Three roads to
THE FASTER HOUSE

...buy the package
...buy the parts
...make the parts

Plus a roundup of latest construction techniques

Components help George Arquilla and sons, Chicago, build a faster house... p. 58
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.
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!
Solid Quality at Lower Cost!

NuTone Select-a-Matic®

3000 Series Hood-Fan

NOW! ... THREE INTERCHANGEABLE POWER UNITS

DE LUXE STANDARD TWIN-BLOWER

*SELECT THE POWER UNIT + SELECT THE HOOD SIZE + SELECT THE HOOD FINISH

Write for Special Hood-Fan Literature
NUTONE, Inc. Dept. HF Cincinnati 27, Ohio
"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, 11¢/Be.

BELL TELEPHONE SYSTEM
Here Shadowal Block adds its special accent to a long unbroken wall.

THE WONDERFUL WIZARD OF WALLS: What looks like magic, is really quite simple. Shadowal Block has the pattern built right into the face of the block itself. Ingenious wall patterns, practical as they are beautiful, can be fashioned from just one basic unit. Need some help? Any NCMA member block producer can supply details. And Shadowal Block is available only through him.

NATIONAL CONCRETE MASONRY ASSOCIATION • 1015 WISCONSIN AVENUE, N.W. • WASHINGTON 7, D.C.
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
DOMINATE THE LOW-COST MARKET

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.

Inland's top quality is unequalled: 2" x 4" construction and the finest nationally advertised materials make the Buccaneer another outstanding Inland low-cost home.

INLAND HOMES CORPORATION • Executive Offices: Piqua, Ohio
Plants in Piqua, Ohio; Hanover, Pennsylvania; and Clinton, Iowa

RECOGNIZED LEADER IN LOW-COST HOMES
See us at The NAHB Show—Booth Nos. 1558-1559

INLAND HOMES BUILDER-DEALERS REPORT
RECORD SALES AHEAD! here's why:

- Most successful merchandising program and proven selling techniques in the industry.
- Liberal financial assistance from Inland Mortgage Corporation in all phases of financing.
- Faster service from 3 modern plants strategically located in a 25 state marketing area.
- The model you want. 133 distinctive designs with a large variety of floor plans. Colonial, Contemporary, Ranch, Swiss Chalet, French Provincial and Cape Cod models.

For proof and performance! Write, wire or phone (PR 3-7550) Neal B. Welch, Jr., Vice President-Sales, Department A-11, Piqua, Ohio.

Inland Homes Corporation
Plants in Piqua, Ohio; Hanover, Pennsylvania; and Clinton, Iowa

RECOGNIZED LEADER IN LOW-COST HOMES
See us at The NAHB Show—Booth Nos. 1558-1559

47 MILLION PROSPECTS
FOR INLAND'S NEWEST LOW-COST HOME

here's why

PRICED TO SELL AT $10,400 (including $2300 lot)
UNDER NEW FHA SEC. 221 AT $9700 (including $2000 lot)

Buccaneer American Ranch Design No. 2

© 1961—Inland Homes Corporation
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

Selling Ideas: Planning Your Houses for Stronger Sales Impact—Take some tips from realtor Jiggs Levin on what makes people buy. His firm sells more than $5,000,000 worth of houses every year ........................................... 16

Three Roads to the FASTER HOUSE:
MAKE THE PARTS ........................................ Burnside Construction Co. uses components for greater volume ........... 58
BUY THE PARTS .......................................... Pre-cut package slashes costs for Alcan Pacific Co. .................... 62
BUY THE PACKAGE ..................................... Stevens-Wood Co. sold 45 manufactured houses in 11 months .......... 64

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

Research House Benefits Builder and Buyer—AMERICAN BUILDER’s blueprint House of the Month is easy to erect and maintain. Studless partitions that cut both time and labor increase the flexibility of room arrangement .......................................................... 72

ROUNDUP OF FASTER HOUSE TECHNIQUES:
Q-JIG SYSTEM .................................. Revolutionary tool copies any house plan in one day ................. 80
LONG-SPAN COMPONENTS ............... Plywood roof units save $2 psf ........................................ 84
ON-SITE TRUSS ASSEMBLY ............. New method eliminates extra handling ............................ 86
FLOOR SYSTEMS ............................. A faster house from the floor up ................................. 86
VOID CONCRETE FORMS ................. System saves $75 a house on project ............................ 88
RIGID SCHEDULING ......................... Work schedule forms boost production ..................... 88

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

Small Sewage Disposal System—This combination treatment plant and lagoon system solves the costly problem of sewage disposal for small builders in suburban areas ........................................... 113

Departments
Opportunity ......... 5 New Products ........ 103
What's New .......... 11 Land Planning ....... 133
Opinion ............ 16 Building With Brains .... 135
Tomorrow's House ... 18 Ask The Experts .... 138
Regional News ...... 45 Advertiser's Index .... 141
Regional House ...... 46 Month Ahead ........ 142

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
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—weather 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.

*There's more saving* to you in cost of installation. Hacienda Siding comes in labor-saving extra-wide widths from 10" to 24". Small, top-grade Redwood pieces are electronically glued into panels to form any length needed. One side is smooth-surfaced, the other textured...either may be used. G-P Redwood Hacienda Siding is available in 3/4" thickness in Clear, All-Heart Vertical Grain or A or Btr, Mixed Grain. Matching batts are also available. Call your local G-P source or send coupon below, for further information.

Visit us at
NAHB Convention,
Booth 1253

GEORGIA-PACIFIC

Please send samples and details on Redwood Hacienda Siding.
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, Cannon 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.”
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

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.

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
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
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.

Installs Easily... Requires No Special Tools

For 1/4-, 1/8-, 3/8-, or 5/8-in. sliding panels of plywood, hardboard, perforated panels and glass.

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.

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.

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.

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

PERFECT DOOR ALIGNMENT

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

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

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

BUILDERS DEALERS
For quiet, efficient operation...

**OT-400 Reversible SLIDING DOOR HARDWARE**
with easy-to-install features!

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.

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

**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!

**OT-200 Overhead Type SLIDING DOOR HARDWARE**
For 3/4", 1 1/6" and 1 3/4" By-Passing Doors


**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.
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. 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.

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—but 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, drywalls 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 downpayment 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.
TOMORROW'S HOUSE

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

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

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

For literature and further information
write or call

ROBERTS MANUFACTURING COMPANY, CLEBURNE, TEXAS

Visit us at
BOOTHS
933-935
NAHB SHOW
CHICAGO

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.
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 3/4" 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'x14') 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.
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."

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!

Get the details at
PCA’s
BOOTH 1718
NAHB CONVENTION
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.

