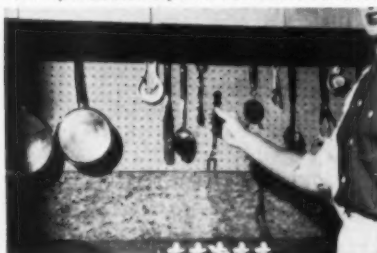
Office Walls. A wall in an office made of Punched Forest Sandalwood Hardboard makes a place to store and display most things needed for doing business. Store books, attach shelves, display blueprints, or maps. Scotch tape won't mar the surface.



Display Walls. Whether used for walls or special fixtures, Punched Sandalwood makes a perfect place to show off merchandise at its best. Hundreds of different fittings are available to offer maximum flexibility.



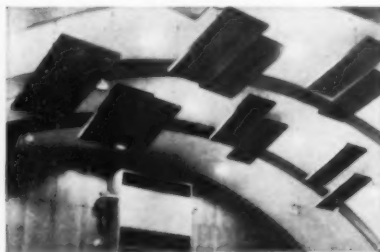
Decorative. Walls made from Punched Sandalwood Hardboard give an interesting and unusual textured effect. This one has the panels cut in 18" squares. The edges are beveled to accentuate the design.



Kitchens. Punched Forest Sandalwood Hardboard hung almost anywhere in the kitchen gives homeowners a place "to put things"



Bathrooms. Sliding doors made of Punched Sandalwood not only add a decorative effect but also offer the advantage of ventilation. It is temper treated for moisture resistance.



Acoustical. Punched Forest Sandalwood Hardboard, applied over batts of Fiberglas, rock wool or wood fiber has proved to be one of the most effective yet economical methods of controlling sound. Send for a special bulletin.

Yes, Punched Forest Sandalwood Hardboard has many, many uses and many advantages over other materials. The fact that it's hard and smooth, with clean punched holes is obvious.

In addition, you get the advantages of a fully oil-tempered panel for moisture resistance. You get a factory painted panel that needs no further finishing. You get a panel that has a baked-in, sealed surface that requires little if any attention... virtually every kind of dirt or grease wipes off easily. And you get a panel that is built to take abuse. It is hard, tough... dent and scratch resistant.

In short, when you are applying a punched panel... be sure it's Punched Forest Sandalwood Hardboard. Here's a panel you can be proud of and will show that you do quality work.

FOREST HARD BOARD

Forest Fiber Products Company
P. O. Box 68AB,
Forest Grove, Oregon



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Does a Volkswagen ever get stuck?

We cannot tell a lie.
Yes.

Then why do you see so many of our trucks zipping through the snow when others can't?

Well, it's just a little harder for a VW to get stuck.

We put the engine in the rear.
The weight presses your drive wheels

down that much harder on the snow, ice or whatnot.

It's the extra traction that turns the trick.

Our air-cooling helps, too. Volkswagens have no radiator, no water to freeze. You always go.

Our winter performance is one reason the Beggs Brothers (contractors in

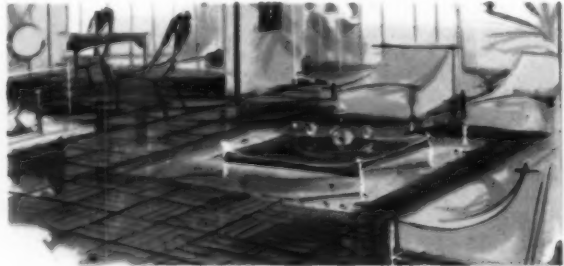
Englewood, N. J.) feel the VW is the truck for them. When other makes are bogged down in snow or mud, Beggs' work still gets through.

Of course, another reason is that the VW's low operating cost—half that of a half-ton—also makes it easier to get through the end of the month.





A dark finish gives Oak Floors a different, distinctive effect—at no extra cost.



Vary your Oak Floors to attract home buyers

Here's an idea that will help you make faster sales: for a special "feature" room in your homes use one of the patterned Oak Floors. Random-width plank has ageless charm and beauty. Smart, sleek parquetry is appropriate for contemporary homes. Either floor design blends well with economical, popular Strip Oak.



*National Oak
Flooring Manufacturers'
Association
814 Sterick Building,
Memphis 3, Tennessee*



Dress up your
homes with
OAK FLOORS

Today's smartest homes have Oak Floors

In planning homes for the market, take a tip from the smartest contemporary houses and use Oak Floors. This preferred flooring for residential use dresses up any home to give you a definite selling advantage. With today's style trend favoring area

or accent rugs and exposed wood floors, Oak is the natural choice because of its beauty, durability and economy. Whether you build on wood joist or concrete slab foundation, always use Oak Floors and be certain of immediate buyer acceptance.

**OAK
FLOORS** 

Richer looking • Longer lasting • More comfortable

HOW TO BUILD **SUPER WALLS**

the value combination
with quality sales appeal!

Start with **USG® Gypsum Sheathing**. In addition to low unit cost, it gives you lower in-place expense. No building paper needed; less sawing—just score and snap to fit. Less than 3% cutting waste. 1000 sq. ft. sheathes 1000 sq. ft. of wall area . . . in only eight hours! Fireproof; resists wind and all kinds of weather.



Insulate with **USG Therma-fiber® Wool**. This superior mineral wool insulation makes money sense when it teams up with low-cost USG Gypsum Sheathing. Takes the guesswork out of insulation because each package bears its R-factor rating—shows how wall, ceiling, floor resist heat and cold. You insulate only where insulation is needed.



Finish with **fireproof gypsum interiors**. Walls and ceilings form more than 60% of a home's interior, must provide lifetime performance. The answer is a **SUPER WALL** finished with fireproof **SHEETROCK®** Wallboard or **USG®** Gypsum Lath and Plaster . . . for beauty, durability, extra fire protection, low upkeep.



HOW TO SELL **SUPER WALLS**

with free help
from **U.S.G.**

This eye-catching model home display, with cut-away design, clearly demonstrates the advantages of **SUPER WALLS**: lifetime durability, all-year comfort, important fuel savings, positive fire protection, increased investment value. A new standard of quality that helps sell the quality of your homes.



This tested selling aid is available in limited quantities. A call to your U.S.G. representative will reserve yours. And when you call, ask him for all the facts about **SUPER WALLS** that build for less . . . insulate best. Call today!

**UNITED
STATES
GYPSUM**



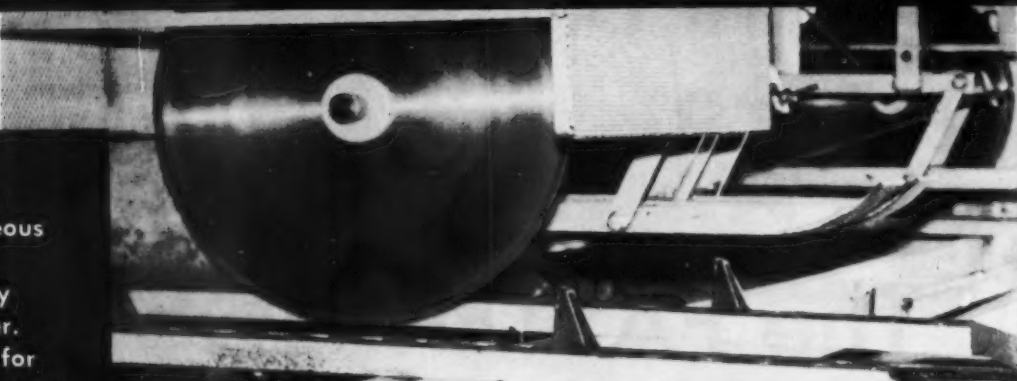
the greatest name in building

The FASTER HOUSE is still a must for every builder —big and small


Today's building market is changing—fast. If you plan to survive in it, you must be ready and able to change as it changes. The faster house gives you this flexibility, because of its simplicity. The savings can be phenomenal. For example:

- You save time from start to finish on every job.
- You save money. Working capital is turned over faster.
- Labor overhead is reduced; scheduling is firmer.
- Houses are closed quicker, which lets you beat the weather; subs are able to schedule their jobs, lowering costs.
- Construction loan terms are shortened.
- Purchase orders are fewer, simpler.
- Time estimating a job is greatly reduced.
- You can build faster through standardization of parts; you can cut or increase production quickly to fit the market.


In this issue, you'll find new ideas and ways to this faster house. They're ideas from real builders who have made them work and sell. They're ideas that *you* can copy and adapt regardless of whether you build three houses or three hundred houses a year. There's no way out . . . no excuse for not putting your business on this faster system. If you can't make the parts, you can buy them. If you can't buy them, you can buy the entire package—from plot plan to paper to the sale. Building organizations, the Government, manufacturers, technical publications, and many others are standing by to help you in *every* phase of this faster operation.




Big cut-off saw makes multiple and simultaneous crosscuts of framing members; automatically loads and ejects lumber. Saw cost \$6,000; paid for itself by reducing labor costs. Smaller saw makes shallow angle cuts and is used on shorter stock.

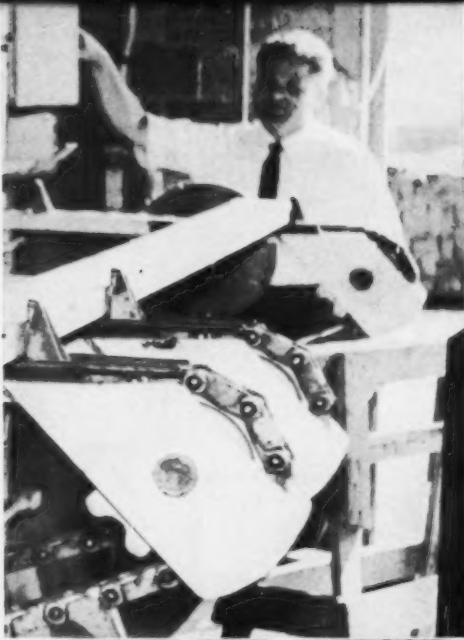


Reflective insulating sheathing is stapled to exterior wall panels. After job, the sheathing is knife-cut around openings. Waste is used on gable ends or header sections. Light sheathing weight permits assembly of longer panel sections; speeds handling.



"Sky Hook" dual-drive aerial crane (see cover) is mounted on converted Army half-track and serves as Burnside's key tool for handling components directly from delivery truck. Interior partition sections are positioned right along with the exterior walls.





FASTER HOUSE: MAKE THE PARTS

Components key to more volume and net profit

By building its own sub-assemblies and components, this Mid-west firm gained a faster and firmer construction schedule. The operation has been so successful that plans are now underway to sell parts to other builders

"There are quite a variety of little problems and headaches in organizing a component shop as we have done," explains youthful, 34-year-old Bob Arquilla of Burnside Construction Co., Chicago Heights, Ill. "But once your home construction is operating on such a basis, there are so many advantages that you wonder how you remained bound by conventional, piece-by-piece methods for so long."

As director of shop operations, Arquilla reports that little is gained cost-wise in comparison with ordinary on-site volume building methods. However, the shop make-ready does produce better quality construction, greater home values, and a flexible speed of erection that's not attainable with conventional techniques.

Chimes in George Arquilla, Jr., 39, and other son of Burnside's founder and president:

"First, we obtain a steady production flow (in a price range of \$18-26,000 houses) that permits better organization and development work such as streets, walks, drives, foundations, and so on. Second, our

production can be geared to sales goals and the sales organization is assured of suitable completions.

"Third, our higher-priced custom home work is helped considerably since we're able to apply assembly-line methods on these individually designed houses."

Independent of weather or job-site conditions, the shop operation stabilizes costs, making them more firm and predictable. The handling and erection of components and pre-assembled units results in faster erection, particularly in the early phases before a house is closed and out of the weather.

The speed of this rough carpentry work has a further advantage in that the mechanical trades—plumbers, electricians, heating crews—can get in to do their work with a minimum of interference.

Proof of the house is in the sales. Says George Arquilla: "We do a complete job of building . . . our reputation has developed to the point where many of our customers have bought their fifth home from us. Our policy is based on good housing value for the money."

FASTER HOUSE: MAKE THE PARTS

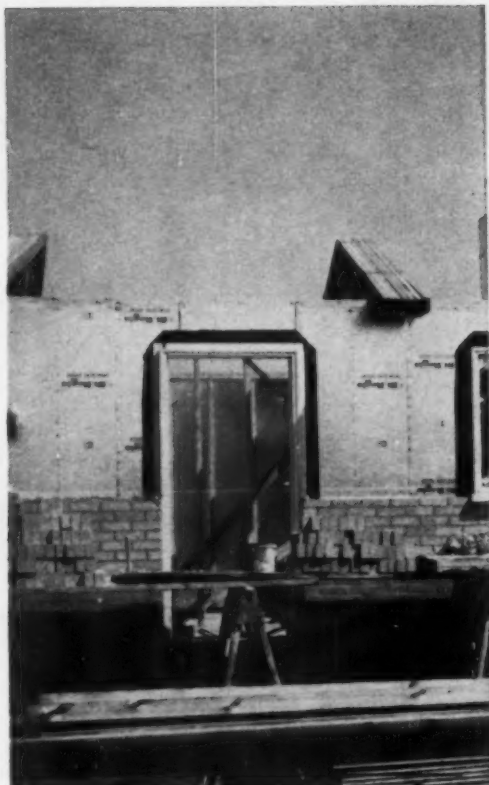


Building sites are pre-prepared for the component crews

Foundation (foreground) is ready for deck building crews. Steel girder and columns are in place. Grading crew already has completed rough yard grading. Note brick pallets for veneering and hydraulic crane standing by to unload components from delivery truck.

Masonry crews take over when exterior panels are in place

Veneering phase starts as soon as wall sections are fastened in (right). Depending on production rate and number of masonry, carpentry crews being used, this procedure is flexible. Bundled roof trusses will be spaced, sheathed by incoming carpenters.



Burnside precuts everything from trusses

The Burnside shop, neatly tucked away in an old dairy barn, is both a pre-assembly point and warehouse for units such as hardware, exhaust fans, accessories used in the homes,

but not involved in the shop's assembly line. Under this system, packages of components and supplies for a complete house can be delivered by flatbed truck to the

construction site.

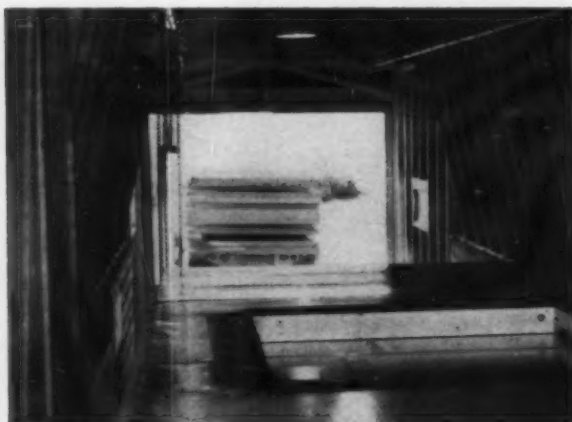
Normal completion time, including foundation work, averages out at about 6½ weeks per house.

Pre-cutting in the shop is applied



Junction unit typical of sub-assembly plan

Shop job includes sub-assembly of 2x4's with blocking between, which will serve as junction unit between two walls or as partition end. It will be racked and later placed in panel section.



Assembly-line techniques cut loading time

Before leaving shop, window and door openings are flashed; window and doors aren't installed in panel sections. Motor-driven chain hoist on track speeds loading time on flatbed truck.



to planter boxes in dairy barn shop

to virtually every piece of dimension lumber involved in framing. Besides pre-cutting for the panels and trusses, some dimension pieces go into sub-assemblies such as cor-

ners or partition ends.

These may be incorporated into panels in the shop, or, sometimes, sent to the building site as they are. Even planter boxes and kitchen

cabinet furr-down framing is pre-assembled. From this process, waste is reduced largely to sawdust. The only trash to be burned is trimmings from the sheet materials.



Dairy barn offers plenty of working space

Loading shed is at end of long jig table. At far end of barn is entering point for lumber. Left wing houses jig tables for trusses which are steel-banded in bundles for crane lift.



Sliding pocket door component lowers labor costs

Framing component for sliding pocket door is another type of sub-assembly made by Burnside. It can be incorporated into a panel section on jig table, or delivered to site for placement.



Tillamook Oregon, plant of Diamond Lumber Co., started pre-cutting service in '59. It has supplied over 600 home part packages



Parts are keyed to the blueprint

Bob Curry (right), veep of Alcan, checks plan with Roy Gould, head of Diamond Lumber. Alcan develops own plans.



Parts are numbered for carpenters

Ends of framing material are numbered so crews can quickly match them to plans. Stock is precision cut to 1/32" tolerance.



Parts are bundled for delivery

Bundled parts are clearly marked for lot, tract. To show use of contents, each stack is numbered with crew's diagram.



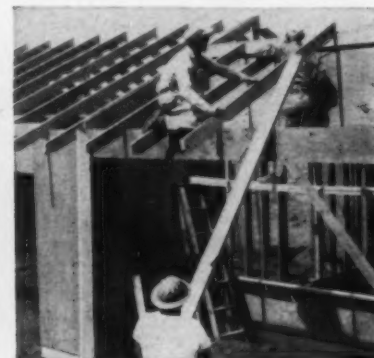
Planning, scheduling key steps

So job goes fast, planning and scheduling are important. Super Roger Dondic, (above) writes cutting lists; it takes 8 hrs.



Walls are raised in single unit

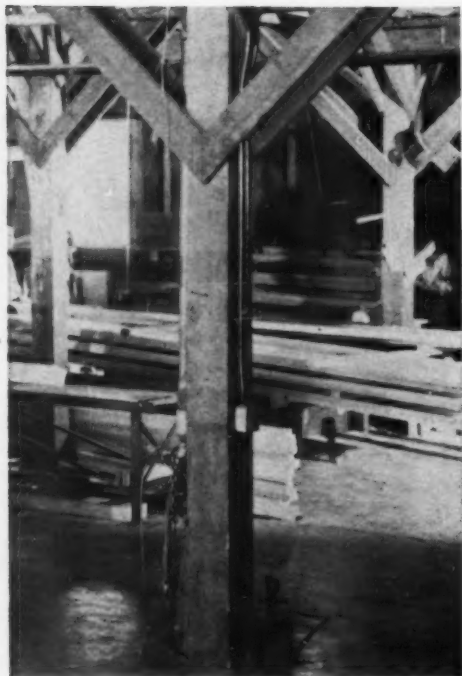
Crew tilts wall units in place. Solid 4x12" Douglas fir headers eliminate much measuring, sawing, nailing, splitting.



Pre-cut rafters speed roofing

Alcan prefers pre-cut rafters to trusses. Roof sheathing is 1/2" fir plywood. Setting girders, posts, subfloor takes 2 days.

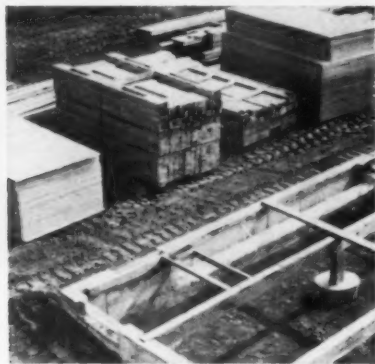
FASTER HOUSE: BUY THE PARTS



to Alcan and other builders in area.

Pre-cut parts lower housing costs 6 ways

In Portland, pre-cut lumber, wall, and roof sheathing is saving small, medium, and large builders up to \$175 a unit. The system is flexible and involves nine basic plans with an average of three elevations for each one.



Complete package for typical job

Usually concrete flatwork is in so lumber can be placed out of dust, mud—a savings factor. Normal delivery is 8 days.



Waste on job is kept to minimum

Three short pieces of stock represent the waste after house is framed. Cutting on job can be done with electric hand saw.

Manufacturing and selling house parts to builders is becoming big business in the Portland, Ore., area.

One satisfied customer, Alcan Pacific Co., happily reports that it can frame a house in 14 man days, which includes just five operations handled by two carpenters and one laborer. Says Bill Rodasky, purchasing agent for the firm:

"Builders must adopt every cost-cutting idea that proves itself out, and the pre-cut package has done just that for us." The advantages, Rodasky points out, include:

1. Labor time has been slashed by one-fourth.

2. No lumber waste. There's al-

most nothing to clean up, burn.

3. Delivery is precisely timed.

4. Cost estimating is precise, a real plus in competition.

5. Speed of framing and roofing closes houses faster, eliminating bad weather problems.

6. The system is versatile. Assembly is by diagram and matching numbers—less blueprint reading.

Adds Rodasky: "The old way of buying random length lumber and sawing it as you go requires 35% more working time than pre-cutting. Yet the complete package costs little more—from 7 to 8%. The package costs us \$1,000 to \$1,400, depending on the home model."



Typical Alcan home suggests variety of exterior treatments

Variety of appearances is possible with pre-cutting parts. Alcan says small or medium-size builder can save with pre-cut parts system because no heavy equipment is needed to move materials—such as in prefabricated panels. Homes sell in \$13,350-\$18,300 range.

The package: Price, profit, and potential

With manufactured homes—a complete unit in a box—the emphasis is on speed, merchandising, and turn-over. Behind-the-scenes thinking centers on good design, top quality, and a good profit for the builder

The Stevens-Wood Co., Mobile, Ala., builders of manufactured homes, looks at the market this way: It's possible to sell homes in a depressed market, if:

1. You offer good design.
2. You give the buyer extra value for his money.

To prove this, the firm has sold 45 houses in 11 months, representing gross sales of approximately \$585,000, double the volume of the year before. Added to this is the fact that the sales occurred during a period in which starts in the Mobile area declined sharply. The firm's project also was located in one end of the metropolitan area, farther away from prospects than competitive subdivisions.

Behind this success is the complete backing—from start to final sale—that most of the nation's home manufacturers are now offering the builder: variety of good design; the latest in building techniques; top-notch merchandising programs; sales help, and, best of all, good profit for the builder.

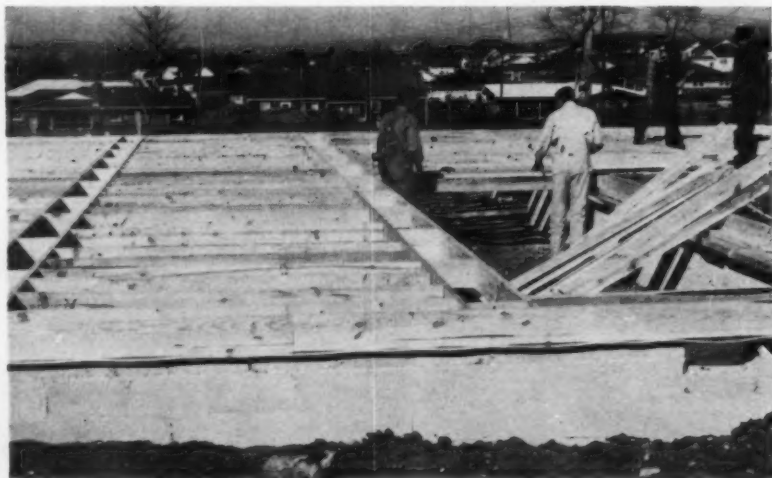
Stevens-Woods is a good example of the manufactured home builder. Under the Kingsberry plan, the firm has built homes in four cities and three states. In the last three years, it has built more than 200 units, valued at more than \$3 million.

The builders go all-out in careful land planning, which creates an attractive curvilinear street layout with large lots, usually 85x190'.

The firm uses Kingsberry promotional services to the hilt; they tie-in with national magazine promotional campaigns; use Kingsberry decorator services for models, and consistently advertise through newspapers, radio, direct mail, and billboard media.



Popular Kingsberry model of Stevens-Woods



Floor framing system is big construction feature of houses

Units feature new 2x6 double girder floor framing system for crawl space designs. Technique is 2½ times as rigid as required by FHA, yet less expensive. Consumer benefit is "no bounce" to jar dishes and hi-fi. Design trend is to multi-level homes.

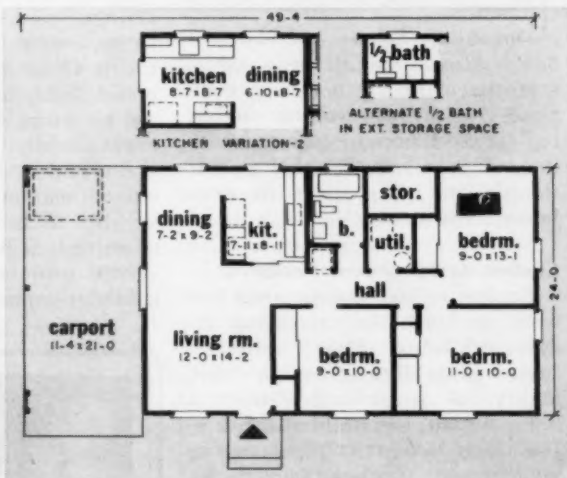


is "The Barton." Customer gets choice of exterior finishes; home has 3 bedrooms, is designed for half-bath alternate (see plan).



Space planning, equipment utilization important

W. W. Stevens, Jr., and Sam Stevens (left and right) look over construction techniques with Bill Carpenter (center). Firm's property, Suburban Heights, consists solely of Kingsberry homes.



"Barton" has expandable plan sales features

Merchandising points out expandable plan of "Barton" model. Firm uses brand names in houses—DuPont, Frigidaire, Reynolds, Stanley, Bruce—to help sales. Henry Norris is architect.

Packaged houses:

The manufactured home has been transformed over the years. It's becoming a custom-tailored package complete with a kit of special services. But is it for you? Here's a look at its benefits—and problems

Not long ago, home manufacturers (the makers of prefabricated houses) were saying: "You can't tell the difference between a conventional house and one of ours."

Today they're saying that you can.

"The manufactured home now offers better engineering and better designing than conventional homes do," says James L. Pease, president of the Home Manufacturers Association, and treasurer of the Pease Woodwork Company, Hamilton, Ohio.

This important step forward is joined by another advance: custom styling. The manufactured home—originally developed to answer the demand for low-cost mass housing—now stands in the same class with luxury homes as well.

The custom phase of home manufacturers has grown so important that it is pushing aside the single-model operation in many companies.

Donald J. Scholz, president of Scholz Homes, Inc., Toledo, Ohio, says that "the custom field comprises 70% of our volume. It has to," he says, "because custom building now represents better than half the dollars being spent in new-home construction."

Custom design means flexibility

Custom styling underscores a key word in home manufacturing today: flexibility. Many manufacturers pride themselves on their ability to design and deliver a home that fits any builder's market.

Custom design is important in another way: It is helping to dispel the American housewife's traditional distrust of the quality of prefabricated homes. She finds little in the manufactured homes of today

to compare with the "matchboxes" of yesterday.

Though custom design is important, the real virtue of the manufactured home will always be its savings in construction time.

These savings mean not only lower labor costs at the building site, but easier financing, simplified purchasing, lower overhead.

More houses with fewer workers

The manufactured home also puts less demand on workers. A conventional builder who maintains a staff of one superintendent, for example, three or four carpenters, and two or three laborers, could cut his payroll and still maintain his volume—if he switched to manufactured homes.

At most, he'd need a supervisor, a carpenter, and two laborers to retain, and even increase, his usual building pace.

There is, in addition to labor savings, another benefit in prefabrication that is not always recognized. Once a builder enters the prefab field, he finds that he can test his wings, so to speak, in a new environment.

A small builder can enter the volume market. A big builder may be able to broaden his operation so much that he may be able to diversify into other fields, such as land development and real estate.

So varied are these opportunities that prefab dealers rarely remain dealers for long. (One major manufacturer says that his dealers average only three years with his firm.)

There are, of course, obstacles in home manufacturing that cause builders to hesitate before entering the field. In some areas, building codes are too narrow to permit manufactured homes. In other areas, labor unions oppose the time-saving characteristics of these homes.

The challenge of component parts

Home manufacturers report that they are making progress against these two hurdles. There is one trend, however, that significantly challenges the expansion of manufactured homes. It is the growth of component part construction.

More and more, builders are finding that they can achieve the time-saving benefits of prefabrication—without becoming dealers for a home manufacturer.

They are purchasing, individually, the roof trusses, wall sections, and other components that were once provided exclusively by the prefabricator.

This development has taken such a hold in home building that many industry leaders are looking to the day when every builder will either be buying some factory-made sections for his houses or prefabricating some of his own parts himself.

Nat Rogg, economist for NAHB, has said that 25% to 35% of all homes built today—not counting prefabricated homes—already employ some kind of factory-built



JAMES L. PEASE, president of the Home Manufacturers Assn., says that the manufactured home offers builders a "cross fertilization of ideas." Because the manufacturer has a broad contact with home building, "he can sift through the trial-and-error experiences of other builders and select the superior ideas for his model homes," says Pease.

Are they for you?

component. Five years ago, such homes comprised only 5% to 10% of all homes.

Home manufacturers, in competing with component-part makers, have naturally looked for more ways in which they, too, can continue to cut down on the construction time of their packages.

But they have found a more exclusive way to differentiate themselves from component makers. They have developed a broad array of special services.

These services cover the full range of homebuilding, from design and land development, to financing and advertising the home.

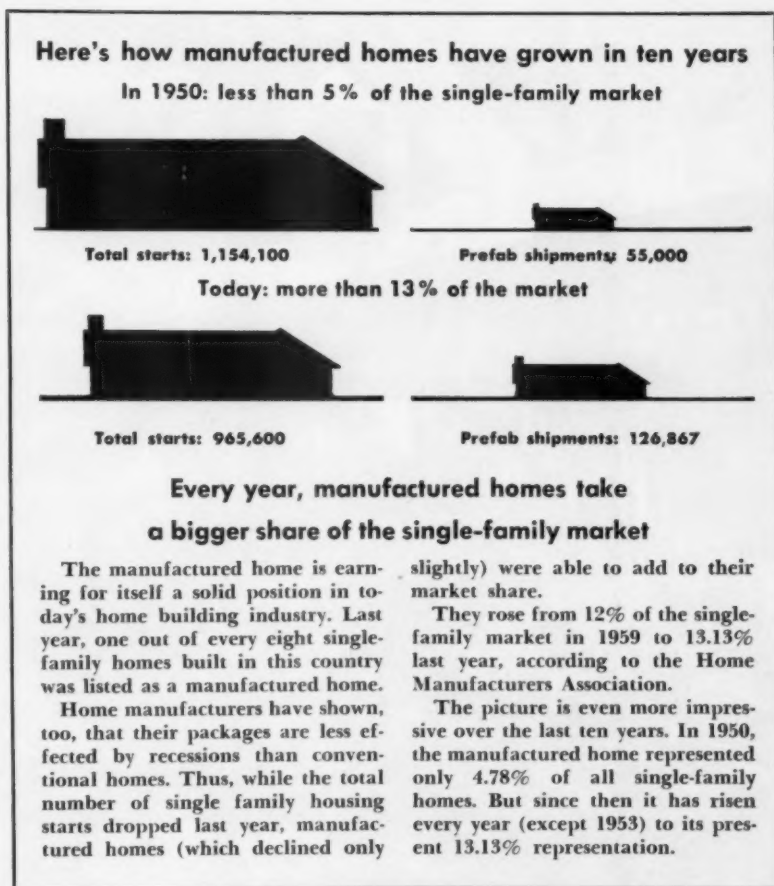
Many home manufacturers retain highly qualified architects, engineers, and decorators on their staffs. They have broad contacts in national money markets. They have an assortment of especially prepared advertising materials that may easily be converted to fit a builder's personal requirements.

