

August 1961

Will the Housing Act Help You?

... page 8

36 Ideas that Sell Houses

... page 64

A New Look at Trade-ins

... page 87

\$2 Billion Farm Building Market

... page 53

AMERICAN *Builder* *The Business Book for Builders*

Bernie Young (standing) takes a design approach to cost control . . . page 76





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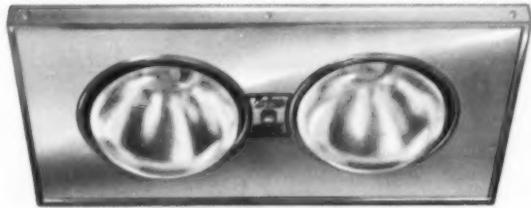
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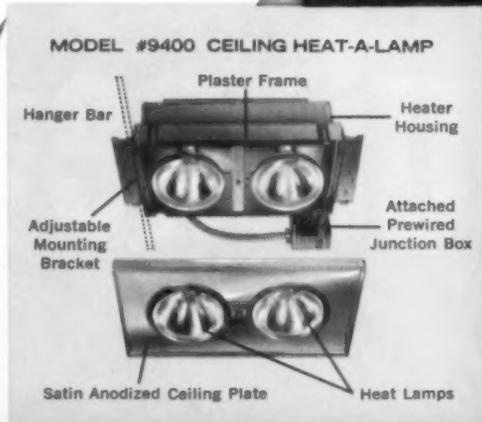
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●
Manuscripts: The editors are not responsible for unsolicited manuscripts. Manuscripts to be returned should be accompanied by a stamped, self-addressed envelope.

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Subscriptions: Address all correspondence to: Subscription Dept., American Builder, Emmett St., Bristol, Conn. Changes of address should be received three weeks before next issue date. Send both old and new addresses, enclosing old address label if possible. Postmaster: Please send Form 3579 to Circulation Dept., American Builder, Emmett St., Bristol, Conn. Prices: United States, Possessions and Canada: 1 year, \$3.50; 3 years, \$7.00; single copies 75 cents, April issue \$2.00. Foreign countries: 1 year, \$12.00; 3 years, \$25.00; single copies \$1.00; April issue \$2.00.

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Published monthly in three regional editions by Simmons-Boardman Publishing Corporation. Executive offices at 30 Church St., New York 7, N. Y. James G. Lyne, Chairman of the Board; Arthur J. McGinnis, President and Treasurer; Duane C. Salisbury, Executive Vice President and Advertising Sales Director; George A. Dusenbury, Vice President and Editorial and Promotion Director; Bayne A. Sparks, Vice President and Publisher; A. W. Brownell II, Vice President and Advertising Sales Manager; George Hutchings, Regional Vice President; Jack Wyatt, Vice President; Michael J. Figa, Jr., Vice President and Production Director.

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Kennedy's Housing Bill means millions of new buyers

We can't summarize the enormous effect of the 1961 Housing Bill (H.R. 6028) except to say: "it means millions of new buyers for builders."

This is a complex bill authorizing many kinds of aids to housing in all its forms (See page 8). It is a long-range measure freeing FHA from the need for further lending authorization until 1965. But most significant to us is the *incentives* it gives to builder enterprise and ingenuity to solve U. S. housing problems—particularly low cost, old age and rentals.

Let us look at what H. R. 6028 does for the building business:

- 35 (or 40) year mortgages mean lower monthly payments, bringing in millions of buyers who can not now afford houses.

- Lower down payments permit additional millions to buy homes.

- 20 year remodeling loans mean a revolution in this segment of the building business. They will bring new builders, new buyers, and a vastly expanded volume of additions, alterations, and improvements to America's housing inventory.

- 1.5 billion additional for Federal National Mortgage Association, plus other provisions extending Fanny Mays' service as a Central Mortgage Facility, insures financing on liberal terms.

- Rental housing aids make it possible for private builders to finance rental housing (40 year loans) in low cost as well as other price ranges.

- Special incentives to builders for old age housing, urban renewal, college housing and others, cannot help but greatly expand activity in these fields—all of them important to the nation's welfare.

- Loans for community facilities, transportation and land development, make a beginning attempt, at least, to solve some of the most perplexing road blocks in the way of expansion.

In short, the bill sets a stimulating high level goal for home building and provides the techniques and the financing to make it possible. For the first time in many years, builders now have a housing bill they approve and an Administration enthusiastically devoted to seeing that it works. We predict that builders will not be slow to take advantage of the opportunities it provides.

JOSEPH B. MASON, *Editor*

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August 1961

Kennedy's New Housing Bill: There's Something Here for Everybody—

Its title: H.R. 6028. Its meaning: Millions of new homebuyers for builders. This special report covers everything from the 35-year mortgage to rental building 8

The Farm Market: No Pig in a Poke—Building down on the farm represents a \$2 billion market. Experts and case histories show you how to diversify into this field by using the latest concrete, aluminum, plywood and steel construction and techniques 53

Title Insurance: It Helps You Build and Sell Houses—It's an inexpensive merchandising aid; it represents only one policy to buy, one payment to make; it guards against a variety of title defects 62

36 Sales Ideas That Worked—Charles Reynolds, 29-year old Toledo builder, beat a "depressed area" buyer resistance by clever merchandising techniques. He used every thing from Home Counselors to a project-touring "Showmobile" 64

Everything a Homebuyer Wants—A quality house with a budget price tag. AMERICAN BUILDER'S Blueprint House features 1,871 sq. ft. of living space for \$19,250 68

American Builder's Quality Model Home Contest—Plan to enter now. Top winners in each class will receive round-trip flights for two to Europe via Icelandic Airlines 75

The Business of Remodeling: "We Find Our System Works"—When, in 1952, Joel Zenitz and Al Greenfield incorporated their remodeling outfit, they were showing a gross of \$70,000. By the end of 1961, the remodelers' Zane Construction Company will realize a gross of \$1,000,000. Here's their success formula 79

Box Beams Go Together in 46 minutes, Saves \$90—This new construction method, designed by architect John Storrs, can be completed on-site, cuts labor, materials costs. And it's a natural tie-in with four-uses-in-one double T&G decking 84

Trade-In: The Key Word is Cooperation—The problem: 50% of potential new homebuyers already own homes. They need help to get rid of them so they can buy new. The solution: Most builders could use a workable trade-in (or trade-up) program. AMERICAN BUILDER takes you to the experts (and a case history—New Jersey's Operation Trade-Up) who agree that cooperation between builder, realtor, banker is the key factor 87

Low-Cost Hillside Property is Profitable—In high-price Westchester (N.Y.) County, unimproved quarter-acre lots cost between \$2,500 and \$3,000. By utilizing a clever erosion control system on a steep 14-acre site, builder John De Rosa, was able to cut the lot price down to \$1500, offer his houses for under the average area price 122

Departments

Opportunity	5	New Products	95
What's New	11	Building With Brains ..	116
Change	13	Land Planning	122
Opinion	15	Ask The Experts	125
Tomorrow's House	17	Tech Guide	126
Regional News	39	Advertiser's Index	129
Regional House	40	Month Ahead	130



COVER: Scottsdale (Ariz.) builder Bernie Young (right) talks over standardized window component with his job super Bob Smith. Young builds 30-50 houses per year, heads Custom Builders Council76

The new housing act—

There's no denying it: the new housing bill will have a major impact on building—but to profit from it you should study it in terms of current housing trends

The housing act is powerful legislation. It will stimulate building on every front. In some areas, it boldly stakes out new experiments in housing. In others, it will strengthen existing trends.

Watch remodeling zoom

If you're not in remodeling now—you should be. That's what savvy builders say when they look at the remodeling plums in the housing bill. Homeowners can borrow up to \$10,000 (on FHA terms) to modernize their homes and take 20 years to repay at a high of 6%. The old limit was \$3,500.

American Builder showed, in a special report last month (July, starting on page 77), that the public spends about \$20 billion a year on improvements. With this legislative stimulant, they may well be spending \$30 billion 12 months from now.

Acceleration of urban housing

Top Washington officials have sensed a shift in emphasis in construction planning back into urban centers, and away from the suburbs. The housing bill may well accentuate this shift.

You can profit, by looking again at urban renewal. The bill has given UR an injection of \$2-billion in Federal funds. This is big money—just about as much as Washington has spent on urban renewal since 1949, when it began.

Top housing officials say that one of the best ways for builders to get into urban renewal is through rehabilitation. The shift is away from the bulldozer and toward conservation. The housing bill is designed to stimulate downtown community interest in remodeling through wider use of demonstration houses.

But where communities can't be saved, the emphasis will be on re-location housing. Watch for this to grow. Displaced families may put down as little as \$200 (per unit) on 1 to 4 family structures. They'll be given 40 years to pay off mortgages ranging up to \$15,000.

The "forgotten families" remembered

Congress and the administration alike are piqued by the way in which FHA has become the darling of the middle class. Here's what disturbs them: In 1950 50% of the prospective homeowners who applied for FHA insurance earned between \$4,000 and \$6,000 a year. By 1960, this group had fallen to only 25%, and were largely replaced by homeowners in higher income brackets.

The "forgotten families" that President Kennedy spoke of when he signed the housing bill are simply this \$4,000-\$6,000 group all over again. To bring them back into the FHA picture, Congress has extended FHA mortgage terms (up to 40 years in "hardship cases") and lowered down payment requirements.

If you're a builder who can price homes down to \$15,000 (in high cost areas), you'll be able to attract buyers who've got only \$450 for a down payment, including all the closing costs.

One point to remember, though, is that lenders must be willing to go along with these liberal terms. There is speculation in Washington that President Kennedy will push acceptance of the long-term mortgages by providing for government purchase. At present, the Federal National Mortgage Association (Fanny May) will offer financial support only if the housing is for displaced families. Of course, there will be many families that will not be able to buy homes despite the generous terms. To accommodate these "forgotten families" the bill offers new rental housing.

The new units would be owned by government agencies and financed with government-purchased mortgages, at "below-the-market" interest rates. Private builders won't qualify for these mortgages, but the projects do offer contracting work for larger firms.

A stimulus for higher-priced homes

The new liberal treatment for FHA loans is not confined to low-cost homes. There are some features that may well tempt reluctant middle-class home buyers into your model houses.

Here's what the bill does: It permits FHA to insure mortgages ranging up to \$25,000 on single family homes; the old limit was \$22,500. In addition, down payment requirements for homes in the higher price ranges have been reduced.

To buy one of your new \$25,000 homes, prospective homeowners would have to put only \$2,100 down. Before the new terms were introduced, their down payment minimum was \$3,000.

Besides this, middle-income buyers are favored with longer mortgage terms. They can take up to 35 years to pay. Old limit, of course, was 30 years. Taking that \$25,000 home again your customers will have to pay only \$128.81 a month to cover principal, interest, and FHA insurance.

All this will have the effect of making your homes appear cheaper. But don't go raising the hopes of homebuyers without checking the mortgage people in your area. They're not very happy about the liberal terms. In fact, the Mortgage Bankers Association is already talking darkly about the future of FHA loans in the mortgage market.

The Life Insurance Association of America

what's in it for you?

says, too, that FHA loans will "decline greatly" as the primary source of residential credit.

Bill puts FHA in condominiums

Congress has recognized the mushrooming of condominiums, those multi-family structures transplanted from Puerto Rico.

Through the bill, it has given FHA the right to insure a mortgage covering a single family unit in a condominium. The structures themselves, however, must be covered by FHA insured mortgages (other than cooperative housing mortgages).

Good news for traders

The housing act gives savings and loan associations authority to place interim financing on traded-in homes. The bill permits financing of up to 80% of the home value for as long as 18 months.

It lessens trade-in costs, too, by permitting the associations to hold the title of trade-in homes in trust, thereby reducing costs and complications involved in trading.

Moves toward a central mortgage bank

For the first time, Fanny May can make loans on pledged mortgages. These loans may be up to 80% of the unpaid balance of the mortgages, giving lending institutions a quick way to get a good deal of their mortgage money back in circulation during tight money periods.

This feature of the bill actually goes far toward making Fanny May the central mortgage bank builders have been so anxious to see created. On

the other hand, the move takes all the steam out of the drive for a new government mortgage agency. At least that's the way many top housing officials see it.

Other benefits for builders

The bill stimulates experimental housing. If you've got a new wall or roofing material you want to try out, don't worry too much about financing. FHA can now insure mortgages on homes or rental housing incorporating new and untried materials, designs, and methods. Moreover, the bill permits FHA to make repairs for homeowners if the new ideas prove faulty.

More aid for the elderly. Congress increased its loan authorization for elderly housing from \$50 million to \$125 million and also killed the 2% equity requirements that eligible borrowers (co-ops, public agencies, etc.) had to pay. The bill also brings more savings-and-loan money into elderly housing by permitting associations to invest up to 5% of assets in loans for elderly accommodations.

If you've found nothing in the bill for you up to here, perhaps you'll be interested in still other features. The act reduces equity requirements on FHA nursing home mortgages to 10%. The old requirement was 25%.

Farm housing receives \$200 million more in Treasury loan authority. The loan fund for college housing is increased, too, by \$1.2 billion over the next four years.

Besides all these building features, the housing bill opens up whole new areas for government aid: such as community facilities, open spaces for parks, and a study of mass transportation.

Most of industry happy with act but some lenders take a dim view

Congressman Albert Rains (D., Ala.), housing subcommittee: "I don't expect to have to write another piece of housing legislation for the next four years."

Paul B. Shoemaker, exec v-pres., Masonite Corp., Chicago: "Here's a law that gives the builder a competitive edge for the consumer's discretionary dollar. . . . Now is the time for growth confidence."

C. Elwood Knapp, U. S. Savings & Loan League, Chicago: ". . . Federal acceptance of unmortgaged 18-month loans on houses received in trade opens the way for a workable program to finance the trade-in of existing homes."

Robert C. Weaver, administrator, HHFA:

"What we're trying to do is to provide people with a choice—in all areas of housing."

Some money men balk

Leslie Rose, Advance Mortgage Corp., Detroit:

". . . urban renewal provisions of the Act will stimulate construction activity, but not until next year or later. One undesirable feature, from the builder's point of view, is the authorization of 100,000 public housing units . . . a sample of the trend toward increasing the role of government in both housing construction and housing credit."

Max H. Karl, Mortgage Guaranty Insurance Corp., Milwaukee:

"The liberalization of FHA regulations under the new housing law serves to increase the risks assumed and acts as a deterrent to lower financing costs."

William W. Bunge, Mortgage Associates, Inc., Milwaukee:

". . . the new housing bill inescapably leads me to the conclusion that Congress, not having been able to ruin the intrinsically sound FHA through false interest ceilings, unrealistic operating grants, and miscellaneous nonsense, has decided to really smother it to death, this time with a large pillow of socialism . . ."

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

Will you build apartments or houses five years from now?

Apartments, probably, according to First Market Research Corp. of Miami. In a lengthy analysis of the housing market for the remainder of the 60's, FMRC predicts "the age of the multiple dwelling unit is just about upon us. Based upon the age-group (20-29) analysis, there may be a need for twice as many multiple units as for the single-family home." Main key to the development of this situation according to FMRC will be the cost to the occupant. If the payments-per-month on the single family unit are less, then home ownership will remain popular.

This opinion points up the challenge already facing homebuilders today: how to build better for less? Builders solving this problem with success are those who have shown a willingness to reappraise their operations and adopt faster building techniques, more effective systems of cost control and management.

What is the apartment house situation today?

Almost simultaneously the Federal Housing Administration and the National Association of Real Estate Boards have reported an upturn in apartment house vacancies. In its semi-annual survey NAREB reported that a vacancy rate of 6% or more now exists in 37% of the country as compared with 23% a year ago. And, the FHA survey of 425,000 of its insured units in all 50 states and Puerto Rico found the average vacancy rate of 5.4% higher than anytime since 1951. The highest rate was in the Southwest which had 14.5%; lowest was the Northeast with 2.5%. On a city basis, New Orleans with vacancies at 28.5% had the highest; lowest, San Juan, P. R. with 3% and Boston and Washington, tied at 1% each.

Moral: Apartment house building has plenty of opportunities—but look before you leap. Check your local vacancy rates and building permits to find out what competition you may have to face by the time your apartments are ready to rent.

A better nail may signal a building revolution

A nail that will combine molecularly with wood fibers and glass windows that transmit or bar light at the flick of a knob are some of the new product possibilities that builders may expect in the next 15 to 20 years according to the Quantum Symposium on new materials for construction. According to research men present, knowledge needed to make these ideas real has been generated by government research and only needs imagination for adaptation to commercial building products. When this wedding of technologies takes place, building will undergo its biggest revolution.

Land costs continue to edge upwards

Spotcheck of fellow real estate men in 52 other cities by George Clarkson of Des Moines revealed residential subdivision land in 47% of the communities was priced higher than last year and lower in only 16%. Land for shopping centers was up in 45% of the regions, down in 4%. Land for investment holding jumped in 55% of the areas and dropped in 8%.