To INSURE PROFIT DEPEND ON Long-Bell PRODUCTS

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

INTERNATIONAL PAPER Long-Bell Division
A Quality Name in Forest Products

Longview, Washington • Kansas City, Missouri
An Air Force Base
Capehart housing project
with Gerber Plumbing Fixtures


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.

"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., Godfrey, Ala., West Delphi, Ind. • Export Div.: Gerber Int'l. Corp., 500 Green St., Woodbridge, N. J.
wood folding doors
set the scene for versatile living

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

PELLA ALSO MAKES WOOD FOLDING PARTITIONS, WOOD CASEMENT AND MULTIPURPOSE WINDOWS, ROLSCREENS AND WOOD SLIDING GLASS DOORS

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

ROLLSCREEN COMPANY, Dept. MB-53, Pella, Iowa
Please send me illustrated details on PELLA WOOD FOLDING DOORS by return mail.

NAME

FIRM NAME

ADDRESS

CITY & ZONE

STATE
WORLD’S FIRST AND ONLY POWER BLOCK PLANE!
NEW FROM PORTER-CABLE...NO OTHER PLANE DOES SO MUCH, SO WELL

Model 167 Power Block Plane...only $54.50
Compact, lightweight, fits in palm of one hand. Powerful heavy-duty motor and construction.


Write for folder and name of your nearest dealer.

Porter-Cable Machine Company
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.
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.

THIS COUPON ANSWERED WITHIN 24 HOURS

ROLSCREEN COMPANY, Dept. MB-54, Pella, Iowa
Please send details on PELLA WOOD TWINLITE WINDOWS and name of nearest PELLA distributor.

NAME
FIRM NAME
ADDRESS
CITY & ZONE
STATE

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

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

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

shows the way!
wonderful new application ease and flexibility!

LENNOX QC BUILDER-PAC
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-flo 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 1⅞ 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
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 2\(\frac{3}{4}\)" and 3\(\frac{3}{4}\)" 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.
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
MANUFACTURING CO., 924 W. STATE ST., HARTFORD, WIS.
Manufactured in Canada by Superior Electrics, Ltd., Pembroke, Ontario

*Satisﬁes HVI and FHA Requirements
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.
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**
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 control 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 fiberglass 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.
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 $\frac{3}{4}$ 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, Minnesota
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.

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 alongside 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.

Exacting 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.
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

Performance Certified

We certify that when properly installed and operated this Onan electric plant will deliver the full power and the voltage and frequency regulation promised by its nameplate and published specifications. This plant has undergone several hours of running-in and testing under realistic load conditions, in accordance with procedures certified by an independent testing laboratory.
“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 FORD MOTOR COMPANY
Moving ahead with fast-growing suburbs. As America’s exploding population expands into the suburbs, Curtis products are increas-
ingly in demand. Here, in a 600-home Omaha, Neb., suburban housing project, Curtis wood windows, doors and kitchen cabinets, pur-
chased 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—
ew 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 prog-
ress. Watch for others to follow!

Coming up—the new Curtis casement. Proud Curtis
employee shows the new Curtis casement, styled to en-
hance 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.
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.

<table>
<thead>
<tr>
<th>HEAT RESISTANCE RATINGS (R)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IBI RATED INSULATION BOARD SHEATHING (23/32 IN.)</td>
<td>R 2.86</td>
</tr>
<tr>
<td>IBI RATED INSULATION BOARD SHEATHING (1/2 IN.)</td>
<td>R 1.32</td>
</tr>
<tr>
<td>LUMBER (NOM. 1 IN.)</td>
<td>R 0.80</td>
</tr>
<tr>
<td>GYPSUM (1/2 IN.)</td>
<td>R 0.40</td>
</tr>
<tr>
<td>PLYWOOD (1/16 IN.)</td>
<td>R 0.30</td>
</tr>
</tbody>
</table>

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

IBI INSULATION BOARD INSTITUTE
111 West Washington St., Chicago 2, Illinois
Houston Builder Analyzes Impulse to Move

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

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

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

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 cabinet kitchen, fit flush into the wall, match cupboards, drawers.
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.

records for Texas builder

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.

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, 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 blacktop 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, dining 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 immeasurably 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. Bollinger-Martin, Inc. built it.
THE ULTIMATE IN HEATING COMFORT
DELUXE HYDRONIC HEATING SYSTEM USING ELECTRICAL ENERGY
AND DESIGN COMPETITIVE COST-WISE TO ANY HEATING SYSTEM

ABSOLUTE SIMPLICITY IN CONCEPT
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 ⅛ 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 ⅛ 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 AQUA-LECTRIC.

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 the 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 ⅛ of a degree regardless of sudden weather changes or other factors that determine heat demand with new AQUA-LECTRIC.
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 3/4 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—

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 ... 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 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.

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 32,540 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 3/4" copper tubing is needed for the fill system—with this same pipe used to carry off liquid expanded by heating to a small expansion tank which fits easily between the floor joists. The expansion tank, a reducing valve and relief valve combination, the baseboard units and the Master 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 available now for installation by authorized plumbing and heating contractors

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

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 ___________

5724 W. 36th Street
St. Louis Park, Minnesota
Retired buyers will take one out of every six houses, builder predicts

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 urges 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.

SIMLAR 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 $10,000,000 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 oldersters for rent alone—and this money goes to landlords in slum areas who pay very little in taxes.

ELECTRIC "MIRACLES" ON HORIZON. T. M. Mc Daniels, 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.
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.

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.
Add a 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.

WRITE FOR A.I.A. File No. 101 RM

THE ROBERTS CO. DEPT. 4076 AB
600 NORTH BALDWIN PARK BOULEVARD • CITY OF INDUSTRY, CALIFORNIA

Quality Products for Home & Industry for over 20 years
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.

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.

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.

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.

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

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.

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.

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.
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.
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.

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.
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 jobsite 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 6 1/2 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 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 corners 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.
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 Dondie (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 1/4" fir plywood. Setting girders, posts, subfloor takes 2 days.
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.

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 almost 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 prefabbed 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 21/2 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.
SPECIAL REPORT: HOME MANUFACTURERS

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...
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.
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’x26’ has three bedrooms and offers choice of slab, crawl space or full basement. 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 grillwork. 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, exbosed beam ceilings that follow the lines of roof gives interiors added illusion of size. Designs can be built on slab or with basements.
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 success 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 ½" 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
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. Openness 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.
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, facia 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, “Carrousel” 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'.
FASTER HOUSE TECHNIQUES THAT MAKE YOU MONEY

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 completed—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 $\frac{1}{4}''$.

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, 5-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.

NOVEMBER 1961
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 job 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 jig 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 length 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 9½'. It is framed for one 5-0 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 38" 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 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.