So important are these services, that they have begun to characterize the home manufacturing operation. This fact is important to builders in two ways.

It comes with the package

First, these services are generally not optional. Even if you can't use help in engineering, for instance, you may still have to pay for it, when you buy a prefab package. The cost of the engineering has been figured into the cost of the homes you buy.

It has to be that way. The home manufacturer incurs a very high overhead in maintaining his staff of



specialists. This overhead must be allocated to all the packages he sells.

There are some builders who have rejected prefab homes because of this. But these services can be invaluable to builders.

With aid in designing and selling your homes, you don't have to build up your own expensive staff.

Instead, you automatically get top homebuilding talent on your team.

There is a second consideration. Home manufacturers have introduced a subtle shift in the homebuilding business. They have put the emphasis on marketing—rather than on construction.

The home manufacturer needs a man who can put his special services to good use. Many times, this means that a salesman may be more qualified than a builder to move into prefabrication. In fact, one manufacturer recently revealed to AMERICAN BUILDER that his two best dealers started out—not as builders—but as salesmen. One, who puts up over 200 homes a year, used to sell automobiles. The other was a securities broker.



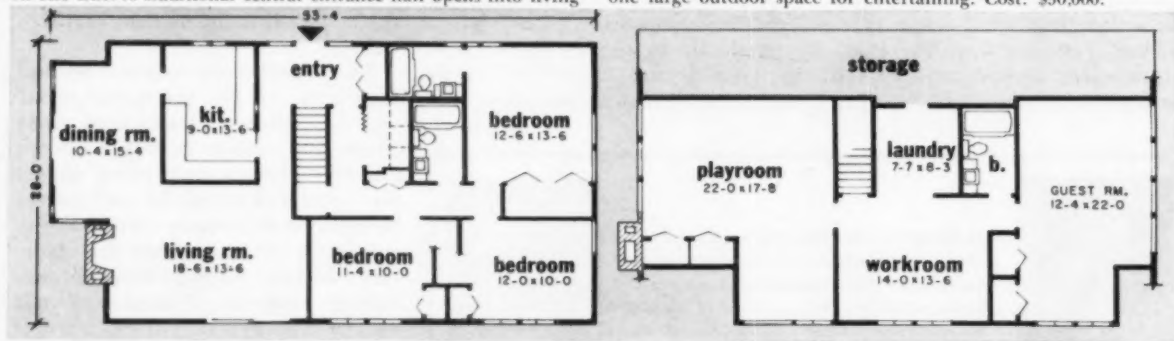
JEROME J. MADIGAN, executive vice president of the Home Manufacturers Assn., says that "factory-made" homes have raised the standards for design and planning in the home building industry. Some of the nation's top architects are designing 1961's manufactured homes—a service few individual builders can afford," he says.



New Hodgson House, Inc., model has traditional lines, barn-red boards, modern gable sash, full basement

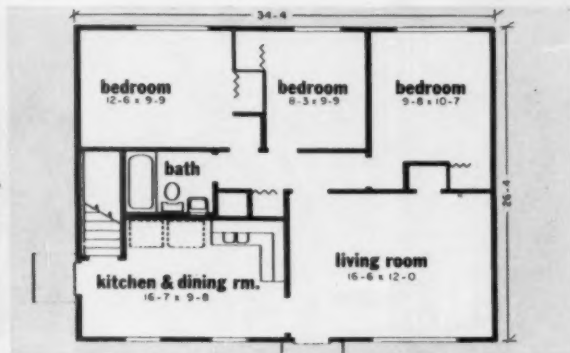
House has three large bedrooms on the first floor, two more plus a large work area upstairs, thanks to the long running dormer on one side. A traditional central entrance hall opens into living

room, kitchen and bedroom wing, also includes stairway leading to second floor. Carport and breezeway can be combined to form one large outdoor space for entertaining. Cost: \$30,000.



SPECIAL REPORT: HOME MANUFACTURERS

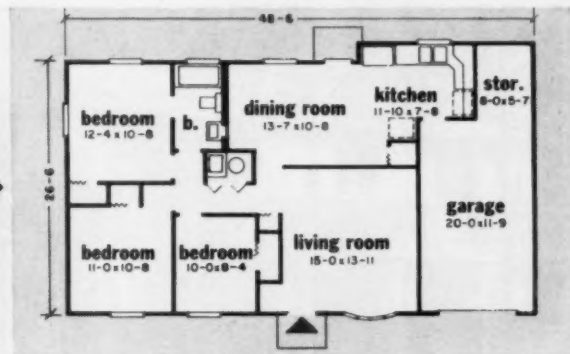
Latest manufacturers' models indicate trend towards more traditional design with one-story house still most popular among nation's buyers



Inland Homes offers new design in three styles, four different floor plans for \$10,400 including lot

Accent is on attractive, authentic details, maximum use of living space in the low-cost model. House measures 34'4" x 26'4", has three bedrooms and offers choice of slab, crawl space or full base-

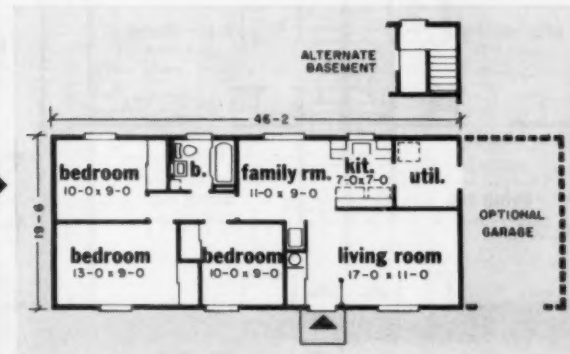
ment. Company feels that such simplicity and traditional features satisfy modern tastes. It uses 2x4 construction throughout, with double walls and insulated sheathing.



United States Steel Homes latest models use adhesives to attach partitions to steel frame

Early New Orleans was inspiration for popular prefab design which combines brick with board and batten on outside walls, highlights street side with delicate wrought iron grillework. Use

of adhesives and continuous bond between gypsum board walls and steel frame produce more rigid construction, according to manufacturer, offers neater, smoother finish.



Classic formality is keynote of latest Scholz one-story house, with garage optional

Attention to detail and proportion have long been characteristics of Scholz houses and are especially noticeable in the model shown above. Entire house has been painted white for extra drama.

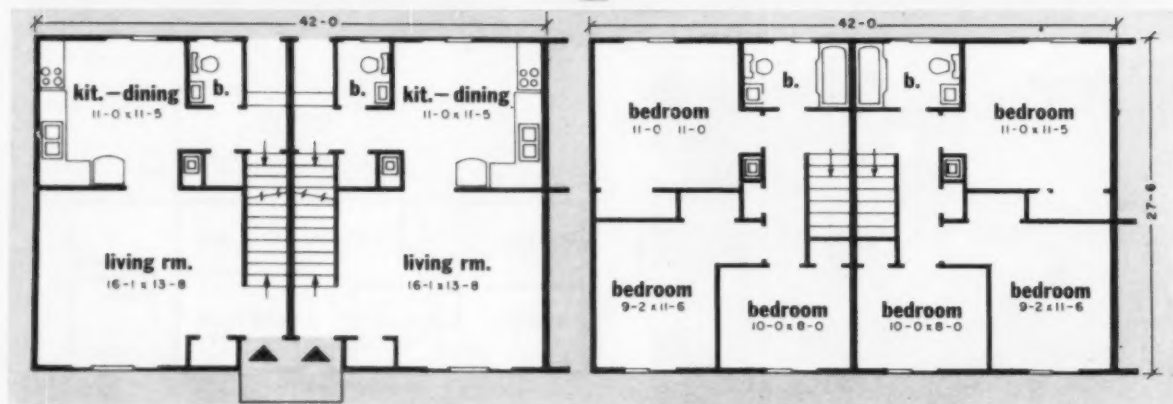
Openness that results from extra-large windows, exposed beam ceilings that follow the lines of roof gives interiors added illusion of size. Designs can be built on slab or with basements.

SPECIAL REPORT: HOME MANUFACTURERS



Kingsberry Homes enters low-priced market with 3-bedroom, 902 square foot house

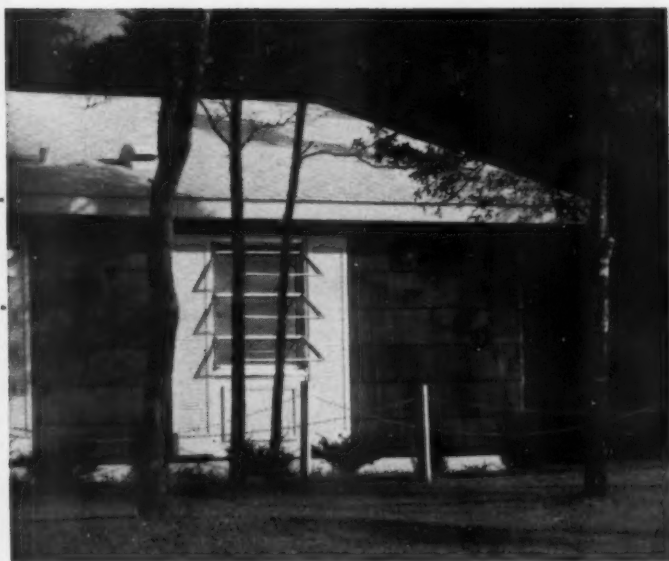
Planned to meet the needs of the man of moderate means, the house shown here is designed, according to Kingsberry, to sell for \$9,280 on a \$1,200 lot. Traditional in appearance, it offers the buyer a choice of three finishes—bevelled redwood, asbestos-



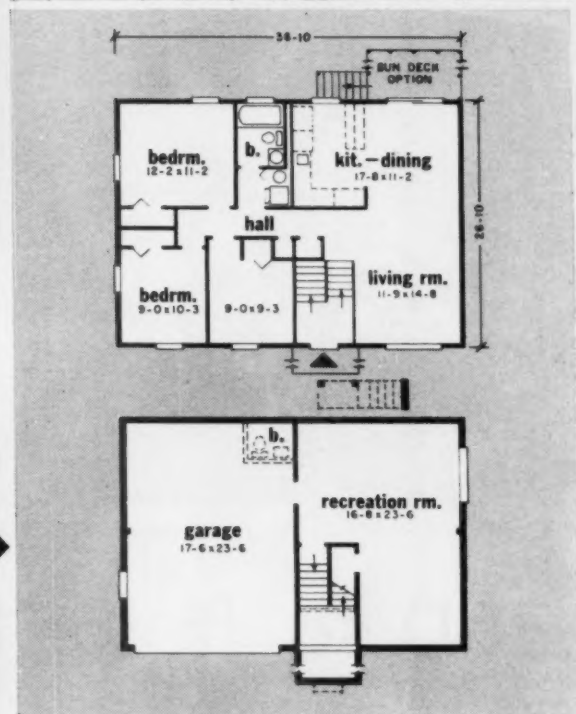
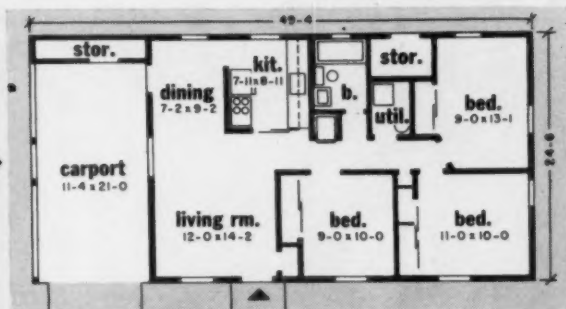
Harnischfeger homes introduces new line of town houses, available in units of 2 or more

As one answer to the growing demand for low rental housing and investment property, Harnischfeger has designed a series of town houses, shown above as two units combined in a single design. Each unit has a living room, kitchen-dining room, three bed-

rooms and a full bath; each is on two levels and has a separate entrance. Units are identical, with a variety of outside finishes. Each contains 1,040 square feet of living space. Walls, above, are brick, with entrance screens of concrete block.



cement with battens or brick veneer. Its living-dining room measures 27'4" long. Carport-storage room or garage are extras. Six elevations on slab or pier foundations are offered.



National Homes Corp. calls this split-foyer model the fastest selling house in the country

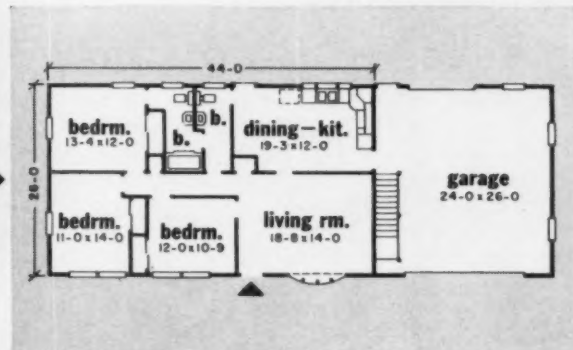
Second-time buyers go for this big house that can be built on an average-size subdivision lot. It is also popular with families who have active, growing children since the split-level entrance cuts down on long stair runs. Other selling features are the aluminum

siding, large floor-to-ceiling closets with folding doors, plastic top window sills and scar-proof printed natural birch doors, kitchen cabinets and vanities. The dual-duct heating system is especially made for split-levels, guaranteeing even heat throughout.



Ivon R. Ford Inc. finds Cape Codders and ranchers making stronger impact in New York

Best sellers for Ford lie in the \$18,000 to \$25,000 range. Produced on highly mechanized assembly line, they come complete with pre-finished floors, pre-hung windows and doors with trim applied and all wiring installed. Panels can be assembled at site,



with a 40-foot boom crane, in 6 hours with a six-man crew, ready for roofing and utility connections. House, above, has living room, combination dining room and kitchen, three bedrooms and two baths, 2-car garage. Large bay window is optional.



Asbestos cement, prefinished with acrylic coating, covers all outside walls, trim and battens, eliminates repainting up to 30 years.

1,360 sq. ft. for \$12,995 ...

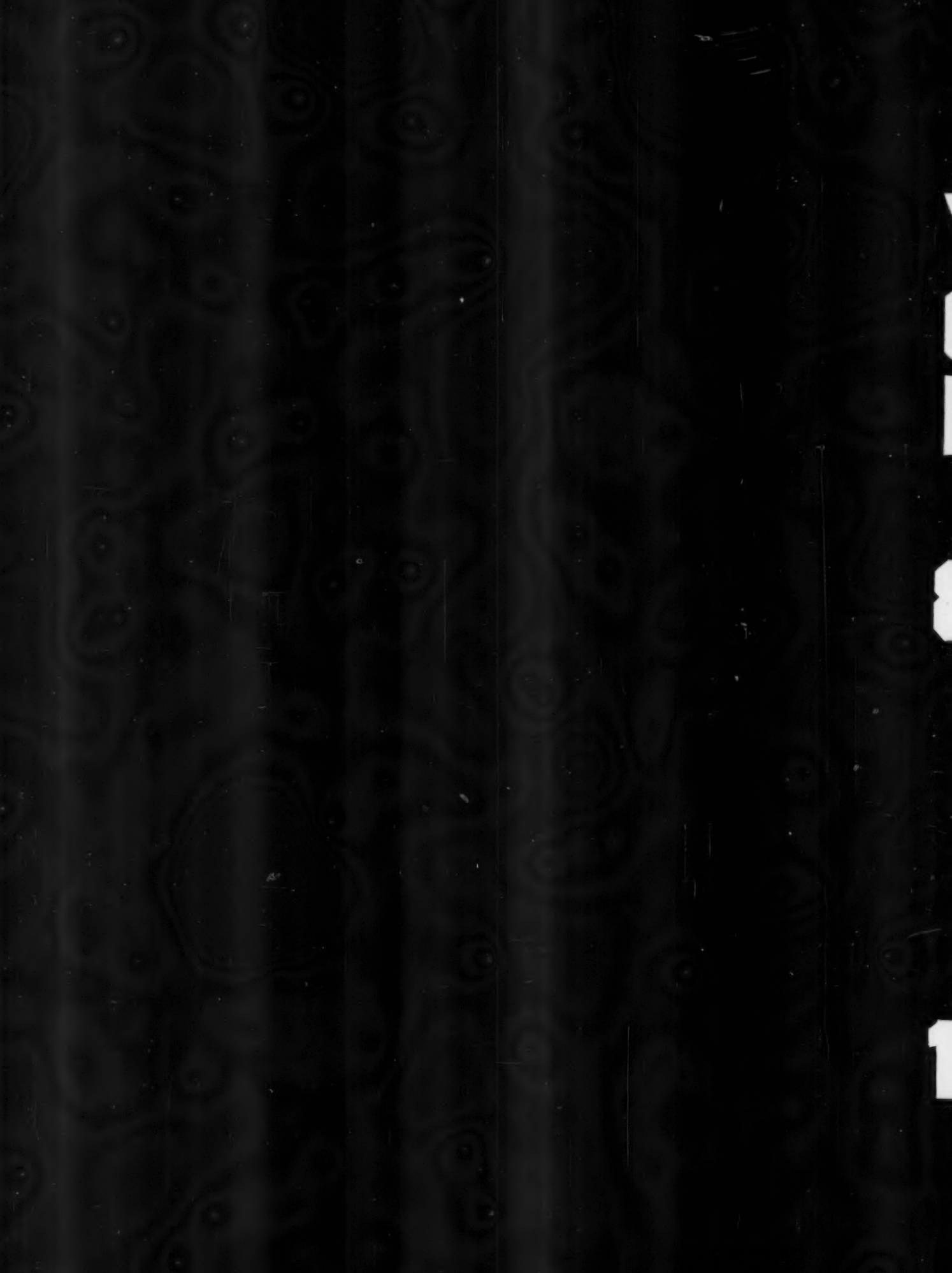
Wright Homes of Durham, North Carolina teamed up with industry leaders to produce a house which cuts maintenance, eliminates need for conventional partitions and allows more use of inside living space

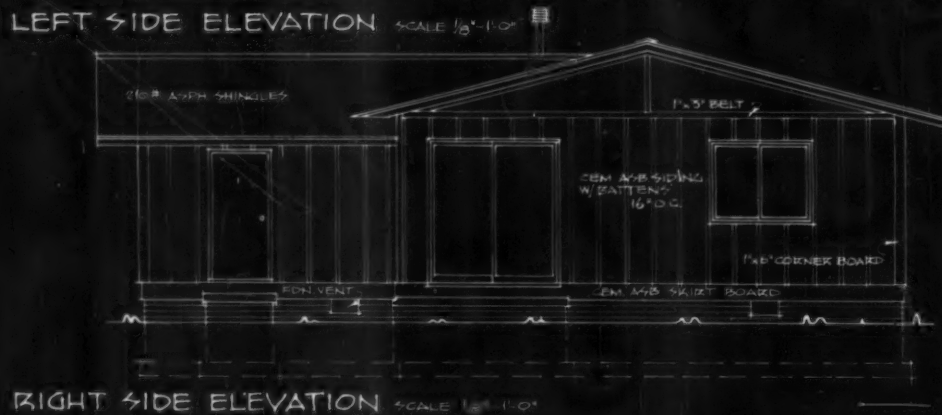
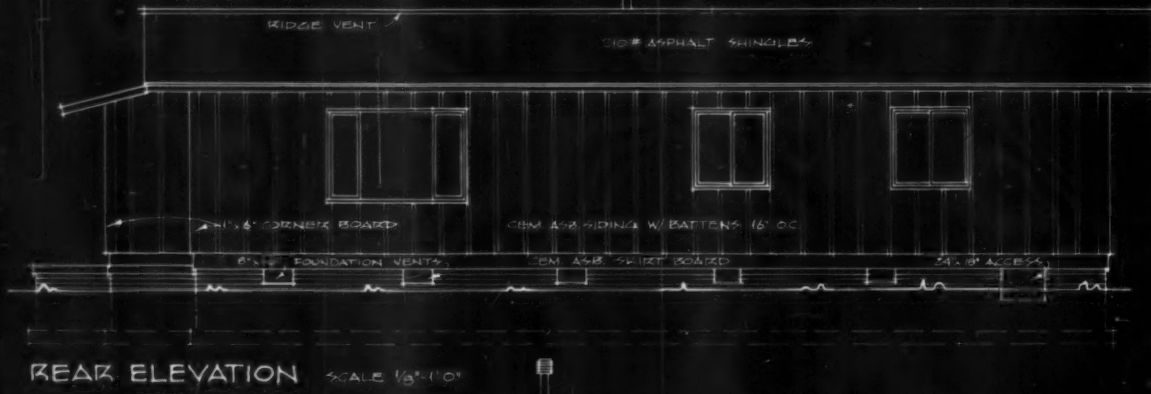
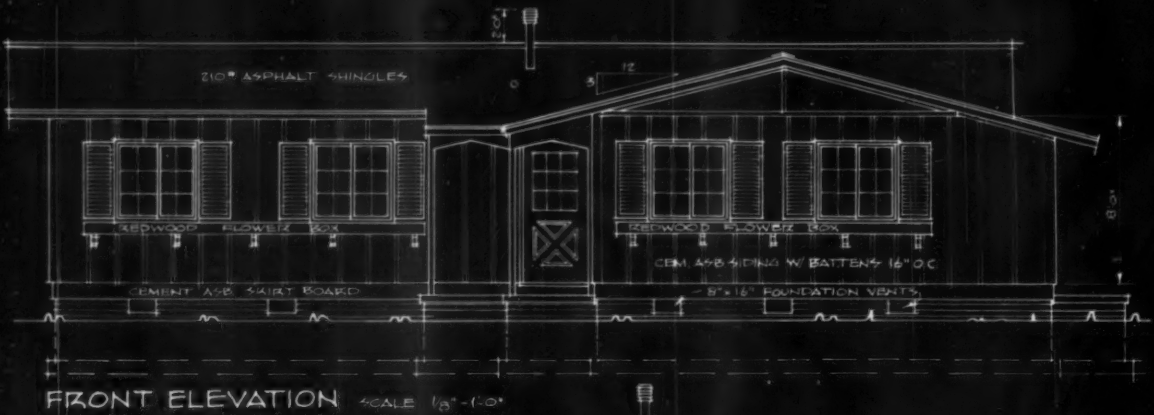
Tireless research by Wright Homes, Inc., combined with the technical skill of Johns-Manville Corp. and the National Gypsum Co., produced the house shown on these pages. Their combined aims—a higher quality house at a low cost, a house that would be easy to erect and whose maintenance would be cut to the bone. Part of their suc-

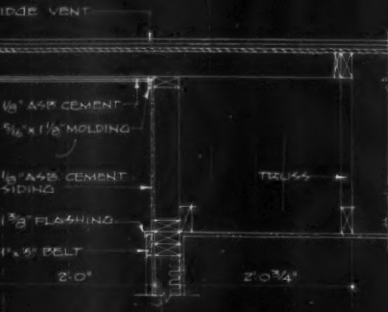
cess is reflected in the low price tag, the rest in the easy-to-erect-and-maintain products which offer the home buyer permanence and infinite flexibility of room arrangement. The new product story starts with the outside material, an asbestos-cement material, prefinished with an acrylic coating which eliminates the need for repainting for as long

as 30 years under favorable climatic conditions. Even where weather is severe, tests prove that its wearing life can extend to 10 years. To reduce on-site labor, these panels have been laminated, at factory, to 1/2" fiberboard sheathing. Pre-fabricated roof trusses eliminated the need for wall-bearing partitions. Instead studless gypsum-faced partitions with hardwood spiral cores were used for the majority of rooms. These partitions, installed after outside walls and finished floors were in place, cut both time and labor. Since they are non-load-bearing, they allow greater flexibility of room arrangement.

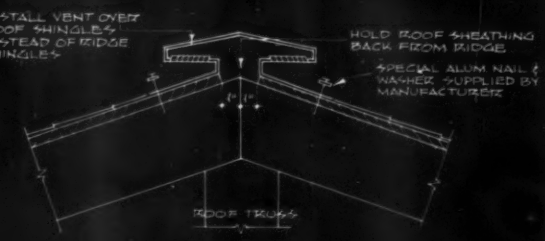
...research house good news for



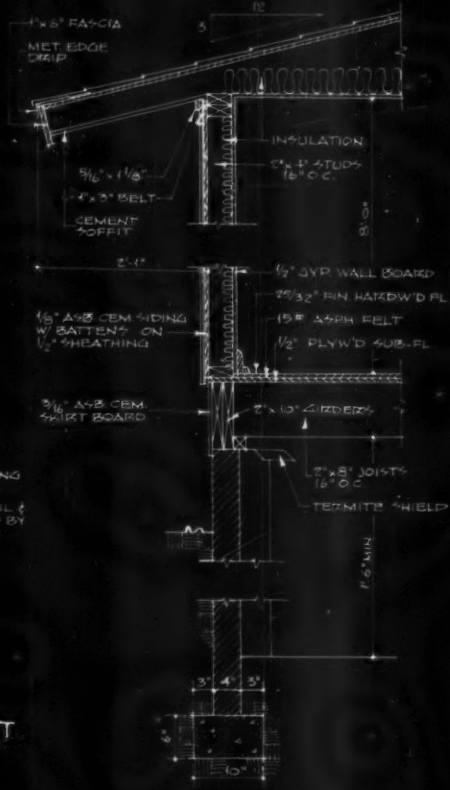




SECTION AT GABLE END
SCALE 1/2" = 1'-0"



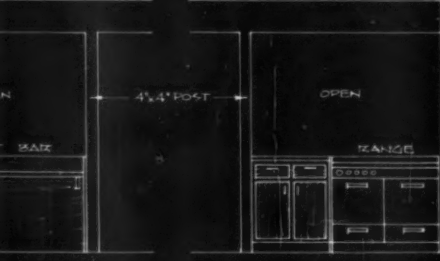
SECTION OF ALUMINUM RIDGE VENT
SCALE 1/2" = 1'-0"



TYPICAL WALL SECTION
SCALE 1/2" = 1'-0"



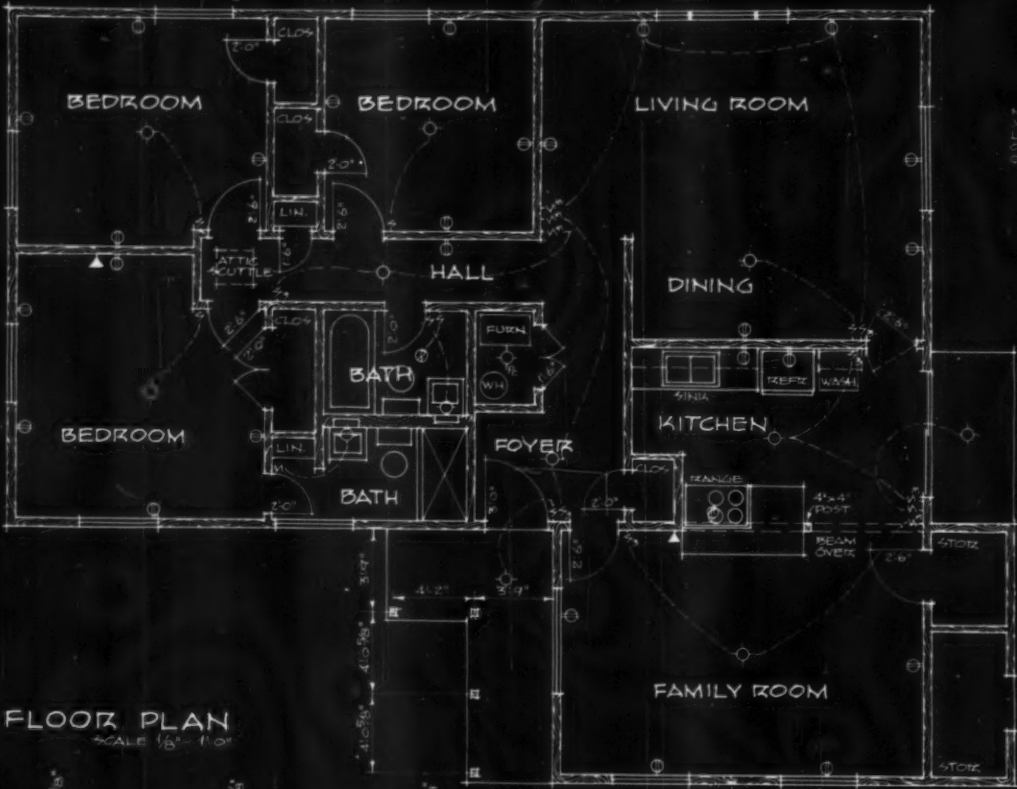
KITCHEN ELEVATIONS
SCALE 3/16" = 1'-0"



ELEVATION 2



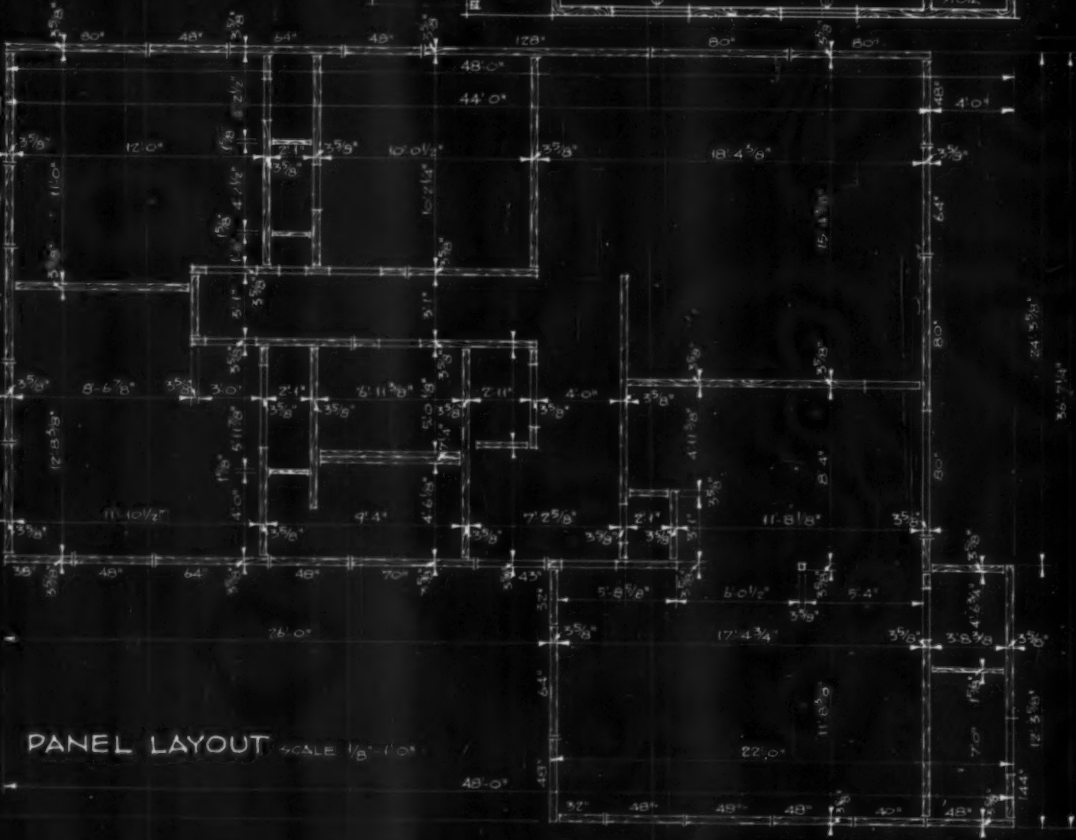
HEATING PLAN
SCALE 1/16" = 1'-0"



FLOOR PLAN

SCALE 1/8" = 1'-0"

NOTE: START FL. JOIST & PLYWOOD LAYOUT FROM OUTSIDE EDGE OF TRIM MILL.