Industrial engineers take a close look at homebuilding

To pinpoint the real problems of building a house, the NAHB Research Institute and the Stanley Works have launched Project TAMAP—time and motion analysis program—at builder Bob Schmitt's operation, Berea, Ohio. First step in the two-part project will be to analyse every facet of the building procedure. Second step will identify the problems and develop solutions which will be used on a second house to be built in 1962.

Goal: principles that can be adopted by builders, big and small, to simplify their operations and cut costs.



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CHANGE

Where are the home buyers?

The housing industry is dragging. Everybody agrees to that. It failed to lead the economy out of the recent recession, as it did in 1958. In fact, it has even failed to respond fully to the return of liveliness in the economy as a whole.

Why? Builders, in most sections, have ignored diversification. And they don't know what happened to the buyers.

One of the first factors to study is the expansion of rental housing. Compared to last year, apartment dwellings have been rising almost 25% faster this year. If they continue at this rate, they may well produce a record year. Meanwhile, total non-farm housing dawdles along at a rate that is 7% below last year's, according to Census Bureau.

This boom in apartment-house construction is no idle phenomenon. It is an answer to the increased demand for apartments that has excited the housing industry recently.

More and more apartment vacancies

Along with this, take a look at the vacancy rate in rental housing. It has been edging up relentlessly for years. Over the first three months of 1961 it hit 8%, compared to an abnormally low 5.7% just three years before. Of course, many of the vacant units are sub-standard: e.g. one-third of them are without some plumbing facilities.

But when coupled with the expansion in apartment-house construction, the upward climb in vacancy rates can only mean an added boost to the supply of rental housing. And as apartments become easier to find (and rents easier to pay), sales housing tends to become less attractive.

The effect of increased vacancy rates, of course, will be regional, rather than national. Note, therefore, that where vacancy rates are highest (in the West: 11%) the building industry is finding it most difficult to sell new homes.

Where are the war babies?

But despite the present picture, builders and government officials alike have, for a long time, looked forward to one factor that would hopefully reverse the poor demand for new houses. This is the coming of age of the so-called 'war babies.'

Born during and just after World War II,

this generation has been glutting the nation's schools and forcing parents to build extra rooms onto their homes. Now, the babies are grown up, and are ready to look for homes of their own—or so the thinking goes. Unfortunately, the 'war babies' have been slow to arrive on the housing scene.

Listen to Robert C. Weaver, administrator of the Housing & Home Finance Agency, as he described the situation to the House Appropriations Committee:

"... where it was prophesied that in 1960 the war babies would be maturing into new households," Weaver says, "the projected wave of family formations has been slightly delayed, and the best information that I can gather on this is that in around 1963 or 1964 we will have a slight bulge. But the real impact will hit us around 1967 or 1968. This means that the family formation anticipated has not come to pass, and this is something which man cannot control and that you cannot always accurately anticipate. . . ."

Late marriages delay housing honeymoon

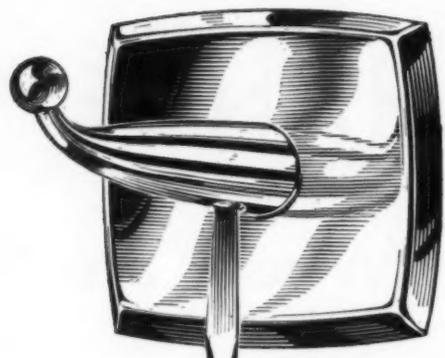
There is something else in this "slightly delayed" boom. The really big year of the 'war babies' was 1947. In this year, the birth rate (per 1,000 pop.) hit a fecund 27.0 compared to a depressed 20.7 in 1945.

By 1967, these '47 babies will be 20 years old. But whether they will represent a demand for sales housing is questionable.

First, many of them will not even be included in the "real impact" that Dr. Weaver talks about, because they will not be getting married. Young people have tended to delay marriage in recent years, partly—it is thought—because of the persistence of high unemployment in our economy.

Second, the twenty-year-olds of 1967, even if they do get married, will probably be following their older brothers and sisters into apartments. The demand for apartments that is now so impressive will feel an added stimulus by 1967.

As for sales housing, present sociological thinking indicates that young people prefer to wait until they approach 30 before they think of buying a home. If this is true, the real baby boom may not hit housing sales in 1967 or even 1968—but will begin sometime after 1970.



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Plate at left is securely attached to wall with screws or toggle bolts, then wall flange is slipped on and held by hook's concealed mounting screw.



round or hexagonal towel bar



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OPINION

Bricklayers: partners in progress?

Look for new patterns of help and cooperation from this strong union. Purpose? More business for builders and bricklayers as the building industry gears to meet the housing boom of the sixties.

That's the substance of an exclusive interview AMERICAN BUILDER had with John J. Murphy, president of the Bricklayers, Masons & Plasterers' International Union.

What's your attitude toward antiquated codes and zoning? "We're as concerned as any other construction group about codes which need updating. We will work with anyone to remove obstacles to increase building and more economical construction. Safety is our main concern in code changes. This should always be stressed."

How do you feel about urban renewal? "We're in favor of the action taken last fall by the AFL-CIO which encourages unions to invest welfare, retirement and general reserve funds in urban renewal projects. President Kennedy's program should be given all the help it needs."

What do you do to stimulate building? "Through our partnership with the mason contractor and brick manufacturer. In the Allied Masonry Council, we have an active program of education, training, research and merchandising. Our locals are spending their own money to carry out this program."

Don't you oppose new techniques? "No, we don't. We've been cooperating with the Structural Clay Products Institute and other groups in the masonry industry to perfect more efficient and technically advanced systems of bricklaying.

"For example, do you know that we recently added welding to the apprentice bricklayer's training? He can use this technique to install the new prefabricated brick panel."

Don't your locals restrict the number of bricks they will lay a day? "I'm still surprised to hear that old saw. For several years now, we've had an offer of \$1,000 to anyone who could show proof of any such restriction by a subordinate local. The money is still in the bank."

What about research? "We're all for it. Our San Francisco local, for instance, worked closely with brick manufacturers and mason contractors on the wonderful new high grout system."

What are some of the new ideas you support? "One of them is the 'SCR building panel,' the new research-developed prefabricated brick panel for the residential and commercial markets. Another is the 'SCR masonry process' in residential construction, using a corner pole system along with an adjustable scaffold."

What are you doing to train new men? "We have 11,000 young men between the ages of 17 and 24 learning the latest in brick masonry. Since 1945, over 60,000 journeymen have been supplied to the labor market. The average age of the union bricklayer then was 58. Today, it's 41."

What's ahead for your members and the brick industry? "Despite a temporary lull, we have every confidence that this decade will see a gathering building boom to meet the needs of an exploding population.

"From what we see, the makers of brick, structural tile and architectural terra cotta are also preparing to service this market. In addition, the clay products researchers tell us that there will be exciting new developments in such things as high bond mortars, lighter weight units and prefabrication.

"The BM&PIU is keeping pace with all of these new happenings, and we'll continue to do so as better ways of building are launched in the future by those in the building industry."



BRICKLAYERS' UNION president John J. Murphy (right) discusses industry cooperation with Secretary of Labor Arthur J. Goldberg. Scene is the 1961 Bricklayer Apprentice Contest, Detroit.

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*At down-to-earth prices! A
TRANE Climate Changer in
any home... in any climate lets
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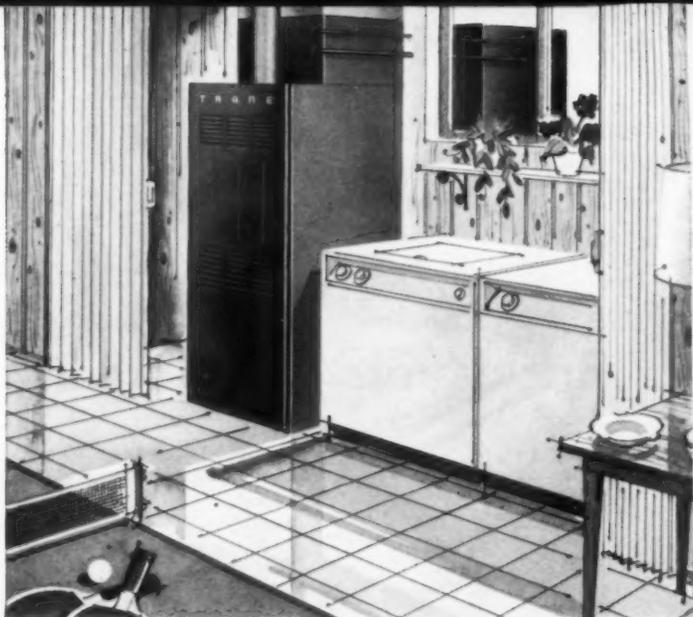
You'll sell your homes faster, easier with TRANE quality air conditioning. TRANE enables you to meet the demands of today's quality-conscious buyers. And meet them head-on *competitively* because TRANE costs no more. Yet TRANE brings you all the experience and know-how of a leader in air conditioning *everything* from skyscrapers to jet planes to subway trains!

TRANE Climate Changer units give you a wide choice of systems for heating, cooling—or both. And each TRANE Furnace is designed from the beginning for the easy addition of air conditioning—now or later!

Let TRANE Air Conditioning help you sell! It's quality air conditioning . . . matched equipment, designed and built together to work together. And the name TRANE on your heating-cooling system helps mark yours as a quality home.

Complete facts are available from your nearby TRANE Sales Office. Call the number listed under "Air Conditioning" in the Yellow Pages. Or write TRANE, La Crosse, Wisconsin.

2. NEW HEAT PUMP HEATS, COOLS. TRANE air-to-air Heat Pump operates electrically for heating and cooling an entire home. Uses no water, requires no fuel! Sizes for any home. Outside compressor unit features *upward* air discharge for quiet operation, freedom of location.



1. FOR HEATING AND COOLING ANY TYPE HOME—combination furnace and air conditioner. This TRANE Climate Changer may be oil or gas-fired warm-air type (upflow or downflow). Matched cooling unit shown on furnace; may be added later if owner desires. Capacities available: Heating—from 77,000 to 154,000 Btu; Cooling—2, 3, 4, 5 or 7½ tons.

With TRANE you can:

Heat and Cool any type home with a TRANE matched Furnace and Air Conditioner. (Picture #1.) Cooling may be optional. Owner can add matching cooling unit later, using same ductwork.

Heat and Cool entire home electrically with a TRANE Heat Pump. (Picture #2.) Central duct system distributes both heating, cooling. Uses no fuel, needs no chimney.

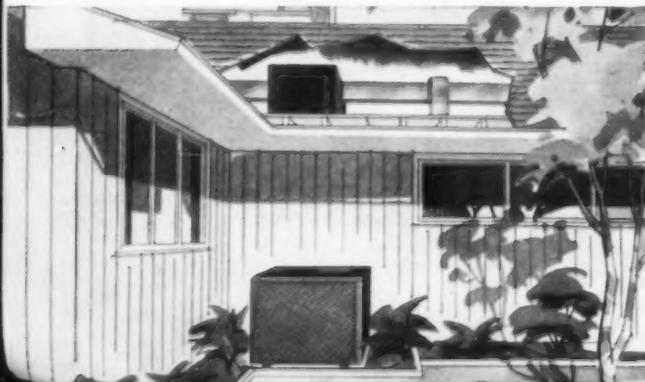
Provide separate cooling for entire home with a TRANE Fan-coil unit. (Picture #3.) Ideal for use with TRANE Baseboard or other hot water heat, where there is no central duct system, or with electric resistance heating.

For any air condition, turn to

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3. FOR SEPARATE COOLING. This TRANE Fan-coil unit nestles into attic, crawl space, basement, utility room or garage. Cools entire home through its own ductwork system, matched refrigeration unit located outside. Available in 2, 3, 5 and 7½-ton models.

TOMORROW'S HOUSE



GENEROUS OVERHANG, provided by steel W-shaped frame, shades entrance walk and carport of small home in California.

Steel frame "floats" this vaulted roof

Faced with a steeply sloping small lot, architect William Wilfer decided to capture the surrounding wooded view by opening up the walls of this house using large areas of glass and a lightweight steel-framed roof. The house, 1,500 sq. ft. of living area, is spanned by six rigid steel frames fabricated by 6" wide flange sections. They weigh 15.5 pounds to the foot,

each formed into the shape of a W. The central apex rises above the living room to resemble a vault; the shorter arms extend out to support 4' overhangs. The architect decided to leave steel exposed as part of the overall design.

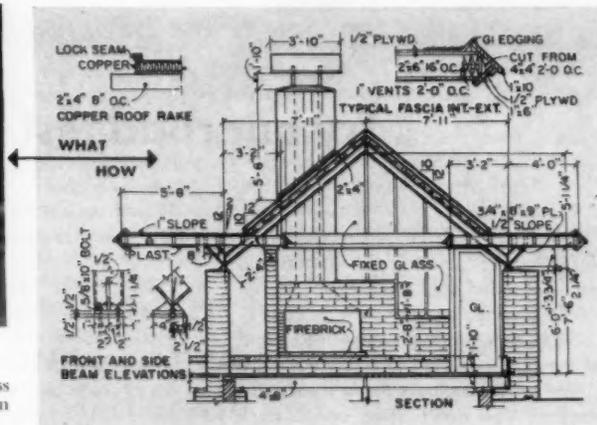
The bents rest on concrete block piers. Roof consists of 2x4 wood block piers, bolted to the steel flanges and

to which 2x4 redwood roof joists are nailed. Over these 1/2" plywood decking, insulation and a copper sheath were placed. Walls of the house are of concrete block. Wide, steel-framed glass doors open from the living room and dining area onto three sides of a deck that captures the view of a reflecting pool and a nearby creek. Structural engineers: Warren & Siebert, Palo Alto.



Exposed steel gives clean, rugged look

Concrete block walls combine with steel roof framing and glass walls to enclose modern living room. Extended soffit, held in steel elbow of gable, floats in space above glass wall.





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Try our road test (without a road)

Ready?

First, drive over an 8-inch rock.

This may not sound like much of a test, but most trucks only clear 7.

We clear 9½.

Next, drive through some mud, sand or snow.

We put the engine in the rear for extra traction. You don't often see a stuck Volkswagen.

Now cross a stream. Don't worry if it's 10 or 12 inches deep. The water won't hurt anything.

(The Timber Service Company of Sweet Home, Oregon, takes a VW across streams and on through their forests regularly. If the VW can't reach it, they take a helicopter.)

Now ruts. Try some that have baked hard in the sun.

You can't shake a Volkswagen apart. It isn't bolted together. We weld our truck. The body is all one piece.

Now load it. When you get to 1,000 lbs. (the capacity for a half-ton), go ahead and put on another 700.

She'll even take 750.

Congratulations. You have passed our test and are entitled to our low price. \$1,895.*



Long-BELL
TIP★



A LONG-BELL BIRCH PROVINCIAL KITCHEN

★ TO INSURE PROFITS...

Long-BELL Natural Wood Kitchens

Wouldn't this Long-Bell Provincial kitchen steal the heart of any woman? But don't let its luxury appearance fool you. It's really *not* an expensive kitchen. Quickly applied hardwood moldings on regular Long-Bell Natural Birch cabinet fronts carry the decor back a century—add the charm and hospitable feeling of graceful provincial living.

Quality features that characterize all Long-Bell cabinets, whether Contemporary or Traditional, can add value and feminine sales appeal to any kitchen. Features include adjustable, removable wall shelves, comfortable knee and toe room, careful craftsmanship inside and out, slide-out Nylon-glide base shelves, magnetic door catches and the rich, hand-rubbed look of Microseal® finishing.

It's so easy, too, to build variety and extra utility into kitchens with Long-Bell special purpose cabinets—the Lazy Susans for corners, Automatic Towel Rack, Vertical Tray Storage, Vegetable Bin and others.

Long-Bell Natural Wood Kitchens can mean extra profit for builders. They're quick and easy to install and finish, thanks to 3" modular construction and the Microseal® pre-sealing that saves time on final finishing. Cabinets in Birch or Rift grain fir, setup or knocked down are quickly available anywhere in the country from stock at three conveniently located warehouses. Ask your dealer or call or write Long-Bell for information and prices.

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Kentile® "Terrazzo" Vinyl Asbestos Tile in Fern Green. Accented by "Designer Palette" Solid Vinyl Feature Strips. Black Wall Base is Vinyl KenCove® for the perfect finishing touch (simplifies cleaning, never needs painting).

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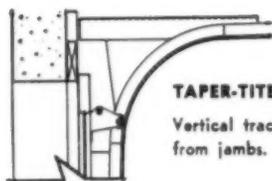
There's a Kentile Floor for every home—in every price range. Over 200 decorator colors in 5 types of resilient tile.

KENTILE FLOORS



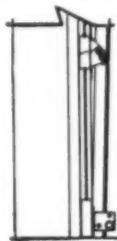
RōWAY Garage Doors

HELP CLOSE SALES BY SEALING OUT WEATHER



TAPER-TITE TRACK

Vertical tracks taper away from jambs.



SEAL-A-MATIC HINGES

Seal-A-Matic hinges of graduated height guide the closing door firmly against jambs and — for opening — free the door from jambs for easy, frictionless operation.