Panel 50-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.
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 30 x 64' 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 roof 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.
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 Swanner, 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.

---

NOVEMBER 1961 87
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

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

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.
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.

firm's secret to a faster house

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."

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%.
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.

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 buyers 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.
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 meetings 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.

2 1/2" 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 5 3/4" thick.

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

PLYLUMBER FLOORING of 7/8" plywood with bonded hardwood face.

LAMINATED LUMBER used as roof decks and walls—2 1/2" planks built up of three 1x6" boards bonded together to form interlocking units.

ROOF OF STYROFOAM PLASTIC and Gunite.

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 53/4" 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 21/2" 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.
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" studding.

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.

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.
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 stud—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.
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...
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

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

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

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

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

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

THE DOW CHEMICAL COMPANY
Midland, Michigan
the all-fuel 10-K by Metalbestos

with Lo-K, a revolutionary new insulation

- 2" of Lo-K insulation in 10-K has insulating value of 35" of brick.
- Chimney capacity increased 100% yet supports in standard framing.
- Lightweight. One-man installation.
- Exclusive TWIST-LOCK coupling — no screws, masonry or mastic.
- Simple 3-step installation for fast job-site assembly.

Galvanized steel outer pipe
New Lo-K insulation
Stainless steel inner pipe

The 10-K CHIMNEY is tested and listed by Underwriters' Laboratories, Inc.

METALBESTOS DIVISION
WILLIAM WALLACE COMPANY
BELMONT, CALIFORNIA

MANUFACTURING PLANTS IN BELMONT, CALIFORNIA - LOGAN, OHIO

ASK YOUR NEARBY METALBESTOS SALESMAN OR REPRESENTATIVE FOR ALL THE DETAILS; OR WRITE DEPT. C, P. O. Box 137, Belmont, California
IH tough and Diesel too!

...47 horsepower* on wheels or tracks

Now you can have Diesel engine lugging ability and fuel economy in a new size and price range. On wheels, it's the International* 340 Industrial tractor... on tracks, it's the TD-340, both with 47 maximum engine horsepower.

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

Heavy-duty engine construction plus built-in tractor brawn assure you a powerhouse on wheels or tracks that will give years of rugged, dependable service. You'll enjoy do-more performance entirely new to the industrial tractor field.

*Maximum engine horsepower corrected to standard conditions.

Big cash bonus
for trading now!

It will pay you to be an Early Trader!
See your International Tractor Dealer NOW. For a limited time you can get a cash payment at the rate of 6% on any trade-in and/or cash payment you make. You earn this bonus, payable immediately in cash, on any purchase totaling $500 or more. Your IH Dealer makes this offer so that he will have plenty of time to recondition your trade-in... See him NOW!
Here's Dexter's newest, broadest lockset line . . .
a durable, ruggedly built cylindrical lock produced in a full
range of functions. Includes a set for virtually every
requirement—from the entrance to the storeroom door—in residences, schools, hotels, office and commercial
buildings. Complete range of finishes, too. Plus a host of
Dexter Lifetime features that give you quality never before
available at Duralock's price.
Write for new color brochure.
Mounted displays available to Dexter dealers.
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 machine (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 Schaumberg, 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 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.
MORE SATISFIED HOME BUYERS

when you use

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 Leading Contractors
Sold by paint, hardware and building supply stores.

Sidewalk panels light up
Units are constructed of steel, use principle of "electroluminescence" to create lit sidewalk. Light source, called Panelesscent, produces glow over metal surface, is thin as a wafer, has no bulb, tube, filaments or cathodes. Lamps are set in aluminum tracs, are plastic-covered for waterproofing—Sylvania Electric Products. Circle No. N19, reply card.

Heavy-duty saw is light weight
Portable circular saw is powered by 1/4 hp gas engine, weighs 11 lbs. Tool is designed for farm and builder use. Called "C/Saw," it operates with 8" blade, with 2 1/4" depth of cut. Will run all day on one gallon of gas. Compact 2-cycle 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" x 12" or 12" x 24"; depth, 5/8", 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—fire spread 10-23.—Simpson Timber Co. Circle No. N24, reply card.

CASINGS INCORPORATED
MANUFACTURING EXPERTS AND SPECIALISTS

ROLL FORMED METAL PRODUCTS
STANDARD & SPECIAL REQUIREMENTS

Plaster Guard
Edge Guard
Corner Guard

CASING AND CORNER BEADS
BASE SCREEDS

Regular and Expanded
Immediate Shipments
Coast to Coast Warehouse Stocks
Write for Catalog of Complete Line

CASINGS INC.
2408 N. FARWELL AVE., MILWAUKEE 11, WIS.
SPECIFY ATLAS WHITE... the uniform white portland cement preferred by builders and contractors. The whiteness of this cement will bring out the true tones of colored aggregates and coloring pigments. Use it for terrazzo, precast concrete panels, cast stone, stucco, masonry mortar and for setting and grouting ceramic tile. Also for colored or white concrete projects such as patios, posts, benches, flagstones, swimming pools, sidewalks. It is non-staining, too... a must in mortar mixes for backing, setting and pointing limestone units. Available in regular, air-entraining and waterproofed types. Complies with ASTM and Federal Specifications. See your building supply dealer or write: Universal Atlas Cement, 100 Park Ave., N.Y. 17, N.Y.
DON'T WASTE HEAT ON THE UPSTAIRS CAT

EDWARDS ZONE CONTROL SAVES UP TO 30% IN FUEL COSTS

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.

Write: Dept AB-11 Edwards Engineering Corp. Pompton Plains, N. J.
You can shop by postcard in
American Builder’s Supermarket

Help yourself ... to the wide variety of manufacturer’s literature shown on the pages ahead. You don’t have to write, just circle the numbers on one of the cards below. Then drop the card in the mail (no stamp needed). AMERICAN BUILDER will forward your request to each manufacturer and he’ll send you complete data, free of charge. So ... get out your pencil and help yourself.

American Builder
Reader Service
★★ NOVEMBER 1961

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME (Please print)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRM NAME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TITLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STREET</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PLEASE CHECK YOUR FIELD OR OCCUPATION

- Builder or Contractor
- Sub-Contractor or Building Trades
- Building or Planning
- Own Home
- Producer
- Distributor
- Architectural
- Engineering
- Manufacturer or
- Government
- Organization
- Reality
- Student or Teacher

- ENTER (RENEW) MY AMERICAN BUILDER SUBSCRIPTION FOR 1 YEAR FOR $3.50
- Check enclosed
- No
- Bill Me

Signature

American Builder
Reader Service
★★ NOVEMBER 1961

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME (Please print)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRM NAME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TITLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STREET</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PLEASE CHECK YOUR FIELD OR OCCUPATION

- Builder or Contractor
- Sub-Contractor or Building Trades
- Building or Planning
- Own Home
- Producer
- Distributor
- Architectural
- Engineering
- Manufacturer or
- Government
- Organization
- Reality
- Student or Teacher

- ENTER (RENEW) MY AMERICAN BUILDER SUBSCRIPTION FOR 1 YEAR FOR $3.50
- Check enclosed
- No
- Bill Me

Signature

Just circle the numbers at right and you'll receive the information you want FREE from the manufacturers.