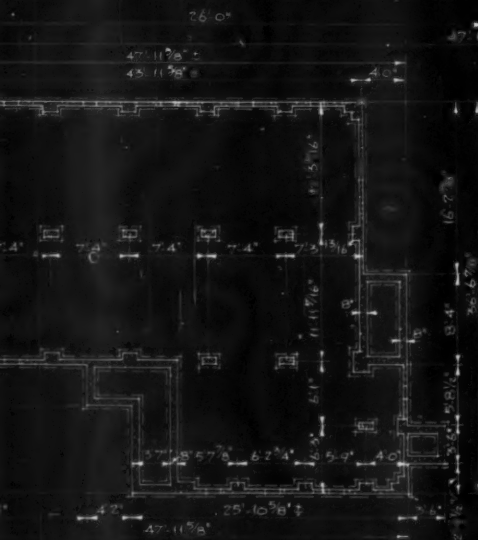
PANEL LAYOUT

SCALE 1/8" = 1'-0"

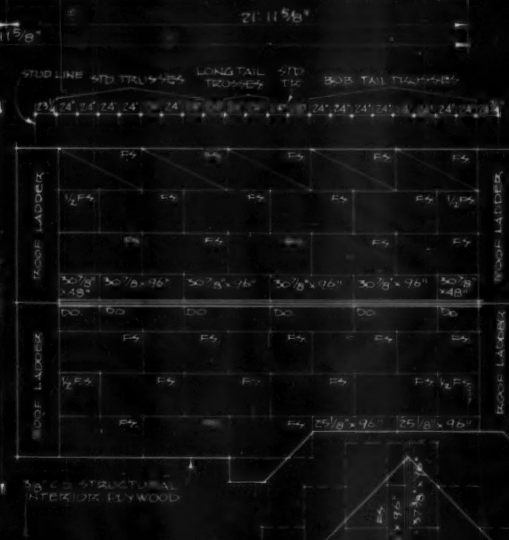
FOUNDATION



DOOR FRAMING & SUB-FLOOR LAYOUT
 SCALE 1/8" = 1'-0"



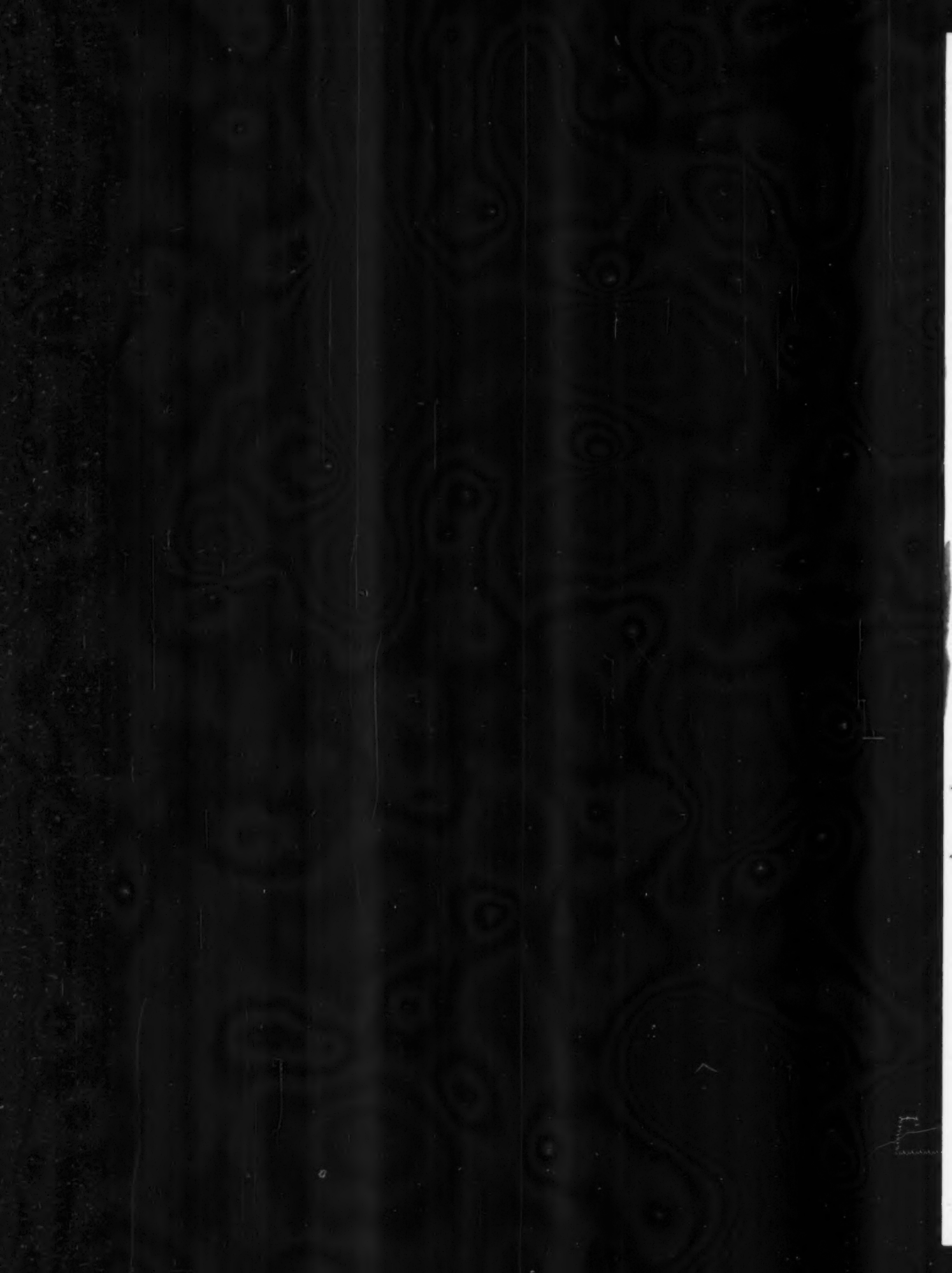
TRUSS LAYOUT
 SCALE 1/16" = 1'-0"



ROOF PLYWOOD & TRUSS LAYOUT
 SCALE 1/16" = 1'-0"



TYPICAL ROOF TRUSS
 SCALE 3/16" = 1'-0"





Kitchen forms an island opening into family room and living room without use of conventional doors

Centrally located in main living part of house, the kitchen can be reached directly from living and family rooms and from front entrance hall. Sink counter extends to form a work desk. Open-

ness of plan allows for small dining space in kitchen area, overlooking patio and outside deck, spreads entertaining area for large gatherings. Cafe doors open into entrance hall.



Open plan affords view of living room. Not shown, at right, are glass sliding doors to patio.

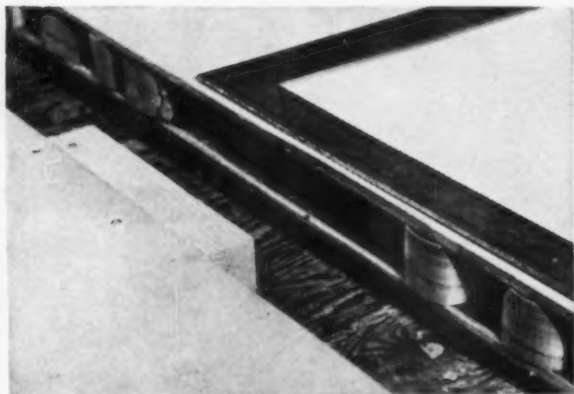
Elimination of standard doors, gives house an extra sense of spaciousness far beyond its 1,360 square feet of living area. Studless partitions can be located to suit individual tastes and needs,

offer buyer wide choice of room sizes and locations. Natural wood finish on kitchen cabinets, combined with floral pattern of plastic countertop, blend with adjoining rooms.

builder and buyer

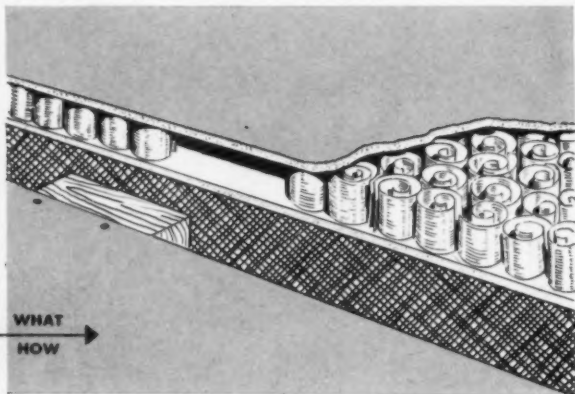
▲ SECOND HALF OF BLUEPRINT FOLDED UNDER.

Research house cuts time and labor with



Unique wall panel has core of hardwood coils

National Gypsum's research created extra-strong panel with acoustical properties. Outer surfaces are two sheets of gypsum wallboard, pressure glued to wafer-thin hardwood spirals.



Splines dovetail interior panels into position

Individual partition panels are supplied with openings and 2"x4"x10" wood splines for perfect alignment and extra strength. Method allows walls to be assembled ahead of time.



Factory-assembled wall panels arrive on truck

Roof trusses, panels and walls are pre-assembled under roof and delivered to site in truckloads for easy, quick erection. Asbestos-cement surfaces are protected by acrylic coatings.



Outside panels being erected and assembled at site

Panels are of Johns-Manville's Permatone Flexboard with permanent acrylic finish, a material used for battens, trim, fascia and corner boards as well. Material eliminates repainting.



Wedges driven in at floor line insure tight fit

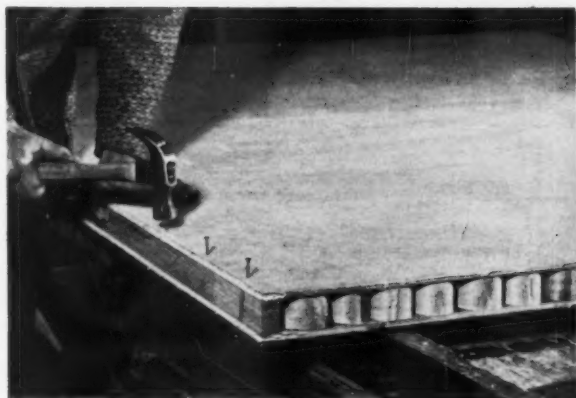
With vertical wall panels in place, wood wedges are driven in at base for extra rigidity. They are then trimmed flush with a saw to provide a smooth surface for nailing on base and shoe.



Over-door panel being jockeyed into position

Exactness of main partition panels makes the fitting of smaller areas a simple job. Sound transmission is reduced by elimination of drum head effect created by standard hung type.

prefab component parts, studless partitions



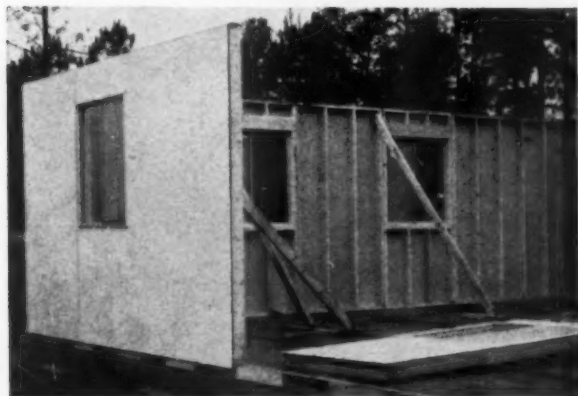
Trim board is nailed to end of wall panel in shop

Partition ends are protected by inserted wood strips, shown above being nailed into position. These panels are non-load bearing and ideally adapted for use with pre-fab truss roofs.



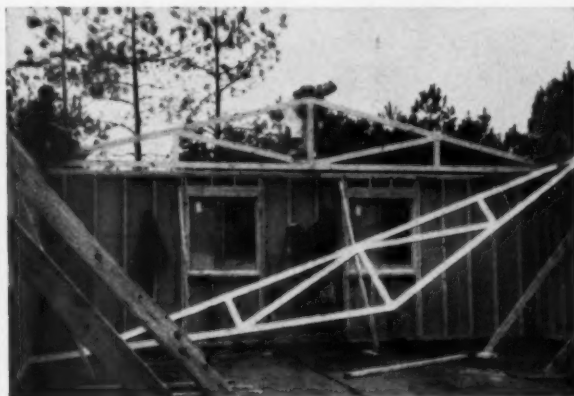
Wall panels installed on top of finished floor

Entire inside partitions can be assembled and then nailed in place in one piece. Individual sections have 1x2 splines which fit into openings in adjoining sections for nailing.



One wall and corner panel erected in place

Factory-built panels fit with hair-trigger exactness, eliminate any chance of error. Picture shows inside face with exposed studs and fiberboard sheathing laminated to outside finish.



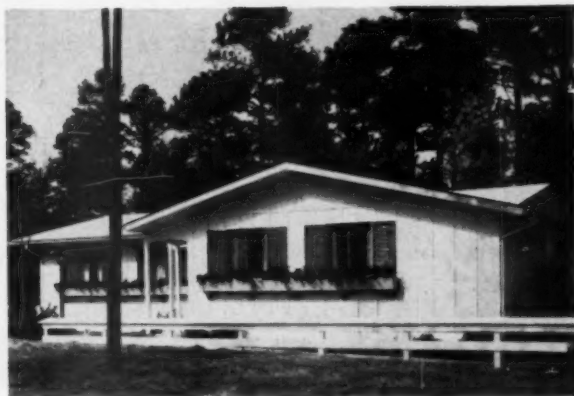
Lightweight wood trusses take roof loads

After outside walls are erected, pre-fabricated trusses are installed, spanning the entire width of the house. They completely eliminate the need for load-bearing inside partitions.



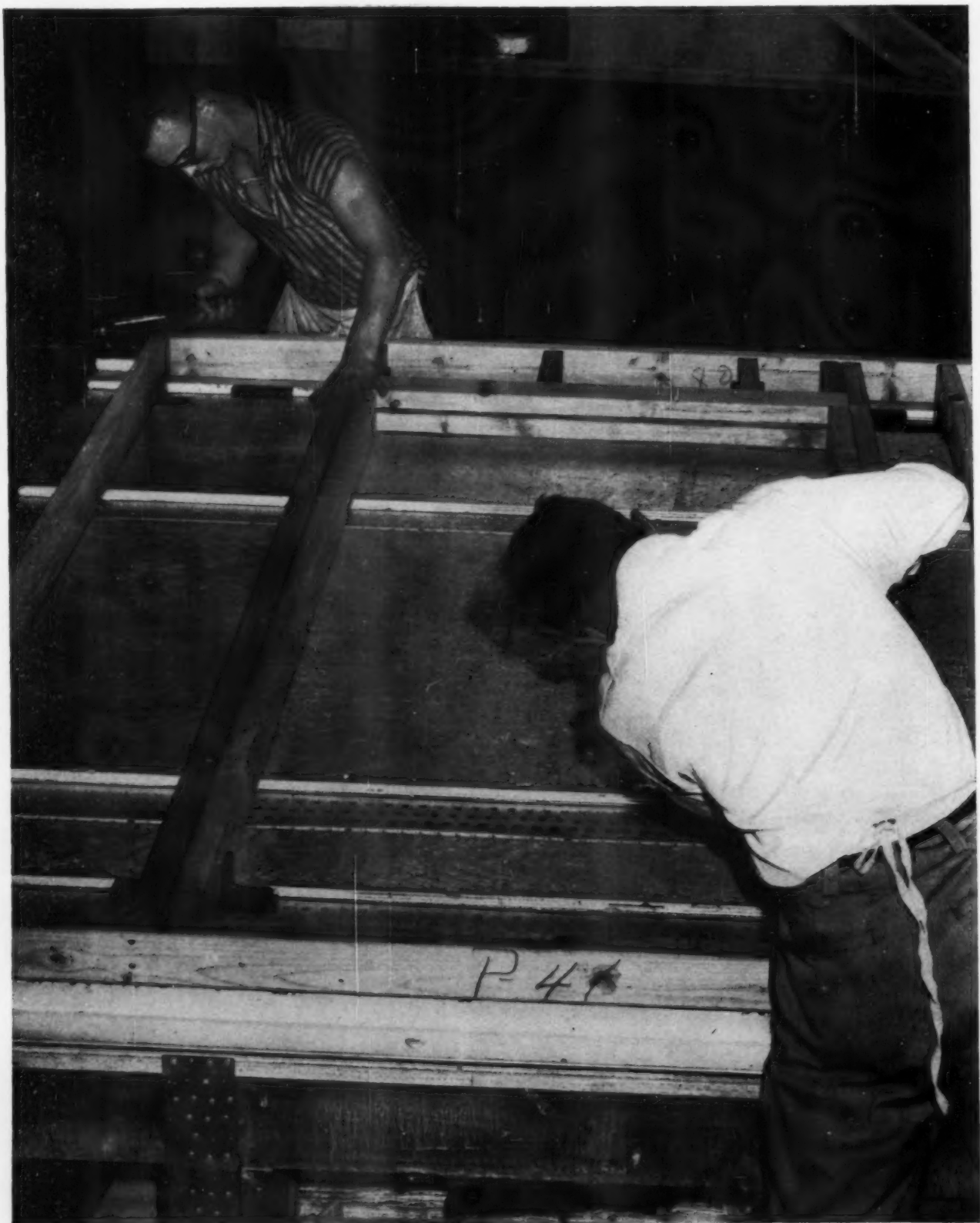
Upright partition being secured to ceiling

Non-load bearing partitions offer flexibility in room arrangement since they can be applied after ceilings and finished floors are installed. Open end, shown above, makes nailing easy.



Flower boxes and shutters add buyer appeal

Except for these items and front door, "Carousel" model is entirely enclosed with acrylic-coated asbestos cement. Architect—Kenneth McCoy Scott, AIA. Estimating takeoff on page 128.



Materials are pre-cut, then panelized on jig table. Nailing is done on table, eliminating extra systems for sub-assemblies, pre-fab parts storage. Table comes in sizes 5', 9', 13'.

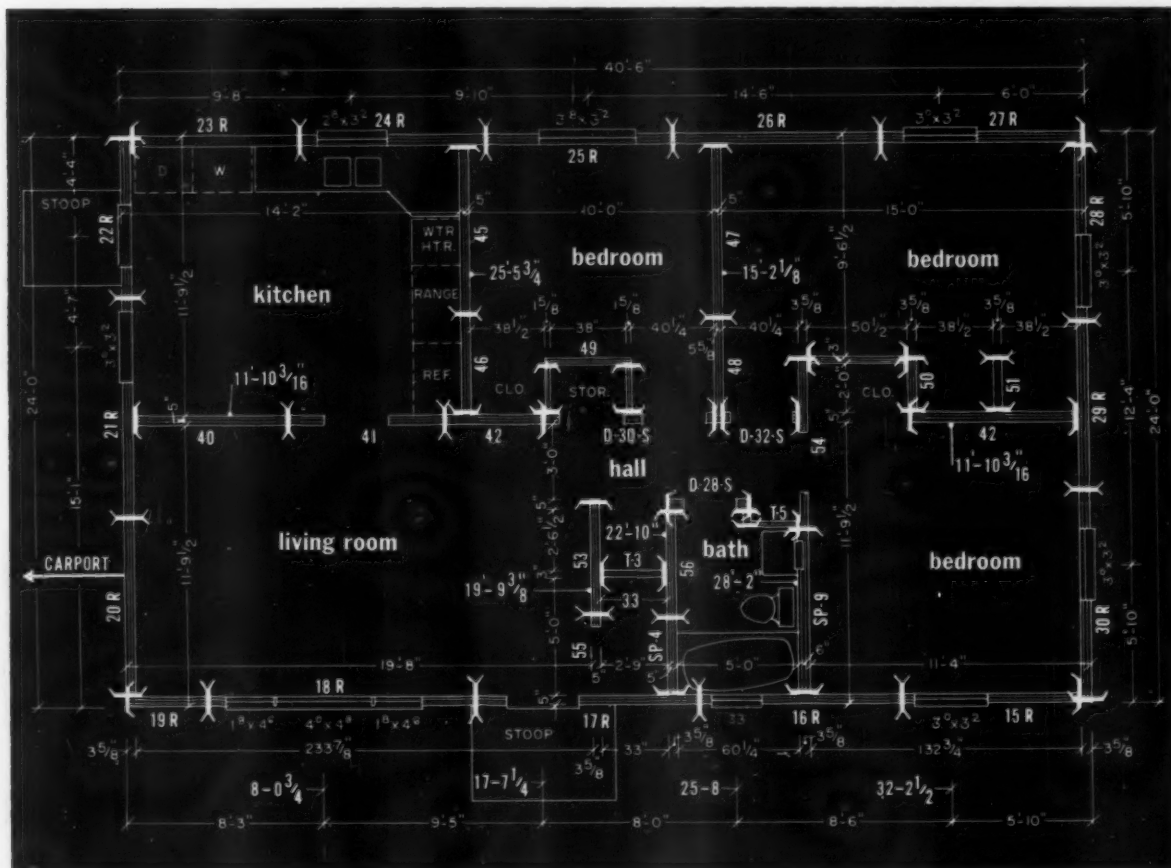
New Q-Jig panel system copies any house plan

This new tool can panelize all exterior walls and interior partitions of a 1,000 to 1,200 sq. ft. house in a day, using either modular or non-modular measurements!

M. S. Quesenberry's Q-jig is a revolution in the building industry so far as component construction is concerned. With the jig, it takes only 28 man hours to pre-cut, assemble, and panelize the exterior walls and interior partitions for a house between 1,000 and 1,200 sq. ft. A house of this size can be com-

pleted—from jig table to shell in about 106 man hours.

Quesenberry, who headquarters at Big Stone Gap, Va., designed the jig to meet local competition. With it, he can copy any plan, regardless of dimensions in odd feet and inches. The jig table (opposite page) is accurate to $\frac{1}{8}$ ".

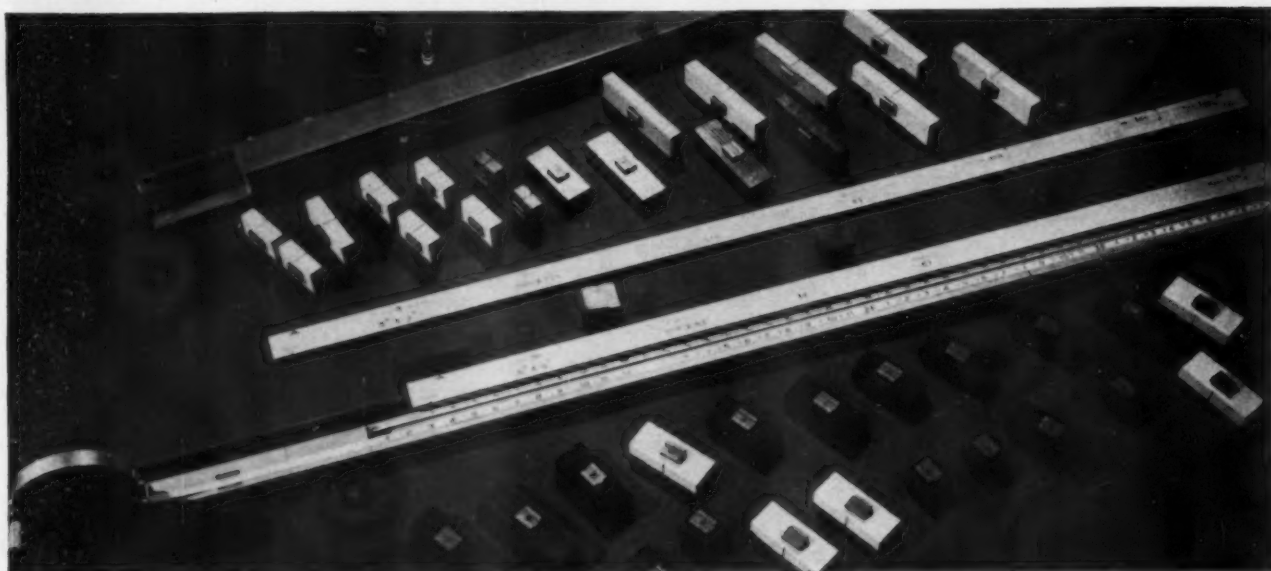


At local labor rates, jig saves estimated \$400 to \$500 a house for Quesenberry

Plan is broken down and keyed for panels (see next pages). Job starts at one corner of house, works its way around perimeter. Then inside partitions are keyed. In one day, panels are made.

Second day, 3-man crew build roof trusses, gable ends, while foundation goes in. House shell is delivered, erected, closed on fourth day. At end of tenth day, house is completed.

FASTER HOUSE TECHNIQUES THAT MAKE YOU MONEY



Unique measuring system is key to Q-jig fabrication, positioning all building components

Quesenberry's Q-guide is measuring system. One rule is fixed, corresponds with jig table. Other is movable, winds on spools. Movable tape represents walls, partitions. When panel layout is made, tape is wound back; next panel width is figured, etc.

Q-guide helps builder to convert house plans into components for jig table

So house plans can be converted into measurements to fit the Q-jig, Quesenberry has devised a simple device that copies the job perfectly. It's called the Q-guide system.

In action, it works like this: A fixed steel tape represents the jig table. A movable tape represents the house walls. The jobs starts at one corner of the house and works itself around the perimeter.

For example: You start at zero on both tapes. The first panel, say, is 4' in width. A color key system on the measuring device locates the exact stud placement. When this has been determined, the measurements and positions are transferred to a work sheet, then to the actual set-up on the job table. The movable tape is then rolled back to the 4' mark so it matches the zero on the fixed tape. This is repeated around, and in, the house.

The Q-guide, besides laying out walls, also can be utilized for locating window and door openings; locate cabinets; determine exact lengths of framing units for window and door panels, and check for blueprint dimensional errors before they are made.

By using the worksheet system, a builder only has to figure the same plan once. Jig set-ups can always be made from this sheet.



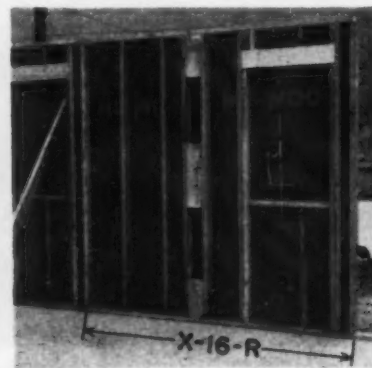
Panel 19-R (see blueprint) goes up first. Framing is on 16" centers. Panel is cut down to receive carport beam. One piece of sheathing, 32" wide was used here.



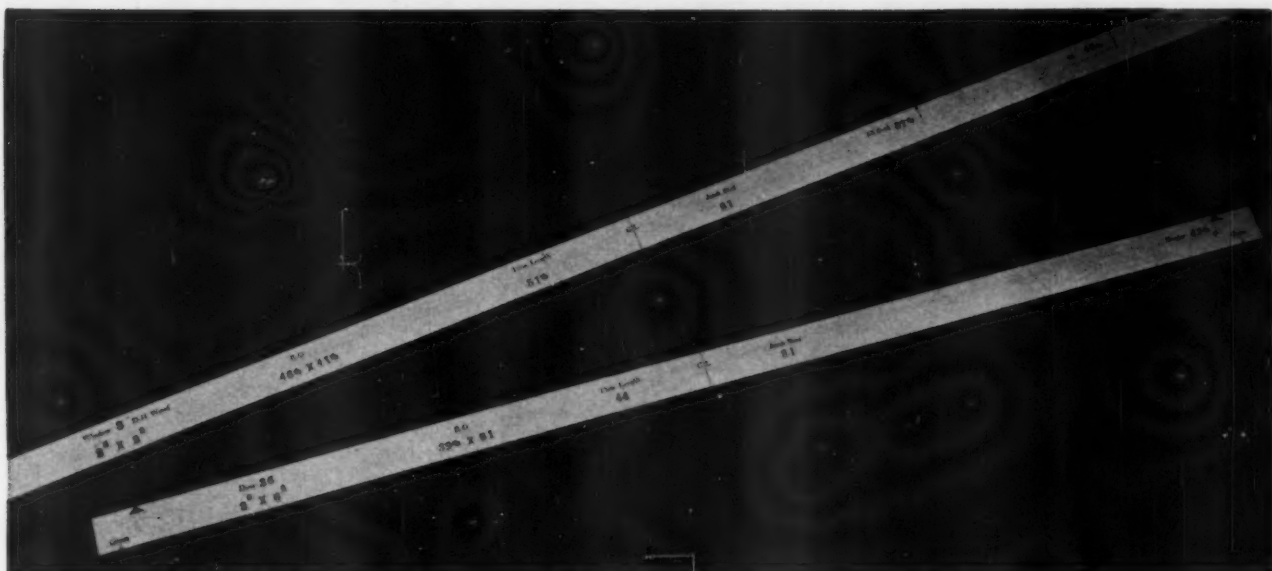
Panel 18-R is framed for large window, which determined smaller size for 19-R. Too, if 18-R had been made any larger, it would have been hard to handle.



Panel 17-R measures 9'4". It is framed for one 3-0 door and two partitions. Note partition nailers. Unit utilized two pieces of sheathing; waste is reused.

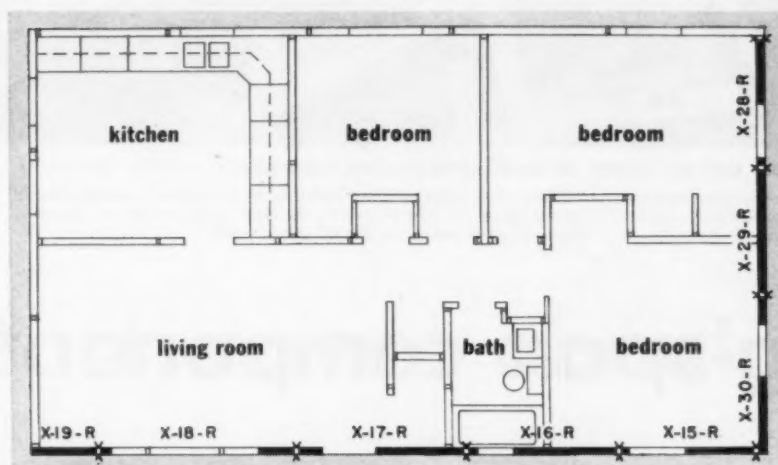


Panel 16-R is 8' wide with one window and a 6" partition. Two pieces of 48" wide sheathing were used. Waste cut from the window opening will be used again.



Q-stick, part of guide system, serves as standard panel plate measurement; it can be reused

Stick represents framed panels and locates framing for window and door openings. Blocks (photo at left) are color-keyed to match jig table chairs in which framing lumber is seated for panel make-up. Blocks are placed on tape; positions are noted.