When you're selling prospects up the quality ladder, the weathertight features of RoWay Doors help you make it to the top. Exclusive Taper-Tite Track and Seal-A-Matic Hinges effectively seal out snow, rain and dust. All units are fitted with galvanized, rust-resisting hardware for complete weather protection. Buyers also respond instantly to the quick, effortless lifting action made possible by "Power-Metered" springs. Every door is counterbalanced with a custom-wound spring — an advantage gained through RoWay's single-plant fabrication of all components. All RoWay Doors can be fitted with motor operators. To help you beat deadlines, hardware and door sections are shipped from the factory at the same time. For your next sale, let RoWay features help you open the door to bigger sales in the quality home market.

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In nine different woods, 7' to 12' lengths. Offer Fire Retardant Craftwall, too. In Canada, buy prefinished Plankply, manufactured by Guelph Plywood Co. Ltd., Mattawa, Ontario—a subsidiary.



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Tile-Lined Chimney

Chimney facts for home builders

Building higher priced homes that need a second chimney? Choose a Van-Packer for beauty and efficiency



Where your home designs call for a second chimney, you can cut your construction costs without sacrificing quality by putting up a Van-Packer factory-built tile-lined chimney. The masonry chimney often called for in the home design to serve a fireplace may not be located advantageously to serve the furnace, water heater or incinerator. The Van-Packer chimney easily handles such equipment and allows complete freedom for its location.

The Van-Packer chimney looks attractive on homes in any price range. The asbestos-cement panel housing has an embossed brick design with indented, natural-looking "mortar lines." Brick colors offered are red, buff, gray, and white. Colored housings have a Butyl finish to preserve their original beauty. Also available is a new metal housing described at right.

On single-chimney homes in any price range or as a second chimney on larger homes you'll find the advantages offered by the Van-Packer chimney add far greater value than its low cost made possible by factory mass production. See "Chimneys — Prefabricated" in the Yellow Pages, or write for Bulletin RS-1.

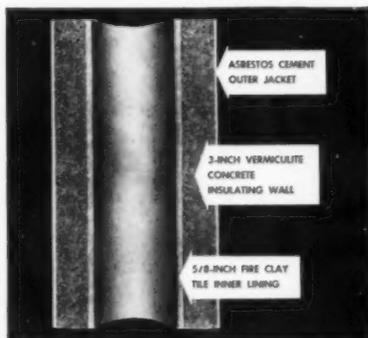
New embossed metal housing now available in three colors



In addition to the asbestos-cement housing, Van-Packer now offers a rugged new metal housing with embossed brick design, in red, buff, or white brick colors.

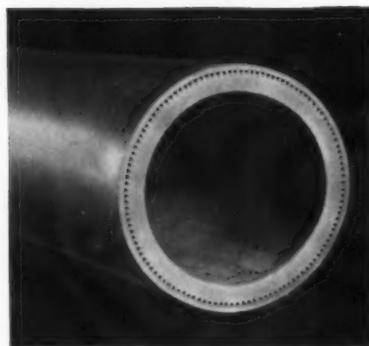
The new Van-Packer metal housing is ideal for homes in medium and lower price ranges. It is quickly, easily installed — paring your labor costs to the bone. Available in all standard sizes for Van-Packer tile-lined chimney or masonry gas vents.

Van-Packer chimney flue is lined with durable fire-clay tile



The fire-clay tile liner of the Van-Packer chimney won't corrode. It outlasts other factory-built chimney flues, and provides more efficient service because it retains heat longer for better draft. Fire clay is acid-proof, withstands temperatures up to 2100° F, and won't dent, flake or corrode even under severe conditions.

Van-Packer Model-G Gas Vent has rugged masonry flue



Made of 5/8" fire clay tile with a corrosion-resistant jacket, this gas vent is acidproof, fireproof, and won't dent, rattle, corrode or flake off. It is UL-listed for Class B service, for all gas-fired appliances (except incinerators) requiring a 3" to 7" ID flue. Model G gas vents are available with Van-Packer asbestos-cement or metal housing, or with kit containing flashing, storm collar, and rain cap.



Van-Packer chimneys are UL-listed for all fuels and all home heating plants, are safe for incinerators.



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AMERICAN BUILDER



Plate No. 2002

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Builders have long recognized the sales stimulus of ceramic tile in bath and kitchen. Now, with Ceramaflex® resilient ceramic flooring, buyer preference for ceramic tile becomes an even more valuable sales tool. Ceramaflex offers all the advantages of ceramic tile, yet it's quiet and comfortable underfoot. It's ideal for kitchen, bath, family room, utility room or entrance hall. Install it in your next model home—watch it help turn "shoppers" into "buyers". Your ceramic tile contractor or nearby Romany-Spartan distributor can provide more information and samples of the entire Romany-Spartan line of quality wall and floor tile. United States Ceramic Tile Company, Dept. AB-16, Canton 2, Ohio.

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

UNITED STATES CERAMIC TILE COMPANY

Plate No. 2009



Add just the right touch to walls, too, with Romany-Spartan glazed wall tile. There's a range of colors and sizes to suit every taste. Imaginative use of decorative Ceratile produced the unusual effect shown above.

Each 9" x 9" Ceramaflex tile is made up of 64 ceramic mosaics securely bonded in a pre-formed, flexible rubber grid. Installs quickly and easily on, above or below grade. Because it's pre-grouted, Ceramaflex is ready for use the instant it's laid.



BUILDER *installs Arkla-Servel Sun Valley** **BUYER** *reports on Gas Air Conditioning*



THE HAROLD RICHARDSON'S NEW HOME, Palos Park, Illinois

Why the builder chose Gas and Arkla-Servel . . . Because Arkla-Servel Sun Valley* All-Year® Gas Air Conditioning is well known to home builders—and owners—as a quality unit. Because the builder knew that house hunters like the cleanliness of Gas. Because he could offer buyers the proven economy, the freedom from maintenance worries, of Gas—no moving parts in the heating and cooling cycle to wear out.

Why the buyer is pleased with Arkla-Servel Gas Air Conditioning . . . Because he—Mr. Richardson—enjoys the economy, efficiency and quiet of Gas. Because he's found that Arkla-Servel can air-condition a whole house for less than it costs to air-condition a few rooms with other type units. Mrs. Richardson stated, "We are very pleased with both the heating and cooling."

Take advantage of the fact that Gas air conditioning helps sell homes. Call your Gas company or write Arkla Air Conditioning Corp., 812 Main Street, Little Rock, Arkansas. There's an Arkla-Servel unit to fit every home.

AMERICAN GAS ASSOCIATION



*Trademark

It's smart sell to offer prospects a chance to

Live modern...for less...with  **GAS**



*A modern apartment building
with Gerber Plumbing Fixtures*

Modern styling and colors together with high quality and moderate price made Gerber fixtures the natural choice for all 56 living units in beautiful Queens Towers Apartments, Charlotte, N. C. Builder: Harry S. Swimmer, Towers Land & Development Company.

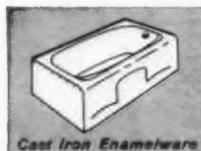
Gerber's Mighty Middle fixture line styling and beauty suits modern building design

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

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

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

Write for your copy of Gerber's complete line catalog of fixtures plus complete "packaged" Gerber bathrooms for any building price range. Catalog also shows special Gerber design features that make installation quick, easy, and trouble-free.

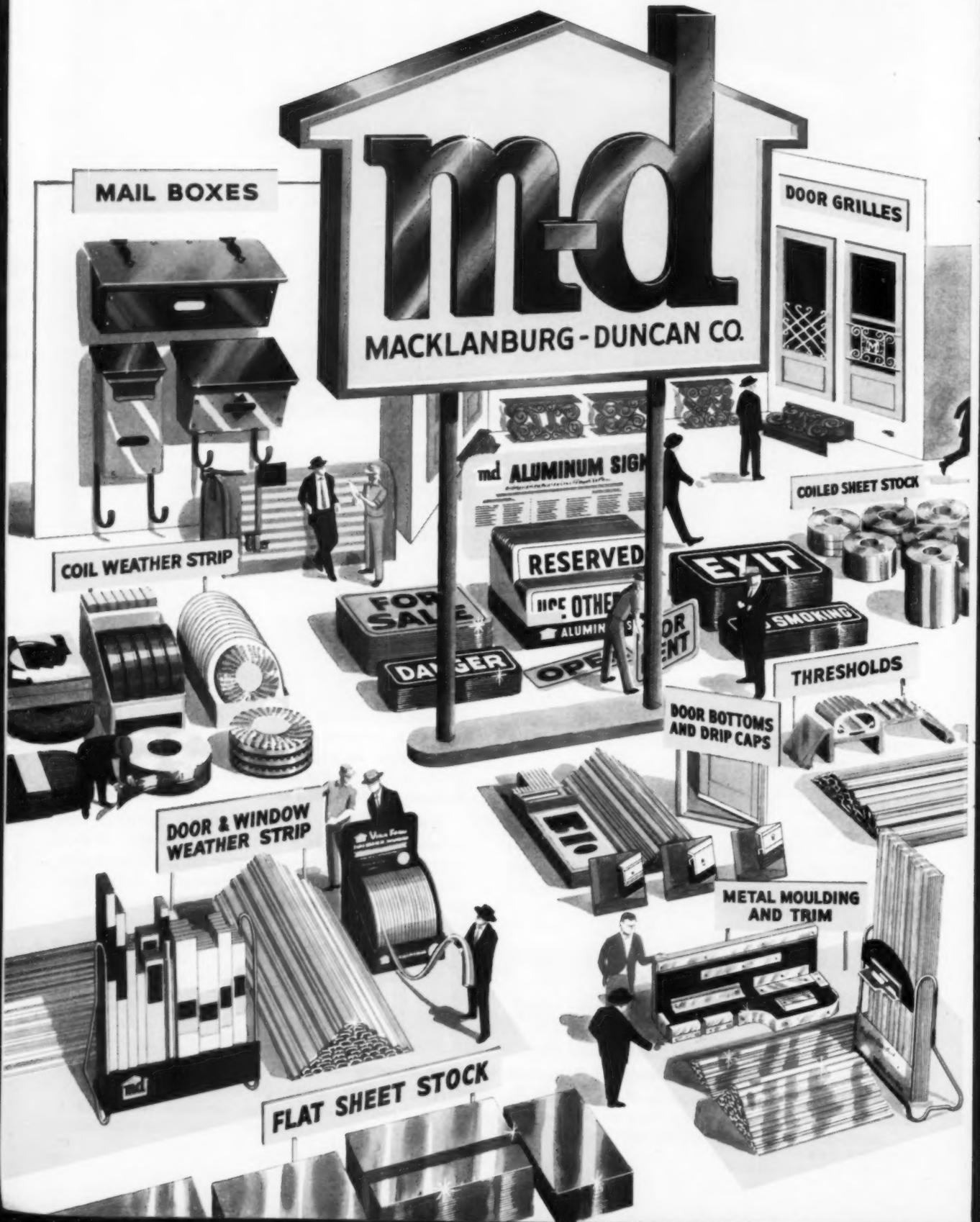


"Plumbing Fixtures for The Mighty Middle"

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

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

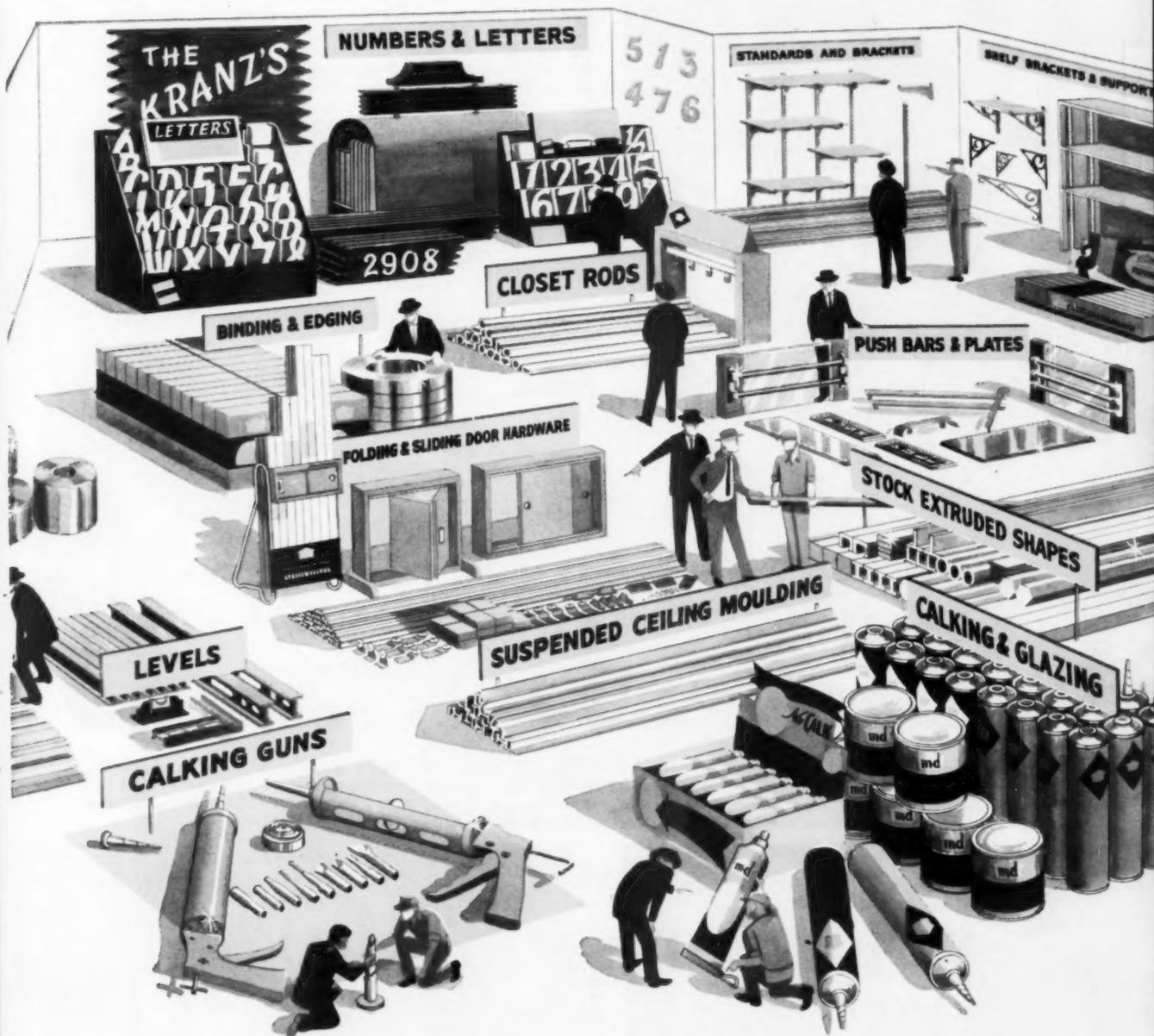
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you know, the Macklanburg-Duncan Direct-to-Dealer policy provides you with greater discounts, with better service . . . as well as with the highest quality merchandise at reasonable prices.

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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.

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



use...even abuse

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

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

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

could conceivably affect performance on your job.

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

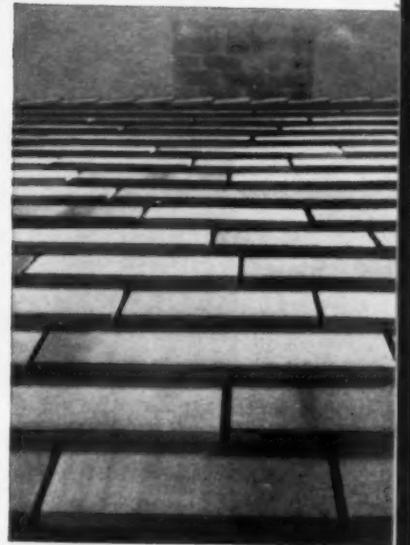
Buy *proven performance* when you buy an Electric Plant. See your authorized Onan distributor or dealer. You can depend on him for a lifetime of factory parts and service. He's listed in the Yellow Pages.

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ROOFS OF GENUINE CEDAR COMBINE GOOD TASTE WITH SOUND JUDGMENT



No single feature of a home does more to show your concern with quality than a glistening  new cedar shingle roof.

Clear from the curb,  its etched beauty and natural character are apparent. Equally important is a cedar roof's ability

to assure troublefree service—even in areas where extremes of wind  and weather  are common. A properly

constructed shingle roof provides three thick layers  of solid cedar. This gives the roof unusually effective insulative

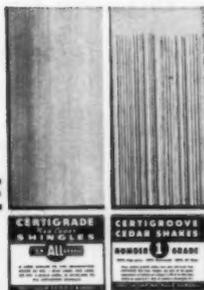
properties. Because a cedar shingle is strong and rigid, it also adds structural strength to the house...and it can be applied

over spaced sheathing  (often saving up to 50% in decking costs). Send for your copies of "Distinctive Roof

Applications" and "The House of Cedar."  These colorful folders show ways that genuine cedar can help you speed

home sales while enhancing your reputation for quality. 