NAME (Please print)
FIRM NAME
STREET
CITY
ZONE
STATE

PLEASE CHECK YOUR FIELD OR OCCUPATION

- Builder or Contractor
- Sub-Contractor or Building Trades
- Building or Planning
- Own Home
- Producer
- Distributor
- Architectural
- Engineering
- Manufacturer or
- Government
- Organization
- Reality
- Student or Teacher

- ENTER (RENEW) MY AMERICAN BUILDER SUBSCRIPTION FOR 1 YEAR FOR $3.50
- Check enclosed
- No
- Bill Me

Signature

NAME (Please print)
FIRM NAME
STREET
CITY
ZONE
STATE

PLEASE CHECK YOUR FIELD OR OCCUPATION

- Builder or Contractor
- Sub-Contractor or Building Trades
- Building or Planning
- Own Home
- Producer
- Distributor
- Architectural
- Engineering
- Manufacturer or
- Government
- Organization
- Reality
- Student or Teacher

- ENTER (RENEW) MY AMERICAN BUILDER SUBSCRIPTION FOR 1 YEAR FOR $3.50
- Check enclosed
- No
- Bill Me

Signature
Mail one of these postcards today to get free product information. Service on November reply cards expires February 1, 1962.
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
YOUR best way to better building contracts is to find more new jobs to pick from ... then concentrate on those you want to handle ... when and where you want them. How? With daily Dodge Reports!!

DODGE REPORTS are individual building project reports. They're mailed to you daily. You get REPORTS on just the types of building you're interested in—in the area where you do business. They tell who's going to build what and where ... whom to see ... when bids are wanted ... who else is bidding ... who gets which awards.

When you use DODGE REPORTS, you always know what's coming up. You don't depend only on invitations to bid. You concentrate on jobs you know will be profitable.

If you do business anywhere in the 37 Eastern states, you need DODGE REPORTS.

SEND FOR THIS FREE BOOK

F. W. Dodge Corporation, Construction News Division
119 West 40th Street, New York 18, N.Y., Dept. AB-111

Send me the book: "How General Contractors Get More Business in New Construction" and let me see some typical Dodge Reports for my area. I am interested in the general markets checked below.

□ House Construction □ General Building
□ Engineering Projects (Heavy Construction)

Area ____________________________________________________________

Name ___________________________________________________________

Company _________________________________________________________

Address _________________________________________________________

City __________________________ Zone ______ State

112 AMERICAN BUILDER
New "Brushed Finish"

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.

Local, regional and national cabinet manufacturers are finding that they can now provide you the many plus advantages of Formica V-32 material at prices no higher than wood.

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.
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.
Hydrotherms pass through standard doors, take little floor space, are simple and easy to install. Uniquely engineered horizontal boiler sections mean maximum fuel savings. And Hydrotherms are guaranteed for 25 years.

WRITE FOR BULLETIN #HY-F100 TODAY!
Also available: Packaged Hydrotherms, factory assembled with all hydronic accessories for even greater installation saving... and for heavy duty industrial applications (capacities from 360,000 to 3,600,000 BTU/Hr) ask about Hydrotherm MULTI-TEMPs.

WRITE FOR BULLETIN #HY-F100 TODAY!
Also available: Packaged Hydrotherms, factory assembled with all hydronic accessories for even greater installation saving... and for heavy duty industrial applications (capacities from 360,000 to 3,600,000 BTU/Hr) ask about Hydrotherm MULTI-TEMPs.
"Jobs worth $4500 and more have come to us through the Yellow Pages!"

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

"We average 15 calls a week for sizable jobs. A good share of these come from our Yellow Pages advertising."

"When I'm out on a job in another town, I use the Yellow Pages for sources of supply and local labor."

"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."
HIPP AND REIMER
Dramatize Quality That Buyers Can Appreciate
To Sell Homes In Minneapolis

Richard Reimer, realtor, tots 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—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 $117.80 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

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, 52 1/2”; width, 26 1/2”; length, 48 1/2” (closed—40”); 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 48” x 120”, is 1/32” thick, transmits 50% of average daylight, 92% 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 15” 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 lightweight pumice aggregates is ideal for remodeling interiors, exteriors. Can go over plasterboard, cement, concrete or cinder block, any sheathing, stucco, brick, steel, plaster. Correct alignment, masonry quality is provided by stainless steel hangers fastened to original siding or wall.—Meridian Brick Co. Circle No. N35, 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!

Par-TILE—9" x 9" x 3/8" tongue and grooved blocks are designed for QUICK and EASY installation.
Par-TILE—prefinished—ready to walk on.
Par-TILE—real wood finished in Natural or Walnut wood tones—complements any color or decor.
Par-TILE—spot and stain resistant—easy to maintain—women love it.
Par-TILE—warm and beautiful . . . a quiet floor because of its exclusive Flexo-Grid (pat. pend.) back.
Par-TILE—dent and mar resistant . . . no expensive refinishing after brutal open house traffic.

INCREASE CUSTOMER SATISFACTION—REDUCE COSTLY CALL BACKS WITH A QUALITY FLOOR . . . Par-TILE HAS IT!

CHECK YOUR LOCAL FHA OFFICE AND REFER TO MATERIALS RELEASE NO. 289
Featured in SWEET’S Light Construction Catalog 84 and Architectural Catalog 14

Par-TILE
FORREST WOOD BLOCK FLOORING
P. O. Box 79 • Dillard, Oregon
Phone Osborne 9-8781 • TWX-RS-8054U

☐ Send name of your nearest Par-TILE distributor
☐ Send full information and sales literature

Name __________________________ Title __________________________
Firm __________________________
Address __________________________
City ________ Zone ________ State ________

NOVEMBER 1961
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. N32, reply card.

LARGE-BORE BIT is effectively presented in pull-out mailing piece. Drawings show drill body, plain and screw pilots, cutter and spur blades, 1/2", 1/4" drivers, 6" driver extension. Includes price list and order blank.—Time Saver Tools. Circle No. N31, reply card.

GARBAGE DISPOSER is covered in four-color, illustrated brochure. Detailed installation specs.—Waste King. Circle No. N33, 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 1/4" to 8" 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, monolite, 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 drywall interior finish. Cuts layout time, offers more design flexibility, ends 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. N33, reply card.