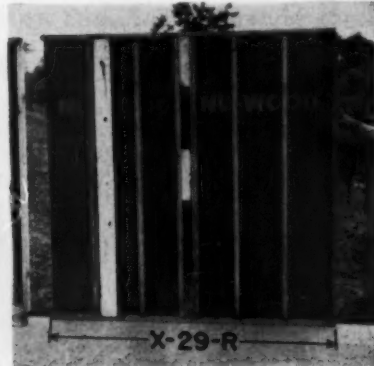
Panel 28-R is 8" wide. When six are used—side by side—48" wide sheathing can be fastened on, saving time. Windows, partitions can be located in any position.



Panel 15-R has one window. From exterior framing lines, studding 16" o.c., can use vertical, horizontal siding, providing it is in multiples of 16".



Panel 30-R has one window and corner post. Two pieces of sheathing 48" wide were used. Studding is on 16" centers. Centers are carried through openings.



Panel 29-R is made with a partition T and one 2 x 6" flat T, which saves lumber. The 2 x 6 is used where a wall butts a panel between studs that are 16" o.c.

FASTER HOUSE TECHNIQUES THAT MAKE YOU MONEY



Installation weighs about 4 to 4½ lbs. psf, can carry 10 to 20 times its own weight

Single troughs can be easily handled by one man; two men can hoist 3-trough panels into position. In house, units were used to span distance between glue-laminated arches on 16' centers with

24' panels at ends of house, adding 8' cantilever at eaves. Entire upper floor of house below, is clear span, with no interior bearing walls inside its 30x64' dimensions.

New long-span component

Designed to span up to 50' without support, these plywood roof units work on the folded plate principle. System is ideal for light commercial construction

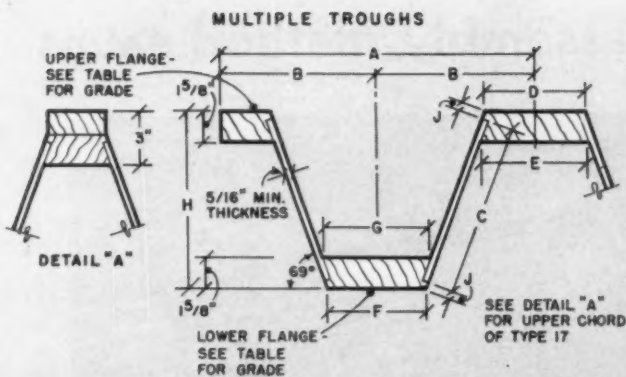
Introduced recently by Plywood Fabricators Service, "Trofdek" is an engineered component made up of a series of corrugations. It uses the folded plate principle: the folds multiply the strength of the material. The units can be fabricated in either single troughs or in 3-trough panels. They can be made in different widths, depending on spans and design loads. Three usually make up a panel about 4' wide.

Used principally in light construction last year, the triangular beams work equally well for residential roofs at an estimated savings of about \$2 psf. Besides roofs, units can be used for floors, concrete forms.

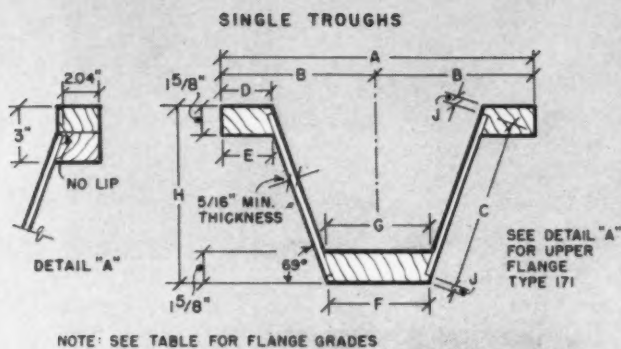


Hillside home uses troughs, curved roof

Troughs, glue-lam arches were topped by plywood roof deck, felt, sized paper, and finish roof of thin zinc alloy. Shingled effect was developed from decking.



TYPE	DIMENSIONS — INCHES										FLANGE GRADES	
	A	B	C	D	E	F	G	H	J	UPPER	LOWER	
9	16	8	9 7/16	4.76	5.34	4.76	5.34	9.31	.20	A	A	
11	16	8	11 7/8	4.76	5.34	2.98	3.56	11.62	.22	A	B	
13	16	8	13 7/8	3.32	3.90	2.98	3.56	13.50	.23	C	B	
15	19.2	9.6	15 7/8	4.90	5.48	2.98	3.56	15.60	.35	A	B	
17	19.2	9.6	15 7/8	2.98	3.40	4.82	5.40	17.10	.35	B	A	



TYPE	DIMENSIONS — INCHES										FLANGE GRADES	
	A	B	C	D	E	F	G	H	J	UPPER	LOWER	
9	16.00	8	9 7/16	2.38	2.67	4.76	5.34	9.31	0.20	A	A	
11	16.00	8	11 7/8	2.38	2.67	2.98	3.56	11.62	0.22	A	B	
131	17.35	8.68	13 7/8	2.34	2.62	2.98	3.56	13.50	0.23	A	A	
151	19.20	9.60	15 7/8	2.45	2.74	2.98	3.56	15.60	0.35	A	B	
171	20.50	10.25	15 7/8	2.40	2.62	4.76	5.34	16.62	0.22	A	A	

Drawings, charts give design, engineering data on trough system. Material used is plywood

Here's how panels go together. Additional details are available from Plywood Fabricator Service, Inc., 3500 E. 118 St., Chicago, Ill., or any of its affiliates. Besides its high strength-to-weight

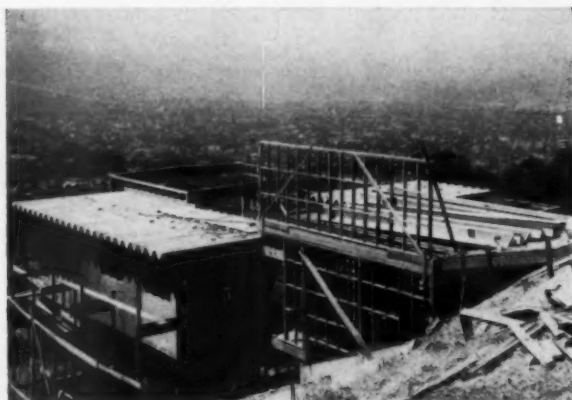
ratio, corrugated shape of system is adaptable to sound, light control. Insulation, wiring can be hidden inside troughs; fixtures or skylights also can be used.

fast, saves about \$2 psf



Roof system provides high, vaulted ceiling

System was selected for appearance, low-cost factors. Arches rest on 8' glue-lam posts that taper from 6" at bottom to 16" at top. Slip joints at low end stop deflection from wall pressure.



Component helps cut hillside building costs

Light-weight, newly designed fir plywood component helped cut expense of building houses on 35-degree grade. On a commercial job, workmen completed a 10,000 sq. ft. roof system in one day.

FASTER HOUSE TECHNIQUES THAT MAKE YOU MONEY

On-site truss assembly method saves



Saves up to \$30 per house with trusses on concrete work; no interior footings are required

B&K figure they save with trusses: interior footings are not required, saving \$30 on concrete; some headers are eliminated, saving another \$25 per house. For assembly, mobile truss jig is

rolled to level ground by two men, after it's unloaded from bed of 50' house trailer. Gussets use 6d cement-coated nails; 8d nails are used on the king post. Vents installed on jig.

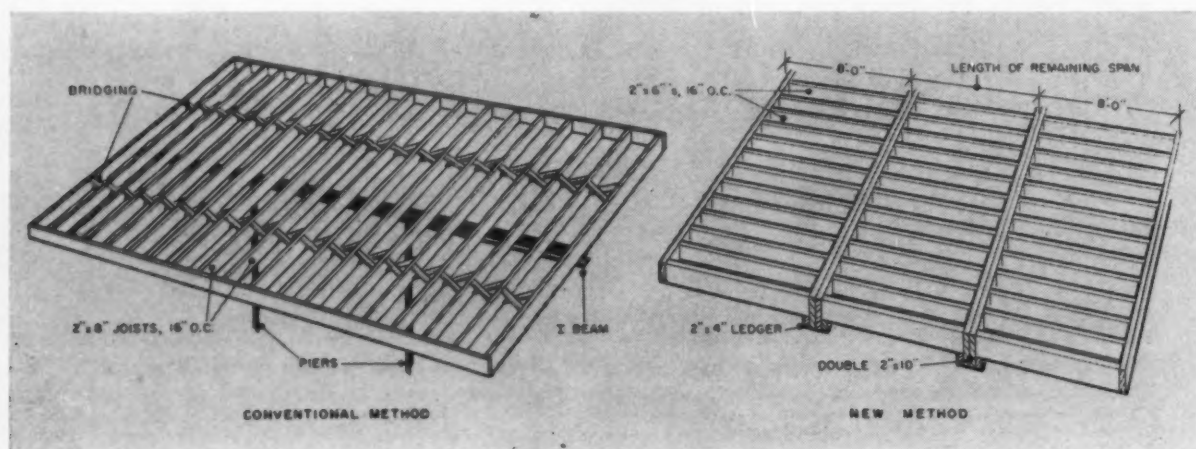
Atlanta builder develops new floor systems

A faster house from the floor up is builder Fred Fett's motto. This was behind the thinking for these two floor units which cut labor costs

Atlanta builder Fred Fett needed a faster floor system to work with his component-built houses. Below, you'll find his answer to the problem of cutting time and saving money. Conventionally, (left) the floor would use 2x8" joists, 16" o.c. For the center span, a 6" 12.5 I

beam, or its equivalent would be used. Bridging would go between the joists.

Fett uses a double 2x10—or whatever is required for the span—with ledger strips. Using a 24' wide house for example, Fett would use six concrete piers and footings;



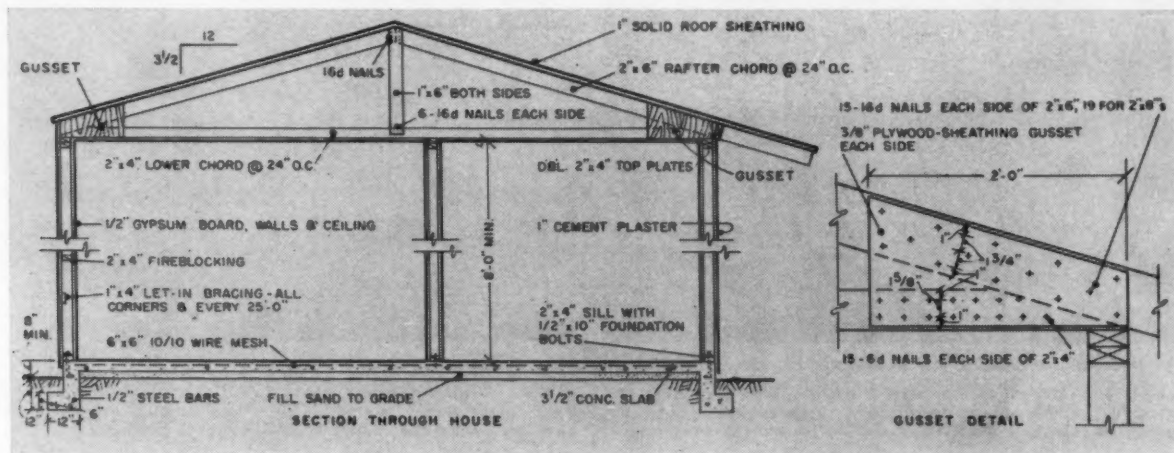
extra handling for California builders

Bollenbacher & Kelton, San Diego, worked out this trick for assembling trusses on the job. Three men put together 30 units in an hour

"Our objective of assembling truss components on the job site is to save handling. We've found savings on pre-assembled units can easily be eaten up by excessive moving to get them to the point of actual use." This is the observation of Ray Swaner, vice president of Bollenbacher

& Kelton, San Diego.

For trusses, material is delivered to the job where three men make 30 units an hour. A power saw makes the one diagonal cut needed. Gussets are pre-cut. Ends are left wild, then are trimmed to plan when fascia is installed.



that cut costs, can be partly pre-assembled

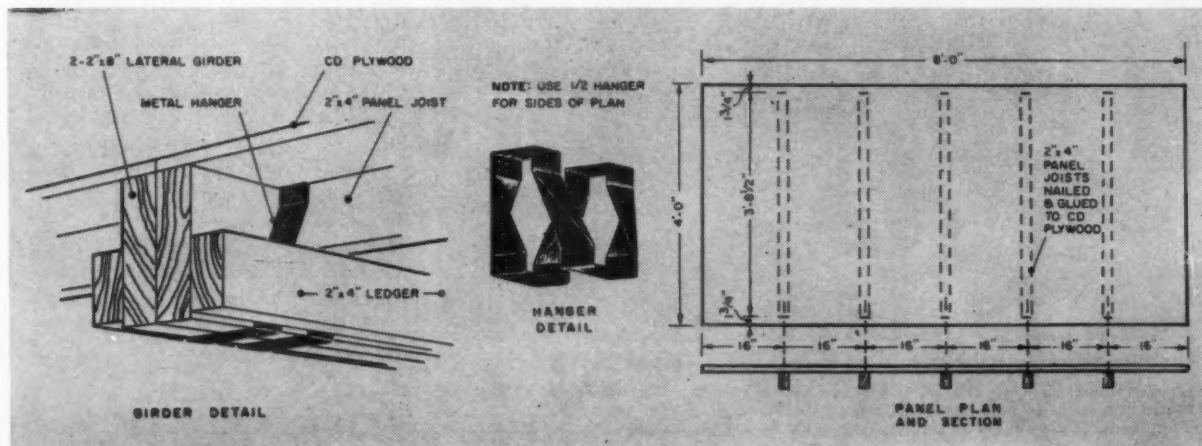
144' of 2x10 beams (240 b.f.); 144' of 2x4 ledger (96 b.f.), and 672' of 2x6 floor joists (672 b.f.) for a total of 1,008 b.f. of lumber.

No bridging is required under the system, and it can be partially pre-assembled in a workshop—the beams with the ledger strips.

The lumber difference from the conventional method figures out to be a \$11 or \$12 item.

Other costs include the piers and a small additional labor charge for installing the joists. However, in most areas, this wouldn't be as much as bridging labor.

A faster system, (below right) uses ledger strip idea with floor panels; it requires less field measurements, reports Fett. Metal hangers are dadoed into girder to accept the ledgers. The 2x4 panel joists are both nailed and glued to the C-D fir plywood floor panels.



FASTER HOUSE TECHNIQUES THAT MAKE YOU MONEY

New void concrete forms ideal system for



With forms, slab and air ducts can be placed simultaneously without special equipment

Forms are inflated with small compressor. When concrete has hardened, forms are simply deflated to break bond. Hole for pipe sleeve is then plastered, sealed with concrete. For register

(above), form is threaded through fitting. To assure concrete flows under form, hammer is used to vibrate it. System does away with odor that paper forms sometimes produce.

Rigid scheduling methods is California

THE OSMUNDSEN CO. Progress and Work Schedule FOR THE WEEK OF 7/5-7/8	
JOB NO. 701 SAT ROOF TOP LIFT UP ROOF TOP LIFT UP ROOF TOP LIFT UP ROOF TOP LIFT UP ROOF TOP LIFT UP ROOF TOP	JOB NO. 702 PAINT EST. PAINT EST. PAINT EST. PAINT EST. PAINT EST.
JOB NO. 708 WOOD FLOOR - TUES. WOOD FLOOR WOOD FLOOR WOOD FLOOR WOOD FLOOR	JOB NO. 709 LIFT SASH LIFT SASH LIFT SASH LIFT SASH LIFT SASH
JOB NO. 715 STEEL COVERS STEEL COVERS STEEL COVERS STEEL COVERS STEEL COVERS	JOB NO. 716 PAINT EST. PAINT EST. PAINT EST. PAINT EST. PAINT EST.

Schedule board pinpoints job progress, trouble areas

Fifty-five phases of work are listed; jobs are shown at right. Work sheet form is above. Osmundsen sticks to rigid schedule, builds confidence in crews: they can count on job being ready. Team effort is required between builder, subs, material suppliers.

Here's a simple system that you can quickly adopt to help boost production and save on interest, construction money, and working capital.

Every Thursday afternoon, John Osmundsen, head of the Osmundsen Co., Walnut Creek, Calif., and his super go into a huddle over their progress and work schedule form. All the jobs that are to be done in the next week are listed.

Friday, the superintendent calls the materials people and the subs involved and gives them their assignments for the week. Then the super puts yellow pegs into the scheduling board in the office.

During the next week, red pegs replace the yellow ones, as the jobs are completed. At a glance, Osmundsen can tell how each job is progressing. Yellow pegs mean

installing heating, air conditioning ducts

Builders report a savings minimum of 90% over other methods with these forms that bend to fit most any construction project

"By using the new Voidcrete forming system, we were able to save a minimum of \$75 per house on our project. A big chunk of this amount was in labor." So reports Leslie Construction Corp., London Bridge, Va., builders of the Point O' Woods development between

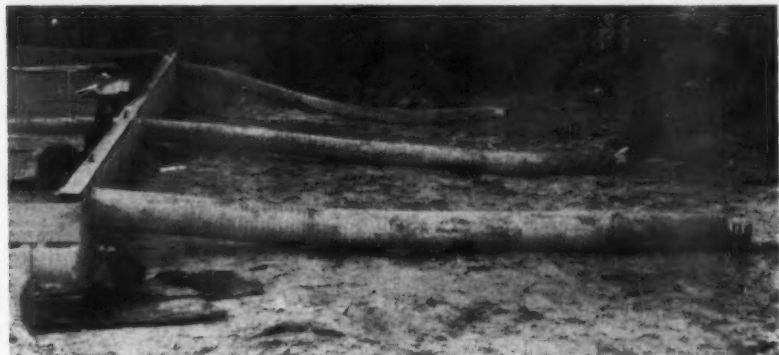
Norfolk and Virginia Beach, Va.

Big advantages of the new system include:

- Flotation elimination.
- Assurance of maximum 2" duct wall that meets FHA minimum requirements.
- Ducts are monolithic with the slab; crackless, jointless, with no infiltration or heat loss.
- Forms adapt easily to galvanized accessories.
- No cutouts are required for the registers.

The forms, made of re-usable rubber, can be placed on the job in about three man hours, as compared with 14 to 15 man hours by standard techniques.

When deflated and removed from the slab, the forms leave a smooth surface with no irregularities to cause friction of the flowing of hot or cold air. Ducts also have a radiant heating effect on the slab, builders report.



Excess length of forms is simply left extending from foundation

Forms come in 50' lengths; excess is left extending, if necessary. If repairs to ducts are needed, forms are simply inserted in old openings, inflated, and repair is made. Because forms can be re-used at least 100 times, raw material savings can amount to 90%.

firm's secret to a faster house

danger; extra effort is applied here.

Through this system, the firm can build a faster house by controlling the job. For example, if the company uses a crew of four men and a foreman three months to complete the carpentry on a house, they will do four houses a year. If

they can do the work in two months by getting the subs in and out, thus reducing waiting time, the crew can build six houses a year. This turns working capital over faster and spreads overhead over six houses instead of four.

Says Osmunden on scheduling:

"Appoint one person solely for the scheduling responsibility;

"Set a definite time each week that calls and orders are placed to subs and materials people;

"Educate all help that scheduling helps both the builder and them; the more profit, the more work."

JOB		FOUNDATIONS	FRAMING	ROOFING	MECHANICAL	ELECTRICAL	PLUMBING	PAINTING	FINISHING	LANDSCAPING	UTILITIES	INSULATION	DRAPERY	APPLIANCES	MOVING
728	Lot 8 Bonito Ranch (2 Units)														
733	Lot 12 Bonito Ranch (2 Units)														
734	Lot 15 Bonito Ranch (2 Units)														
800	Lot 13 Bonito Ranch (2 Units)														
801	Lot 19 Bonito Ranch (2 Units)														
802	Lot A " " (2 Units)														
803	Lot 18 " " (2 Units)														
805	Lot 13 Bonito Ranch (2 Units)														
806	Lot 24 Bonito Ranch (2 Units)														
807	Lot 35 " " (2 Units)														
808	Lot 180 Bonito Ranch (2 Units)														
809	Lot 73 " " (2 Units)														
810	Lot 121 " " (2 Units)														
811	Lot 11 Bonito Ranch (2 Units)														
812	Lot 8 " " (2 Units)														
813	Lot 72 Bonito Ranch (2 Units)														
814	Lot 20 Bonito Ranch (2 Units)														

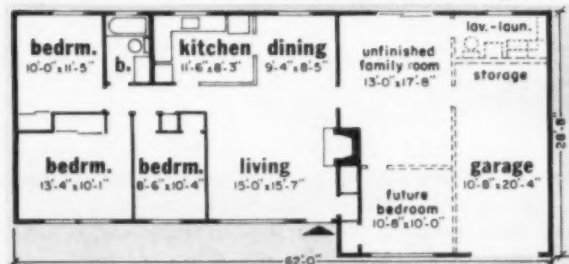


From the street half-shell houses look like any other—only bigger

Main difference in appearance between a half-shell house and completed model in the same price range is one of size. This model appears larger than its without-land price of \$13,350

would normally indicate. Architect Larry Higgins of Blackstock Lumber Co., supplier of panels to H&N, adds low-cost unfinished space which permits greater design freedom—another sales plus.

Architect: Larry Higgins, AIA



Ranch house model uses a simple "L" plan

Broken lines in the wing indicate one possible way of dividing space in the unfinished section. Builder Hebb said dozens liked the variety of room arrangements the shell offers them.

Houses on the

This new concept may become one of the hottest sellers in the coming year. It gives builders a competitive edge in selling today's best market—the space-hungry young family



Simple fence and entry attracted the curious

Hebb & Narodick erected this fence two months before any models were completed. Dozens of leads were developed from the curious passersby who came in to "just see what's going on."



All major trees were left in place

Builder Hebb says this practice cost \$150 to \$250 extra per lot but was a real sales builder. Buyers liked the idea of moving into a community which appeared stable and settled.



Shell-section is partially completed to demonstrate uses of space, boost sales

Photos: Roger Dudley

Builder Ross Hebb partially finishes the shell sections by putting in wiring, plumbing walls, ceilings and floor underlayment. This helps lower sales resistance because most would-be buyers are

leary of doing this type of work. Normally, partition framing is put up only in display models to indicate possible ways the buyer can eventually divide the space.

half-shell sell themselves

Seattle builders Hebb & Narodick are selling houses as fast as they can build them—so fast that they have dropped all advertising. Biggest reason for this success according to partner Ross Hebb: the half-shell house idea.

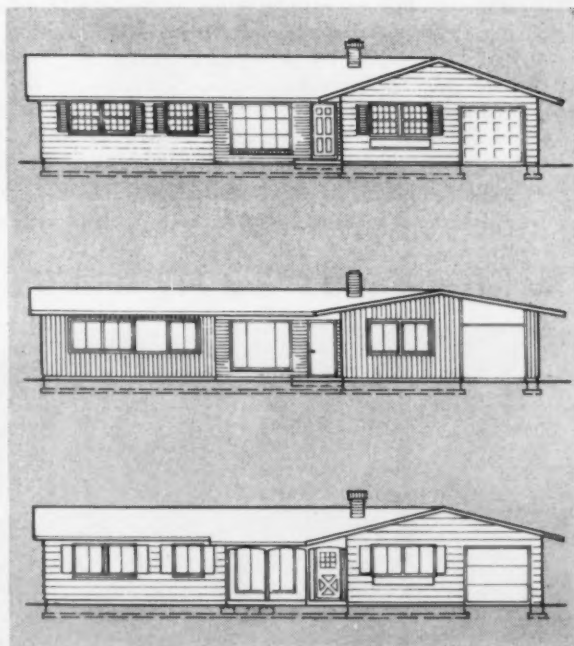
The half-shell house consists of a completed house with an unfinished area placed to the side, below or above the basic living unit.

Hebb & Narodick offer three models:

- The single-level ranch (shown above). It includes 1,000 sq.ft. of finished space and 650 sq.ft. of ready to finish space for \$16,350 with lot.
- The split-entry or raised ranch. Priced at \$17,150, it includes 1,000 sq.ft. of finished area on the upper level and similar unfinished space below. This model is the best seller to date.
- The two-story. It has 1,100 sq.ft. finished on the main floor and 900 sq.ft. unfinished above. Sales price of \$19,950 includes a \$3,500 lot.

Although H&N rough in wiring, plumbing walls, put in ceilings and floor underlayment, they estimate the unfinished space costs only half as much as finished. Hebb considers these additions important. He found that his buyers—mainly young middle-income families—were afraid of tackling such jobs.

Convinced by this sales success, H&N are now preparing another subdivision (91 houses), with even more unfinished space per house. At last report they had sold 10 houses before the first model was finished.



H&N use three elevations for each model

Because they used only three basic models, H&N put needed variety into the development by varying elevations, exterior colors plus flopping and turning the plans to fit the sites.

Build a house for \$6250?

Here's how San Antonio builders are trying it

They're making national headlines with a low-cost demonstration project showing how they could build for low income families if not restricted by codes, zoning ordinances or F.H.A. regulations. New ideas tried in 28 models.

San Antonio's builders set out over a year ago to try to find a way to meet the explosive need for low income housing in their town. Project SARAH which resulted has rocketed to national prominence, today is in all the headlines.

The 28 low-cost experimental demonstration houses they have built—with their own money—are being studied by code authorities, government officials, builders and housing experts from all over the country.

Project SARAH, which means San Antonio Research in Advanced Housing, did not grow easily. Dozens of meetings and countless hours were spent by NAHB

members and their President, B. H. (Barney) Cox, and their Low-Cost House Committee headed by Tom McNeil. The builders set out to show that private enterprise could meet the need for low income housing—if given a fighting chance.

They tried to show that they could build livable, safe, sanitary houses to sell for \$7,000 if they could change or modify many of the restrictions set up by local codes, zoning, ordinances and FHA-VA regulations. They won the hearty cooperation of the San Antonio City Council, got a \$22,000 grant from H.H.F.A.

Enthusiasm of the local builders was heightened by a series of meet-

ings and seminars. Over 100 national manufacturers were invited to attend the seminars and present their newest products and techniques to the builders.

Top sales price was set at \$7,000. Some sell as much as \$1,000 less. Improved lots were bought from the city for \$750. Each builder financed his own house, but mortgage firms cooperated with 80% 25 year loans at 6%, no discount. Builders will sell on contract.

After the educational meetings, each builder drew up his own plans. He was free to try out any idea he considered feasible, so long as the house could be certified by an accredited engineer as safe, sanitary and livable.

Following completion of the project, it will be evaluated by a national committee of architects, code experts and building engineers and a detailed report made for national distribution.

Manufacturers, U.S. and city officials cooperate with local builders



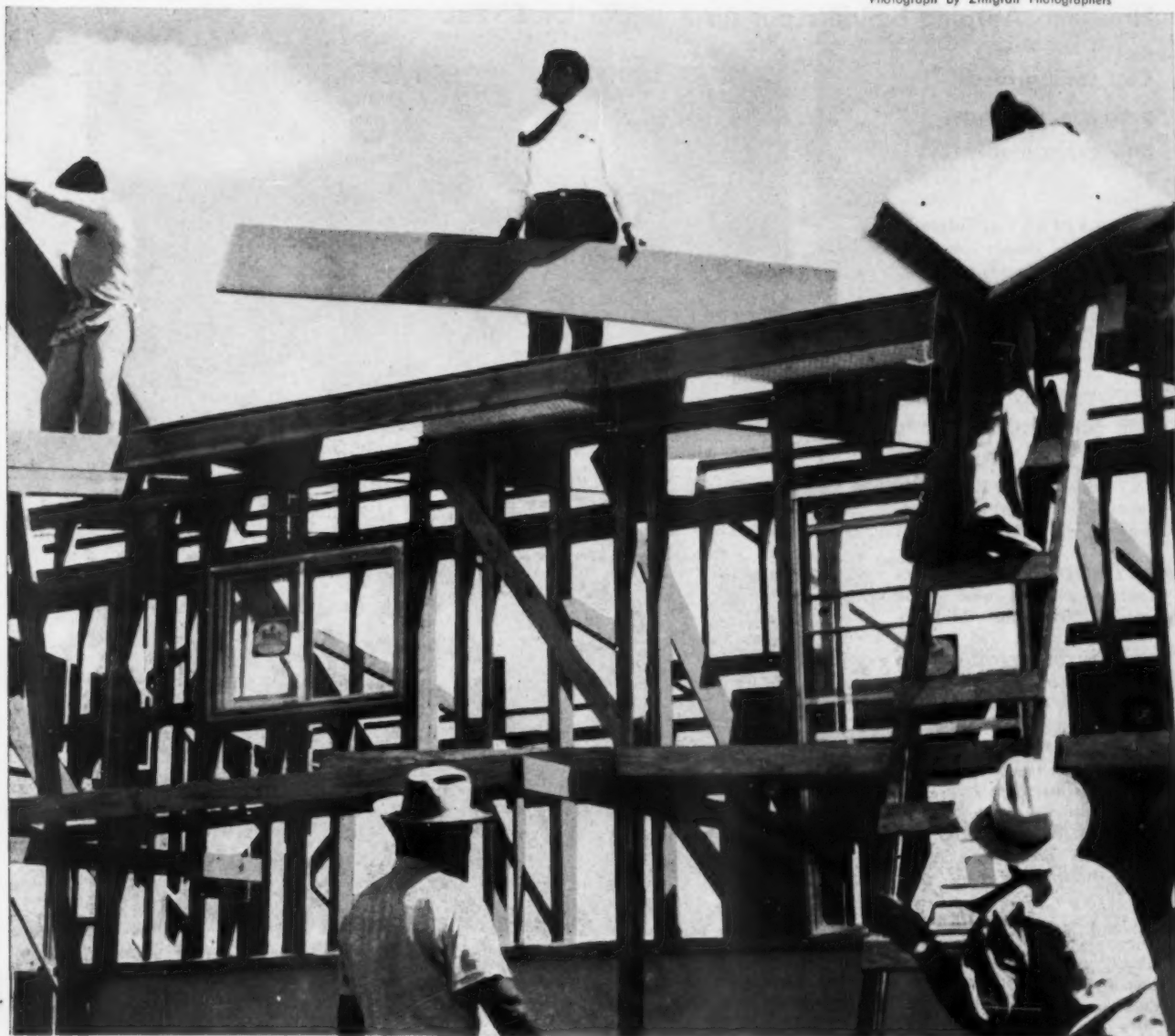
Builders flocked to new product seminars

Series of 12 educational seminars at Rice Institute brought enthusiastic turnout of builders. Leading U.S. firms sent technical experts to describe new products, techniques.



Plans reviewed by committee at City Hall

Committee of builders, architects, engineers and city officials reviewed each builder's plans, rejected a good many. They had to be safe, sanitary, sound—did not have to pass codes.



Committee Chairman Tom McNeil (center) takes to roof to rush project SARAH house to completion

Building 28 low-cost houses with new products and techniques created many a crisis. AMERICAN BUILDER's editor found Chairman Tom McNeil in middle of one as gust of wind threatened

to blow away light plastic foam roof insulation of his own demonstration house. Each builder tried out several new materials or techniques in attempt to get lower costs.