CEDAR GIVES YOU AN EDGE



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550 Burrard Street, Vancouver 1, B. C.



About 300 homes, priced from \$23,500 to \$32,500, are being built in San Jose, Calif., by Culligan Development Company of San Mateo, California. Lathing Contractor: William E. Ridgeway, Campbell, California. Plastering Contractor: Bill Wood & Son, San Jose, California. Shown are Bill Ridgeway, Ed Wood and Guy L. Rosebrook, Jr., Culligan's designer and superintendent.

"INSTANT BACKING WITH One-Step KEYMESH® Paperbacked

says Thomas Culligan of Culligan Development Company, a leading Northern California builder

"It's waterproof paper, belly band wire and wire mesh lath all in one," says Mr. Culligan.

"Just once around the house with this Keymesh Paperbacked Lath and the walls are all ready to be stuccoed.

"I'll admit, saying that it gives us 'Instant Stucco Walls' is somewhat of an exaggeration. But because it does allow my subs to go so quickly, we'll have the walls in this project done faster than any we've ever built."



Lath for Stucco Walls,"



3 STEPS REDUCED TO 1

... before, you had to attach waterproof paper, wire mesh and belly band wire separately. Now it's done all at once, with Keymesh Paperbacked Lath.

**KEYSTONE STEEL
& WIRE COMPANY**
PEORIA, ILLINOIS



**SAVE \$414 per truck
IN THE FIRST YEAR!**
**NEW FORD
ECONOLINE
VANS**

Now, you can save \$312 to \$433 in price* alone on a Ford Econoline Van compared to the leading conventional half-ton panels. In addition, you can save over \$100 every 16,000 miles you drive!

These savings come with a man-size truck. The Econoline's cab-forward design with welded "body-frame" gives bridge-like strength and reduces dead weight to haul over ¾-ton. Only 14 feet overall, Ford Econolines are nimble in traffic, easy to park, need less garage space. Big 4-ft. door opening (both curbside and rear) and level cargo floor provide new loading ease . . . new load workability.

Special Note To Pickup Owners: Now, you can protect your loads from weather and theft with an Econoline Van . . . yet, pay less* than for most conventional ½-ton pickups. And you can get the same \$102 savings on operating expenses as shown at the right.

*Based on a comparison of latest available manufacturers' suggested retail prices



HERE'S HOW YOU SAVE

SAVINGS ON OPERATING EXPENSES EVERY YEAR!

GAS—Econoline trucks can give 30% better gas mileage than conventional ½-tonners. Figuring 16,000 miles per year at prevailing gas prices, you save..... **\$70**

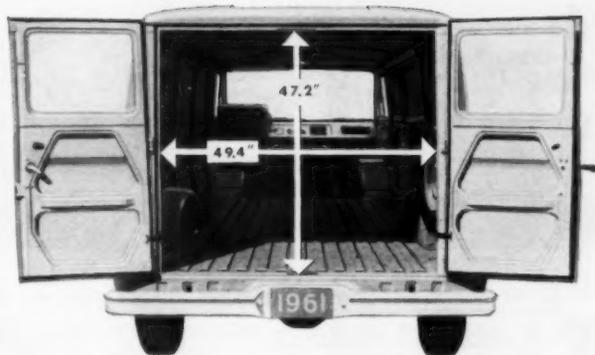
OIL—Crankcase capacity is only 3½ quarts instead of 5 quarts, and the recommended oil change interval is 4,000 miles versus 2,000 miles. In 16,000 miles you save..... **\$13**

TIRES—Econoline tires last longer, cost less to replace. Prorated saving for 16,000 miles as high as \$53. Typical saving..... **\$16**

LICENSE—In many states (not all) the license for an Econoline costs appreciably less—up to \$30.40 per year. Average for all states is..... **\$3**

SAVING ON PRICE—You can save \$312 compared to even the lowest-priced popular ½-ton panel—and up to \$433 against others! Saving at least..... **\$312**

TOTAL FIRST YEAR SAVINGS... \$414
and you keep saving
\$102 EVERY YEAR!



NO REAR ENGINE HUMP!

The Econoline's "up front" engine leaves a level, knee-high floor almost 9 ft. long. There's no awkward rear-engine-housing hump to shrink the back entrance or hinder loading. And the Econoline Van provides over 204 cu. ft. of loadspace . . . up to 80 cu. ft. more than conventional ½-ton panels.

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faster, better with
**G-P factory-sealed
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WESTERN NEWS

California Builder, Texas Buy Land in Puerto Rico

Home Builders, Herbert Heftler, Heftler Construction Co., Miami and Los Angeles, and Tom Lively, Centex Construction Co., Dallas, have purchased 1,900 acres of land in San Juan, P.R. The price was in excess of \$9 million, it was reported.

The community developer-home builder team said they will develop a 12,000-home planned community with its own churches, schools, shopping centers, sidewalks, paved streets, and water and sewage facilities.

Single and multi-family housing will be included; first models will be open early this month.

Los Angeles First in Land; NYC First in Population

Among the 25 cities whose corporate boundaries embrace the greatest acreage, Los Angeles ranks first in land area, the U.S. Department of Commerce reports from the 1960 census.

Los Angeles' land area is 454.8 square miles; its population density is 5,451 persons per square mile. Although fourth in size in terms of land area, 315.1 square miles, New York City has the greatest population density—24,697 persons per square mile.



\$17 MILLION PROGRAM. At ground-breaking ceremonies, Eichler Homes, Inc. launched San Francisco's first redevelopment project—Western Addition—a \$17 million residential-commercial project. Eichler is the largest of 22 developers who will restore the 108-acre site with some \$50 million in construction. First phase of the Eichler construction (to be completed this year) involves 72 garden apartments costing about \$2 million. The balance, over 600 units of high-rise residential construction, will be completed in 1962 and 1963. Above, from left, are Joseph L. Eichler, president of Eichler Homes; Mayor George Christopher; Governor E. G. Brown; Neal J. Hardy, FHA Commissioner, and William L. Slayton, Urban Renewal Administrator.

Southern California Building On Climb, Says Developer

Morton Sterling, head of Sunset International Petroleum Corp., one of the largest real estate developers on the West Coast, reports home buying activity in Southern California, especially in medium-priced luxury dwellings, has increased greatly in recent weeks. And it shows definite signs of continued improvement.

Sterling cites two examples of this upturn on his own operations:

In one weekend, the firm opened the first units in its 1,000-acre Sunset Hills development in North Whittier Heights. In two days, more than 5,000

persons, toured the development and its six model homes.

At Sunset's 4,000-acre San Carlos development in San Diego, 25 houses were pre-sold in two weeks. Observes Sterling:

"While developers of low-cost dwellings are apparently still suffering in some areas of the state, as well as nationally, this doesn't generally appear to be true of builders of the better medium-priced homes. Our own current experience in Sunset Hills and San Carlos substantiates this upward trend in buyer interest."

California HBA Says Code Change Will Up Cost

Romex wiring vs. conduit installations is under fire by the Santa Clara County Contractors and Home Builders Assoc., which points out that changes in the electrical code proposed for all cities in the county will raise the production cost of apartments. Too, claims the organization, the changes will complicate apartment construction needlessly.

The battle: A proposal by Santa Clara County and building departments of all cities in the Santa Clara vicinity to adopt conduit wiring as the basic standard for apartments containing two or more units.

Company Loans \$82 Million For Mortgages in '60-'61

More than \$60,000,000 of \$82,000,000 was loaned in residential mortgages (FHA, VA, and conventional) in seven Midwest states, and another \$15,000,000 was in FHA apartment mortgages—primarily in California and Arizona—during 1960-'61 by the Advance Mortgage Corp.

President Irving Rose reports the year was the best in the company's history in terms of volume and earnings.

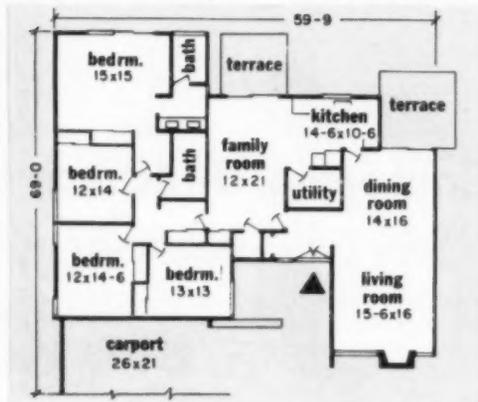
New, Semi-Finished Home Line Introduced by Texas Company

All-American Homes, Dallas, has introduced a new line of low maintenance, moderately priced, aluminum-finished homes.

The 30 models range in size from 640 sq. ft. to 1,040 sq. ft. They will be sold nationally.

Tym Seay, president of the firm, says that production potential stands at 15,000 to 18,000 units the first year. The homes will be sold through sash and door distributors and their local lumber dealers. More than 40 distributors in 15 states already have been signed; the company has launched an all-out promotional campaign.

SELECTED WESTERN HOUSE



House plan revolves around family room

Activities area separates sleeping quarters from living-dining areas, flows into kitchen for informal get-togethers and opens onto rear terrace.



Builder:
Drogan Construction Co.

Location:
San Diego, California

Price:
\$32,995

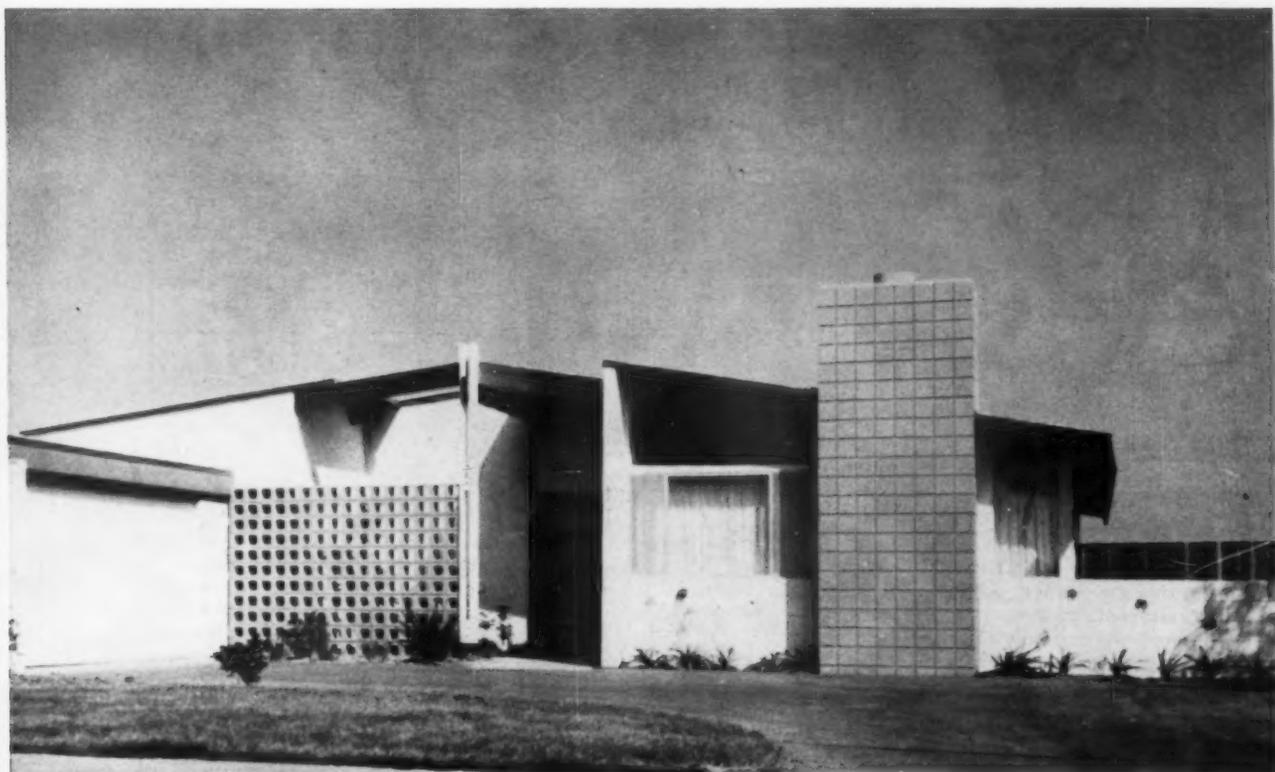
Area:
2,200 sq. ft.

Architect:
Palmer & Krisel

Modern Southwestern house



LIVING-DINING room has 30' of unbroken wall space, large sliding windows, fireplace at one end, door to terrace at other.



recalls early adobe ancestry



BIRCH-LINED pass-thru divides kitchen, family room.

Stucco walls, exposed beams and low pitched roof add up to a ranch house design that is completely at home in wide open spaces of Southern California

The builders feel that the large entrance court, shielded by a concrete block screen, is one of the best features of this California house since it gives privacy to the main doorway and offers a protected spot for always-welcome greenery. Visitors also like the room arrangement with the large family room acting as core between the quiet, sleeping wing and the more formal living areas. They also approve of the indoor-outdoor entertaining possibilities afforded by large sliding glass doors in all main rooms. This easy access to outdoors extends the usefulness of any house and doubles its worth in price per square foot.

Except in the living-dining room, which has wall-to-wall carpeting, all floors are of vinyl asbestos tile. Room- also features 30' of unbroken wall space. Interior walls are of lath and plaster. In all main rooms ceilings are roof high and follow its natural slope for an added sense of height. To gain maximum outside wall area for sleeping and living rooms, one bath and a utility room were concentrated in the center of the plan and lighted by screened skylights. The entire plan is constructed on slab, while an impressive chimney, feature of the front elevation, is of concrete block laid in a rectangular pattern.

SELECTED NORTHERN HOUSE

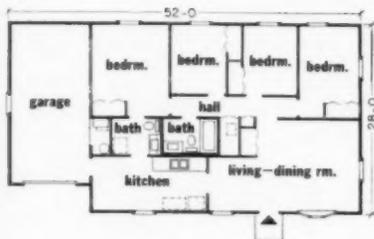


Individual look helps boost sales at Indiana development

Avoiding monotony and eye-deceiving window dressing, Place and Company, Inc., proves that the smallest of houses can have a custom-built appearance. In this development every house is an individualist, wearing its own stamp and personality. The example, shown, above, is ample proof that buyers get quality of design and efficient planning. Like others in the group, it re-

calls a Cape Cod heritage and its floor plan is contained within a simple rectangle. It also shows careful attention to detail, so often lacking in tract housing.

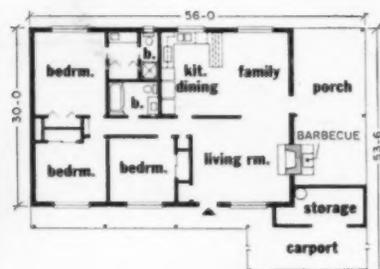
Though this model has outside walls of asbestos panels (covered by molded wood strips), its neighbors are finished in V-jointed redwood boarding, beveled siding or a combination of all three.



Their color patterns vary to add individuality and eliminate monotony. The plan here locates four bedrooms at the rear for privacy; living and dining rooms are combined for flexible entertaining and the kitchen is large enough for a dining table. Baths are formed around an inside core; free outside for more important rooms. Such an arrangement cuts down on pipe runs.

SELECTED SOUTHERN HOUSE

photograph—Sandy Gandy



Design of this Florida house makes it adaptable to any region in the nation

Highlighted by its gently pitched roof, diamond-latticed carport window, and brick chimney, this house could adapt to any section of the country. Another all-region advantage: year-round air conditioning.

Good to look at, its plan holds everything that today's active families desire. The living room, family room and kitchen can be used separately or to-

gether and have access to a large porch equipped with an open barbecue. A few steps from the living room lead to the three bedrooms, one with private bath and dressing room. Another bath opens onto a short hallway. Every room is equipped with adequate storage space while a large area, off the carport, takes care of outdoor furniture and sporting gear. It also affords a

sense of privacy to the side porch.

Built on a concrete slab, floors throughout are of terrazzo; roof trusses pre-fabricated. Outside walls are of concrete block, old brick and vertical hard-board panels. The roof is covered with asbestos shingles. Viewers liked the side drive leading to the carport. Builder, Sunstate Bldrs., Inc.; designer Betty Wild.

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Boro Wood cabinets are available in modular or custom width units in a variety of door styles, eye-catching finishes and fine woods that offer maximum flexibility of individual kitchen design

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Prompt job-site delivery to builders and kitchen designers East of the Mississippi on a single kitchen or several hundred kitchens.

Write today for free color literature and the name of your nearest Boro Wood representative.

Offices in all principal cities East of the Mississippi.



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Beautiful kitchens help sell the home . . . and it's easy to feature eye-catching kitchens in your homes — without paying a custom price — when you use 'customized' Texboro cabinets. Texboro's years ahead styling combined with a variety of door styles and finishes in beautiful Ash, Birch, Mahogany and Walnut woods, easily solves the 'look-a-like' kitchen problem even in large projects.

Prospective buyers readily see the difference between these fine furniture type cabinets — with a special 'mar-

resisting' finish that is baked on at the factory to last the life of the home — and ordinary 'job-built enclosed cupboards' . . . that's why Texboro is often the big difference between prospects looking and actually buying.