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-Coupe Corp. Circle No. N46, reply card.

SEISMIC TIMER, used for locating hard-pan, 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.

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 combinations.—Smith & Loveless. Circle No. N47, reply card.

SUBFLOOR preparation for installation of rubber and 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 cove.—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 wheelbases from 86" to 120", feature low-profile, envelope-type styling which combines frame and body in one-piece construction.—Towmotor Corp. Circle No. N63, 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 & Senibower. Circle No. N61, 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.

LATCH COMPONENTS: single, double spring bolts, auxiliary dead-locks, drive-in latches, face plates and strikes are pre- sented in one-page folder. Given installation data including types of routers and sizes to use.—Haske Products Corp. Circle No. N59, 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 all resistant applications.—Plymouth Rubber Co. Circle No. N62, 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.

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.

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

Name

Address

City Zone State Phone

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

AR-11-63
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.
put Lawyers Title's "SECURE HOMES" program on your sales team.

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

We tell builders... "quality should start before construction—at the title to the land... a sound title is the first ingredient of a quality-built home." They agree!

Lawyers Title Insurance Corporation

IT SELLS HOMES!

They agree, too, a sound title is also a prime selling point. So, more and more of them are putting Lawyers Title's "SECURE HOMES" program on their sales team.

Designed especially for builders, our "SECURE HOMES" program will help you sell, too. It's available—NOW! For complete details, MAIL THE COUPON TODAY.
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

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), 5015 North Pulaski Road, Chicago 46, Illinois. Or, Kinkead Industries, Incorporated, 5250 West 102nd Street, Los Angeles 45, California.
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 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 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... 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 ...BECAUSE OF Hydronics*

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.

*The science of heating and cooling with water

SEND FOR YOUR COPY TODAY!

Hydro-Flo® SYSTEM
Bell & Gossett Company
Dept. GW-11 Morton Grove, Illinois

Canadian Licensee: S. A. Armstrong, Ltd., 1400 O’Connor Drive, Toronto 16, Ontario

November 1961
See how you can cut costs 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.

Model 1089

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.

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.

At Booth 731-2
N.A.H.B. Show
Chicago
December 3-7

“IN-THE-WALL” 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.

Twin cast iron burners with milled slots have 100% safety control.

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 Lumberman'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. Given 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 color 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.
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.
YOU OWE IT TO YOURSELF TO
SEND FOR THIS FREE BOOKLET TODAY!

"HOW TO CUT TRUCK OPERATING COSTS IN THE BUILDING INDUSTRY"

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.

Fill out, clip and mail the coupon below. Do it right now, before you turn the page. This simple act may help you to substantially increase your operating profits!

Studebaker trucks are designed by truck engineers, built in a truck factory with components conforming to truck specifications. The '62 Studebaker line includes ½-ton and ¾-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.

TRUCK ECONOMICS ENGINEER, South Bend 27, Indiana

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 4’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. N34, 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, ¼” space, ¾” 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.

HI-FI MUSIC WALL and how to build it is carefully detailed in 34-page booklet. Takes remodeler through 43 steps necessary to set up wall which is designed to hold book shelves, cabinets, TV and hi-fi set. Complete materials list. Cost: $66. 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 9½”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.

Catalogs at Cost
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 weather 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.
An invaluable guide to selection of the proper system of packaged systems covering 80% of all master TV installations. A basic principle of master TV installations is to increase your know-how and handy slide-rule for DB to voltage conversion; calculate distribution system losses.

Chromalox Electric Heat

"We build about 60 homes a year... and since featuring All-Electric Homes, we sold 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." says R. 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 usable 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.
NEW... Revolutionary... COST SAVING

An entirely new product... for use wherever plywood (or other sheeting material) is fastened to lumber. It opens up entirely new areas in pre-fabricated products. For this latest forward step in the forward-looking building components field... see Gang-Nail's amazing new wood connector... at the NRLDA or NAHB show... or contact us on your letterhead.

Automated Building Components, Inc.
(Formerly Gang-Nail Sales Co., Inc.)

P.O. Box 47-836 Miami, Fla. Area Code 305 OX 6-0930
Here’s a warm welcome for NEW HOME BUYERS! These all new FORD SPLIT-FOYER HOMES bring an important new look . . . new livability . . . increased spaciousness to new home prospects, and a greater-than-ever profit opportunity for builders and developers!

This is a style home buyers will like. And they’ll appreciate the solid value and savings Ford engineering makes possible.

**FORD’S BUILT-IN SALEABILITY MAKES ‘THE DIFFERENCE’!**

- **FORD** Homes go up quickly . . . are ready for decorating 24 hours after delivery.
- **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.
- **FORD** builds with famous brand materials, equipment and components throughout.
- **FORD** builds in “re-sale insurance” with advanced wiring designed for appliances and services of today — and tomorrow.

Dealers: Build your plans around FORD! Inquire about the aggressive merchandising assistance that’s yours in the new Ford Cooperative Advertising Program.

For Catalog and details, write on your letterhead to Dept. AB.

---

**Estimating Takeoff List**

continued from page 128

- **Asbestos 1”x6” Roof Fascia** 185 8
- **Wood 1”x4” Wall Base** 330 8
- **Wood 1”x3” Shelf Corners** 75 8
- **Asbestos 1”x3” Wall Trim** 375 8
- **Asbestos 1”x3” Ceiling** 250 8
- **Wood 3/4” x 1” Base Molding** 200 8
- **Wood 1”x6” Floor Base** 100 8
- **Wood 1”x3” Wall Trim** 125 8
- **Wood 6”x6” Flower Box** 32 8
- **Wood 6”x3” Flower Box Brackets** 75 8
- **Wood 6”x3” skirt, Bar** 2 8
- **Wood Pre-fin. 3”x2” Base Cabinet** 1 8
- **Wood Pre-fin. 3”x2”x3” Sink Cabinet** 1 8
- **Wood Pre-fin. 3”x2”x3” Wall Cabinet** 2 8
- **Wood Pre-fin. 2”x2”x3” Wall Cabinet** 1 8
- **Wood Pre-fin. 1”x2”x3” Wall Cabinet** 2 8
- **Wood Pre-fin. 1”x2”x3” Wall Cabinet** 1 8
- **Wood Pre-fin. 1”x2”x3” Wall Cabinet** 2 8

--**PRE-FAB. GYPSUM INTERIOR PARTITIONS**--

- **Pre-fab. Gyp. 11”x11” Partitions** 1,175 8
- **Pre-fab. Gyp. 12”x12” Partitions** 80 8