Builders, city officials dedicate Project SARAH

Mayor and City Council helped make project succeed. Here Councilmen Parker and Kaufman (center) congratulate Chairman McNeil (2'd left) and President Barney Cox (2'd right).



Cluster plan puts houses around cul-de-sacs

Model of project SARAH shows skillful grouping of houses around five cul-de-sacs in modern pattern. City installed streets and utilities, sold improved lots to builders for \$750.

How San Antonio builders put up a house for \$6250

Cost saving ideas, products, methods and experiments

FLOOR PLANS of simple, rectangular shapes use open space arrangements to avoid little rooms.

2½" PLUMBING VENTS of galvanized iron pipe.

ROOF TRUSSES to eliminate bearing partitions, cut framing costs, save time in finishing.

INTERIOR PARTITIONS (non-load-bearing) of gypsum board.

EXTERIOR WALLS of one layer of exterior grade plywood applied directly to studs.

EXTERIOR BRICK WALLS of one course of reinforced hollow core brick 5¼" thick.

CONCRETE PIERS instead of costly reinforced slab. A few houses on wood piers.

PLYLUMBER FLOORING of ¾" plywood with bonded hardwood face.

LAMINATED LUMBER used as roof decks and walls—2½" planks built up of three 1x6" boards bonded together to form interlocking units.

ROOF OF STYROFOAM PLASTIC and Gunitite.

PREFAB WALL and floor panels made in local shops delivered complete with doors and windows installed.

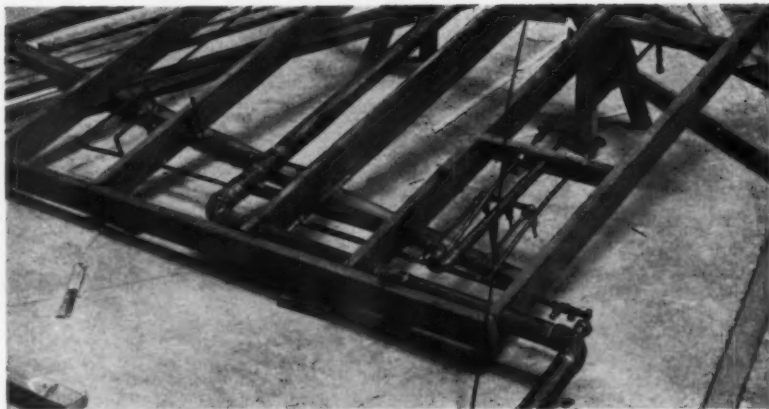
PREFAB PLUMBING WALL delivered complete with all piping ready for connection.

PLASTIC PIPE for soil line, vents and water lines.

WALL FURNACES built in between studs.

POST, PLANK AND BEAM framing system.

LIFT SLAB ROOF and tilt-up concrete walls.



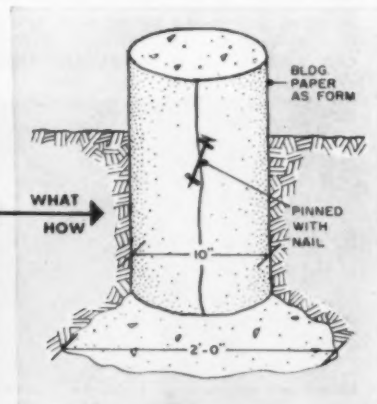
Prefab plumbing wall cuts on-site installation costs

Builder Jesse Baker used this prefab plumbing wall in his low-cost home model. Most of the fitting and cutting labor is done in the shop. The prefab panel is delivered to the job ready for fast and inexpensive installation. Baker also builds prefab trusses, wall sections and floor sections that reduce on-site labor and installation costs.



Solid concrete wall is poured flat, tilted up into place

Swinney & Mauze, young building firm, elected to use new lift slab and tilt-up techniques in building all-concrete house. Here you see side wall of house being poured in flat forms: later it will be tilted up into place. In picture above, roof slab has already been placed, will be lifted up by jacks.



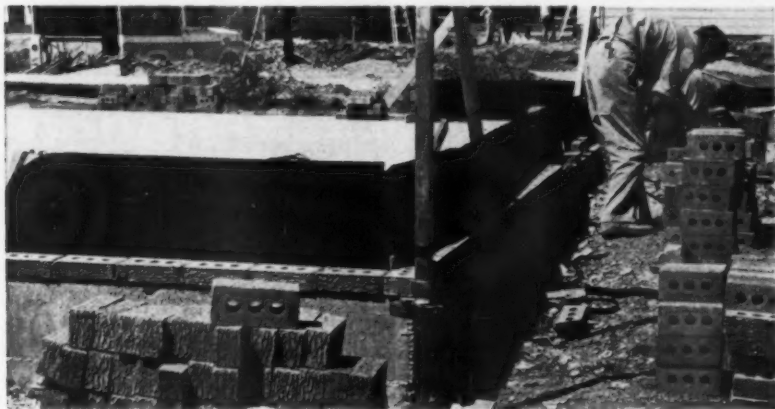
Houses on pier get nod as cost savers, builders say

Several project SARAH houses are built on piers in connection with various systems of beams or floor panels. The cost saving is obvious, and there are advantages that need to be explored. Here builder Robert Ripley used 12" circular poured concrete piers. His form is a double thickness of heavy building paper pinned together with nails.



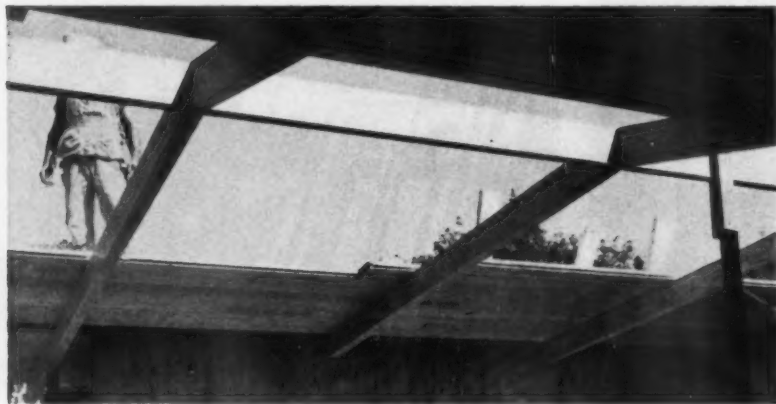
6" hollow concrete bricks make an economical wall

Builder E. S. Richardson decided to build his house of a special concrete brick made locally. This is a strong 5 3/4" wide hollow unit that lays up fast, produces good looking wall inside and out. It is reinforced with steel as indicated in the detailed drawing at right. Interior is of gypsum board, furred out from brick with special chips.



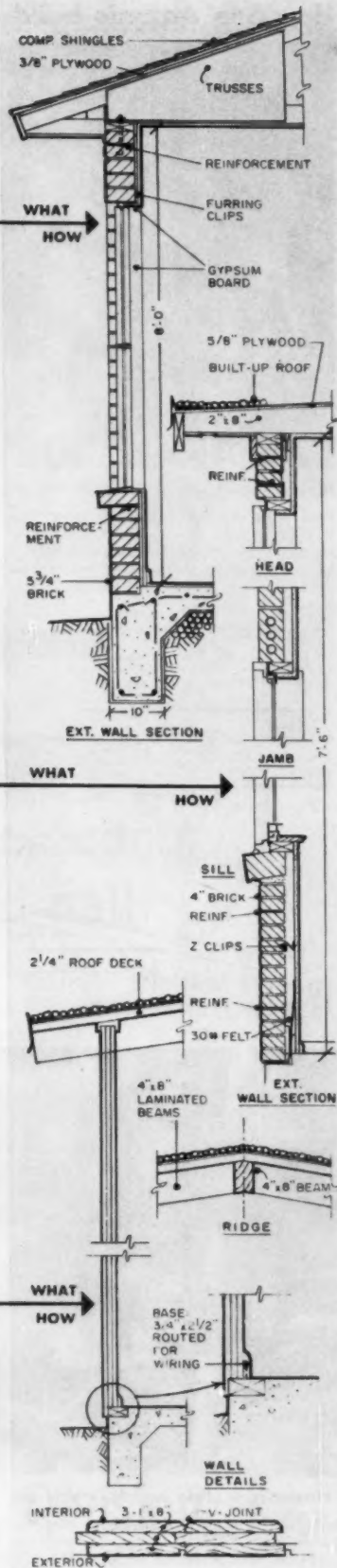
Less costly: a 4" brick exterior wall—well reinforced

Here you see a SARAH house being constructed by builder E. S. Johnson with a one thickness wall of 4" brick. It is heavily reinforced as shown in drawing at right, but it is still an economical way to build. Mason uses the metal corner pole system in foreground to assure fast, accurate, alignment of courses.



Laminated lumber used for walls, floors and roofs

In this all-lumber house built by J. C. Kelley, walls and roof are of 2 1/4" thick built-up tongue and groove planks made from these three pieces of solid pine. The interlocking roof and wall boards fit together tightly, produce a sturdy wall that is warm and attractive on inside and outside. Beams are of 3x8" laminated lumber.



How San Antonio builders put up a house for \$6250



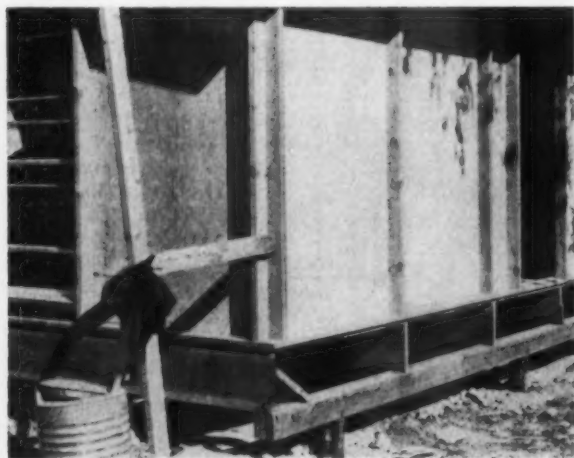
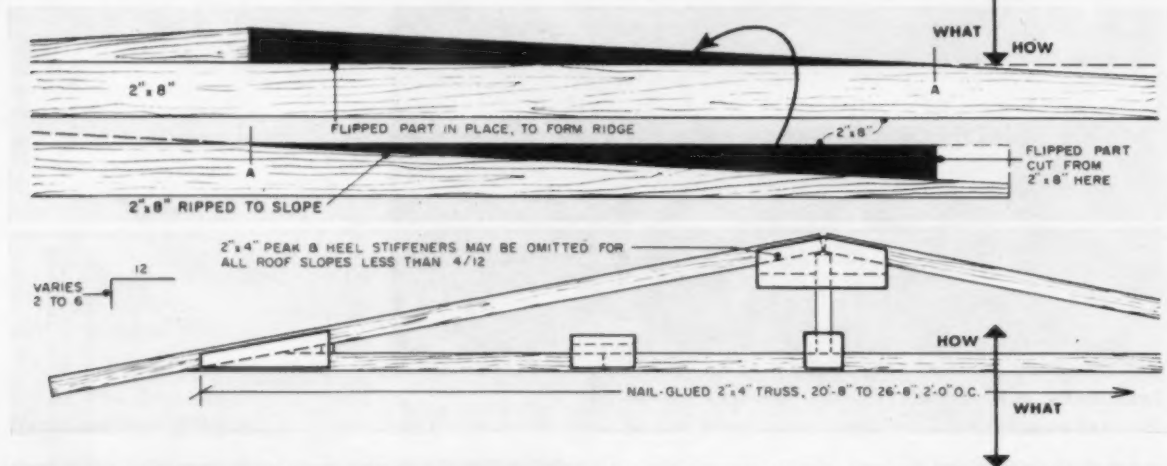
New idea: roof of wire, foam plastic and Gunite

First step in one of the experimental ideas tried in project SARAH is seen above. Reinforcing wire was stretched over beams as base for roof of Styrofoam plastic and Gunite. Walls are of Upson board siding applied directly to 2x4" studing.



2x8's ripped to provide roof slope

Builder E. S. Johnson employed a unique roof system: he trimmed 2x8's as sketched below and used them to provide his roof members and slope. Framing of house was simplified. Exterior walls consist of one layer exterior plywood.



"Hawaiian style" puts studs on outside

Imaginative approach to lower cost house (\$5950) was employed by builder E. H. "Cotton" Jaroszewski. He used exterior grade plywood with studs on outside, Hawaiian style. Buyer can apply insulation and another exterior finish later on if he chooses.



Prefab wall panels and roof trusses widely used

Walls of this house by builder Jesse A. Baker went up in just one hour. Baker used prefab floor panels and interior free-standing partition panels. He also built and supplied roof trusses, as detailed above, to many other builders, with important savings.

Strong
Tough
Economical
Efficient
Lasting



New dry wall
nail resists
popping

Cut installation and call-back costs with this unique Sheffield nail

When you use Sheffield's new dry wall nails, you not only build your reputation for quality construction, but you *also* cut your installation costs and call backs.

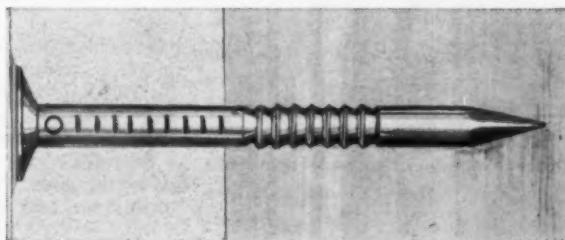
The nub in the conical head and the modified ring shank of these nails mean safer handling and faster, easier nailing. This can save up to one hour's labor per house.

More Nails For Your Money

And this new Sheffield nail will fasten 25% *more* dry wall per cwt. than its .098 predecessor. With its shank diameter reduced to .094, this nail gives you more nails per cwt.

Ask your Sheffield dealer today for these dry wall nails that resist popping because they *tighten* in the studs—

instead of loosening. Or write: Sheffield Division, Armco Steel Corporation, Sheffield Station, Kansas City 25, Missouri.



Annular rings concentrate holding power where it's needed. Conical head and modified ring shank allow faster nailing. Patent has been applied for on Sheffield pop-resisting nails.



Sheffield Division



STYROFOAM[®]

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 1510D11.

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.

Other Dow Building Products

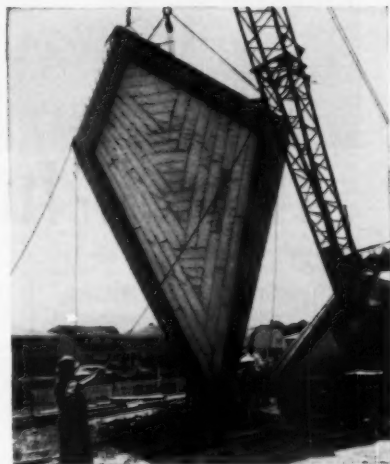
Saralay* 400 flexible sheet flashing. Conforms to almost any shape, adheres to most building materials. Accommodates expansion, contraction.

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.

*Trademark



1½-inch Styrofoam serves as form liner, permanent insulation and base for plaster in this lightweight tilt-up panel.

THE DOW CHEMICAL COMPANY

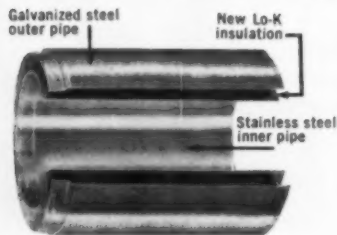


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- Simple 3-step installation for fast job-site assembly.



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The husky D-166 engine is the 4-cylinder counterpart of the 6-cylinder D-236—an engine with an outstanding record for operating economy and reli-

ability. Four-cycle design gives a steady flow of won't quit, hang-onto-the-load power.

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*Maximum engine horsepower corrected to standard conditions.

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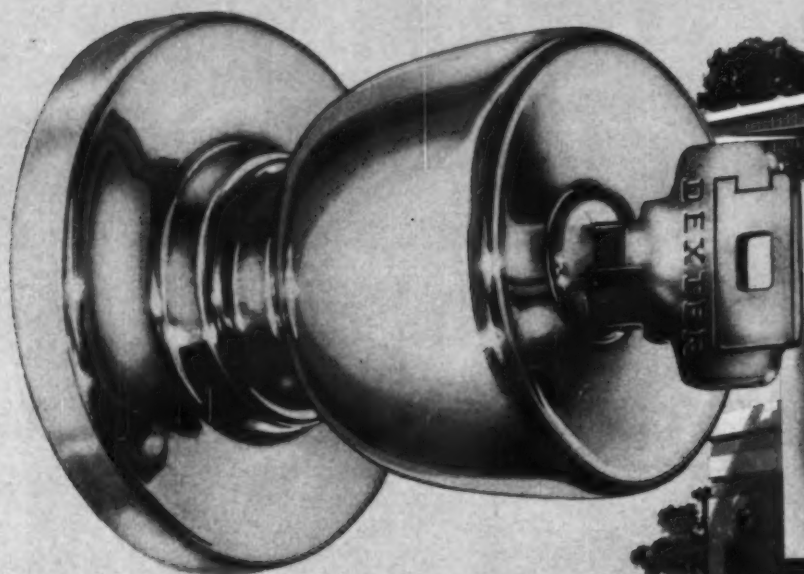
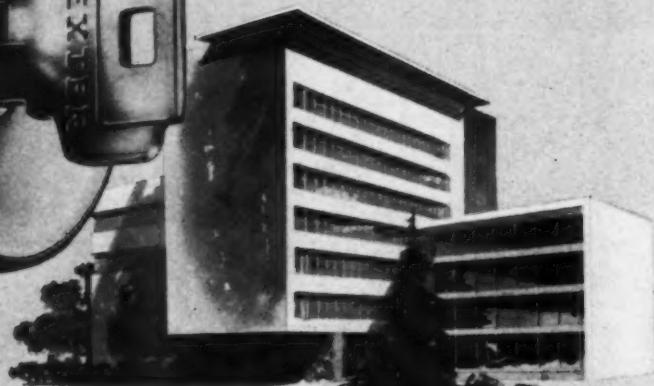


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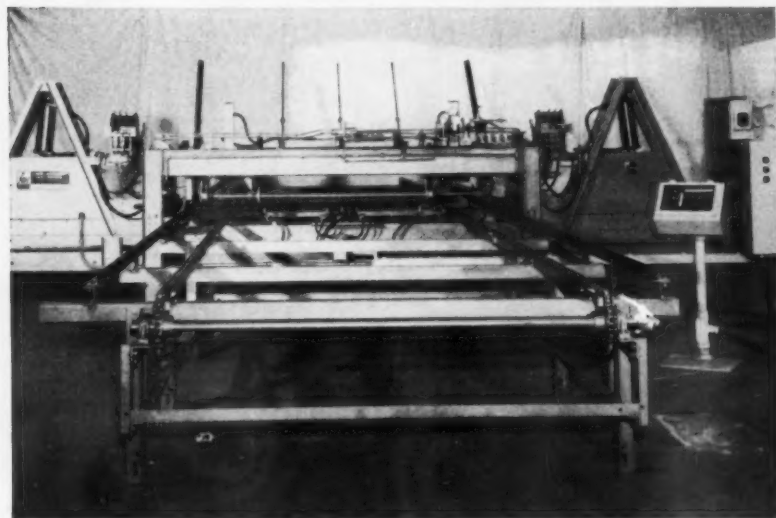
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DEXTER LOCK DIVISION

Dexter Industries, Inc., Grand Rapids, Michigan

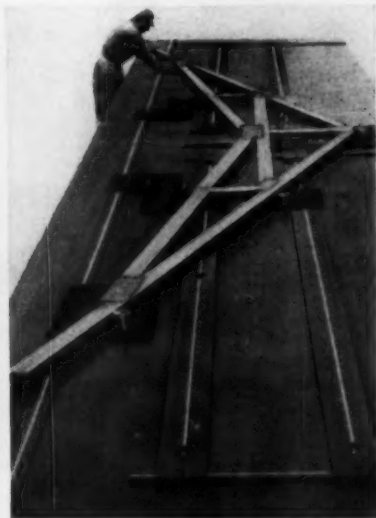
IN CANADA: Dexter Lock Canada, Ltd., Galt, Ontario, IN MEXICO: Dexter Locks, Plata Elegante, S.A. de C.V. Monterrey, IN ITALY: Serrature Meroni, Milan, Italy.

GUIDE TO NEW PRODUCTS



Stud nailing machine assembles wall sections quickly, easily

Open wall frame (with sub-assembly tacked in place) is conveyed through nailer which automatically selects stud, inserts it between plates, drives in two 16-penny nails from one or both sides. Normal indexing is on 16" centers; spacings can be easily varied.—Food Machinery and Chemical Corp. Circle N1, reply card.



Truss jig handles all types

Sets up quickly at any job site; "Universal" produces hip, gable, scissor, floor, any-design trusses. All-steel, measures 40'. —Gang-Nail. Circle N2, reply card.

For components: these are hot new tools

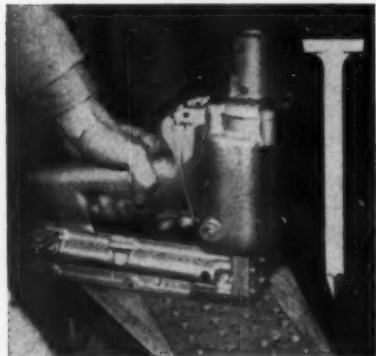
From jigs to truss clips, these component "builders" are a must in setting up today's faster house

Recognizing the trend toward building a faster house, manufacturers are gearing their production accordingly.

Although the stud nailing ma-

chine (above, left) is designed for commercial use (in fact, model shown is under full operation at Alabama's Kingsberry Homes), many jigs are suited for job site use

(above, right). Faster component building is also aided by an improved gusset plate nail (below, left) and a hand-hammered roof truss clip (below, center). And a forklift (below, right) adapts to lifting roof trusses into place. (Shown on the job at Vicart Construction's tract at Schaumburg, Ill.)



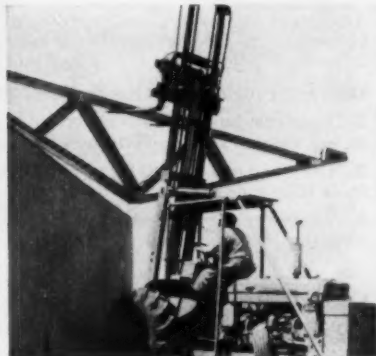
Gusset nail needs no predrilling

Developed for pneumatic sock-nailer, 1 1/2" T-nail goes through metal gusset without pre-drilled holes. Head prevents shearing.—Spotnails. Circle N3, reply card.



Truss clip speed joining

Requiring only carpenter's hammer, clip permits assembly of 28' truss in 12 minutes. Comes in nine sizes.—Panel-Clip Co. Circle N4, reply card.



Forklift cuts labor costs

"Harlo" 21 1/2' forklift adapts to lifting 25' trusses into place. On-job test showed saving of eight man hours.—International Harvester. Circle N5, reply card.



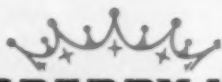
Who changed the picture on winter building **KINGSBERRY!**

And hundreds of Kingsberry Builders are proving it now!

Time was when home builders hibernated in winter like bears, waited till spring thaw to get going again. Most still do—passing up 3 months of profit. But how times have changed for Kingsberry builders!

Right now they are confidently erecting model homes for *winter* sale, in the biggest fall home sales spectacular ever launched, breaking November 25 in the Saturday Evening Post. Many are still closing sales from Kingsberry's May promotion!

1. First of all, with Kingsberry, they can erect a weather-tight house in a day with a 7-man crew, finish it within 2 to 3 weeks. They can build, promote and sell through winter. But far more than this is behind their success.
2. They cut on-site labor costs up to 62%—cycle capital at less market risk—sell *ahead* of construction.
3. They can get no-red-tape construction financing direct from Kingsberry.
4. They enjoy color-spread advertising in the Saturday Evening Post . . . and the industry's most liberal co-op



KINGSBERRY HOMES

"PROGRESS IN HOUSING THROUGH ENGINEERING AND RESEARCH"
At the present time Kingsberry serves builders only in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee.

advertising plan, including up to \$3,000 advance funds for local promotions. Plus use of the Salesmaker, the industry's only complete marketing program! Plus promotion material at cost! Plus on-the-spot services of Kingsberry-trained promotional experts.

5. Plus another power plus—a complete model-home furniture package from decorator furniture to bric-a-brac and books, at an amazing price and 36-month terms. And in addition, a Carport Display to make winter selling easy and comfortable; that, too, at a new low price.

6. In fact, Kingsberry has every answer—and the proof—that you can keep operating profitably, keep your crews together, and be a jump ahead of your spring competition. Why not write today: Jerry Nowak, General Sales Manager, Kingsberry Homes, Fort Payne, Alabama.

See this Kingsberry ad on the "Happiest Housewarming Party of the Year," appearing full color, Saturday Evening Post, Nov. 25.

Mosaic tile comes in three new sizes, broad color range

New line suitable for walls, floors, commercial exterior facades is wear resistant and easily cleaned

Today's changing designs in home and commercial building demand a greater variety of materials styling. Helping to answer this demand is the new Precedent mosaic tile line.

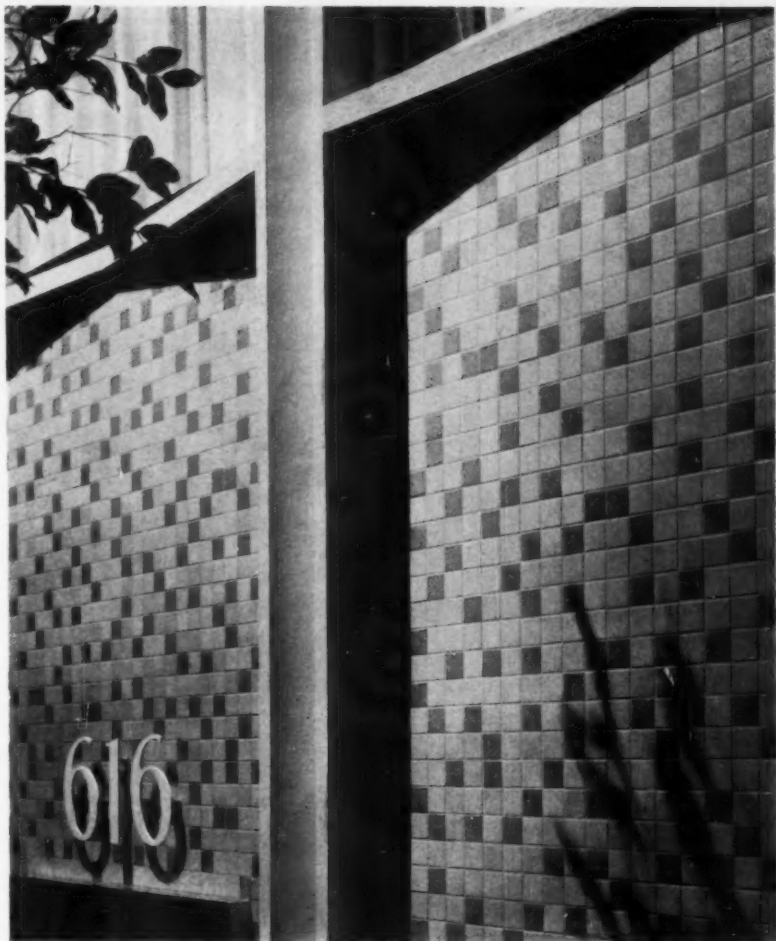
Divided into two categories, "Texline" and "Clearline" the tile is suitable for floors and walls in all types of buildings. It is also recommended for spandrels, facades, building exteriors, linings and walkways of swimming pools.

The mosaic tile is designed to be installed by the following three conventional methods:

- Mortar using a Portland cement setting bed. Ideal where utmost moisture protection is desired.
- Dry set Portland cement.
- Ceramic adhesives (must meet Commercial Standard 181-52, U.S. Dept. of Commerce) over wood, dry wall, metal, other materials.

Precedent tile comes in modular 1"x1", 2"x1", 2"x2" sizes, are 1/4" thick. Standard sheet size is 2"x1", paper mounted. For large area jobs, mesh-mounting (optional) speeds installation.

American-Olean. For more information, No. N6, reply card.



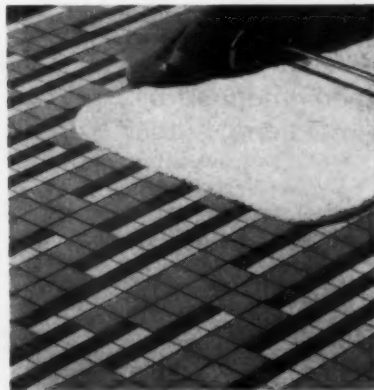
EXTERIOR SPANDREL of this commercial building is enhanced by modular 2"x2" mosaic tile. New line is dense, fine-grained, said to be impervious to water, snow, frost, hard exterior wear. Tile can combine into 53 different patterns.



FAMILY ROOM FLOOR is laid in 2"x2" blocks, 2"x1" random blend strips and 1"x1" accent blocks. Clearline and Texline tiles come in 45 color styles.



WROUGHT IRON RAILING enhances entryway floor which is laid in 1"x1" mosaic tile blocks. All units in new line have smooth, all-purpose joining edge.



BATHROOM FLOOR matches 2"x1" random strips with 2"x2" blocks. Manufacturer offers catalog (AIA-23a) which color coordinates bathroom fixtures with tile.

MORE SATISFIED HOME BUYERS



- ⊞ Prevents wood checking, cracking—inside and out
- ⊞ Ends warping, swelling and shrinking of doors, windows
- ⊞ Eliminates tile "pop outs"—protects grout from cracking
- ⊞ Prevents efflorescence of plaster, stucco, brick
- ⊞ Moisture proofs concrete floors prior to laying asphalt or vinyl tile

Deep penetrating, colorless Thompson's Water Seal locks out moisture from any porous material for 5 years and longer. Easy to apply by brush, spray, roller.

*Recommended by
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NEW PRODUCTS



Sidewalk panels light up

Units are constructed of steel, use principle of "electroluminescence" to create lighted sidewalk. Light source, called Panelescent, produces glow over metal surface, is thin as a wafer, has no bulb, tube, filaments or cathodes. Lamps are set in aluminum trays, are plastic-covered for waterproofing.—Sylvania Electric Products. Circle No. N10, reply card.



Heavy-duty saw is light weight

Portable circular saw is powered by 3/4 hp gas engine, weighs 11 lbs. Tool is designed for farm and builder use. Called "C/Saw," it operates with 8" blade, with 2 3/4" depth of cut. Will run all day on one gallon of gas. Compact 2-cycle gas engine develops 3500 rpm under load.—Comet Mfg. Co. Circle No. N15, reply card.



Fireproofed ceiling tile

Wood fiber acoustical ceiling tile is impregnated with new fire protection process called "Pyro-Chem". Because of economy of fireproofing, tile panels are ideal for commercial building such as schools, hospitals, churches, stores, restaurants. Specifications: size, 12"x12" or 12"x24"; depth, 1/2", 9/16", 3/4"; edge—flange, bevel, kerf, rabbet, installation—staple, nail, glue-nail, ceiling grid; noise reduction, 60% to 75%; fire hazard classifications, ASTM E 84-60T—flame spread 10-25.—Simpson Timber Co. Circle No. N24, reply card.