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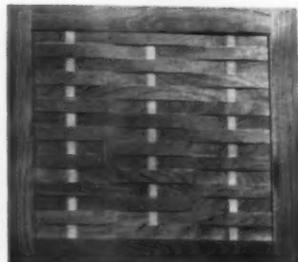
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SPECIAL WESTERN SECTION

Conference pinpoints land uses from far-out lots to more homes per acre

by Bill Rodd

How to get home prices down and tap the lower income market has its roots in raw land and land development costs. Here are builders' views presented at the Pacific Coast Builders Conference held in San Francisco

It was a good show—good from the standpoint of total attendance—better because of the dozens of attractive and informative exhibits—and superlative in the quality of its speakers and panels.

There were a total of 72 exhibits—and would have been more if room had been available. It was stated that next year's conference will be held in the new Towers of the Fairmount Hotel where adequate space will be provided. This year's exhibitors included most of the blue chip manufacturers serving western builders. Kwikset Sales & Service Co. won the blue ribbon for the best booth. In addition to a very attractive display of their products, they had an equally attractive young lady tending a roulette wheel and offering prizes to lucky spinners.

Discuss lowering home prices

The speakers included Governor Brown and Senator Kuchel, NAHB prexy Jim Burke—and no less than three NAHB past presidents: Alan Brockbank, Martin Bartling and "Flat Top" Earl Smith. FHA Commissioner Neal Hardy was there and, of course, Frank Cortright, the old reliable. It followed that the meetings were all well-attended.

How to get home prices down and thus tap the market consisting of lower income groups was a subject discussed in several of the panels. Space does not permit even a resume of the discussions, but here are some of the

approaches to one facet of the problem—the high cost of raw land and land development. That the approaches are sound is evidenced by the fact that many builders are now using them.

Builders moving further out

Far-out land. It was pointed out that land farther out than the commonly accepted boundaries is cheaper. But will people buy in such areas? Signature Homes in their North Oaks tract on the edge of the San Fernando Valley proved that they will be selling 217 houses in 12 days. Volk-McLain proved likewise in San Ramon Village, 35 miles from downtown San Francisco by selling over 700 homes in a few months. Both builders offered unusual values made possible by low land costs.

More home per acre. This solution depends upon the cooperation of the local planners, most of whom would like to have wide streets, big lots, parks, etc. But the trouble is that people can't pay for them at present land prices.

Proof that many buyers will accept smaller lots is found in the success of the trailer industry which creates 12 to 18 sites per acre. One panelist stated that 10% of all residential units sold in 1960 were trailers, many of them for fixed locations.

Narrower streets were suggested. By prohibiting street parking, narrower streets would be feasible. In some cases one-way streets could be used.

Row houses are accepted in many cities without question. San Francisco, Philadelphia and Baltimore are examples. Barrett Homes recently sold out a development in Richmond, Calif., incorporating attached homes.

High-rise apartments are finding favor with more and more builders who formerly built nothing but single family homes. Among them are Eichler Homes and Barrett Homes in the San Francisco area and Deane Construction Co. and George Buccola in the Los Angeles area.

On-your-lot builders see increase

Use of scattered lots and hills was urged. In Los Angeles, for example, where level land is far out and almost prohibitive in price, there are thousands of isolated lots and hillsides. Ken Bourguignon, BCA president, says that on-your-lot builders anticipate a 50% increase in volume over 1960 and another 50% over 1961 in 1962. Hills are being conquered by greatly improved techniques and more effective machines so that today homes are springing up where only mountain goats dared to roam.

Erosion, always a problem, is being eliminated by leaving in plants, trees, improved storm drains.

It just goes to show, where there is a will (and a need) there's a way.

WESTERN EDITOR

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SPECIAL WESTERN SECTION



Park Lanai apartments, designed for privacy, feature enclosed patios, upstairs bedrooms and baths

A central cement walkway thrusts through the rear of builder Clarence Minnerly's 21-unit buildings, offers convenience to bamboo-enclosed patios. Inside, units design combines rugged, exposed beams with suspended staircases, pass-through counters.

Turns up profits by offering privacy

Builder Clarence Minnerly of Santa Clara, Calif., recently built a 21-unit apartment building. Within months, every apartment had been rented—this in an area where many homes and buildings still stand vacant.

Success formula: Minnerly says it came from a recent trip to Hawaii—the idea of putting the living room, kitchen and a spacious patio (enclosed by a bamboo fence) downstairs; bedrooms and bath up.

He points out that people liked the idea of privacy, i.e., no one living over them. Another clincher was the big patio, which measures 18'x20', for outdoor living.

The apartments (which have 1,000 sq. ft. of living space) rent for \$135-\$150 per month; the occupants share a heated pool. Added feature: A used-brick fireplace in each unit. Called "Park Lanai," the buildings were designed by Ferdi Sahingil.

Plans stress convenience

Although up-to-date in design, traditional upstairs bedrooms and bath leave plenty of room for entertaining and family life on lower floor living, dining rooms.



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Lascolite Panes and Rolls. Hard-surfaced, shatterproof flat panes and rolls are easily cut to size and installed by ordinary glazing methods.

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*U.S. Patent No. 2855638



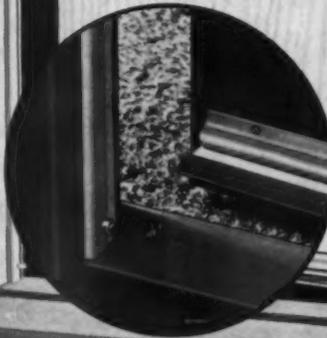
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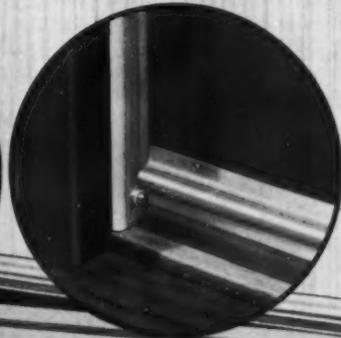
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Mr. Thomas Perine
Perine Corporation*
Indianapolis, Indiana

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OLD PRO

That truck engine on the opposite page is one of Chevrolet's famous Thriftmaster 6's—and if it looks a bit battle-scarred, there's a good reason! This one has just turned 230,000 miles, working for Earl McDaniel of Dallas Texas, on a hustling round-the-clock air mail delivery job. *And here's the stopper: this engine has never been overhauled. It has required only routine maintenance over all those miles.* That, you'll agree, is professional truck power at its dollar-saving best. That's the way it is with the most widely used engine in the business—Chevy's Thriftmaster 6!

Rarely does any truck engine—even a Chevy Thriftmaster 6—run up a performance record like this one. We point it out here merely as proof that the Thriftmaster 6 brings *staying power to spare* to any job it tackles. It's evidence that Chevrolet puts real truck "horses" under the hood—in a light-duty power plant that's built to outlast and outsave any other you can name.



Hustling air mail from airports to town on a stop-watch schedule is a 24 hours a day, 7 days a week responsibility Earl McDaniel, U.S. Mail Contractor, shares with his '59 Chevy 1/2-ton panel. And, according to Mr. McDaniel, after 230,000 miles, the truck "still purrs like a kitten . . . hasn't had or needed an engine overhaul. The pan has never been off, the valves have never needed grinding."

The Thriftmaster 6 provides the basic power for Chevy's conventional light-duty truck line. *Standard* in pickups, panels, light-duty stakes, delivery vans and the Suburban Carryall, it's the end product of many years of engineering refinement.

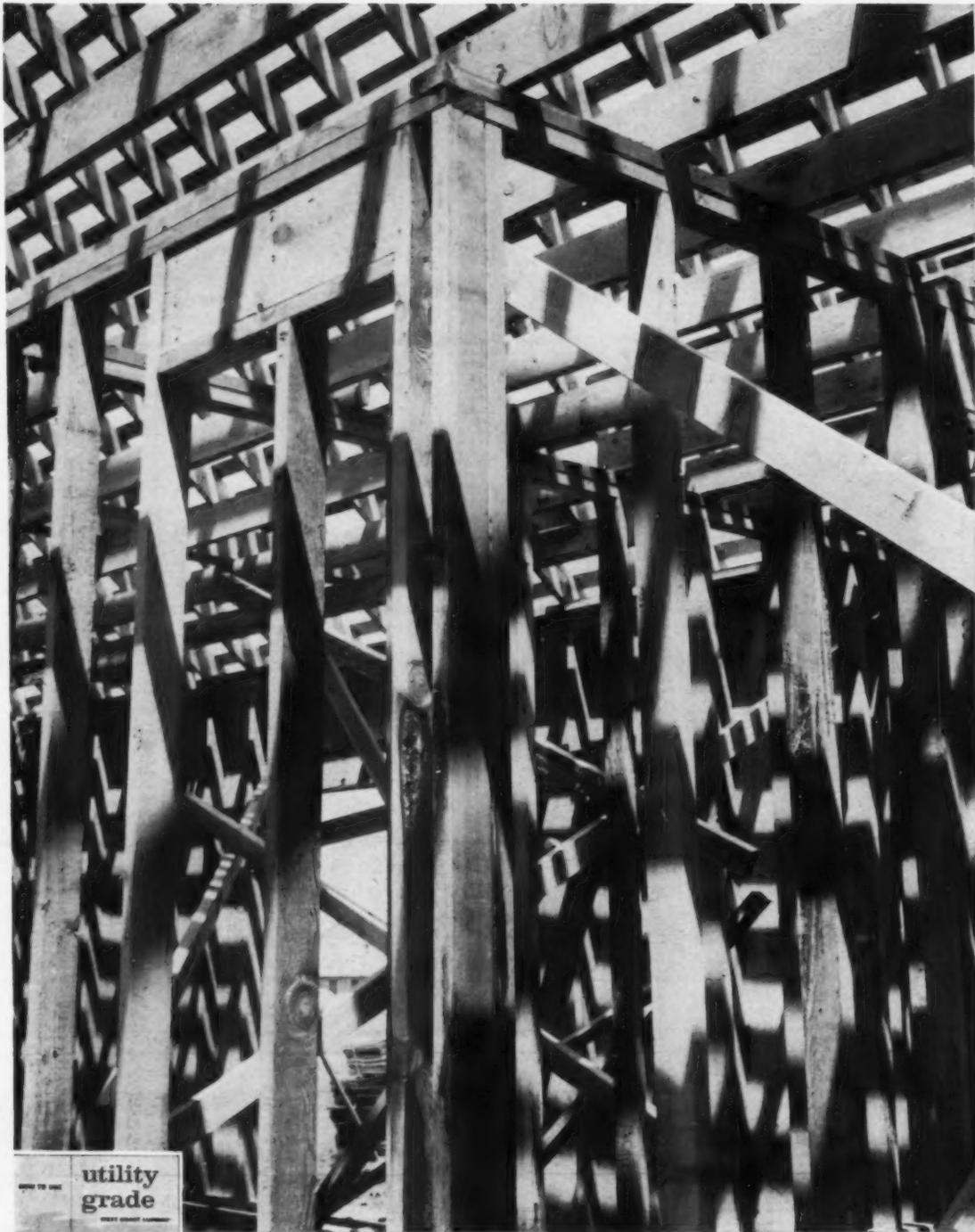
It provides economy-contoured camshaft and improved carburetion to give you extra power, extra miles from every gallon of gas. Also, there's a forged steel crankshaft, high quality steel and steel alloy valves, durable precision bearings, full pressure lubrication system, oil-bath air cleaner—all contributing to longer engine life and greater overall economy. This is the most experienced truck engine in the business, and it's ready to wade into your roughest work and keep you way ahead on fuel and maintenance expense. It'll pay you to check into it at your Chevrolet dealer's! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

THRIFTMASTER 6 PERFORMANCE DATA

Gross Horsepower	135 @ 4000 rpm
Net Horsepower	115 @ 3600 rpm
Gross Torque, lb-ft.	217 @ 2000 rpm
Net Torque, lb-ft.	195 @ 2000 rpm
Piston Displacement	235.5 cubic inches
Bore and Stroke	3 ³ / ₁₆ " x 3 ¹ / ₁₆ "
Compression Ratio	8.25 to 1

1961 CHEVROLET STURDI-BILT TRUCKS

CHEVROLET



WRITE FOR
**FREE
TECHNICAL
FACTS**

about Utility grade
West Coast Lumber.
Contains span tables.

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

WEST COAST LUMBER

West Coast Douglas Fir • West Coast Hemlock • Western Red Cedar
Sitka Spruce • White Fir

**West Coast Lumbermen's Association, 1410 S. W. Morrison Street
Portland 5, Oregon**

"I build 50 quality homes a year with money-saving UTILITY GRADE WEST COAST framing lumber,"

says Builder Ira W. "Bud" Andersen,
Kansas City, Missouri

"I can save at least 25% on framing lumber costs with Utility grade framing lumber and build a quality house at the same time. My experience in building 50 houses a year in the \$25,000 to \$40,000 price range has proved to me that the proper use of Utility grade maintains quality, holds my reputation and establishes a realistic profit on each house," Andersen concludes.

Utility grade framing lumber can give your profit a boost, too. Use it for studs, plates, joists, rafters, headers and bracing.* Ask your retail lumber dealer about Utility grade West Coast Lumber... he's your local source of supply.





AMERICA'S NEWEST ONE-PIECE CLOSET THE CRANE AMBASSADOR

This handsome, compact **Ambassador** has the 5 de luxe features customers want most: a tank so low it's almost invisible. Flushing so quiet you can scarcely hear it. Oval-shaped bowl for extra comfort. Neat, trim telescoping seat. Choice of seven pastel colors or sparkling white for a touch

of decorator elegance.

What else has it got? A surface so lustrous it looks like Dresden china. Styling that never goes out of style. Quality construction. The **Ambassador** (like all Crane fixtures) is built to outlast the building it's installed in . . . built with the Crane flair

for precision beyond ordinary standards. It's part of a **complete** Crane quality line that includes every style and every price range to fit every possible need.

See your contractor or architect. Or write Crane Co., Box 780, Johnstown, Pa.

AT THE
HEART
OF HOME AND
INDUSTRY

CRANE

VALVES AND PIPING
ELECTRONIC CONTROLS
PLUMBING
HEATING • AIR CONDITIONING



AMERICA'S NEWEST OFF-THE-FLOOR CLOSET THE CRANE REXMONT

The wall-hung **Rexmont** combines the latest improvements, the best features usually found in floor-mounted closets . . . and adds the advantage of easier cleaning.

What could be more practical? The **Rexmont** really hugs the wall. Slim tank and a round-style bowl saves space. Whirl-

pool flushing works so quietly you can hardly hear it. Teleseat is solid, unbreakable, molded plastic and concealed inside the cover.

The **Rexmont** comes in sparkling white and the seven cheerful pastel colors women love most. Available now in Crane's com-

plete line of plumbing fixtures for every building need.

For more information on these two new closets — or any other Crane plumbing, heating or air conditioning equipment, see your contractor or architect. Or write Crane Co., Box 780, Johnstown, Pennsylvania.

AT THE
HEART
OF HOME AND
INDUSTRY

CRANE

VALVES AND PIPING
ELECTRONIC CONTROLS
PLUMBING
HEATING • AIR CONDITIONING

FOLLANSBEE

Seamless TERNE



gutter and downspout



chimney flashings



valley



window and door flashing



copings



flashings

Follansbee Terne . . . a complaint-free roofing and weathersealing metal

Every builder is aware that even minor complaints aren't good for future business—and good business is the best reason for using Follansbee Terne in the areas where inadequate materials frequently cause complaints from home owners. There are many reasons why Terne is a superior roofing and weathersealing metal . . .

First, when a roofer paints Terne, the bond between the paint and Terne's coating is excellent.—Home owners will appreciate the fact that they will not have to paint nearly as often.

Second, Follansbee Terne will last as long as the house stands. There are Terne roofs which have been in service for well over 100 years.

Third, in comparison to non-ferrous metal accessories, Follansbee Terne can be painted—a real advantage because home owners like color in such things as gutters and downspouts. Terne also gives them the opportunity to change the color of house trim to harmonize with other exterior colors.

Fourth, Follansbee Terne allows the roofer to do a better installation job.—It's easy to work with, solders perfectly because of its tin-lead alloy coating.

Fifth, Follansbee Terne requires fewer expansion joints than necessary with non-ferrous roofing metals—only one every 30 feet as compared to 8 for one metal and 3 for a second.

Sixth, Follansbee Terne, whether used for the complete roof or only for accessories, has advantages that your salesmen can point to in selling prospective buyers.

Using a competitively-priced, quality material like Follansbee Terne is good business—and helps make other sales possible. Ask your roofer or sheet metal contractor about Terne, or write

FOLLANSBEE STEEL CORPORATION

Follansbee, West Virginia • Sales Offices in Principal Cities



THE MODERN FARMSTEAD is geared for production. To profit, farmers must produce more cheaper. They need buildings to do it.