--**GYPSUMBOARD CELL & WALL BOARDING**--

- **Gypsumboard 1/2” T,J. Wall Boarding** 1,215 5
- **Gypsumboard 1/2” T,J. Wall Boarding** 1,020 5

--**WOOD & RESILIENT FLOORING & TILING**--

- **Wood 12”x12” Finish Flooring** 1,005 5
- **Resilient Floor Tiling** 1,005 5
- **Machine Finish Floor Sanding** 1,005 5

--**CERAMIC & MARBLE FLOOR & WALL TILE & SADDLES**--

- **Ceramic Floor Tiling** 55 5
- **Ceramic Wall Tiling** 195 5
- **Marble 1”x1” Door Saddles** 4 5

--**METAL FINISH HARDWARE**--

- **Metal Ext. Cylinder Locks** 2 5
- **Metal Ext. Slid. Door Locks** 1 5
- **Metal Interior Locks** 2 5
- **Metal Interior Latch** 12 8
- **Metal Ext. Door Hinge Sets** 2 5
- **Metal Inter. Door Hinge Sets** 16 5
- **Metal Ext. Door Slid. Track Sets** 8 5

--**METAL & GLASS TOILET ROOM ACCESSORIES**--

- **Metal & Glass 18x24” Medic. Cabinet** 2 5
- **Chrome Metal Toilet Paper Holder** 3 5
- **Chrome Metal Soap Holder** 2 5
- **Chrome Metal Towel Bar** 3 5
- **Chrome & Fabric 4’x6” Shower Rod & Curtain** 1 5

--**PAINT EXT. & INT. FINISH**--

- **Paint Int. Millwork 3 Coats** 360 5
- **Paint Tint. Doors 4 Coats** 730 5
- **Paint Gyp’bd. Wall 2 Coats** 3,490 8
- **Paint Gyp’bd. Ceiling 2 Coats** 1,215 8
- **Paint Wood Floor 4 Coats** 1,005 5
- **Paint Wood Sash 3 Coats** 360 5

--**PLUMBING SYSTEM & FIXTURES**--

- **Water Service Connection & Piping** 1 5
- **Sanitary Service Connection & Piping** 1 5
- **Gas Service Connection Piping & Accessories** 1 5
- **Gas Furnace Connection & Piping** 1 5
- **H.V.A.C. Equipment, Connection & Piping** 1 5
- **Lev-Venting, Piping & Accessories** 2 5
- **Bath Tub, Piping & Accessories** 1 5
- **Elec. H.W. Htr, Piping & Accessories** 1 5

--**HEATING SYSTEM & FIXTURES**--

- **Gas Hot Air Furnace & Accessories** 1 5
- **Galv. Metal 16x12” Ceiling Duct** 12 5
- **Galv. Metal 12”x12” Ceiling Duct** 8 5
- **Galv. Metal 9”x9” Ceiling Duct** 6 5
- **Galv. Metal 8”x8” Ceiling Duct** 4 5
- **Galv. Metal 6”x6” Ceiling Duct** 4 5
- **Galv. Metal 5”x5” Ceiling Duct** 3 5
- **Galv. Metal 2”x2” Ceiling Duct** 2 5
- **Galv. Metal 4”x4” Ceiling Duct** 2 5
- **Galv. Metal 10x16” Ceiling Register** 2 5
- **Galv. Metal Ceiling Register** 9 5
- **Hot Air Temp. Control Equipment** 1 5
- **Gas Hot Air Vent Stack & Connection** 1 5

--**ELECTRIC SYSTEM & FIXTURES**--

- **Electric Service & Connection** 1 5
- **Electric Service Panel & Switch** 1 5
- **H.V.A.C. Equipment, Connection & Piping** 1 5
- **Gas Furnace Connection & Piping** 1 5
- **Elec. Range & Oven, Connection & Wiring** 1 5
- **Elec. Range & Oven, Connection & Wiring** 1 5
- **Elec. Range & Oven, Connection & Wiring** 1 5
- **3-Way Switch Outlets & Wiring** 1 5
- **Single Switch Outlets & Wiring** 1 5
- **Conver. Range, Outlets & Wiring** 1 5
- **Light Outlets & Wiring** 1 5
- **Door Bell Outlets & Wiring** 1 5
- **AV Outlets & Wiring** 1 5
- **Wall Fixtures & Bulbs** 1 5

--**AMERICAN BUILDER**--

Manufacturing Franchises Available in Some Areas

IVON R. FORD INC., McDonough, N.Y.
Whenever you build beyond the gas mains, LP-Gas is better for the builder. LP-Gas costs less to install. There's no expensive extra insulation. No special construction. And LP-Gas is the fuel preferred for automatic cooking and home heating. Clothes drying, water heating are fast, automatic, easy on the homeowner's budget. Before you build, take a new look at LP-Gas, the modern automatic fuel for suburb and country. For detailed information, write LP-Gas Council, 1515 Chicago Avenue, Evanston, Illinois.

Amazing New Design makes PANEL-LIFT the LOWEST-PRICED ELECTRICALLY-OPERATED ALL-STEEL GARAGE-DOOR ON THE MARKET!

- Elimination of costly, space-wasting, hard-to-install overhead tracks, springs and counterweights reduces initial cost of Panel-Lift Doors and slashes installation and maintenance costs.

Sturdy steel panels glide up and down smoothly and quietly in heavy-gauge steel side-guides. Panels nest compactly above opening when door is open; provide weathertight seal when door is closed.

For residential or industrial installations you can't beat an automatic, all-steel Panel-Lift Door.

For details and specifications, write PANEL-LIFT DOOR CORPORATION, 1724 Chestnut Street, Philadelphia, PA. Address Dept. A-1161.
5 YEAR UNCONDITIONAL GUARANTEE

New Met-L-Pak®
by
Universal-Rundle

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

Check all the dependable features of this outstanding new unit: A—Extra deep broaching assures secure handle grip. B—Locking lugs provide positive positioning of cartridge. C—Roll-pin stop assures handles shut off in same position. D—Entire unit is sealed with permanent "O" ring. E—Stem is completely isolated from water eliminating possible corrosion. F & G—Precision-honed and matched plates are designed for longer life and maintenance-free service. H—A compression "O" ring seals against line pressure. Lastly, MET-L-PAK can be installed quickly without special tools. For details, write Universal-Rundle Corp., 727 River Road, New Castle, Pa.

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

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

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

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

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

THE WORLD'S FINEST PLUMBING FIXTURES FOR OVER 60 YEARS

Universal-Rundle

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

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.

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.

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

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 ........ $450
- Concrete .................... $400
- Construction ................. $100
- Grading ........................ $200
- Land (2/3 acre) ............... $400

"That's slightly under $100 per house," Mikkelson says.

NOVEMBER 1961
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.