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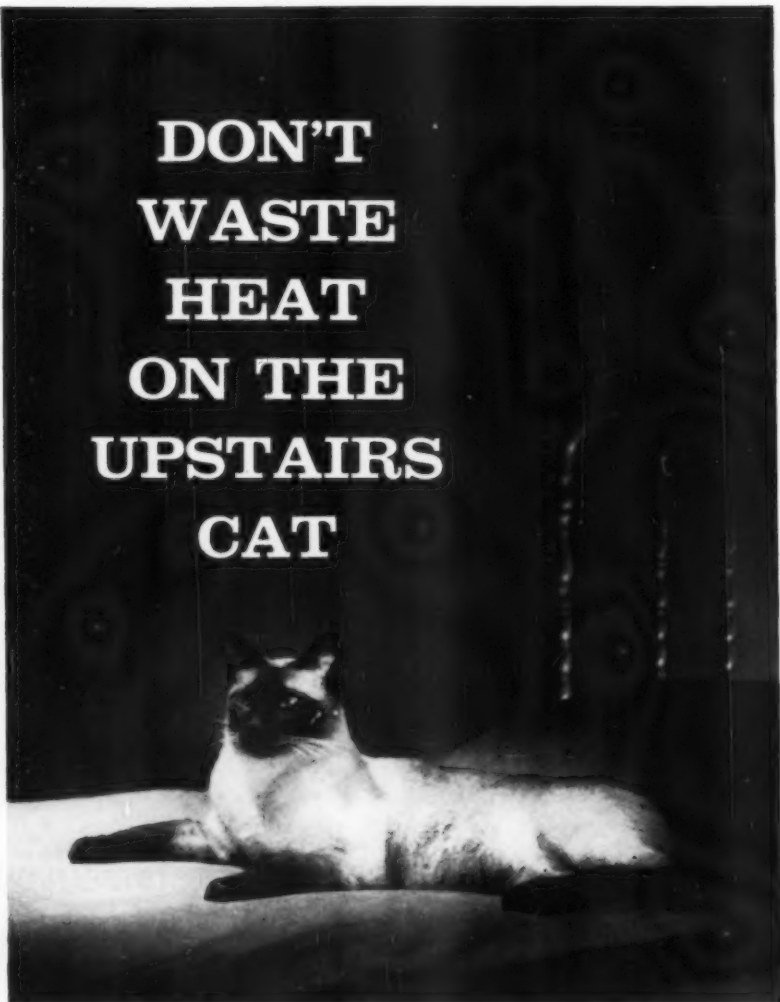
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Your houses will sell faster if you offer prospective buyers a hydronic heating system that saves the owner up to 30% in fuel.

With the Edwards (hot water) hydronic heating system you can offer Zone Valves which regulate temperatures in various parts of the home, keep cats cool and people warm, save hundreds of dollars over the years and help you sell homes.

Write for your free 17" x 22" portfolio of plans which completely describes Edwards quality line of time-tested Zone Valves, hydronic heating systems and silent air-conditioning.



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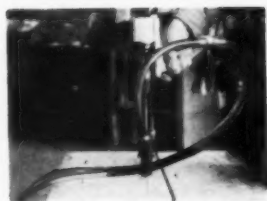
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NEW PRODUCTS



Power nailer uses all types of nails
"Powersert" automatic nailer allows single blow nailing of 1 1/4" to 2 1/2" nails at speeds up to 120 per minute without recoil. Unit is automatically fed and weighs less than ten lbs. Nailer is high speed, light weight, has large nail capacity. Is especially useful for large volume 8d nailing. Nailer is recommended for components, mobile homes, trusses, millwork, roof decking, subflooring.—United Shoe Machinery Corp. Circle No. N11, reply card.



Increases truss output—50%
New air-powered LP-213 nailer is made especially for roof truss construction, said to up production by as much as 50%. Unit drives .113 dia., heavy gauge fillet-head nails at rate of 300 per minute. Built-in safety feature makes it impossible to fire tool unless head is flat against solid object. Specifications: length, 10 3/4"; height, 12 3/4"; weight, 6 7/8 lbs; operating pressure, 60-100 psi; air intake, 1/4" pipe; magazine capacity, 73 nails.—Power-Line Sales. Circle No. N12, reply card.



Fire escape looks like drainpipe
New fire escape called "Safe-X-Scape" mounts outside any window, folds up to look like drainpipe. The aluminum ladder will support 2,000 lbs. Needs no painting, lubrication or maintenance; for safety—cannot be opened from ground. Standard 16' ladder retails (approx.) \$60 plus installation; three-story model—\$68.—Win-Chek Industries. Circle No. N13, reply card.

Light dimmer has dual purpose
Electric light dimmer operates both incandescent and rapid-start fluorescent lights on the same circuit. Fits on any standard 2" switchbox. Requires no special wall construction, 4 1/2" x 2 3/4" switch plate and gold-trimmed control knob blend into any decor.—Harvey Hubbell, Inc. Circle No. N14, reply card.

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N4	N21	N40
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N13	N30	N49
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	N34	N53
	N35	N54

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| <input type="checkbox"/> Check enclosed | | <input type="checkbox"/> Bill Me |

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N56	N63	N70	N77	N84
N57	N64	N71	N78	N85
N58	N65	N72	N79	N86
N59	N66	N73	N80	N87
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American Builder

Reader Service

★ NOVEMBER 1961

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PLEASE CHECK YOUR FIELD OR OCCUPATION

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| <input type="checkbox"/> Sub-Contractor or Building Trades | <input type="checkbox"/> Engineering | <input type="checkbox"/> Realty |
| <input type="checkbox"/> Building or Planning Own Home | <input type="checkbox"/> Manufacturer or Producer | <input type="checkbox"/> Organization |
| | <input type="checkbox"/> Distributor | <input type="checkbox"/> Government |
| <input type="checkbox"/> ENTER (RENEW) MY AMERICAN BUILDER SUBSCRIPTION FOR 1 YEAR FOR \$3.50 | | <input type="checkbox"/> Student or Teacher |
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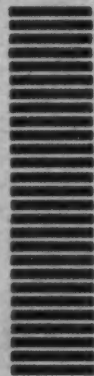
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**Mail one of these postcards today
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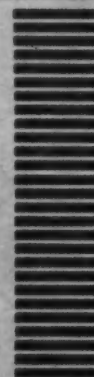
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Don't blindfold him!

THE AWESOME-looking instrument in the picture above is an electron microscope. Through it, a cancer researcher can observe the detail of a cancer cell—magnified 100,000 times.

The microscope costs \$35,000 and was paid for by American Cancer Society funds—which support 1300 scientists, all working to find the cause of cancer, and its prevention.

Don't blindfold cancer research. Give to it. Send your contribution to **CANCER**, c/o your local post office.

AMERICAN CANCER SOCIETY

NEW PRODUCTS



Panel trimmer eliminates waste
Fully automatic panel trimmer eliminates fraying, chipping and other damage to all panel materials. The machine precision squares, lengths, and bevels wood, plastic, pressed wood, aluminum paneling. Material is placed on machine track against pre-set length adjuster. Surface clamp grips paneling between vertical arm and power plant housing. In actuating system: when control bar is pushed, compressed air forces oil (in cylinder) to raise blade up through material. Blade maintains a constant 3,450 rpms, can be stopped and held in suspension at any desired point. Specifications: maximum panel, 4'x8'; bevel, 0° to 7°; power, 2 hp, 220 volt single- or three-phase motor; floor space, 17'x3½'.—Clary Corp. Circle No. N17, reply card.

Announce new insulation range
Fourteen-member insulation board group has established rated insulating values. Surface-to-surface heat resistance values (R-values) have been set at R 2.06 for 25.32" insulation board sheathing and at R 1.32 for ½" board.—Insulation Board Institute. Circle No. N18, reply card.

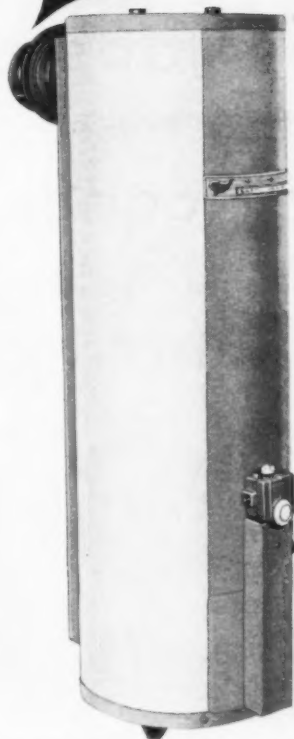


Stone finishing goes on by nail
Precast stone finishing called "Ledge Rock" is quickly secured with 1¼", 11 or 12 ga. (6D) nails driven between stones. Can be applied directly to sheathing or onto studs. After application, joints are sealed with any conventional ready-mixed mortar. Material is bonded on ½" insulation: panels measure 14"x32". Available in two colors: slate and golden-sand. Panels are six to a carton, complete with illustrated application manual. — Alscio, Inc. Circle No. N7, reply card.

Announce new laminate
Called "Pinwheel," new wall, counter laminate goes with wide range of decor and interior color schemes. Design is pattern of star points set against backgrounds of white, gold or gray. Available in standard sheet sizes and finishes.—Formica. Circle No. N8, reply card.

Varnish resists spotting
Aerosol spray varnish contains polyurethane base, resists stains and wear, can be wiped clean with damp cloth. Finish simulates hand-rubbed effect, is ideal for wood walls, floors. Comes in 16-oz. can. Sapolin Circle No. N9, reply card.

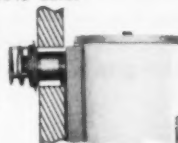
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water heater
that needs **NO**
chimney!



**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!

Thru-the-wall installation cuts costs! Requires only 7¼" opening in any outside wall. Exclusive Tele-Vent telescopes to fit any wall 5" to 12" thick.



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!



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BASTIAN-MORLEY CO., INC.
(Incorporating H. C. Little Burner Co., Inc.)
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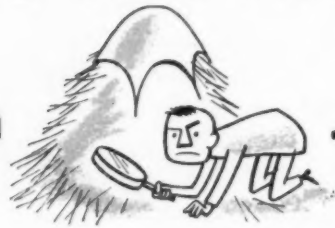
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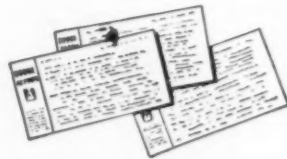
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Kitchen Cabinets will sell your homes!

Now, a special new Formica cabinet surfacing features an exclusive Brushed finish that hides fingerprints and laughs at harsh, color-fading detergents.

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Builders who offer this welcome improvement in home construction and maintenance are sure to enjoy an early and continuing sales advantage.

Write, wire, for the names of manufacturers of Formica kitchen cabinets, together with a complete set of 8 actual product samples of new Formica V-32 material in the exclusive Brushed finish.

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SPECIFY THE BOILER YOU CAN BUILD ON

When you need the best . . . at a price you can build on . . . specify Hydrotherm!

Gas fired Hydrotherms will assure years of heating comfort for your homes, regardless of size or type. And the industry's widest choice of sizes (eleven — from 50,000 to 300,000 BTU/Hr input) gives you "custom" size selection.

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- Tubular steel scaffolding
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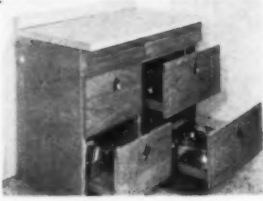
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ALL-PURPOSE SCAFFOLDS to STEEL and ALUMINUM

SHORING EQUIPMENT

NEW PRODUCTS



Cabinet has sliding tray base

New floor standing kitchen cabinet has slide out drawers, cuts bending and stooping while trying to reach seldom used pans. Fits any basic kitchen floor plan, incorporates three drawers per unit. Can support heavy roast pans, canned goods; drawers slide out on steel and nylon glides. Available in 18", 20" width with birch finish.—Long-Bell Div., International Paper Co. Circle No. N16, reply card.



Present new ceiling kit

Suspended insulation ceiling kits include 1/2", 2'x2' styrene foam panels, wall-to-wall white enamel aluminum grid. When ceiling is dropped 2" or more below other surface, insulating (thermal resistance—R) quality is 3.1. Provides enclosure for ceiling lights, finished ceiling under commercial roof decks, masking overhead electrical, plumbing lines and heating, ventilation ducts. Is said to cost as little as dry wall furred down and taped.—Artcrest Products. Circle No. 19, reply card.

Develop rigid urethane roofing

Easy to install rigid urethane roofing material is said to provide superior insulation and weatherproofing for built-up roofs. Material comes ready to install, light weight, easy to handle. Said to eliminate roof and interior deterioration due to roof failure.—H. E. Werner, Inc. Circle No. N20, reply card.



Vanity installs flush or recessed

New wall vanity comes factory wired, can install in either flush or recessed position. Illumination is two-way, bright for full bathroom lighting; through styrene diffuser for mirror. Doors are sliding, contains three full-width shelves. Cabinet is all-steel, resists peeling, chipping, cracking. All seams are covered by polished metal trim. Comes in three widths—24", 28", 36". Height is 24", depth (at top) 9 1/2". All doors are glass-mirrored.—Lau Blower Co. Circle No. N21, reply card.

Announce new model mirror door

Sliding mirror door is called "Vista"; its two heights (6'8" & 8') adapt to 4', 5', 6', 7', 8' openings. Has concealed nylon ball bearing sliding wheels, vinyl spline around mirror for shock absorption. Doors slide to right or left.—Carolina Mirror Corp. Circle No. N22, reply card.

"Jobs worth \$4500 and more have come to us through the Yellow Pages!"

says J. Weis, President, Weis Builders, Inc., Rochester, Minn.

**NEW HOMES
REMODELING
CABINET WORK**

NOTHING DOWN
\$ To 15 Years
To Pay

5 Reasons To Call Us:

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Home Improvement Lines:

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"We've enlarged our Yellow Pages ad over the years. Now I have the largest available—we know its value."



"Newcomers are important to any business. And the Yellow Pages is the best place to reach these prospects."



Display this emblem. It builds your business!

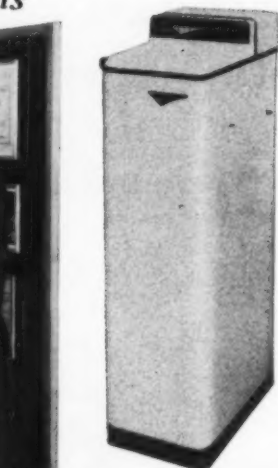
HIPP AND REIMER

Dramatize Quality That Buyers Can Appreciate To Sell Homes In Minneapolis



Richard Reimer and Richard E. Hipp shown with Lindsay "Hidden Value" Blue Ribbon

Richard Reimer, realtor, tells Mr. and Mrs. Walt Moffett how their attractive new Lindsay Princess water softener will give an unlimited supply of pure soft water for baths, cleaning, dishes and laundry. The Moffetts' new home is in Hipp's Hopewood Hills, a new subdivision in the Minneapolis suburban area.



Viewers' Curiosity Piqued by Lindsay Soft Water Blue Ribbon Benefits

Richard E. Hipp has built over 1,500 quality homes in Minneapolis suburban area. His present project is Hipp's Hopewood Hills homes—a 500-home subdivision. He believes his buyers deserve the best quality homes he can give them for their money. This is evident to builders by 2 x 10 joists, extra house power, large heating units, self-storing windows and many other quality features.

Richard Reimer, realtor, who works closely with Hipp also believes in the selling power of quality home features.

When Hipp and Reimer discovered that 98% of their buyers installed water softeners within the first six months they knew this was an extra that would dramatically help to show quality in such a way that buyers would see and understand—and want to buy.

As Richard E. Hipp says, "Most of the people want a water softener in the home, so we decided to make a selling feature of it. Water is, after all, the most used utility in the home, so the quality of the water is vitally important!"

Throughout their model display home Hipp and Reimer use blue ribbon me-

dallions to highlight the many soft water benefits. Each ribbon has two streamers. The top one refers to a Hidden Value. The streamer underneath then gives the soft water benefit, such as "Complexion fair, soft water care." Visitors' natural curiosity leads them to examine the blue ribbons throughout the house to find out what the "Hidden Values" are. This gives the salesman plenty of opportunity to point out that Lindsay soft water is just an example of extra quality the builder has put into the home. He shows builder thoughtfulness by pointing out Lindsay soft water saves up to \$117.60 a year, or about a house payment a year. *Yet this "plus" feature is included right in the mortgage!*

The water softener selected by Hipp and Reimer is the trim, slim Lindsay Princess, only 12" wide and 43" tall. Genuine porcelain inside and out, it comes in 4 popular decorator colors and white. It's all-automatic, too—with an automatic by-pass in the regeneration cycle.

Drop us a letter to see how you, too, can benefit from the Blue Ribbon Hidden Values promotion.



The Lindsay Company

Dept. 14-E, St. Paul 4, Minnesota
Division—Union Tank Car Company



NEW PRODUCTS



Work platform adjusts up to 11'
Heavy-gauge "Roll-a-Fold" work platform adjusts to five different heights up to 11'. Unit rolls from job to job, moves up and down stairs easily. Requires no screws, bolts, braces or fasteners; is ready for use in seconds. Platform stores easily. Specifications: height, 52½"; width, 26½"; length, 48½" (closed—9½"); weight, 65 lbs; all locking wheels.—Roll-A-Fold Scaffold Co. Circle No. N28, reply card.

Introduce new large-area window glass
New "Grey Plate" window glass is designed specifically for schools, hospitals, factories, other locations where large glass area is desired. Has glare-cutting gray tint. Available in maximum size 84"x120", is 13/64" thick, transmits 50% of average daylight, 52.2% of total solar radiation.—Libbey-Owens-Ford. Circle No. N29, reply card.



Power saw weighs only 10 lbs.
Light-weight, heavy-duty, ball-bearing equipped 7" power saw adapts to light trim work or heavy lumber cutting. Called model 177, saw cuts to depth of 2-3/8" at 90° and 1 7/8" at 45°. Features include telescoping guard which prevents jamming at start of cut; inner opening allows operator re-checking for accuracy during cut.—Porter-Cable, Rockwell Mfg. Co.—Circle No. N30, reply card.



Brick facing goes over any siding
New brick blocks, made of light weight pumice aggregates is ideal for remodeling interiors, exteriors. Can go over plaster-board, cedar, concrete or cinder block, any sheathing, stucco, brick, steel, plaster. Correct alignment, mounting is simplified by stainless steel hangers fastened to original siding or wall.—Meridian Brick Co. Circle No. N25, reply card.

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!

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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.

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CATALOGS

WINTER AIR CONDITIONER (gas-fired) is subject of new literature. Shows dimensions of three different models. Easy-to-read chart presents engineering data and specifications.—Thatcher Furnace Co. Circle No. N49, reply card.

CONSTRUCTION FASTENERS are described and illustrated in four-page, two-color bulletin. Shows three kinds of standard tapping screws pre-assembled with nylon or neoprene washers. Includes case history information, drawing of fasteners and application data.—Parker-Kalon. Circle No. N50, reply card.

FLOOR FINISH, said to be non-skid, is described and illustrated in brochure.—The Monroe Co. Circle No. N52, reply card.

LARGE-BORE BIT is effectively presented in fold-out mailing piece. Drawings show drill body, plain and screw pilots, cutter and spur blades, 1/2", 3/4" drivers, 6" driver extension. Includes price list and order blank.—Time Saver Tools. Circle No. N51, reply card.

GARBAGE DISPOSER is covered in four-color, illustrated brochure. Detailed installation specs.—Waste-King. Circle No. N53, reply card.

RIGID PLASTIC PIPE, newly approved for use as electrical conduit, is subject of eight-page, three-color brochure. Offers complete specifications and suggested applications for the conduit which is non-conducting and non-corrosive. Sizes range from 1/2" to 6" dia.—Lasco. Circle No. N37, reply card.

"LAVATORIES OF DISTINCTION" is the title of illustrated four-color folder. Shows built-in and wall hung lavatories, plus floor and wall-type toilets. All available in 45 different colors. Also presents complete line of brass, gold, chrome finish fittings.—Case Mfg. Div., Ogden Corp. Circle No. N38, reply card.

FASTENING INFORMATION for corrugated metal, fiberglass, asbestos is carefully detailed in folder. Aimed at roofing and siding contractors, it includes easy-to-follow tables listing most frequently used materials, recommended hole centers and drill sizes for sheeting materials.—Atlas Bolt & Screw Co. Circle No. N38A, reply card.

COATINGS, sealants, adhesives, their properties and applications are covered in this eight-page catalog. Lists over eighty products and uses. Many of the compounds are just being made available to the industry.—Magichemical Co. Circle No. N39, reply card.

FLEXIBLE GROUT, which provides a joint that will not crack when subjected to the normal flexing and movement of wood sub-floors, is described in technical bulletin. Grout is designed for ceramic tile, mosaics, slate, stone, pre-cast terrazzo.—Miracle Adhesives Corp. Circle No. N44, reply card.

PARTITION END CAP and top tie plate detailed in series of technical plates. Unit is formed to fit over end stud of intersecting partition, recessed to accommodate vertical edges of drywall interior finish. Cuts layout time, offers more design flexibility, eases clustering at room corners.—Allmetal Co. Circle No. N33, reply card.

MASONRY SAWS and their care is subject of informative brochure. Details sawing cost reduction, how to get longer life from diamond and abrasive blades. Includes advice on proper voltage, equipment operation and maintenance, blade selection, good sawing techniques.—Clipper Mfg. Co. Circle No. N35, reply card.

HOT WATER HEATING catalog introduces new ASME expansion tank, steam, water converters. Sixteen-page booklet shows typical converter installation, illustrates circulators, valves, fittings. Includes performance curves, pressure drop tables.—Dunham-Bush. Circle No. N36, reply card.

20th CENTURY — THE INSTANT

900 SQ. FT. • 3 BR. • 1 BATH
 Package \$5,995
 Erection & Site Costs... 2,000 For Garage Add \$1,000
 Completed House..... \$7,995

1200 SQ. FT. • 3 BR. • 2 BATHS
 Package \$6,995
 Erection & Site Costs... 2,200 For 2 Car Garage Add \$1,500
 Completed House..... \$9,195

300 SQ. FT. • 3 BR. • 2 BATHS • FAM. RM. • 1 CAR-GARAGE
 Package \$ 9,442
 Erection & Site Costs... 3,000
 Completed House..... \$12,442

1200 SQ. FT. • 3 BR. • 2 BATHS
 Package \$6,995
 Erection & Site Costs... 2,200 For Garage Add \$1,000
 Completed House..... \$9,195

1300 SQ. FT. • 3 BR. • 2 BATHS • FAM. RM. • 1 CAR GARAGE
 Package \$ 9,442
 Erection & Site Costs... 3,000
 Completed House..... \$12,442

2400 SQ. FT. • 4 BR. • 2 1/2 BATHS • FAM. RM. • 2 CAR GARAGE
 Package \$10,105
 Erection & Site Costs... 5,000
 Completed House..... \$15,105

CATALOGS

PIPE SADDLES are illustrated in series of punched literature. Step-by-step photos show positioning of saddles, application of insulation, etc. Complete with detailed drawing and all specifications.—Insul-Coustic Corp. Circle No. N46, reply card.

SEWAGE EQUIPMENT is completely covered in four-color, 16-page brochure. Called Bulletin 50, it shows factory-built sewage pumping stations, pneumatic ejectors, factory-built and field-erected "Oxi-gest" sewage treatment plants and comminutors.—Smith & Loveless. Circle No. N47, reply card.

SUBFLOOR preparation for installation of rubber and solid vinyl flooring is clearly outlined in fold-out brochure. Discusses both concrete and wood subfloors, explains moisture test unit. Also details preparation of surfaces for installing rubber and vinyl cover.—The Rubber and Vinyl Flooring Council. Circle No. N42, reply card.

FORK LIFT TRUCKS, designed for heavy duty work, are described in 24-page catalog. Presents new series which have load capacities from 10,000 lbs. to 24,000 lbs. Eight new models, available in wheel-bases from 86" to 120", feature low-profile, envelope-type styling which combines frame and body in one-piece construction.—Towmotor Corp. Circle No. N43, reply card.

SEISMIC TIMER, used for locating hardpan, water tables, rock strata at depths up to 100', is described in folder. Utilizes seismic shock wave generated by special hammer impact or small explosive charge. Valuable to contractors, construction crews.—Soiltest, Inc. Circle No. N60, reply card.

PACKAGED POSITIVE-FLOW BOILER is described and illustrated in new bulletin. Shows such design features as 5 sq. ft. of heating surface per boiler hp, hinged front, rear covers, standard dry back or optional wetback. Includes ratings, dimensions, approximate fuel consumption for positive flow models.—Orr & Sembower. Circle No. N61, reply card.

ELECTRICAL TAPES are completely covered in two-color, eight-page catalog. Shows vinyl-type for all-temperature use with application range of -14° to +180° F. Uses slipknot filler-type for connector insulation, neoprene splicing compound for oil resistant applications.—Plymouth Rubber Co. Circle No. N62, reply card.

PLASTIC FABRICATION, as utilized in residential and commercial building, is outlined in bulletin. Presents free-form domes from 6" to 8' in diameter. Shows how house units can be produced to specifications.—Ray Products. Circle No. N41, reply card.


COLD WEATHER CONCRETING information is subject of this 8½"x11" placard which is suitable for putting up in construction office or at job-site office. Contains data on use of accelerators, preparation of forms and subgrade for placing concrete, protection and curing.—The Master Builders. Circle No. N65, reply card.

LATCH COMPONENTS: single, double spring bolts, auxiliary dead-locks, drive in latches, face plates and strikes are presented in one-page folder. Gives installation data including types of routers and bores to use.—Harloc Products Corp. Circle No. N55, reply card.

OUTSIDE AREA LIGHTING for commercial applications is excellently and completely described in 30-page, punched catalog. Contains equipment selector, sample lighting layouts, typical lighting area applications, photographs, layouts and equipment recommendations.—General Electric. Circle No. N57, reply card.

ELECTRIC BASEBOARD HEAT is pictured in four-page, four-color pamphlet. Describes applications for different home designs, shows individual room temperature control. Includes easy-to-read specifications and operational data.—Edwin L. Wiegand Co. Circle No. N56, reply card.

HOUSE by SCHOLZ



1500 SQ. FT. • 4 BR. • 2 BATHS • FAM. RM

Package.....	\$11,495	For 2-Car Garage
Erection & Site Costs...	2,700	Add \$2,000
Completed House.....	\$14,195	



2000 SQ. FT. • 4 BR. • 2 BATHS • FAM. RM

Package.....	\$10,300	For 2 Car Garage
Erection & Site Costs...	5,000	Add \$1,500
Completed House.....	\$15,300	



2000 SQ. FT. • 4 BR. • 2 BATHS • FAM. RM

Package.....	\$10,300	For 2 Car Garage
Erection & Site Costs...	5,000	Add \$1,500
Completed House.....	\$15,300	

In Every Price Range

CAN BE SEEN IN CHICAGO
AT THE SHOW

FINISHED SECTIONS
ONE DAY ERECTION

\$1,000 UNDER MARKET

NO CASH IN HOUSE
UNDER CONSTRUCTION

20th Century by Scholz is the only truly revolutionary development of the housing industry of this century . . . delivered complete in finished sections with plumbing, electrical, heating and interior finish in place with erection and completion in one day by crane . . . provides firm costs up to \$1,000 under market . . . eliminates working capital in jobs in process . . . nine different models—ranch types, split levels and raised ranches to suit every project requirement from \$9,000 to \$30,000.

Arrange to see the housing industry's most advanced technology at the Scholz-20th Century Toledo plant and project today. Call JE 1-1601, Toledo.

Please have your representative call on me with complete details of the 20th Century Program

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I have been building _____ homes per year in the \$ _____ price range.

I presently have _____ developed lots available.

Mail to: 20TH CENTURY HOMES • 2001 N. Westwood, Toledo 7, Ohio

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Heat in 3 seconds with new Master INSTANT heater

This brand new heater puts out heat **instantly**. Just plug it in any electric outlet; it starts—**instantly**. Pull the plug; it stops—**instantly**. It's ready to move—**instantly**.

Use it inside or out to warm men, thaw, heat or dry materials. Burns kerosene or fuel oil; needs no vent, inside or out. Puts out 75,000 BTU/hr. in circulating warm air. Optional thermostat for remote control available.

Larger heaters up to 400,000 BTU's
per hour also available.

MASTER VIBRATOR COMPANY

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Please send me complete information about new Master "Instant Heater," other models, and the name of my nearest dealer.

Name _____

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City _____ State _____

CATALOGS

REDWOOD EXTERIOR FINISHES are illustrated in eight-page, four-color booklet. Includes application descriptions of paints, stains, natural finishes. Complete information on nail hole fillers, finish removers, finish maintenance.—California Redwood Assn. Circle No. N58, reply card.

CONTOUR FRAME DOOR (storm/screen) is subject of new full-color mailer. Explains special features such as protective drip cap, spring-loaded double bearing hinges. Also tubular meeting rails, rigid corner construction.—Season-All Industries. Circle No. N45, reply card.

CENTRALIZED BUYING SERVICE is subject of new, 160-page catalog. Illustrates and describes complete lines of heating, plumbing, a/c products. Includes plumbing fixtures and brass; lighting fixtures and electrical supplies; construction tools; hardware and power tool.—A. R. Webber Co. Circle No. N63, reply card.

LAMINATED STUDS, BEAMS are shown in series of one-page folders. Process (for studs) bonds two 1x4's together. Beams range from 3"x4" to 12"x12" in lengths from 8' to 32'.—Bradley-Southern Div., Potlatch Forests, Inc. Circle No. N66, reply card.

HYDRONIC HEATING is clearly explained in technical catalog. Includes detailed diagrams of baseboard units, typical floor plan installation, comparison fuel costs.—Aqua-Letric, Inc. Circle No. N67, reply card.

EPOXY MORTAR for concrete block, brick, ornamental stone, flagstone is featured in fold-out brochure. Step-by-step photos show quick, easy application of mortar. Shows some typical installations.—Delorme. Circle No. N68, reply card.

GAS FURNACES (forced air) and horizontal are subjects of two new bulletins. Data is presented for eight models ranging from 70,000 to 150,000 Btu. Also shows five models equipped with high-static blowers designed for a/c.—Sequoia Mfg. Co. Circle No. N69, reply card.

"HOW TO SELECT a Pressure-Sensitive Tape" is a booklet that tells what tapes are available, how they are constructed, and how to choose the right tape for a given application. A full page deals with problems and trouble-shooting. Glossary of terms included.—Johns-Manville, Dutch Brand Div. Circle No. N75, reply card.

BRICKLAYING TOOL is shown in one-page brochure. Photos show step-by-step application of mortar using tool.—Automason. Circle No. N71, reply card.

PLUMBING REPLACEMENT PARTS are presented in illustrated catalog. Includes complete price list.—Parco Specialty Mfg. Co. Circle No. N59, reply card.

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Builders tell us . . . "quality in materials and workmanship is a prime home-selling point in today's market." *We agree!*

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All New FOLDING ENCLOSURE for Tub and Shower Wins Homemakers' Acclaim

(Special) — An exciting combination of features that provide greater safety, efficiency, and beauty have made Showerfold® enclosures the most talked about and widely acclaimed bath product in the nation.