\$2 BILLION SPECIAL REPORT

The Farm Market: No Pig in a Poke

If you're looking for a way to brace a sagging residential building business, don't overlook the farm market. In dollars-and-cents, it's a big \$2 billion opportunity for any builder who's willing to diversify.

To size up this sleeping giant, AMERICAN BUILDER went into the field and talked with builders, manufacturers and editors of farm publications. Here are the reports:

Lane M. Palmer, Editor, Farm Journal Magazine: "The trend toward greater farmstead mechanization means more than just the installation of labor-saving machinery. It also means buildings designed to make the most efficient use of this modern machinery.

"But the exciting news in buildings doesn't stop here. Because of modern machinery, modern materials, modern medications and feed additives, whole new concepts are appearing for greater

efficiency in livestock production. These new concepts are themselves creating new building needs and designs.

"Farm buildings are no longer used primarily as shelter or storage structures. They're actually production tools."

A manufacturer says: Total spending on all farm buildings in 1959 totaled \$2.4 billion. This was an increase of 11% over the previous year. This figure represents all building—new construction, major remodeling, maintenance and repair.

Because farmers are specializing in their market—livestock, grain, etc.—many of the nation's farmsteads are out of date. This holds true of buildings constructed only 10 years ago. As a result, farmers are taking a look at their present buildings with adding new construction or remodeling the old

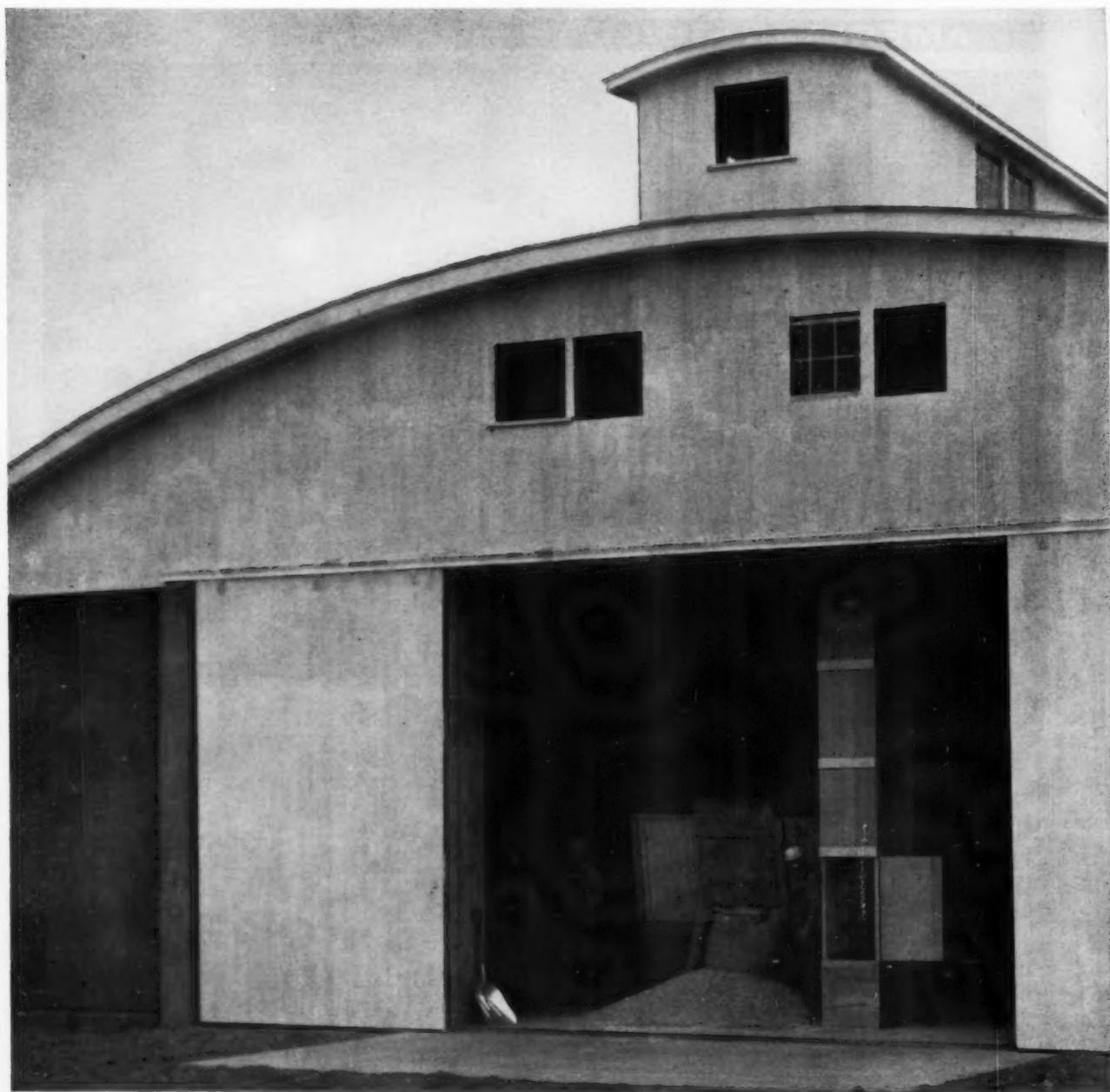
as a very definite consideration.

To back this up, Farm Journal further reports that more than one-third of farmers' capital spending in the last 10 years went for farm construction. Farmers spent from 34% to 41% of their total annual capital for new building and remodeling.

In 1959—the last survey available at this time—farmers invested more money in buildings than in tractors, trucks, and cars combined. Here's the breakdown:

Buildings	\$1,752,000,000
Trucks, tractors	\$1,657,000,000
Other equipment	\$1,469,000,000

On the next eight pages, you'll find a special report on how builders, lumber-dealer-builders, manufacturers, and trade associations are approaching this big, new market. AMERICAN BUILDER will continue to explore this subject in future issues.



THIS IS A CONCRETE grain storage building (tilt-up type) used by A. Sterner and Co., Jordan, Ia., for shelled corn.

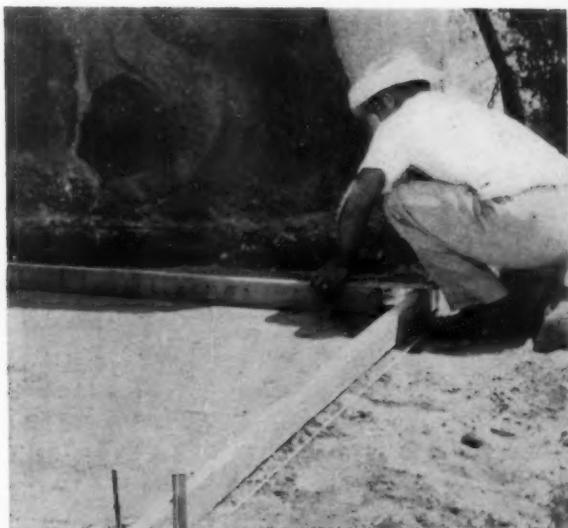
FARM BUILDING: CONCRETE

Concrete tilt-up—a fast,

Single-story structures—machine sheds, cattle enclosures, and some types of dairy barns—cast from cement are quick to build with minimum of equipment and experienced labor. Simply cast the panels and tilt them up into place.

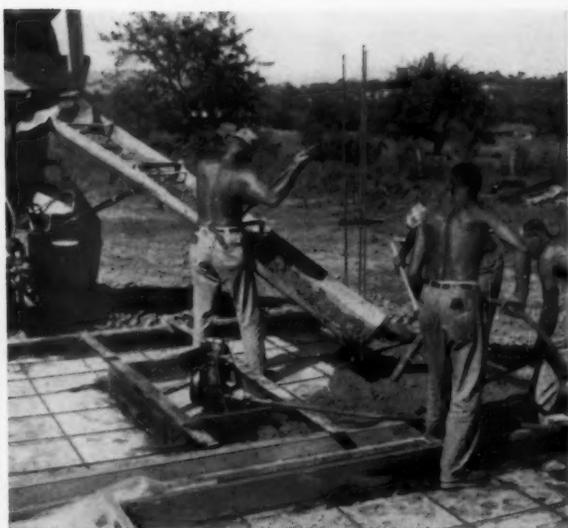
After three years of intense study, the Texas Agricultural Experiment Station came up with tilt-up concrete construction technique outlined here. It's especially suited for builders with a small (two or three-man) crew. Briefly, here's how the buildings go together:

- Foundations go below frost lines;



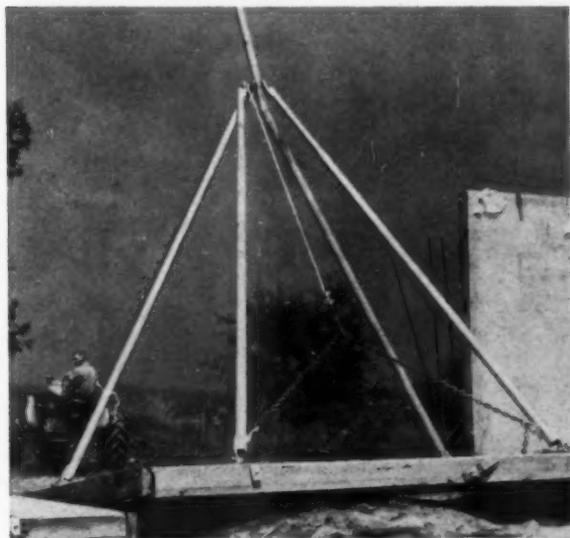
For casting wall panels, use a smooth surface

Best casting bed is smooth, dirt-free concrete floor. It's covered with material (like polyethylene film) to prevent fresh concrete from bonding with floor. Forms are 2x4s, set on edge.



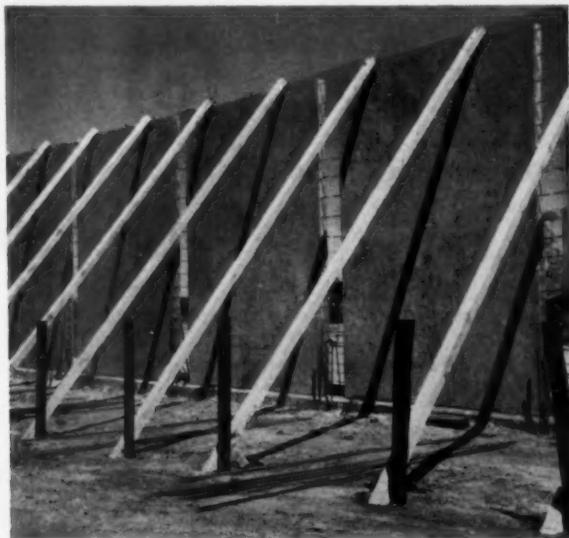
Reinforce 4' x 10' x 10' panels with 5 #3 bars

Sand casting bed is used, if floor isn't handy. Grade, spread 3" to 6" layer of sand. Screed to level; place film. Reinforcing rods go both directions in forms. Cast in alignment for tilt-up.



Light tractor, tilting frame used to lift panels

Simple pipe frame, with telescoping legs for different-sized panels, and tractor pulls panels into place. Forms are stripped before erection. For slight panel adjustment, pry bar is used.



Before fastening, temporary bracing is needed

Walls are set, plumbed, braced. To fasten them, cast reinforced columns are generally used between sections. Any conventional roof construction—clear-span is best—completes the job.

low-cost way to build a barn

concrete piers are generally used for footings. Alternate method uses continuous steel reinforcing in pier and column construction.

- Casting beds can be a smooth concrete surface or a sand bed. Forms are 2x4s; size of panels can vary.

If floor is used, panels can be moved with rollers. In sand bed, panels are

cast at perimeter of building for easy erection with tilt-up frame, tractor. Horizontal reinforcing rods protrude 1-1/2" for alignment and fastening of the panels to columns. Door and window frames are held by bracing to edge forms, prevents "floating."

- Concrete is placed as for any flat surface. Already-mixed material should

be 6 sacks of portland cement per cubic yard, with 6 gal. of total water per sack. To mix it: 1 part portland cement; 2/3 part water 2-1/4 parts sand; 3 parts coarse aggregate.

- Columns are formed and reinforced, and cast between the panels.

For additional information, contact Portland Cement Ass'n., Chicago 10.



There's a growing demand for rigid frame poultry buildings; they offer plenty of ventilation

Big benefit of rigid frame poultry building is ventilation for birds. Using pulleys, endless rope, and cleats similar to those

used in boats, window system was developed by builder. Structure measures 40x100'; it's located on farm near Yelm, Wash.

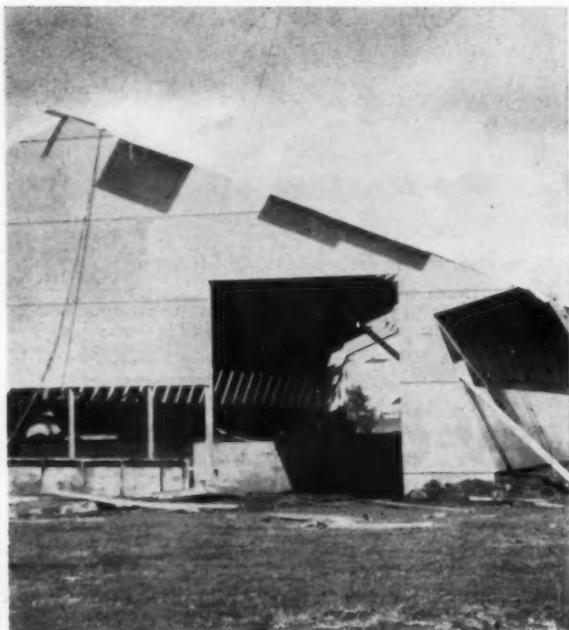
FARM BUILDING: PLYWOOD

Pre-engineered rigid frame



To cut costs, builder uses plywood clips

Plywood clips instead of blocking sharply reduces fastening costs for builder Art Rud. The clips cost 6¢ each compared with 31¢ for blocking. Mopped-on roofing tops out job.



Erection costs: less than \$1 psf in most areas

End walls of rigid frame building are quickly framed conventionally. Minimum framing was used at opposite end of this building; owner plans to add another 100' to it later.



Tilt-up system doesn't require costly equipment

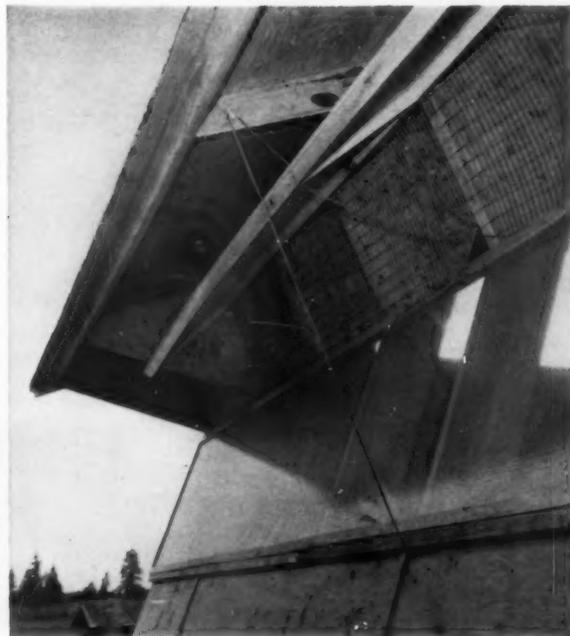
Frames go up fast and easy with this system. Other ways include walk-up "bleacher" mounted on back of flatbed truck and Army surplus boom welded on pickup truck.



Specialty-engineered template speeds fastening

To mark nailing pattern on gusset plate blank, spray-paint bomb and template engineered by DFPA are used. Builder does as much detail work as possible in shop to keep quality high.

farm construction makes profit



Simple window system developed by builder

Here's how windows work: pulleys, rope, and cleats. One of successful keys to farm market is reduction of site labor; however, transportation, longer supply lines cut into workday.