First, SONOAIRDUCT is a quality product... proved in thousands of installations. And, it meets or exceeds all F.H.A. criteria and test requirements for products in this category.

Second, SONOAIRDUCT saves installation time and labor. It is lightweight for easy handling and leveling, and long lengths mean fewer joints. It can be quickly cut to length or mitered with a handsaw - right at the job. And, it won't chip, crack or break when dropped.

SONOAIRDUCT saves on fuel, too. The aluminum foil lining and thick fibre wall combine to provide minimum air flow resistance and a very low B. T. U. loss ratio.

On slab perimeter jobs, specify... buy SONOAIRDUCT - the original Fibre Duct. In 23 sizes - 2" to 36" I.D., standard 18' lengths.

See our catalog in Sweet's
For complete information, prices, and FREE installation manual, write

SONOCO
Construction Products

See all the new products! Get lots of new profit ideas! Listen to panel discussions and talks by experts on such vital matters as new construction techniques, remodeling, the 1961 Housing Act, and sound merchandising methods! Hear the latest news on financing and other facets of your business!

There'll be more exhibitors than ever before - more than 1,000 displays! And, for your added convenience, everything is under one roof at the world's finest, most glamorous exhibit area - McCormick Place!

It will be the biggest show yet, so register now: $15 for men, $10 for women. For advance registration and hotel reservations, contact your local NAHB office, or write to the address below.

NATIONAL ASSOCIATION OF HOME BUILDERS
140 South Dearborn Street
Chicago 3, Illinois
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.

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 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 1 1/2” of concrete over plastic film. The concrete costs 12¢ psf, making the total cost of the job $1.72 psf.

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.

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 dados 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.
2-way radio helps increase business efficiency, makes the most of man power, gets most out of every working day.

Gonset FM Business Communicator provides top performance at moderate cost—for instant contact between office and field, for inter-unit communication, for expediting materials handling.

Gonset system design makes it possible to economically custom-tailor a communication system to meet your individual requirements.

Service and parts depots throughout the country service Gonset equipment to insure the high quality performance for which it was designed.

An authorized Gonset distributor will install and maintain your radio communication problems.

Get the facts now.

COUPON: Please send me, without obligation, full information on the Gonset FM Business Communicator and the name of the authorized Gonset distributor nearest me.

GONSET
DIVISION OF YOUNG SPRING & WIRE CORPORATION

The Cost of Quality more than repaid
in direct labor savings!

Columbia-matic
FABRIC
DOORS

and only real quality will sell in the 60's!

The PERFECT PAIR
for making faster whiteprints in your own office

This is our NEW Automatic Developer—The Rotolite Thermomatic—WITH HEAT.

Rotolite Thermomatic, the Developer—
A new, continuous ammonia developer. It's heated! The first low cost developer to give true black-line, as well as blue and sepia. Heat develops faster, gives better quality and more even development. One trouble free filling per day. No clogging or leaking. No venting. Rotolite Expediter, the printer—
The least expensive whiteprinter in the world and prices include standard tube-type developer. Finger tip speed control, dry paper-vapor developer. Fastest diazo lamp on the market. Models start at $129.50.

AMERICAN BUILDER
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.
How to frame component corners and partitions

**QUESTION:** I'm thinking of using components in my house. 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 house. 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 1/4" rods placed both ways on 10" centers to support the car's weight.

The Editors

---

**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.

The Editors

---

**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.

The Editors
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.

The Editors

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.

The Editors
Now you can sharpen Combination Saws Automatically

The Foley Model 200 is the FIRST and ONLY machine which will file "combination" circular saws; also crosscut circular saws, hand saws, all types of hand saws. The exclusive Foley principle of jointing the saw as it is filed, keeps teeth uniform in size, shape and spacing; keeps circular saws perfectly round, usually doubles saw life.

In addition to keeping your power and hand saws sharp, you can make $3 to $6 in spare time saw filing business. Write today for free plan. Time payments available.

FOLEY MANUFACTURING COMPANY
1224-1 W. E. 5th Street, Minneapolis 18, Minn.

POST OFFICE WILL NOT FORWARD MAGAZINES!

You must write us, prior to moving if possible, giving both old and new address, also postal zone. Allow three weeks for change.

AMERICAN BUILDER BOX 961 • BRISTOL, CONN.

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, JULY 2, 1946 AND JUNE 11, 1960 (74 STAT. 208) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION


1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Bayne A. Sparks, 30 Church St., New York 7, N.Y.; Editor, Joseph B. Mason, 30 Church St., New York 7, N.Y.; Managing editor, Richard Bullock, 30 Church St., New York 7, N.Y.; Business manager, A. Brownell, 30 Church St., New York 7, N.Y.

2. The owners are: Simmons-Boardman Publishing Corporation, 30 Church Street, New York 7, N.Y.—Stockholders of one percent or more are: James G. and Louise Lyne, 30 Church St., New York 7, N.Y., Arthur L. McInnis, 30 Church St., New York 7, N.Y., Joseph or Katherine Sanders, 2909 Maple Ave., Dallas 4, Texas, John R. Thompson, 79 West Monroe St., Chicago 3, Ill., Mrs. E. S. Fenton, c/o Russell & Russell, 41 East 42nd Street, New York 17, N.Y., J. Streicher & Co., 2 Rector Street, New York 4, N.Y. Partners of J. Streicher & Co. are: Joseph Streicher, Ethel Streicher, Judson Streicher, all of 2 Rector Street, New York 4, N.Y., Morton & Co., c/o Marine Midland Trust Co., 120 Broadway, New York 15, N.Y.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required by the act of June 11, 1960 to be included in all statements regardless of frequency of issue.) 105,805.

BAYNE A. SPARKS, Publisher
Sworn to and subscribed before me this 25th day of September, 1961.