New Safety

With Showerfold®, there is no glass to break, crack or shatter. And, the danger of swinging doors is eliminated. The folding panels of Showerfold® are fashioned of durable DuPont Alathon® — cannot cut, scratch or bruise the user.

Showerfold® Doors are manufactured in 12 standard sizes to fit most tub or shower openings.

Folds Like Accordion

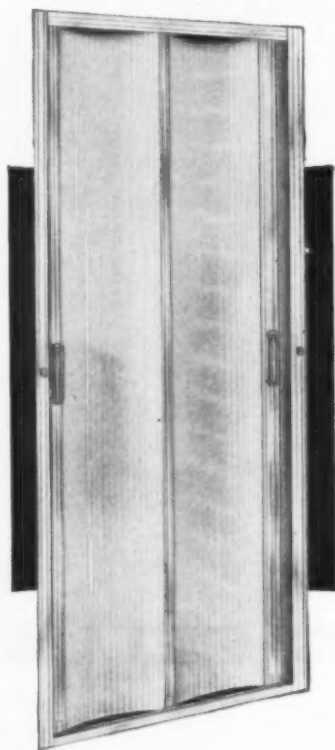


When folded back, the door is less than 9 inches in width.

When closed, Showerfold® Doors form a water-tight enclosure to shield floor and under-flooring from messy, damaging splash and spray.

Note how Showerfold® folding doors allow new and complete freedom of design and much better space utilization, while adding a touch of glamour to the bathroom.

Another thing Mrs. Homemaker likes, is that the door can be cleaned with the wipe of a damp cloth.



New Color

The folding panels are available in white and delicate new shades: Sof-Tone Pink, Sof-Tone Blue, Sof-Tone Yellow and Sof-Tone Beige. These, combined with the beauty of anodized aluminum add new elegance.

New Economy

To top off the wonderful features of Showerfold®, the cost is lower than that of glass doors.

For free illustrated literature, write Showerfold® Door Corporation, (A subsidiary of Kinkead Industries, Incorporated), 5858 North Pulaski Road, Chicago 46, Illinois. Or, Kinkead Industries, Incorporated, 5250 West 102nd Street, Los Angeles 45, California.

CATALOGS

"CREATE EXTERIOR VARIETY" is theme of profusely illustrated 15-page booklet. Covers complete plywood siding line: includes technical data, installation details and finishing application. Photos and drawings show new line of siding.—U. S. Plywood. Circle No. N72, reply card.

CONSTRUCTION ACCESSORIES for structural wood framing are shown in new catalog. Includes joist hangers, framing anchors, tie straps, cross-wall bracing, others. Complete details on design loads, dimensions, materials, finishes.—Simpson Co. Circle No. N73, reply card.

"FIRE-PROTECTED WOOD" is the title of this six-page catalog. Wood is pressure-impregnated with inorganic chemicals, protects against fire, termites, decay. Contains typical installations and case histories.—Wood Preserving Div., Koppers Co. Circle No. N74, reply card.

ELECTRIC VIBRATORS are subject of well-detailed 12-page bulletin. Complete data for 14 standard "pulsating-magnet" models, as well as three pneumatic and hydraulic units. Contains 50 illustrations.—Syntron Co. Circle No. N70, reply card.

SWIMMING POOL HEATING system is presented in bulletin #NYF-234, from Hydrytherm. Gives dimensions and weights of all models. Selection chart shows which model is needed for various pool sizes. Wiring and piping diagrams also included.—Hydrotherm Inc. Circle No. N76, reply card.

FLUORESCENT LIGHTING FIXTURES are listed in a 44-page catalog. Features modular troffer units with frameless plastic lenses and many other shieldings. Gives installation details and technical data.—Globe Lighting Products, Inc. Circle No. N77, reply card.

FULL COLOR BULLETIN describes ultra-modern suburban and rural mail box that's said to have the first new design approved by the government in over 50 years. Baked-on finish—in white, blue, turquoise, chocolate or pink—won't fade, crack, or peel. Southern Fabricators Corp. Circle No. N78, reply card.

THERMOSTATS: new booklet contains detailed descriptions and illustrations of manufacturer's complete line of thermostats for electric heating. Includes decorator-styled types, plus in-built and water heat types. Also has a glossary of technical terms.—Mears Controls, Inc. Circle No. N79, reply card.

GOLD FACADES, 4-color murals, unique textures are possible with the porcelain panels described in an illustrated 8-page booklet. Outlines case histories.—Eric Enameling Co. Circle No. N80, reply card.



BECAUSE OF Hydronics...

sick-room germs won't be carried from room to room by the heating medium. Heat is conveyed by circulating water confined in small pipes.



BECAUSE OF Hydronics...

the bathroom will never be cold in the morning or when bathing requires ample warmth. No need for auxiliary heat during cold spells.



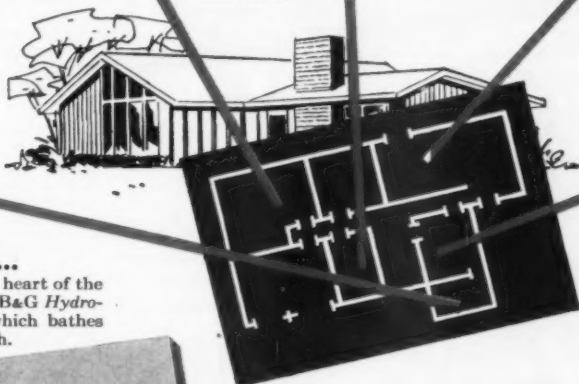
BECAUSE OF Hydronics...

the health of young children is protected. The house is filled with radiant, sunshine warmth... with walls and floors warm and draft-free... safe for crawling babies.



BECAUSE OF Hydronics...

the boiler is figuratively the heart of the home. It is provided with a B&G Hydro-Flo Pak—the equipment which bathes the house in radiant warmth.



BECAUSE OF Hydronics...

odors from the kitchen can be more successfully confined because Hydronic heating is sealed-in heating. There are no air ducts to carry odors throughout the house.

a sales feature in every room

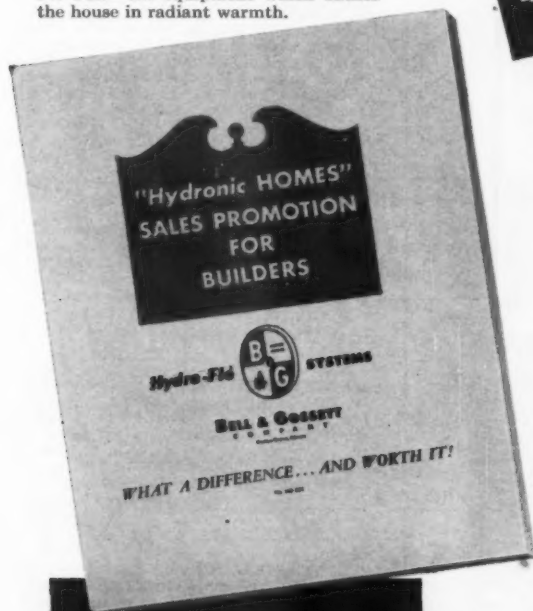
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Every builder should get the facts on the Hydronics Team... the organization which introduces more successful home merchandising methods.

How the Team functions to give builders a vigorous selling program is fully explained in the brochure illustrated here. It will show you how to make the "Hydronic Homes Sales Promotion" lift your homes out of the competitive rut... create the traffic which leads to sales.

The distinctive and exclusive features of Hydronics enable builders to (1) attract prospects, (2) arouse their interest, (3) prove that a "Hydronic Home" offers more, (4) close the sale.

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BELL & GOSSETT

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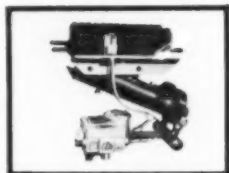
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on heating installations
with **MONOGRAM**

**SPACE-SAVING HEATERS THAT
GIVE WALL-TO-WALL COMFORT
WITHOUT COSTLY DUCT WORK**

Model A165 Furnace A new low-cost Monogram gas furnace that's extremely easy to install and built to fit a variety of applications in conventional and pre-fab construction. Requires less than 2 sq. ft. of floor space. Can be installed flush against a wall or recessed. Up to 65,000 BTU input. Combustion chamber is ceramic coated, both inside and out. A 9-in., two-speed blower discharges warm air through lower front grille—optional duct kits for discharging air at side or back of unit. Wall thermostat with limit control furnished. Uses any type gas. AGA approved.

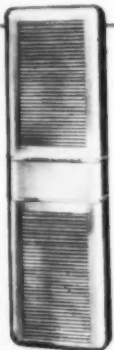
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HEATERS**

Monogram vented wall heaters are outstanding values for the volume builder. Four sizes—25,000 to 65,000 BTU input. Blower fan optional. Designed for easy installation—trouble-free service. AGA approved.



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RECESSED HEATER**

A popular model for flush mounted, recessed installations in small conventional or pre-fab houses. Pre-assembled for quick, easy installation. 75,000 BTU input. Uses telescoping, snap-in grille—knock-out openings 10" x 14". AGA approved. Gas or oil-fired models available.

Write for specifications and prices on our complete line of space heaters, recessed heaters, furnaces and air conditioning equipment.



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QUINCY, ILLINOIS

INSULATING FOAM: Bulletin describes uses of polyurethane foam in industrial and commercial buildings. This material is said to give higher heat and solvent resistance than polystyrene foams, plus superior sound deadening qualities. Installations instructions given.—H. E. Werner, Inc. Circle No. N81, reply card.

AIRLESS SPRAY EQUIPMENT: catalog shows entire DeVilbiss line, lists specifications. Included are a new medium production pump for single-gun operation, a heavy duty pump for multiple-gun operation, plus accessories and other equipment.—The DeVilbiss Co. Circle No. N82, reply card.

FOUR BACKHOES are pictured and described in a new bulletin from Parsons-Shawnee. Capacities are 10', 12', 13', and 15'. Gives complete specs, shows other equipment.—Parsons Co. Circle No. N83 reply card.

VENTS FOR KITCHENS, BATHS are presented in 12-page, 4-color catalog. Includes ventilators for wall and ceiling installation, and combination ventilator-light and ventilator-light-heater units. Construction details and technical data also included.—Fasco Industries, Inc. Circle No. N84, reply card.

BUILDINGS FOR BUSINESS, a 12-page booklet, has color illustrations of a wide range of wooden commercial structures—restaurants, banks, a motel, a marina, fire station, others. Give dimensions and types of lumber used.—West Coast Lumbermen's Assn. Circle No. N85, reply card.

COMMERCIAL LIGHTING: Catalog has 76 pages filled with pictures and full descriptions of Art Metal line of commercial incandescent lighting. Shows full line of prismatic lens units, plus light distribution curves, other technical data.—Wakefield Corp. Circle No. N86, reply card.

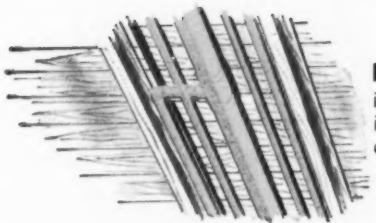
MATERIALS HANDLING: Clark Bulletin SP 4070 has 20 pages covering complete line of fork trucks, powered hand trucks, other equipment. Gives capacity, turning radius, dimensions, etc. for each machine.—Clark Equipment Co. Circle No. N87, reply card.

ILLUSTRATED BOOKLET contains 12 pages describing the solutions to a variety of adhesive problems. Also lists many new adhesives, coatings and chemical compounds that are useful to the builder.—Adhesive Prods Corp. Circle No. N88, reply card.

PORTABLE REFRIGERATOR is featured in colorful fold-out. Unit operates on any 110/115 volt AC or UC outlet, stands 33" high (with legs and casters).—Norcold, Inc. Circle No. N48, reply card.

WHY ...

Remodel with Copper tube???



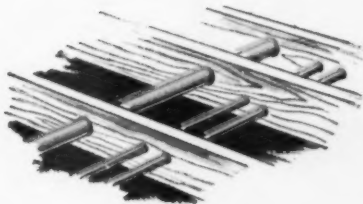
BECAUSE
it can be quickly
installed between
original floor joists



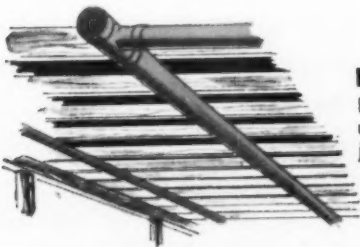
BECAUSE
risers can be
installed in original
stud spaces



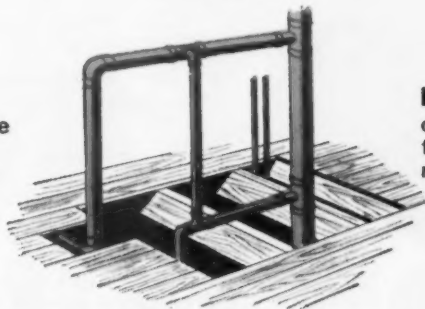
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its light weight
makes overhead work
easier and faster



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it can be fitted
through small holes
in old joists



BECAUSE
long lengths can be
used with fewer
joint connections



BECAUSE
only small areas of
flooring need be
removed to install it

Anaconda Copper Tube is available in all standard wall thicknesses—Types K, L, M and DWV—through your plumbing wholesaler. See him also for Anaconda wrought and cast solder-joint fittings. For complete information, write Anaconda American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

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TRUCK OPERATING
COSTS IN THE
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If you are in any branch of the building industry that employs even one truck, "HOW TO CUT TRUCK OPERATING COSTS IN THE BUILDING INDUSTRY" may be a real eye opener for you! Here, in factual language, is everything you want and need to know about truck economics today as applied to your particular business—facts and figures that are beyond dispute.

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Studebaker trucks are designed by truck engineers, built in a truck factory with components conforming to truck specifications. The '62 Studebaker line includes 1/2-ton and 3/4-ton CHAMP pickups, TRANSTAR gasoline trucks and America's first light-medium Diesel trucks (16,000 to 23,000 GVW). See your Studebaker truck dealer for specifications and prices.



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Please send me the free booklet "HOW TO CUT TRUCK OPERATING COSTS IN THE BUILDING INDUSTRY." I understand that this puts me under no obligation whatever.

Name and Title _____
Address _____
Company _____
City _____ Zone _____ State _____
Number of trucks in fleet _____

CATALOGS

AIR-CONDITIONED RANGE and ovens are shown in this punched fold-out brochure. Describes how built-in a/c removes odors, smoke within range itself. Close-up photos show installation, range-oven details. Gives all specifications. Available in two models: "Regency" (with automatic family-size griddle) and "Custom."—Jenn-Air Products. Circle No. N54, reply card.

GLASS, and its interior, exterior uses, are beautifully illustrated in 14-page booklet. Show rib-patterned partitions, pivoting panels, picture window glass, translucent shower and room doors. Pictures light-gathering qualities of glass.—American-St. Gobain Corp. Circle No. N32, reply card.

FORMING MATERIAL for fallout shelters is shown in detailed drawing, bill of material and cost of material. For use with concrete fallout shelters only.—Universal Form Clamp Co. Circle No. N40, reply card.

FLUSH METAL DOOR with machine-treated hardwood spiral core is shown in foldout brochure. Designed to resist denting and impact, door has acoustical sound-deadening values. Door is primed at plant, finished on-site.—Dusing & Hunt, Inc. Circle No. N64, reply card.

PINE PANELING is presented in four-color booklet. Features off-center peak, slope-cut, 1/4" space, 3/4" space types. All paneling sets on flush batten or reverse batten. Panels are water-repellent and packaged in heavy, moisture-proof paper.—Arkansas Soft Pine Bureau. Circle No. N34, reply card.

INSTALLATION SPECS for resilient floor coverings are given in a 64-page bulletin. Contains all information pertaining to proper laying of manufacturer's entire line. Also includes maintenance data, an adhesive chart, federal specifications chart, and a tile calculation chart.—Congoleum-Nairn, Inc. Circle No. N89, reply card.

Catalogs at Cost

HI-FI MUSIC WALL and how to build it is carefully detailed in 34-page booklet. Takes remodeler through 45 steps necessary to set up wall which is designed to hold book shelves, cabinets, TV and hi-fi set. Complete materials list. Cost: 50¢. Write Directions Simplified, P.O. Box 215, Pleasantville, N.Y. Book 612.

"**A CITY OF HOUSES**": this 50-page book is said to help builder create thousands of different home designs. Book measures 9"x12" closed, opens to 18" presentation. Pages turn so that reader can make variety of combinations of bedroom plans (left pages) and living room plans (right pages). Cost: \$20. Write R. S. Patterson Assoc., P.O. Box 164, Sheboygan, Wisc.

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SANTA ROSA saw-textured board-on-board redwood siding



All the natural warmth and beauty of redwood is enhanced in our new **PALCO Santa Rosa Siding** — saw-textured for added visual interest and greater durability. Saw-textured siding holds stains and other finishes longer and weathers beautifully. Home buyers like its rich, handsome appearance, its long life and low maintenance. Packaged in dust-free, water-repellent paper wrap for on-site protection. Another PALCO Architectural Quality product, the standard of comparison since 1869.



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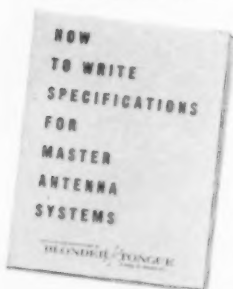
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AMERICAN BUILDER HOUSE NO. 290
 L = lin. ft. C = cu. ft.
 S = sq. ft. U = unit(s)
 MAIN FLOOR AREA 1,350 S
 EXT. PLATFORM FLOOR AREA 105 S
 BUILDING CUBAGE VOLUME 16 M

—CONCRETE CONSTRUCTION & FINISH—

Concrete Wall, Pier & Pilas. Footing 145 C
 Concrete Wall, Pier & Pilas. Footing Forms 280 S
 Concrete 4" Platform Slab O.G. 105 S
 Monolithic Platform Finish 105 S
 Kraft Paper Platform Prot. & Curing 105 S
 Premoulded 1/2"x4" Platform Expan. Joint 35 L
 Trade Items Set-In

—BRICK CONSTRUCTION & VENEER—

Brick 8" Foundation Wall 225 S
 Brick 4" Foundation Wall 395 S
 Brick Structural Pier & Pilast. 55 C
 Acid & Mortar Expos. Brick Clean & Point 170 S

—METAL SHEET WORK—

Metal 14" Valley Flashing 35 L
 Metal Roof Stack Flashing 1 U
 Metal 1 1/2" Ext. Wall Flashing 65 L
 Metal 6" Door & Window Flashing (Head) 60 L
 Metal 10" Roof Edge Drip 185 L
 Metal 6" Termite Shields 205 L

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4x4" Wood Structural Posts 40 L
 2-2x10" Wood Floor Girders 235 L
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 2-2x8" Wood Floor Joists 95 L
 2-2x8" Wood Ceiling Beams 15 L
 2x8" Wood 16"-o.c. Floor Joists 680 L
 2x6" Wood 24"-o.c. Ceiling Joists 45 L
 2x6" Wood 24"-o.c. Roof Rafters 110 L
 2-2x4" Wood Wall Plate 170 L
 2x4" Wood 16"-o.c. Wall Studs 1,450 L
 2x4" Wood 24"-o.c. Roof Outriggers 180 L
 2x4" Wood Wall Sills 235 L
 2x4" Wood Wall Plates 70 L
 2x4" Wood Floor Blocking 10 L
 2x3" Wood Ceiling Blocking 70 L
 2x2" Wood Joist Ledger 220 L
 1x4" Wood Outrigger Blocking 180 L
 1x3" Wood Joist Bridging 250 L
 3/4" Plywood Floor Lining 110 S
 1/2" Plywood Floor Lining 1,670 S
 3/8" Plywood Roof Lining 1,905 S
 1/2" Fiberboard Wall Lining 1,105 S
 1 1/2" Felt Floor Isolation 1,170 S
 1 1/2" Felt Ext. Wall Isolation 1,105 S
 1 1/2" Felt Roof Isolation 1,785 S
 Selected Roof Shingles 1,785 S
 Blanket 4" Ceiling Insulation 1,215 S
 Blanket 2" Ext. Wall Insulation 1,105 S
 Metal 7"x2" Roof Ridge Vent 70 L

—WOOD ROOF TRUSSES—

2x4" Wood Bottom Chord 25 L
 2x4" Wood Top Chord 30 L
 2x4" Wood Truss Braces 11 L
 2x4" Wood Truss Struts 6 L
 Metal Truss Hardware
 Wood 25' Roof Truss 9 U
 2x4" Wood Bottom Chord 25 L
 2x4" Wood Top Chord 32 L
 2x4" Wood Truss Braces 11 L
 2x4" Wood Truss Struts 6 L
 Metal Truss Hardware
 Wood 25' Roof Truss 3 U
 2x4" Wood Bottom Chord 25 L
 2x4" Wood Top Chord 28 L
 2x4" Wood Truss Braces 11 L
 2x4" Wood Truss Struts 6 L
 Metal Truss Hardware
 Wood 25' Roof Truss 9 U
 2x4" Wood Bottom Chord 18 L
 2x4" Wood Top Chord 30 L
 2x4" Wood Truss Braces 9 L
 2x4" Wood Truss Struts 5 L
 Metal Truss Hardware
 Wood 18' Roof Truss 4 U

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Wood & Glass 6x7" Gliz. Ext. Sl. Dr., F&T 1 U
 1 1/2" Wood & Glass 3x7" Gliz. Ext. Sl. Dr., F&T 1 U
 1 1/2" Wood 2'6x7" Flu. Ext. Sl. Dr., F&T 1 U
 1 1/2" Wood 4'x6'8" Flu. Int. Dr., F&T 1 U
 1 1/2" Wood 3'x6'8" Flu. Int. Dr., F&T 1 U
 1 1/2" Wood 2'6x6'8" Flu. Int. Door, F&T 6 U
 1 1/2" Wood 2'x6'8" Flu. Int. Door, F&T 5 U
 1 1/2" Wood 1'6x6'8" Flu. Int. Door, F&T 1 U
 3/4" Wood 1'8x1'8" Ceil. Access. Door, F&T 1 U
 1 1/2" Wd. & Glass 7'x4'6" Fixed Window, F&T 1 U
 1 1/2" Wd. & Glass 5'x3'8" Slid. Window, F&T 2 U
 1 1/2" Wd. & Glass 4'x3'8" Casem. Window, F&T 4 U
 1 1/2" Wd. & Glass 3'6x3'8" Slid. Window, F&T 4 U
 Asbestos Cement 1/2" Wall Siding 1,190 S
 Asbestos Cement 1/4" Soffit Boarding 395 S
 Asbestos Cement 3/8" Exter. Skirt Board 155 S
 Asbestos 1"x18" Porch Fascia 10 L
 Wood 1"x12" Closet Shelves 30 L
 Asbestos 1"x8" Porch Fascia 15 L

continued on page 130



"CHROMALOX electric heating goes into 70% of our new homes... helps sell them faster"

says R. R. Terwilliger, Builder, Hanover, New Jersey



"We build about 60 homes a year... and since featuring All-Electric Homes, we sell our homes faster. More people are asking us about electric heating, and we find it to be a highly preferred feature. Best of all, we've had no complaints... our customers like its quiet, draft-free warmth." So states Robert R. Terwilliger, president of Designed for Living Homes of Morris & Essex, Inc., in Hanover, N.J. Construction moves along faster with no furnace or chimney needed in all-electric homes.

You too can profit with CHROMALOX Electric Heat

Your homes will sell themselves — and sell faster—with clean modern, silent electric comfort heating. New style baseboards allow maximum useable floor space. And you'll save on building costs... up to \$500 per house.

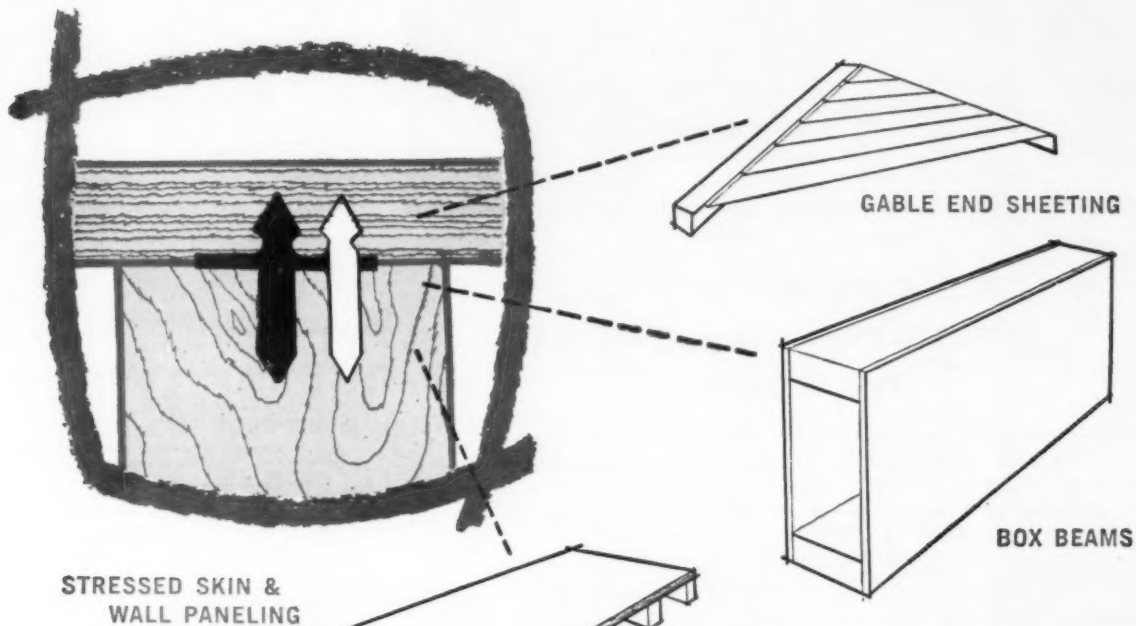
Profit with Chromalox comfort heating; write for Bulletin 975D and name of your Chromalox heating engineer.

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CHROMALOX ELECTRIC HEAT

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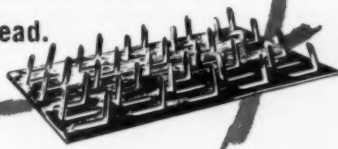


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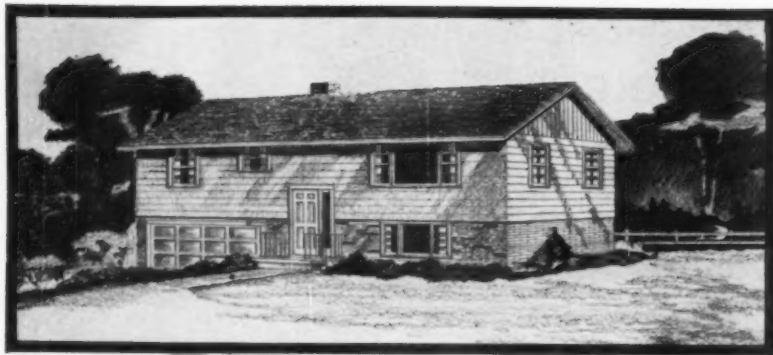


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■ FORD Homes yield big savings in costly on-site labor.

■ FORD style is right for today's market...functionally modern, tastefully attractive, lives well through the years.

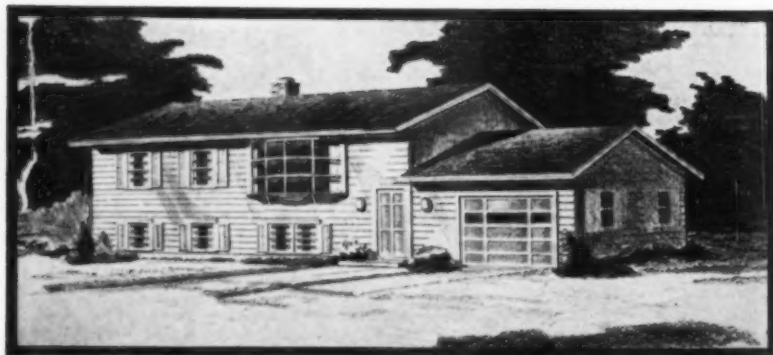
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■ FORD builds in "re-sale insurance" with advanced wiring designed for appliances and services of today — and tomorrow.

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For Catalog and details, write on your letterhead to Dept. AB.