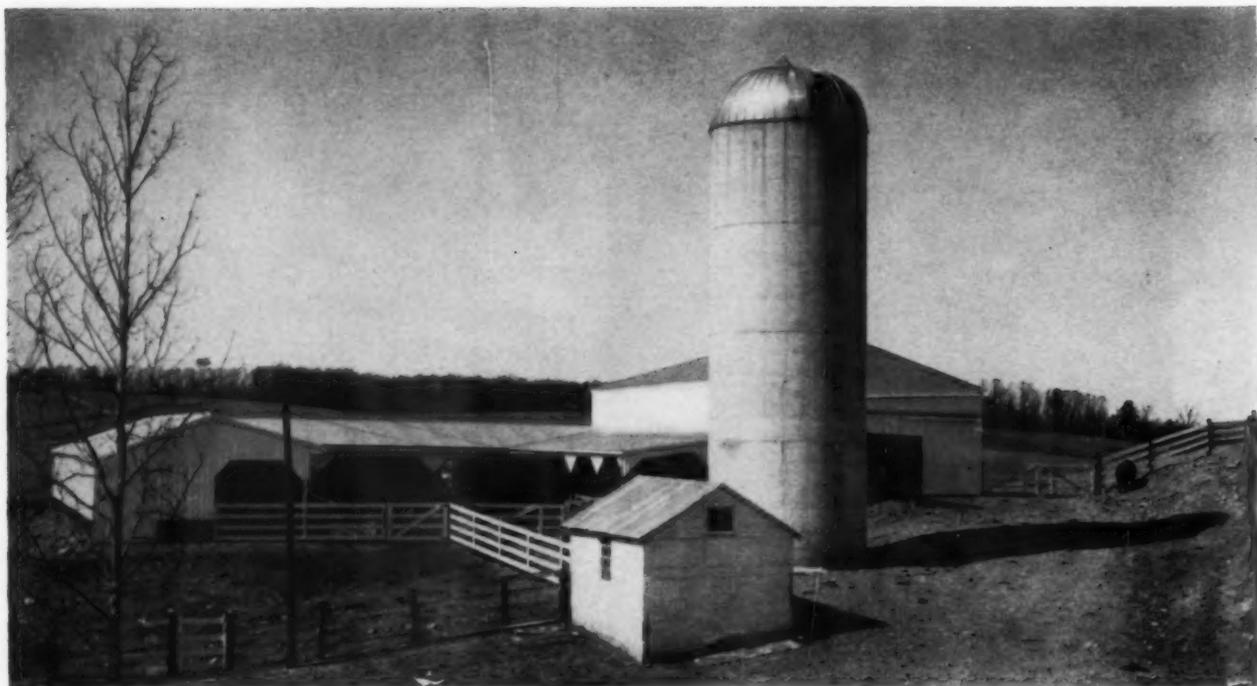
This Washington builder went into the farm market when his residential volume slowed down. With a DFPA system, he bids under \$1 psf on buildings and comes out on top.

Builder Art Rud, Gig Harbor, Wash., had never built a farm building until last year. Since then, he has been able to build a substantial farm business—one that yields him profit when other markets are depressed.

To boost business, Rud went to Douglas Fir Plywood Ass'n. They showed him their pre-engineered rigid frame building system, which can be adapted for use as potato storage structures, poultry buildings, lambing sheds, etc.

Rud decided on poultry buildings because vertical integration in the poultry business gives a single agency—usually a feed company—control over the type of building used. Under this system, the farmer or grower serves as a kind of subcontractor for the feed firm. He is paid per bird; the central agency takes care of marketing. The firm sets the building standards.

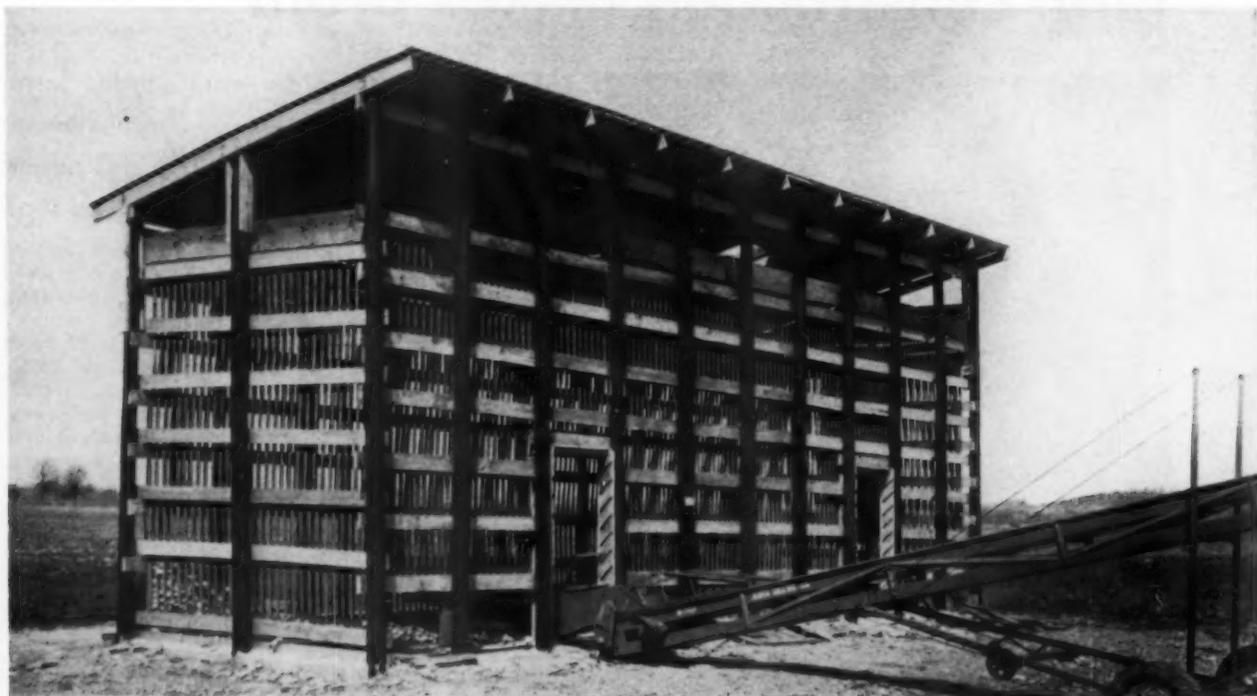
On the job pictured here, Rud figured completed frame costs—including labor—at \$18.32. The foundation cost \$250 for labor. After the foundation was in, erection of the frames took five men 10 hours. Rud's materials for the building cost 49¢ psf. With a bid under \$1, he was able to pay labor and make a reasonable profit. To cut costs, the builder also has come up with several production ideas: plywood clips instead of blocking; prefabricated frames in halves; pre-cut members; nailing patterns.



Package farm building: McGiffin designs structure according to the buyer's needs; then builds it

After surveying dealers, farmers, McGiffin found need for packaged farm buildings. Reynolds furnished dealer-erector service. Company plan, with few modifications, is still used. Before mate-

rial goes to site, entire project is organized to cut costs. Typical 52x60' cattle loading barn takes between 200-250 man hours to build; less than two weeks for 4-man crew.



Crib offers storage for 185 bushels of corn in four sections; poles go 5' in ground, 4' oc

Typical of pole construction by Doane is this crib. Structure has welded wire fencing for siding; rafters support roof, serve as pole ties. To be successful, Doane says builder should also

be dealer with salesman, offer completed building package—not just the material. Labor could be handled on sub basis, but dealer must make construction arrangements for profit.



Firm uses aluminum diamond-rib sheet

McGiffin dropped .019 gauge sheet and went to top materials. This boosted cost 3-4%—but quality paid off. Atlantic spends 2% of gross sales on radio, direct mail advertising.



Minimum equipment needed for aluminum buildings

McGiffin's equipment inventory for putting up buildings like these includes power-driven auger-type hole digger; A-frame rig to set poles; small crane on truck to set trusses; scaffold.

FARM BUILDING: ALUMINUM

Quality: It means farm success

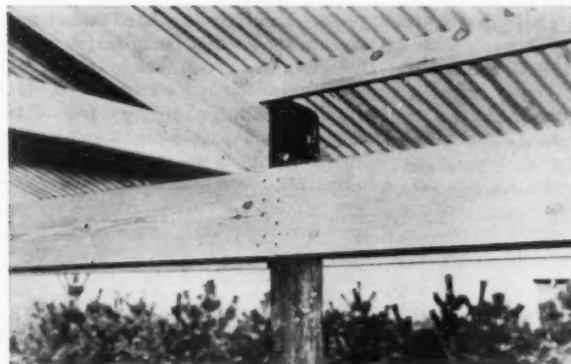
"You have to offer a quality package; you must be ready to change your marketing tactics at any time."

That's the way F. K. McGiffin, head of Atlantic Aluminum and Supply

Co., Inc., Staunton, Va., outlines his road to success as a builder of aluminum farm buildings.

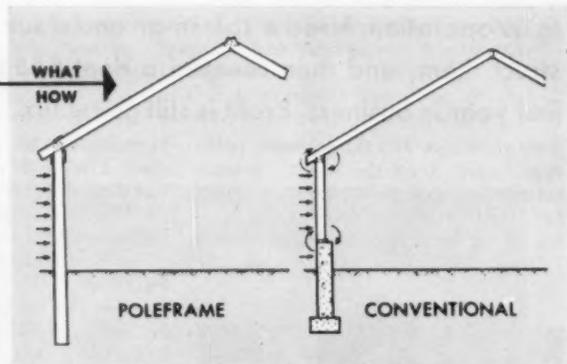
McGiffin went to Reynolds Metals Co., Richmond, for help in diversifying

from aluminum farm gate manufacturing to dealer-erector of buildings. He merchandises aluminum with long life, low maintenance message to prospective farm customers.



No-notching system adds strength to structure

By using simple framing systems and standard size materials, buildings go up fast at small cost. Doane program offers an engineering service, advertising materials; sale assistance.



How construction techniques differ for strength

Doane system (left) eliminates notching which weakens building. With this technique, clearspan with trusses can be used, eliminating center pole support. Lumber laps at pole joints.

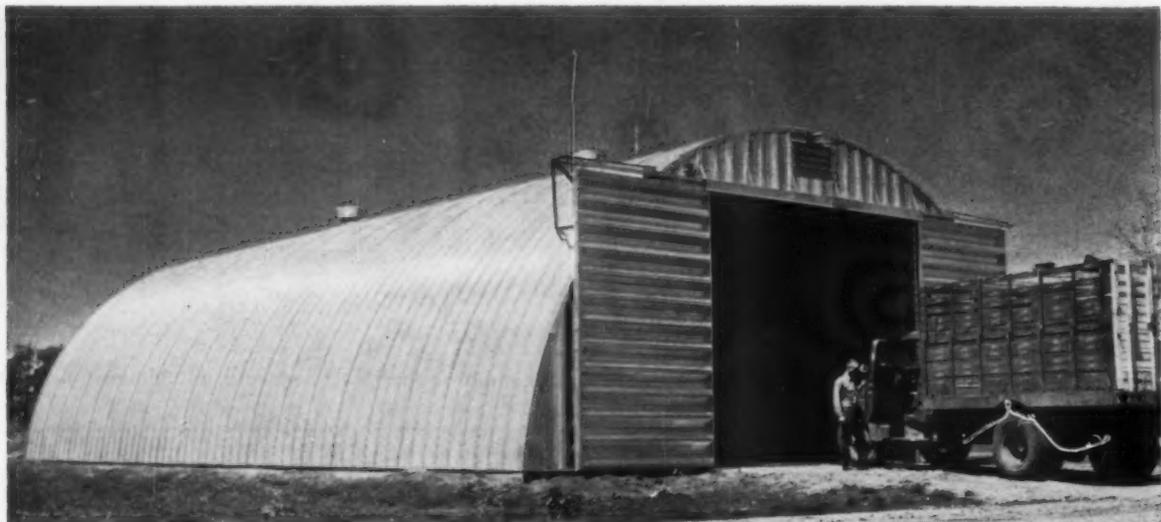
FARM BUILDING: POLE

It's a double-barreled market

Pole-type construction is not only an easy way to build, but it can offer your customers adequate shelter at very low cost. And, according to Doane, Agricultural Service, Inc., St. Louis, Mo., the

technique isn't restricted to farm buildings; it's rapidly gaining popularity in the commercial field. The company bases this on the sale of their buildings—Poleframe (a trademark). Construc-

tion is simply a matter of setting pressure-treated poles in the ground—like fence posts—and nailing on the roof and sides. System eliminates footings (see drawing above).



Culvert-type farm buildings are big seller with Johnson Cashway; they have multi-purpose use

When not used for grain, culvert-type buildings offer excellent utility and machinery storage. Johnson analyses potential on basis of sales missed previous year, crop conditions, and govern-

ment farm production legislation. Market was put into separate division of business so Johnson can tell exactly if the division is profitable. Firm also sells wooden buildings.

FARM BUILDING: STEEL

A small investment created a

This Hastings, Neb., lumber firm added steel farm buildings to its operation, hired a salesman and a sub to sell and construct them, and then counted a neat \$55,000 volume the first year in business. Profit is still going up.

Two years ago, Harold Johnson, president, and Kenneth Baker, general manager, Johnson Cashway Lumber Co., Hastings, Neb., saw a slump coming in the residential building market.

They decided to compete for the

farm market, comparatively new at the time. The profit results have been outstanding in the last two years—a \$55,000 volume the first year; \$75,000 the second.

Johnson and Baker went to all-steel buildings because of the demand for them in the Hastings area. They chose Behlen Manufacturing Co., in nearby Columbus, Neb., as supplier. Behlen ships directly to Johnson's job sites, which eliminates his need for large inventory and cost of re-moving materials. This lowers cost.

Johnson hired a sub-contractor to handle the erection of his steel building division. Johnson trained him, and allows the sub to hire his own crews as the work load is supplied. When business is slow, the contractor is permitted to do other work. Although this has been perfectly satisfactory for Johnson, Behlen recommends that a dealer or builder-dealer have his own concrete and erection crews. This, primarily, insures job control and a better builder profit.

To erect the building you need a minimum of equipment, including a

boom for raising steel into position, impact wrenches for bolting panels together, and aligning pins. An electric saw and a welder or torch is handy for this type of construction.

For promotion, Johnson ties in steel buildings with his other products. The firm inserts a page in its regular mailing which goes to the farmers quarterly. They also use newspaper, radio, and some television advertising to promote their farm structures.

The big change in farming

Farming has become an industry—almost one with assembly-line techniques in raising crops and animals.

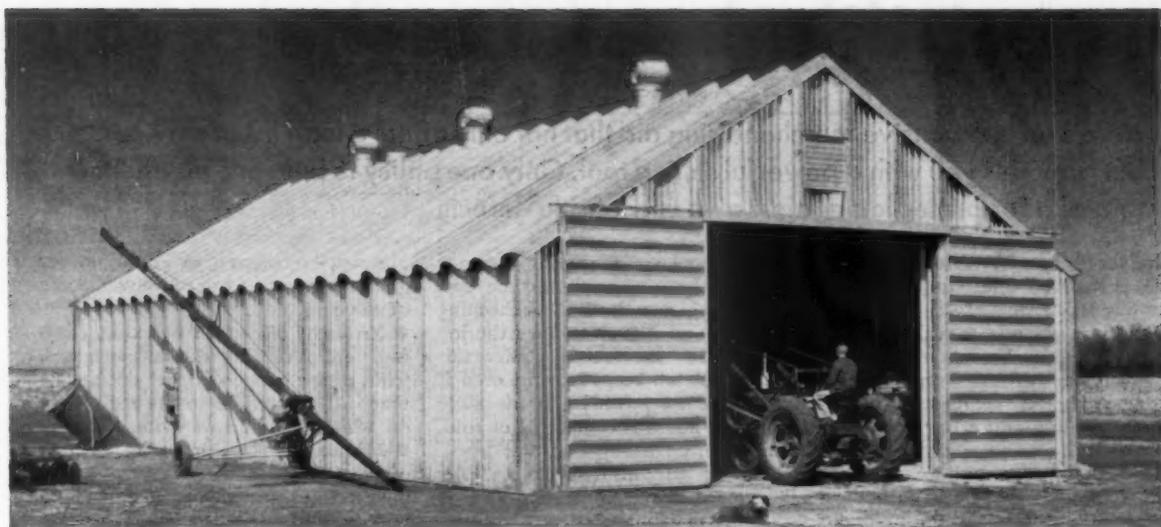
Because of this, companies such as Behlen, Butler Manufacturing Co., U. S. Steel, Doane, Reynolds Metals, and many others in the building materials business have come up with a vast farmstead and farm building design program for builders, farm dealers, lumberyards, and others.

Before you enter this profit-making field, you should consult with one of these manufacturers. They will be able to help you with engineering problems, marketing, etc.

For example, one of these firms, Stran-Steel Corp., a division of National Steel Corp., Detroit, recently designed a hog production plant for K-R Iowa Hog Producers, Inc., Red Oak, Ia. (see photo below right).



SALES MATERIAL used by Salesman Carl Ruhter (standing) is reviewed by President Harold Johnson (left) and General Manager K. M. Baker of Johnson.



Complete building package is top-notch sales maker for the Nebraska lumber-construction company

Standard type building can be used for grain conditioning in one end, machinery storage and utility purposes in the other. Besides lumber, building business, Johnson operates the local

ready-mixed concrete company, which is available to produce concrete for farm structures. Firm says only real overhead for building business is their salesman.

\$75,000 volume in two years

The basic design lends itself to easy insulation, lining, and ventilation for positive control of temperature, humidity, and air purity. All of these factors have to be taken into consideration before building can take place.