ANN BITONDO, Notary Public
(My commission expires March 30, 1963)

AMERICAN BUILDER
## Advertiser's Index

### A
- Alsynite Company of America 131
- American-Himan Title Company 121
- American Telephone & Telegraph Co. 115
- Anderson American Brass Co. 125
- Aqua-Lectric, Inc. 49-52
- Armco Steel Corporation, Sheffield Division 97
- Automated Building Components, Inc. 129

### B
- Bastian-Morley Co., Inc. 111
- Bell & Gossett Company 125
- Bil-Jax, Inc. 114
- Blonder-Tongue Laboratories, Inc. 126
- Boston 12
- Brown Manufacturing Co. 32
- Bruce Co., E. L. 31

### C
- Casinos, Inc. 106
- Cedar Rapids Block Co. Dur-O-wall Division 33
- Classified Advertisements 111
- Curtis Companies Incorporated 46, 48

### D
- Dexter Lock Division, Dexter Industries, Inc. 102
- Dodge Reports, F. W. Dodge Corporation 118
- Dow Chemical Company, The 98, 99
- Dur-O-wall Division. 113
- Cedar Rapids Block Company 33

### E
- Edwards Engineering Corp. 108

### F
- Foley Manufacturing Co. 140
- Ford Inc., Ivy R. 130
- Ford Motor Co. 46, 41
- *Forest Fiber Products Company 522
- Formica Corporation 113

### G
- Georgia-Pacific Corporation 8
- Gerber Plumbing Fixtures Corp. 24
- Gonset Division of Young Spring & Wire Corporation 136

### H
- Homcoote Company 20
- Hough Manufacturing Corporation 136
- Hydrotherm, Inc. 114

### I
- Inland Homes Corporation 6
- Insulation Board Institute 44
- Insulite Division, Minnesota and Ontario Paper Company 36, 37
- International Harvester Company, Farm Equipment Div. 101
- International Paper Company 125
- Long-Bell Division 23

### J
- John Deere Industrial Division 35

### K
- Kennistrack Corporation 52B
- Kentile, Inc. 50
- Kingsberry Homes 104

### L
- Lawyers Title Insurance Corporation 121
- Lenox Industries, Inc. 50
- Lindsay Company, The Division—Union Tank Car Company 116
- Long-Bell Division, International Paper Company 23

### M
- Mackinlan-Duncan Co. 14, 15
- Marlite Division, Young Spring & Wire Corporation 34
- Masonite Corporation 28, 29
- Masonite Corporation, Marlite Division 34
- Master Vibrator Company 120
- Metalbestos Division, William Wallace Company 100
- Minnesota and Ontario Paper Company, Insulite Division 36, 37
- *Monogram Industries, Incorporated 124

### N
- National Association of Home Builders 134
- National Concrete Masonry Association 4
- National LP-Gas Council 131
- National Manufacturing Company, Cover 4
- National Oak Flooring Manufacturers' Association 54, 55
- NuTone, Inc. 57

### O
- O-Sighting, Studebaker-Packard Corporation 38, 39

### P
- Pacific Lumber Company, The 107
- Pacific Plywood Company 117
- Panel-Lift Door Corporation, Subsidiary of Standard-Tech Industries, Inc. 131
- Porter-Cable Machine Co., Subsidiary of Rockwell Manufacturing Company 26
- Portland Cement Association 22

### Q
- Q-System, Inc. 140

### R
- Rangaire, Roberts Mfg. Co. 19
- Roberts Co., The 20
- Roberts Mfg. Co., Rangaire 19
- Rockwell Manufacturing Company 22
- Porter Cable Machine Co., Subsidiary 26
- Robersson Company 25, 27
- Rotolite Sales Co. 138

### S
- Samuel Stamping & Enameling Co. 142
- Schepers, Inc. 118, 130
- Sheffield Division, Armco Steel Corporation 97
- Shovelhead Door Corporation 122
- Simplex Formex, Inc. 48
- Skill Corporation 10
- Sonoco Products Company 134
- Statement of Ownership 140
- Studebaker-Packard, Inc. 120
- Studebaker-Packard Corporation, Oum Division 36, 39

### T
- Thompson Co., Inc., E. A. 106

### U
- Union Tank Car Company, The Lindsay Company Division 116
- United States Gypsum Company 56
- United States Steel, Universal Atlas Cement Division 107
- Universal Atlas Cement Division of United States Steel 107
- Universal Rundle Corporation 122

### V
- Volkswagen 53

### W
- Wallace Company, William, Metalbestos Division 100
- Wiegand Company, Edwin L. 128

### Y
- Young Spring & Wire Corporation, Gonset Division 136

---

© 1961, American Builder

---

This index is an editorial feature maintained for the convenience of readers. It is not a part of the advertiser's contract and American Builder assumes no responsibility for its correctness.
MONTH AHEAD

1962 Product Preview issue
Vitally important to your operation is the choice of new materials and products going into your houses. AMERICAN BUILDER's Product Preview issue is not only invaluable in immediate planning, but will serve as a product guide throughout the coming year. And for those thousands of our builder-readers that will be unable to attend the Convention, this issue will bring the event right to their doorsteps. Added bonus for December: top building materials manufacturers will discuss latest product developments and research designed for faster, more economical homebuilding.

IN JANUARY:
- Merchandising — A detailed market survey, careful land selection, styling your homes to sell, perceptive materials buying are all part of merchandising from the ground up. American Builder's special report will cover this all-important subject — building to sell.

NEW LOW COST...
NEW LUXURY FEATURES!
No other Built-In Oven offers so much for so little!
- Gas or electric interchangeable
- Bake and broil same time
- Beautifully styled
- Concealed vent
- Heat-deflector shield
- Chrome plated racks
- Automatic clock controls
- Low-Temp gas controls
- Six decorative finishes
- Quick-change door panels
- Tank-type oven
- Quiet doors—heavy cable

suburban
Built-In Ranges

We have a surprise for you!

SPACE 151

N. A. H. B. BUILDERS SHOW

American Builder, November 1961

**HOW TO WIN OVER NEW HOME BUYERS.** Feature this floor of KENTILE Mosaic Solid Vinyl Tile in your model homes. Hundreds of colorful vinyl cubes in each tile, surrounded by translucent vinyl! Here's deep, dimensional beauty that works wonders for any décor. Here's Kentile quality that tells prospects your building ideas, materials and construction are the best. Choose the tile floor that eliminates costly call-backs... gives you the chance to create distinctive flooring designs in your homes. Talk Kentile to your flooring contractor.

**KENTILE FLOORS**

LET KENTILE NATIONAL ADVERTISING PAY OFF FOR YOU!
Kentile builds consumer acceptance with the biggest advertising in the tile business. Feature the floors that are promoted steadily in THE SATURDAY EVENING POST, BETTER HOMES & GARDENS, LOOK, and 13 other leading Magazines, plus the Magazine Sections of 324 newspapers.

There's a Kentile® Floor for every home, in every price range. Over 200 decorator colors in 5 types of resilient tile.
HERE'S WHY National
TROLLEY DOOR HANGERS
LAST LONGER...
ROLL EASIER!

A cast iron truck and case hardened steel roller bearings... the combining of metals with different degrees of hardness... make National trolleys wear longer... roll smoother... give greater customer satisfaction. Long ago, National product engineers established this basic principle that is still used in the manufacture of every National trolley door hanger.

This simple, yet effective, formula is another example of the "hidden-quality" built into National Hardware... another good reason for you to specify "National"—the quality hardware you can hang your reputation on.

NATIONAL MANUFACTURING CO.
18111 First Ave.
Sterling, Illinois