IVON R **Ford** INC., McDonough, N. Y.
Manufacturing Franchises Available in Some Areas



Estimating Takeoff List

continued from page 128

Asbestos 1"x6" Roof Fascia	185 L
Wood 1"x4" Wall Base	330 L
Wood 1"x3" Shelf Cleats	55 L
Asbestos 1"x3" Wall Trim	75 L
Asbestos 1"x2" Siding Battens	840 L
Asbestos 3/4"x1 1/2" Wall Trim	175 L
Wood 3/4"x1" Base Moulding	330 L
Wood 1 1/2" diam. Clothes Pole	20 L
Wood 1'6x3'6" Wind. Shutters	10 U
Wood 6'x6" Flower Box	32 L
Wood 6x6x2" Flower Box Brackets	10 U
Wood 6x3x1' Breakf. Bar	1 U
Wood Pre-fin. 3'6x2'x3' Base Cabinet	1 U
Wood Pre-fin. 3'x2'x3' Sink Cabinet	1 U
Wood Pre-fin. 1'6x2'x3' Base Cabinet	2 U
Wood Pre-fin. 3'x2'x1' Wall Cabinet	1 U
Wood Pre-fin. 2'x2'6x1' Wall Cabinet	1 U
Wood Pre-fin. 1'6x2'6x1' Wall Cabinet	2 U

—PRE-FAB. GYPSUM INTERIOR PARTITIONS—

Pre-fab. Gyp. 3/8" Inter. Partitions F25	1,175 S
Pre-fab. Gyp. 1 1/2" Inter. Partitions F25	80 S

—GYPSUMBOARD CEIL. & WALL BOARDING—

Gypsumboard 1/2" T.J. Ceil. Boarding	1,215 S
Gypsumboard 1/2" T.J. Wall Boarding	1,020 S
Gypsumboard 1/2" Wall Lining	40 S

—WOOD & RESILIENT FLOORING & TILING—

Wood 3/4" Finish Flooring	1,005 S
Resilient Floor Tiling	85 S
Machine Finish Floor Sanding	1,005 S

—CERAMIC & MARBLE FLOOR & WALL TILE & SADDLES—

Ceramic Floor Tiling	55 S
Ceramic Wall Tiling	195 S
Marble 1"x3" Door Saddles	4 L

—METAL FINISH HARDWARE—

Metal Ext. Cylinder Locks	2 U
Metal Ext. Slid. Door Locks	1 U
Metal Interior Locks Sets	2 U
Metal Interior Latch	12 U
Metal Ester. Door Hinge Sets	2 U
Metal Inter. Door Hinge Sets	16 U
Metal Ester. Door Slid. Track Sets	1 U

—METAL & GLASS TOILET ROOM ACCESSORIES—

Metal & Glass 18x24" Medic. Cabinet	2 U
Chrome Metal Toilet Paper Holder	2 U
Chrome Metal Soap Holder	2 U
Chrome Metal Tumbler & T.B. Holder	2 U
Chrome Metal Soap Dish & Grab Bar	2 U
Chrome Metal Towel Bar	3 U
Chrome & Fabric 4'6" Shower Rod & Curtain	1 U

—PAINT EXT. & INT. FINISH—

Paint Int. Millwork 3 Coats	360 S
Paint Int. Doors 4 Coats	730 S
Paint Gyp'bd. Wall 2 Coats	3,490 S
Paint Gyp'bd. Ceiling 2 Coats	1,215 S
Paint Wood Floor 4 Coats	1,005 S
Paint Wood Sash 3 Coats	360 S

—PLUMBING SYSTEM & FIXTURES—

Water Service Connection & Piping	1 U
Sanitary Service Connection & Piping	1 U
Gas Service Connection Piping & Acc.	1 U
Gas Furnace Connection & Piping	1 U
Hose Bibb, Connection & Piping	1 U
Levatory, Piping & Accessories	2 U
Bath Tub, Piping & Accessories	1 U
Elec. H.W. Htr. Piping & Accessories	1 U

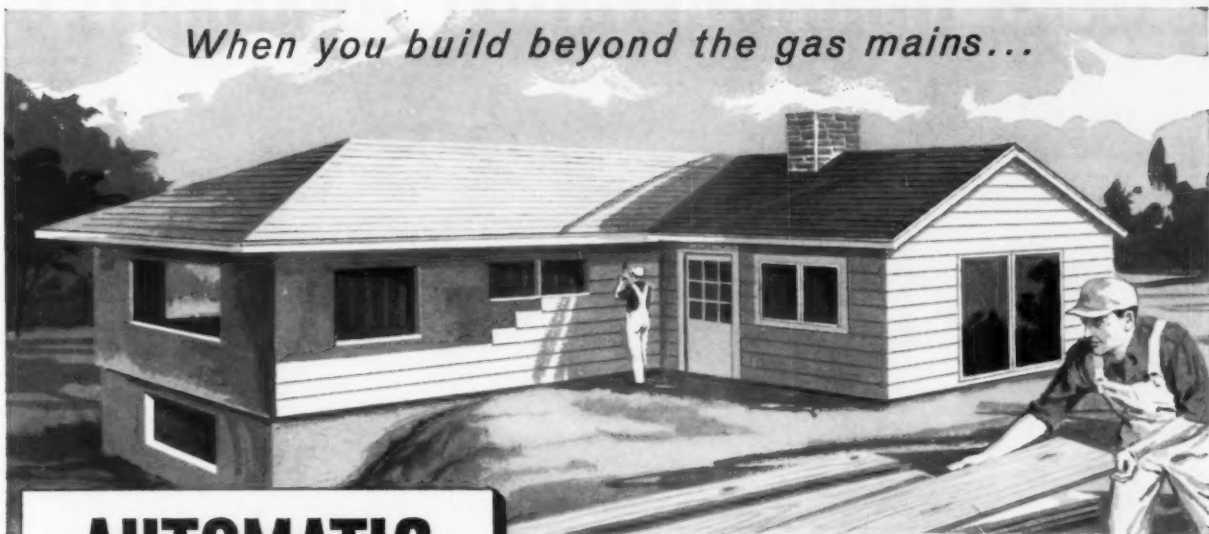
—HEATING SYSTEM & FIXTURES—

Gas Hot Air Furnace & Accessories	1 U
Galv. Metal 16x12" Ceil. Ducts	12 L
Galv. Metal 12"-d. Ceil. Ducts	5 L
Galv. Metal 10"-d. Ceil. Ducts	8 L
Galv. Metal 9"-d. Ceil. Ducts	3 L
Galv. Metal 8"-d. Ceil. Ducts	36 L
Galv. Metal 6"-d. Ceil. Ducts	64 L
Galv. Metal 12"-d. Duct Wye	1 U
Galv. Metal 10"-d. Duct Wye	1 U
Galv. Metal 9"-d. Duct Wye	1 U
Galv. Metal 8"-d. Duct Wye	4 U
Galv. Metal 9"-d. Duct Elbow	1 U
Galv. Metal 8"-d. Duct Elbow	2 U
Galv. Metal 6"-d. Duct Elbow	12 U
Galv. Metal 10x16" Ceil. Register	2 U
Galv. Metal Ceiling Register	9 U
Hot Air Temp. Control Equipment	1 U
Gas Hot Air Vent Stack & Connection	1 U

—ELECTRIC SYSTEM & FIXTURES—

Electric Service & Connection	1 U
Electric Service Panel & Switch	1 U
M.W. Heater Connection & Wiring	1 U
Gas Furnace Connection & Wiring	1 U
Elec. Range & Oven, Connection & Wiring	1 U
Elec. Refrig., Connection & Wiring	1 U
3-Way Switch Outlets & Wiring	10 U
Single Switch Outlets & Wiring	9 U
Conven. Recap. Outlets & Wiring	27 U
Light Outlets & Wiring	1 U
Entry P Butt. Outlets (Chime) & Wiring	1 U
Ceiling Fixtures & Bulbs	9 U
Wall Fixtures & Bulbs	2 U

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costs less to install

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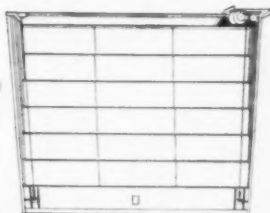
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LOWEST-PRICED

**ELECTRICALLY-OPERATED
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ON THE MARKET!**

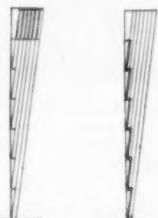
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Interior view of Panel-Lift door shows absence of overhead tracks, springs and counterweights.



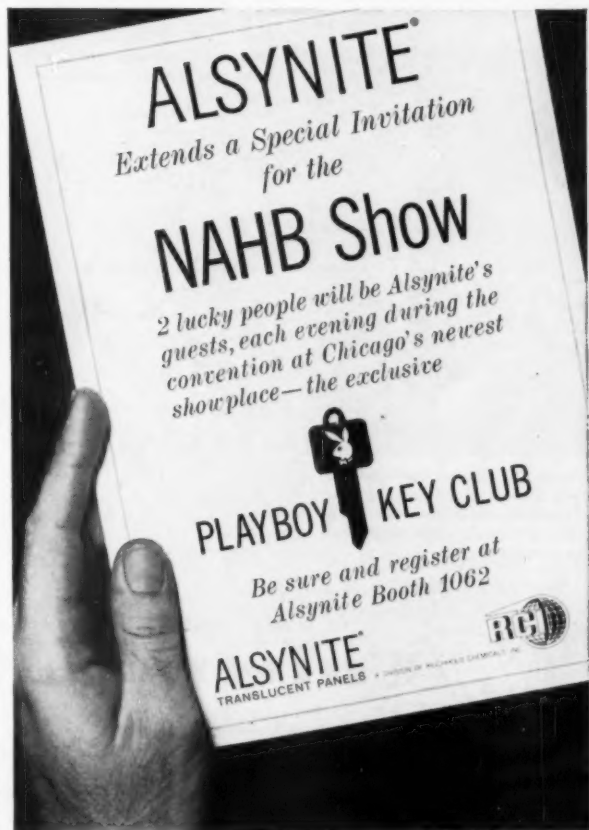
Door open. Panels nested above opening. Closed panels form weathertight seal.

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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., 727 River Road, New Castle, Pa.

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



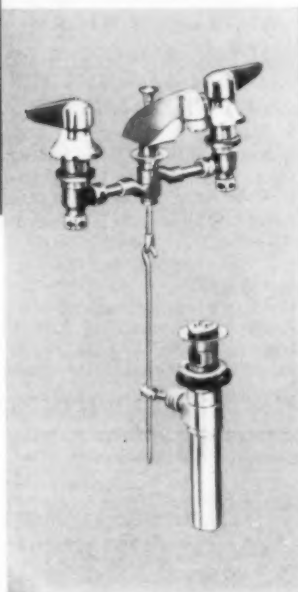
Automatic Diverter Bathtub Filler and Shower Combinations. New valve body simplifies shower and spout piping . . . adds longer life to installations.

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



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

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

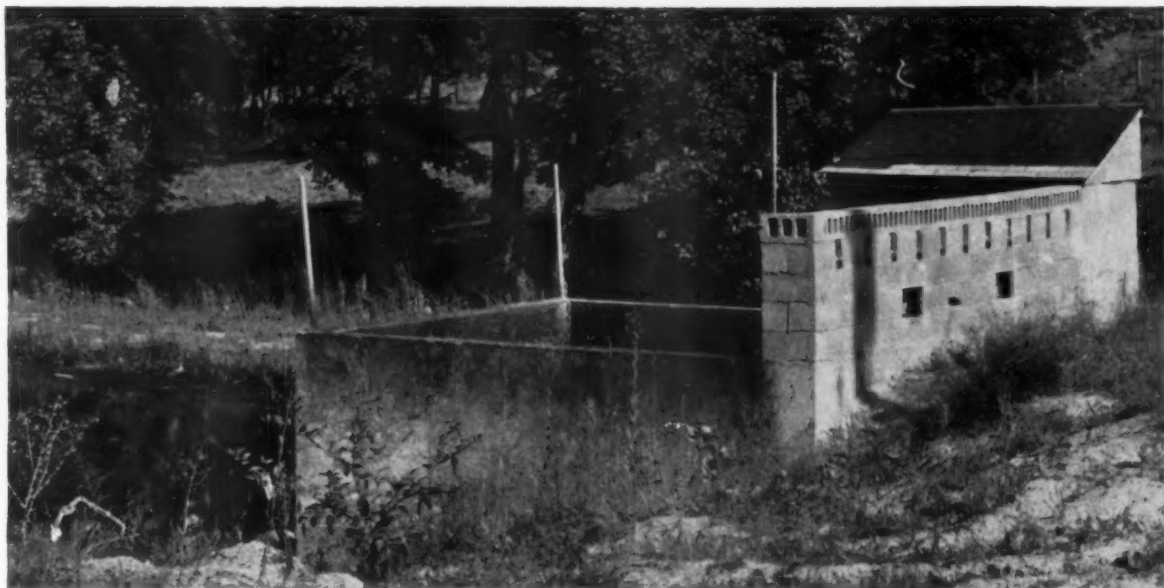


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Plants in Camden, New Jersey; New Castle, Pennsylvania; Redlands, California; Hondo, Texas. Export Sales: 115 Broad Street, New York, New York

See the Met-L-Pak in operation at the NAHB Exposition. Booth Nos. 1667—1668—1670



Kentucky builder's combination system handles sewage for slightly under \$100 per house

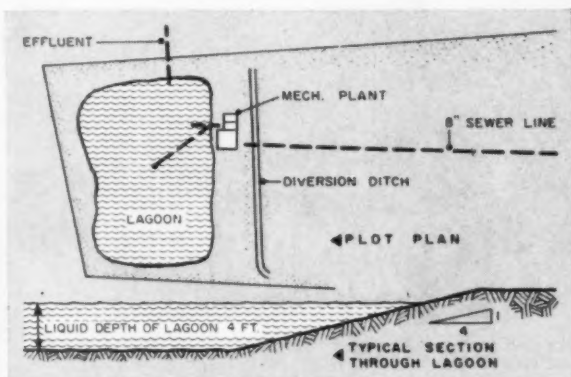
Simple, effective system consists of mechanical plant, right; aeration tank, center; and lagoon, left. Cost-cutting feature: raw sewage is treated before entering the sludge lagoon. Result:

savings for the builder because of smaller lagoon and settlement (aeration) basin. In addition, effluent is said to be 4 times purer than in conventional systems.



Builder Mikkelson kneels on settlement basin wall, part of small tract sewage system

Here's how system works: raw sewage is raised 2', sprayed into 14'x14'x14' aeration tank by 7,000 gph continuously-operating pump. (Basic pump is self-priming, centrifugal model, powered



by 1 hp, 1,750 rpm, 110 volt motor.) Pump pulls sewage from tank bottom, constantly re-aerates it. Waste then goes into 6'x8' settling basin, from there to 1/4 acre lagoon.

Small sewage system: \$100 a house

By combining a treatment plant and lagoon system in his 25 home suburban tract, Kentucky builder Nick Mikkelson built a low-cost sewage disposal system

"We built our system for less than \$2,500 and we expect it to be wholly adequate for our subdivision."

Speaking is Nick Mikkelson, northern Kentucky builder, who feels he has found the answer to

the sewage disposal problems faced by small residential builders. He uses a combination aeration (surface agitation type) system and a lagoon. Mikkelson says there's been no odor problem from either the tank or the lagoon.

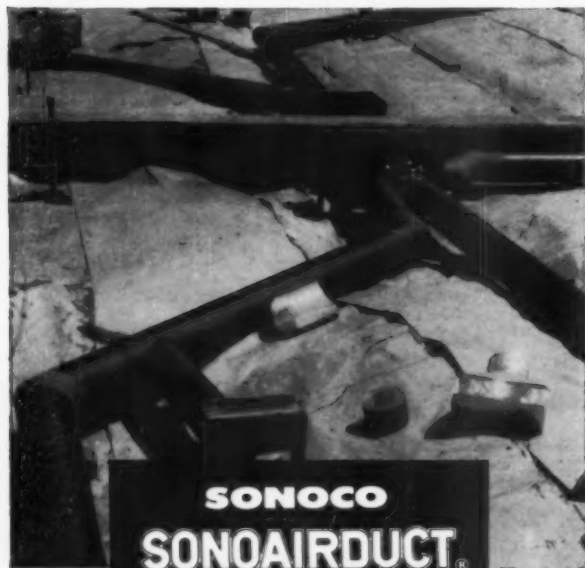
Maintaining the system requires a minimum of work. Each homeowner is required to pay only \$1.50 per month for upkeep. Here's what the system cost Mikkelson:

Mechanical plant	\$1,250
Pump, motor, piping	\$540
Concrete	\$400
Construction	\$100
Grading	\$200
Land (2/3 acre)	\$400

"That's slightly under \$100 per house," Mikkelson says.

extra economy

✓ for the contractor ✓ for the owner



SONOCO
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FIBRE DUCT

In slab perimeter heating, cooling, and combination systems, SONOAIRDUCT Fibre Duct means real economy for both contractors and owners... saves money before, during and after installation.

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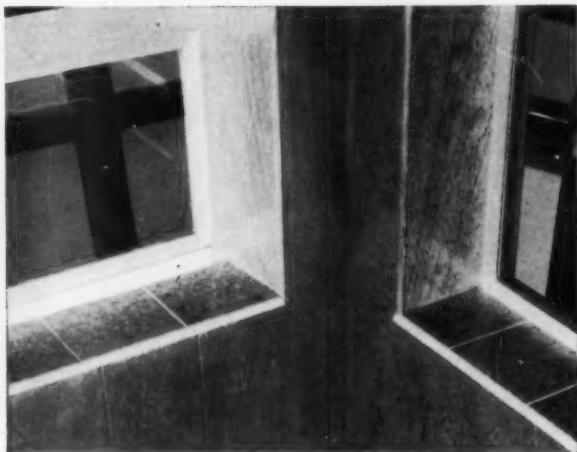
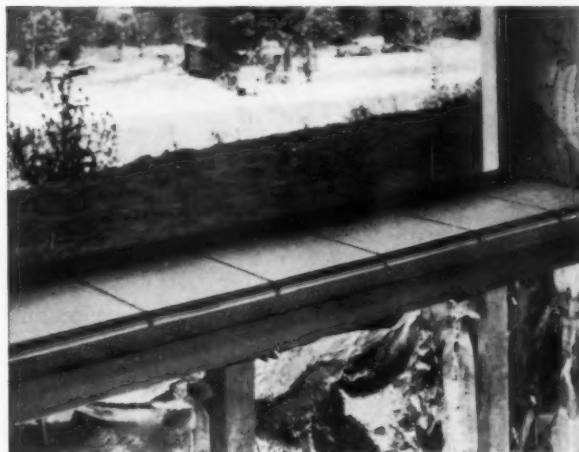
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BUILDING WITH BRAINS



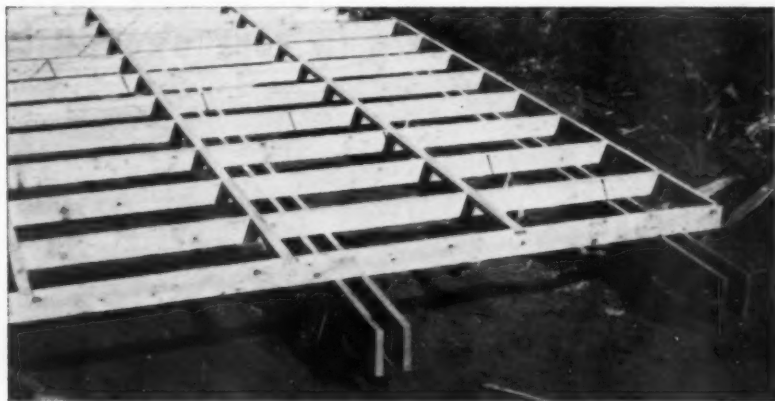
Washington Builder Substitutes Ceramic Tile for Wooden Window Sills

By using tile window sills instead of wood, builder Gordon Rogers, Mercer Island, Wash., finds he can add another mark of quality to his homes and save money, too.

Rogers' crews build the rough window frame (above, left) and the tile setters take over from there.

Specifications call for 6" quarry tile in the basement; 4" ceramic tile on sills upstairs. Both materials are the same price: 25¢ a running foot. Rogers figures that wood for the job, complete with cutting, fitting, and finishing would cost about 70¢ a running foot.

The builder also uses terrazzo floors in his homes. For a quantity of over 1,000 sq. ft., he gets price of \$1.60 a sq. ft. On this job, he uses 1½" of concrete over plastic film. The concrete costs 12¢ psf, making the total cost of the job \$1.72 psf.



Vacation Cabins Use Fast and Easy Floor System

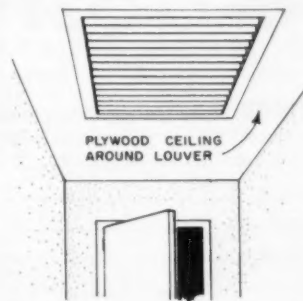
Because simplicity is needed to build vacation cabins in out-of-the-way locations, Lowell Duggan, head of Leisure Homes, Alameda, Calif., devised this system:

The 20' double girders are bolted to the post at the high end. A worker lifts the unfastened end of the girder until a transit operator signals it is level. Then it's fastened into position.

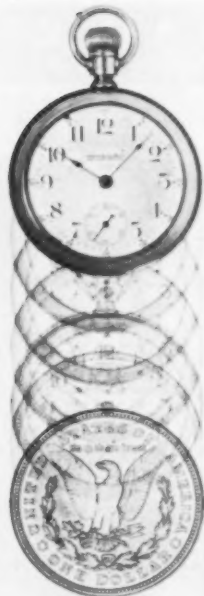
The skirt board is dadoed to receive the ends of the floor joists, thus avoiding measuring. Also, there are slots dadoed into the joists to take nailing slips for the plywood subfloor. All dadoes are cut at the mill to save time; 2x4 scrap is nailed to posts for more support. Floor then offers excellent working surface to assemble the rest of the cabin structure.

Plywood Ceiling Under Attic Fan Curbs Damage

Vibration produced by an attic fan could, in time, cause damage to the wallboard ceiling below it. To eliminate this possibility, builder H. Muller, Danboro, Pa., installs a fir plywood ceiling instead. When finished out with paint or wallpaper, the substitution can't be detected.



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INTO
MONEY**



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quality will sell in
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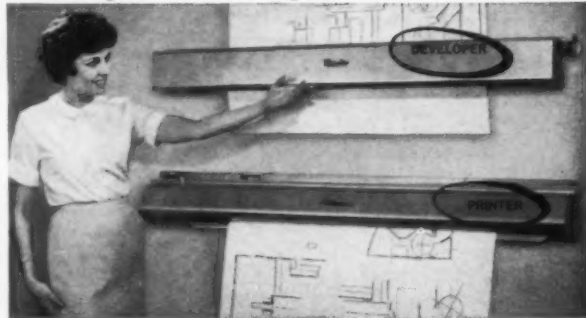
Spend just five minutes at your building materials dealers examining his Columbia-matic display model, and the total marketability of the folding door will be crystal clear. Installs in seconds, narrow, neat, with exclusive pantograph* mechanism, it is built to stand up to abuse. No complaints, no call-backs. Washable, fire retardant, highly styled, it comes in widths to 4 ft.—heights to 8 ft. Can be hung in pairs.

*Patent Pending

For complete details see your distributor, or write Dept. 1111

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Detroit Builder Solves Concrete Handling for High Foundation Walls

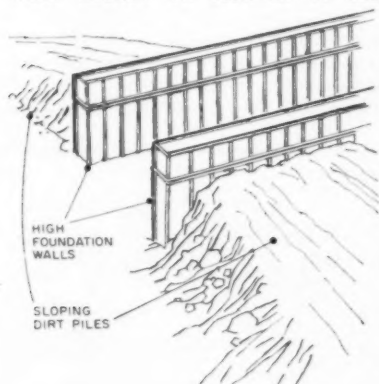
Building split-level houses on flat ground has its problems. One is the difficulty of handling wet concrete from the relatively high foundation walls needed on sections of the

multi-level structure.

Builder Harry Slatkin, Detroit, (Nankin Township) speeds the placement from the Ready-mix concrete trucks this way:

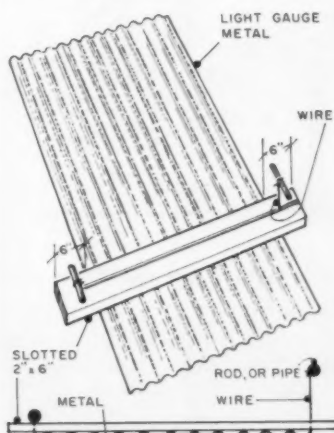
At the time the foundation excavation work is done, (photo and drawing) the excavator forms two sloping dirt piles front and back at the location where the high walls of the lower level occur. After the forms are set, the trucks can back up the dirt ramps and use chute extensions to dump the load into the foundation forms.

When the house is completed, (photo below) the sloping dirt piles are then leveled off and used as backfill and as fill for the lot, so the house sets on a flat yard.



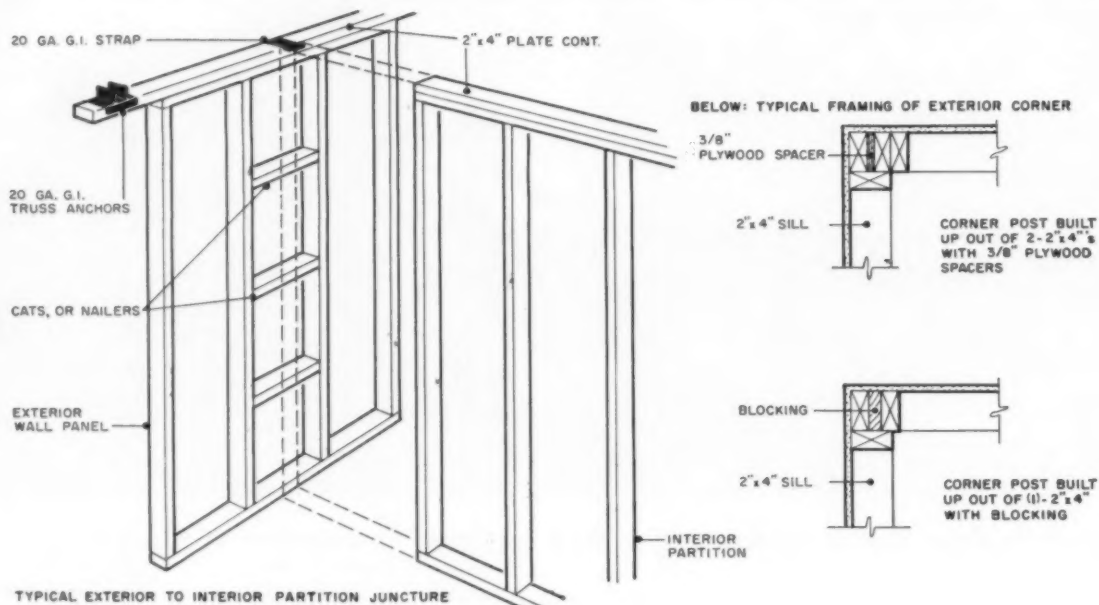
Ohio Builder Finds Easier Way To Cut Metal Roofing

Cutting corrugated metal roofing and other light-gauge metals, says builder Harry Mullen, Cleveland, is easier and faster by cutting a slot lengthwise in the center of a 2x6, a foot longer than the width of the metal. Then fasten wire to short lengths of rod or pipe.



The slotted board is placed over the line of cut (see drawing). Stand on one end of the board and pull on the opposite rod, with the wire underneath the metal, and it will shear it evenly and neatly, according to Mullen.

Ask the Experts



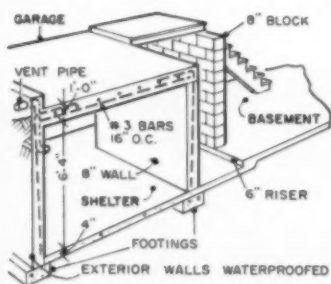
How to frame component corners and partitions

QUESTION: I'm thinking of using components in my houses. But two things puzzle me: how is an exterior corner framed; and how are interior partitions joined to the exterior walls?

Salt Lake City, Utah

ANSWER: The corner is framed separately, usually with two 2x4's and a spacer. Where a partition joins an exterior wall, cats are nailed between the two exterior studs and the partition is butted against them.

The Editors



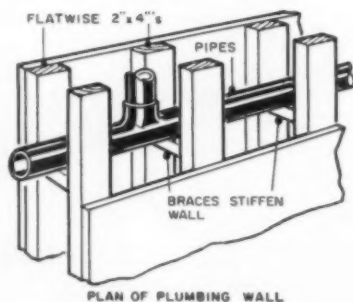
Shelter under garage floor

QUESTION: I'm thinking of putting fallout shelters in my houses. Is there any way to do this without reducing usable basement space?

Oswego, N. Y.

ANSWER: Why not put the shelter under the garage? Pour the garage floor 12" thick and reinforce it with $\frac{3}{8}$ " rods placed both ways on 10" centers to support the car's weight.

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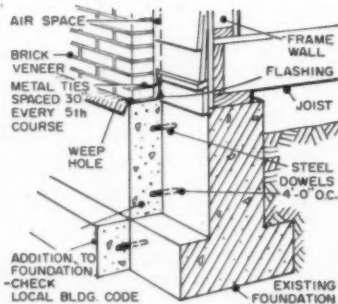
Plumbing wall simplified

QUESTION: I've heard there's a way to frame plumbing walls with 2x4's instead of 2x6's. If true, please show me how 2x4's will provide room for the plumbing.

Toledo, Ohio

ANSWER: It's simple. Nail the 2x4's flatwise and add stiffeners for rigidity. This creates a roomy chase that eliminates notching.

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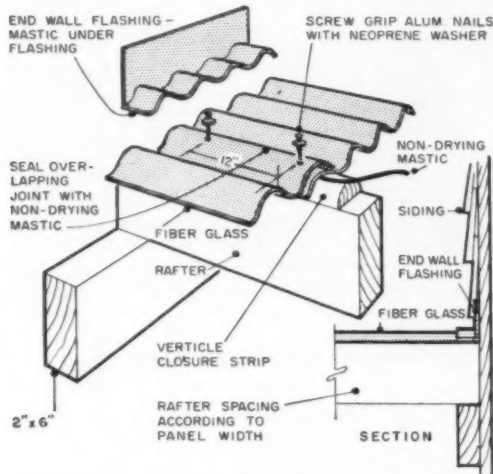
Support for brick veneer

QUESTION: I've been asked to put brick veneer over an old frame house. I would imagine this requires some alteration of the existing foundation. Can you tell me how?

Jamaica, N. Y.

ANSWER: To provide support for the brick, you must add to the existing foundation. A simple method is shown above.

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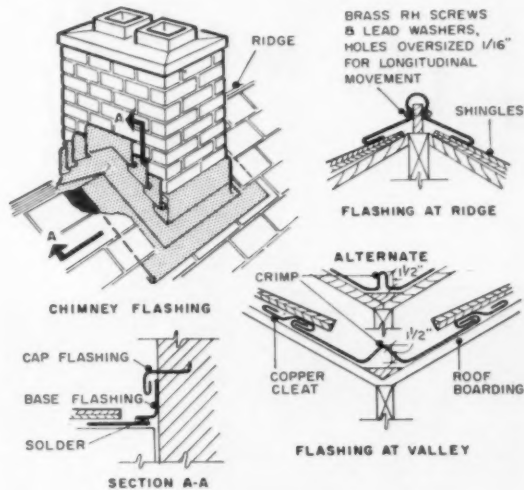
Tips on corrugated fiberglass

QUESTION: A house I'm remodeling is to have a 12x25' carport roofed with corrugated fiberglass sheets. Will 2x6 rafters be adequate? How should I handle the flashing where the carport meets the side of the house? How should the fiberglass panels be joined?

Modesto, Calif.

ANSWER: The 2x6 rafters are fine. Special flashing—flat on one side, corrugated on the other—is available. Join panels by overlapping them on half-round closure strips nailed to the rafters. Seal joints with mastic.

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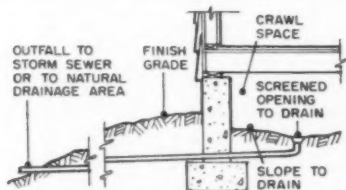
Expansion joints for flashing

QUESTION: Investigating a complaint about interior water stains, I found the flashing around the chimney had buckled away from the masonry. Can you explain this?

Rockford, Ill.

ANSWER: It seems likely that the flashing was installed without taking into consideration the settling of the chimney. These details show expansion joints that permit movement at the chimney, ridge and valley as the house settles, expands, or contracts.

The Editors



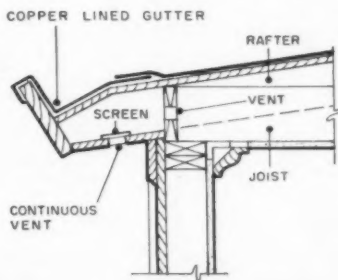
Eliminating water in crawl space

QUESTION: A house I built last year has been plagued with water accumulating in the crawl space. How can I remedy this condition?

Hartford, Conn.

ANSWER: Assuming the crawl space has an earth floor, the simplest method would be to raise the level of the soil by adding fill until it is above the exterior grade. A better method might be to provide a drainage system and slope the ground toward it as illustrated in this drawing taken from FHA booklet No. 300.

The Editors



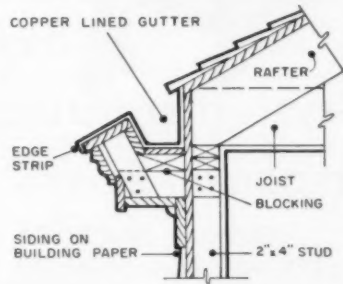
Built-in gutters are part of cornice structure

QUESTION: A customer insists on an old fashioned built-in gutter system. Can you give me some details?

Minneapolis, Minn.

ANSWER: A low-pitched roof poses no problem. The angled fascia board and sheathing form the gutter as in the drawing at left above. A steeper pitch will require more complex framing as shown at right. Sloping edge prevents damage from freezing.

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