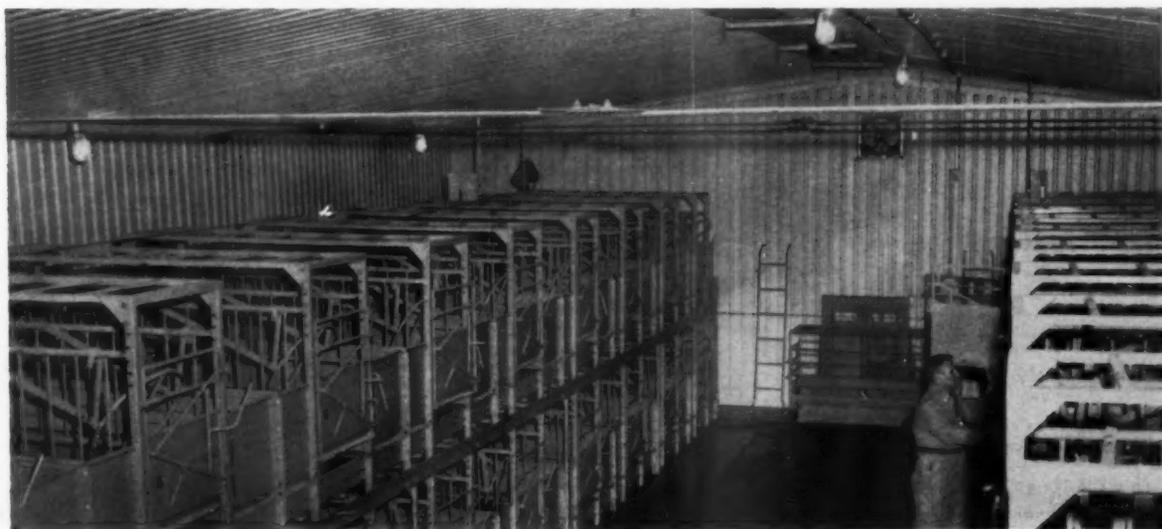
The K-R job called for a farrowing house, pig weaning building, and three

finishing houses. All buildings were insulated and lined with white steel panels. For temperature control, concrete floors were insulated; heating coils were used in floors of the finishing and growing units.

Concrete floors in the farrowing pens are double decked. The buildings

are ventilated with 32 fans; the entire operation is thermostatically controlled. Total production of the hog plant, in the future, will be 100,000 head annually.

This example of one phase of the modern farm market shows where the \$2 billion figure in building lies.



Interior of hog plant shows extent of assembly-line industry that modern farming has become

Farrowing house features environmental control, sanitation, and labor-saving devices. Compartments are for sows and baby pigs. Walls, ceiling are fully insulated; they can be washed and steam-

cleaned easily. Temperatures are maintained between 50° and 80° F. Note clear-span of building with tie-rods and adjustment of width of air inlet beneath the roof ridge.

Let title insurance help you

Here's an inexpensive merchandising aid that not only offers a long list of services, but provides you with a powerful selling tool. Only one policy to buy, one payment to make for protection against a variety of title defects

As Builder Robert V. Welch of R. V. Welch Associates, Inc., Indianapolis, Ind., puts it:

"Title insurance is as valuable to the volume builder, because of its time saving services, as mass production building methods. We need both to continue to out-produce our competition."

Welch, the largest builder of National Homes last year, sums up the thinking of a lot of home builders across the country, who, for the first time, are finding out how important title insurance can be to them and to their customers.

You save on interest

For you, the builder, a title insurance firm that has a progressive escrow set-up can save you interest money on construction loans. For example, some loan companies require that the payoff be in their hands by the end of the month the deal with the buyer was closed. If not, the builder is charged additional interest. The title escrow department can help you close the deal faster—often days before your deadline.

A good escrow department can help find money from a non-local lender.

It can help you in financing your projects by paying off subs and material suppliers as the jobs progress. Here,

the company keeps the funds in escrow and pays the bills as they come due. This saves you a lot of bookkeeping headaches and money to have the job done by an accountant. Under this system, your job keeps moving, even if a lien is filed against the mortgage before the house is completed or sold. Further, an escrow system:

- Provides an "insured closing" for all involved in the transaction.
- Facilitates closings of any transactions involving the consolidation of several titles into one.
- Facilitates the closing of any transaction involving the sale and an immediate resale.
- Saves your lawyer time—and you money—by cutting clerical red tape involved in every real estate deal.
- Gives your salesman more time to sell by freeing them from the technical details of closing.
- Frees your broker of the responsibility of hidden technicalities and mistakes in computations.
- Reduces faulty transactions.
- Gives confidence to your buyer and to you.

Features maximum protection

Under title insurance, you and your customers are protected to the hilt against a variety of defects that

abstract, certificate or opinion, or guaranty coverage can't give you. Some of these include:

- Errors by officials in indexing, copying, and recording deeds, mortgages, wills, and a range of legal documents that will affect titles to the real estate on which you borrow money.
 - Mistakes in searching titles, such as overlooked judgments, taxes, assessments, mortgages, easements, encumbrances, and other title objections.
 - Official goofs in examining and reporting on the condition of titles, construing wills, deeds, court proceedings, and other legal matters affecting the title to your loan security.
 - Mistakes made by civil engineers and surveyors.
 - Errors by courts in their decisions, which may be reversed or overruled and damage loan security.
 - Protection against:
 - Forged deeds and releases.
 - Falsification of titles.
 - Expired powers of attorney.
 - Missing heirs.
 - Deeds by minors.
 - Deeds by persons of unsound mind.
 - Secret marriages.
 - Undisclosed divorces.
 - Birth or adoption of children after the date of the will.
- These are just some of the benefits of title insurance: protection that you can pass onto your customers at very small cost.

Merchandise benefits

The customer should be made aware of what a title policy does for him while he's paying off his house loan and afterwards.

Stress these points:

1. The policy, usually, covers just the mortgage amount, unless it's an owner's policy (see box). It's issued to the company that's lending the buyer the money. This assures the lender that the buyer has clear title.
2. Only one premium is paid on an owner's policy. This covers the full purchase price of the house, and protects the owner's title as long as the owner or his heirs has an interest in the property. Should the title ever be questioned, the insurance company defends the case at its cost. Should there be a loss, the company pays off to the face amount of the policy.



Some title insurance firms offer builders sales aids like these

To help you merchandise your houses and title insurance, some companies offer counter cards and sales kits which contain information to "educate" prospective customers about policies and services. For personal touch, material is imprinted with builder's name.

build and sell houses

3. Spell out the benefits for the homebuyer. Make sure he knows *all* the advantages of the policy. For this, some companies offer sales aids such as counter cards sales kits and display materials, plus expert merchandising advice from agents (see photo).

4. Cite examples such as these:

● A homeowner in Georgia insured his property for \$10,800 the day the deal was closed. The policy contained an exception to a sewer assessment, which was inadvertently omitted from the title report. The company took over and paid the assessment, which saved the homeowner \$125.

● Because of a survey error, a Virginia resident found that there was an encroachment of his property upon the adjoining property. The cost of correcting the mistake was \$337.75, which the company paid.

● An Illinois homeowner had to reacquire a half-interest in his property. When he started to close the deal, he found that the man he had bought the lot from had introduced another woman as his wife. The other woman had forged the real wife's signature to the deed. The insurance company took over and paid all costs.

Very impressive, indeed, are the claims paid by insurance firms. For example, in a 3-month period, one company spent more than \$100,000 to settle disputes. These included:

- Forgery: six cases.
- Taxes and assessments: 13 cases.
- Mechanics' liens: 12 cases.
- Fraud: four cases.
- Incompetency: one case.
- Mistake in title: three cases.
- Prior vendor's lien: one case.
- Prior judgment: three cases.
- Existing contract to buy: one case.
- Record overlap: one case.
- Easement: six cases.
- Encroachment: one case.
- Prior deed: one case.
- Failure of title: two cases.
- Question of survey: four cases.
- Reservation of title: one case.
- Prior option to purchase: one case.
- Lien on unsecured note: one case.
- Restriction: one case.
- Boundary dispute: one case.
- Adverse chain of title: one case.

Before you deal with a title company for yourself or your customers, be sure it's a member of the American Title Association. Also, make sure the agreements that an agent makes, (if you deal with an agent) bind the parent company to the contract.

The advantages of title insurance at a glance—how it works, how to merchandise with it, closing tips

Title insurance protects policy-holders against financial losses that can put builders out of business and homeowners into the street. To show you the protection it affords, Lawyers Title Insurance Corp., Richmond, Va., quotes these cases from its files. (All titles were considered perfectly "good" until the suits were started.)

Cost of Defense	Suit Claiming:	Premium Paid
\$5,850.82	Prior Ownership	\$94.31
\$1,000.00	Deed by Incompetent	\$35.00
\$6,184.48	Erroneous Boundary Line	\$40.91
\$1,507.00	Divorced Wife's Dower	\$23.75
\$1,011.62	Duress and Fraud	\$14.25

Title insurance is the only form of evidence of title that is universally accepted by loan institutions.

Title insurance can help you with your construction projects by providing escrow services that: save you interest money; pay off subcontractors and material suppliers; arrange for non-local loans; protect you and your customers against a variety of defects in real estate titles.

Title insurance can help you merchandise homes. For example, you can buy an owner's policy along with a mortgagee's policy you're required to purchase. It covers the full purchase price of the property; it protects the owner and the owner's heirs just as long as they have an interest in the property. Cost varies from state to state and with the price of the house. However, in most cases, the policy will cost you less than \$50. In some areas, a package rate is available, which includes title insurance premium, closing services, and a title search fee.

A mortgagee's policy is issued to the mortgagee or lending institution; it only covers the amount of the mortgage, not the full purchase price, which would include the customer's downpayment. As the customer makes his mortgage payments, the protection offered to the mortgagee by the policy is reduced. If the title insurer pays a claim to the mortgagee under the policy and the customer has no owner's policy, the insuring firm has the right to demand reimbursement for the claim.

In its title insurance program for builders, Lawyers Title makes the following suggestions to facilitate closings. The seller or his attorney should have on hand: 1. Deeds and other required title documents. 2. All required hazard insurance policies with proper endorsements and assignments attached, when existing policies are to be assigned. 3. All statements of amounts due. They should be signed by the holders of existing liens. 4. All unrecorded releases of liens or discharges of mortgages in their possession. 5. Water and tax bills that were paid last. 6. The exact amount of real estate commission to be paid out of escrow funds, along with the names to which the commission is payable. 7. The division of title, recording, and escrow charges. 8. A copy of the preliminary sales agreement and the bill of sale covering personal property. *The buyer or his lawyer* should have: 1. The required funds to close the deal. Funds should be in certified or cashier's checks. 2. The required hazard insurance policies, when the buyer is not taking over existing policies. *The mortgage company* should provide written escrow instructions incorporating the mortgagee's requirements relating to insurance, special provisions in mortgage policies, and payment of service charges and mortgage costs.



Salesmaker's course peps up selling methods

Salesmaker's course helps brush-up on latest selling techniques. Discussing Salesmaker's Kit are (l. to r.) Bob Metz, Thurmond Hawkins, market expert Stanley Edge, builder Charles Reynolds.



"Home Counselors" rehearse demonstrations

Reynolds calls his salesmen "Home Counselors." Here they are rehearsing ways to demonstrate new gas range in model home. Counselors have weekly meetings, practice ways to sell.

36 sales ideas that WORKED

Charles Reynolds, 29-year-old Toledo builder, shows how a small-volume firm can beat "depressed area" buyer resistance and outstrip competitors

by Joseph B. Mason, *Editor*

This is the success story of a young builder whose business is growing rapidly from small to large. His expanding sales have amazed older competitors. And he is building in a "depressed area" city which at last count had some 300 unsold houses.

To find out the "why" and "how" of his success, we interviewed Chuck Reynolds, talked to his sales manager Clark Ewing, photographed his model homes and signs, attended a sales meeting, examined letters, brochures, advertisements and merchandising, studied blueprints.

To sum it up, Reynolds is selling homes because he is a smart, energetic businessman: using good planning, good design, sound construction, accurate estimating and accounting. But topping it all, he has a superb *planned sales training and merchandising program*.

1. Merchandise from the ground up. Reynolds starts with a catchy name: "Crossgates"; catchy street titles: "Heatherlawn Drive," "Rose Arbor Drive"; lively model home names: "Heatherwood," "Heathglen." He plans his program around them from

the start, follows through in his ads.

2. Quality model homes. His three model homes set just the right tone: they are well decorated and furnished, display quality products, have "hidden value" exhibits of quality.

3. Uses Home Counselors. Reynolds calls his six salesmen "Home Counselors." They advise and help buyers, follow up leads, render services of many kinds.

4. No real estate salesmen. Reynolds will not hire "experienced" used home salesmen. He trains young men with some knowledge of design, decorating, landscaping or planning.

5. Dale Carnegie course. Home Counselors must take a Dale Carnegie Leadership and Sales course. (Reynolds pays half the tab.) They also have all taken the Owens-Corning Fiberglas Sales-Maker Course and use the Sales-maker Kits.

6. Take aptitude tests. Counselors must complete thorough test which uncovers interest in home selling.

7. Guaranteed \$5400 first year. After that, Counselors go on straight 2½% commission on closed sales.

8. Weekly sales meeting. Counselors rehearse sales talks, how to demon-

strate features of model homes, how to close, how to make telephone appointments. One will talk while six others listen and criticize.

9. Product knowledge. Series of meetings is held with manufacturers' representatives to train Counselors in operation, servicing, features of major products and home equipment.

10. Buyers questioned. What previous buyers did or did not like is learned by direct calls by Counselors. The results are checked, studied.

11. Showmobile aids closing. Reynolds has a unique "mobile office" which is pulled up in front of model homes, used to expedite closings. It is air conditioned, has a coffee maker, slide projector and table and seats—also a big picture window. It's sometimes called the "separation center."

12. "\$10 down holds it." When a prospect is at all interested, the Counselor asks the buyer to sign a simple lot reservation form, will accept as little as \$10. The deposit is refundable on demand.

13. Vive la flamme! Biggest Reynolds promotion is with the Ohio Fuel Gas Company. He uses "Vive la flamme" as a slogan backed by newspaper ads and model home promotion.

14. "Take a gas-lit drive." Fifty gas lamps with sign brackets were installed on 50 vacant lots at the opening of the project. At night they make a striking display. Reynolds' ad says "take a gas-lit drive tonight; in Toledo's fastest



Basement displays help sell prospects

Here a Reynolds' Home Counselor describes features of floor plans which are handsomely mounted on basement display in model home. Display is built of flush doors connected by hinges.



Lotion dispenser aids "recall" technique

Housewife will remember kitchen because the Home Counselor has persuaded her to use the lotion dispenser at sink. Fragrance lingers until she gets home, helps her recall the project.

growing subdivision," builds night traffic at the homes.

15. Personalized selling. When a lot is sold, the buyer's name is placed on a metal sign attached to the gas lamp. The Home Counselor takes a Polaroid picture of it and the vacant lot for the buyer. Then, as the house progresses, he sends additional pictures. At the end, the buyer has a complete record of his home's construction.

16. Expert ad agency. Brochures, signs, direct mail and promotion work are handled by a top-flight Toledo agency.

17. Trees help sell. Reynolds persuaded the city to plant trees on all vacant lots: they help sell.

18. Furniture company helps. Furnishing and decorating were done by one firm: it sent out 7,000 letters in connection with the opening.

19. RCA helps sell. In his model home, Reynolds installed brand-new RCA gas equipment. The firm publicized the project on radio and newspapers.

20. "Comfort Conditioned" helps sell. The Owens-Corning Fiberglas promotion was used by Reynolds with good results, including signs, brochures and newspaper advertising. He also built a Fiberglas patio.

21. Quality products help sell. Various manufacturers have displays and exhibits in the model homes. One is a dramatic cross section of the Edwards Zoned Hydronic heat system.

22. Certificate of Warranty. Each buyer gets an impressive guarantee of service and quality—which Reynolds backs, even to the extent of re-roofing a defective area after 3 years.

23. Sidewalk Superintendents' club.



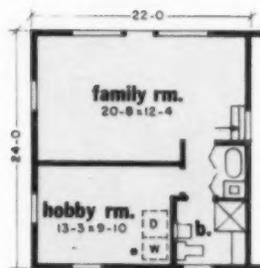
Showmobile used for personalized selling or closing

This air conditioned, van-like vehicle is equipped with a coffee maker, slide projector, comfortable tables and chairs for potential buyers. It is usually parked in front of model home, but may be driven through project to show lots, schools, shopping centers.



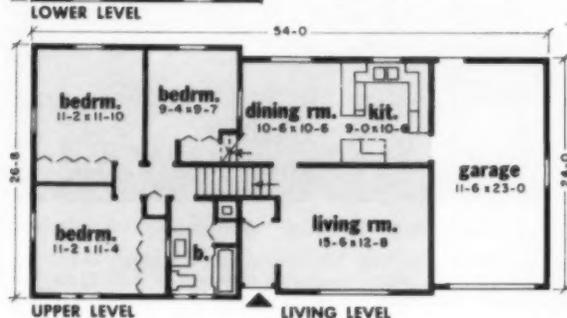
"We can talk to prospects privately, but still see our models"

Here the prospects sip hot coffee in the Showmobile while the Home Counselor goes over model plans and details. Or slide projector may be used to picture community facilities. Big picture window allows view of project.



"Customized plans" show family names

When salesman shows plans, each room bears name of future occupant, such as "Susy's room," "Pat's room," "Mom and Dad's." Plan is a variation of model home.



36 sales ideas that WORKED

Each model home visitor is asked to fill in a form asking his opinion of the house, and what he would like in a house, as well as his name and address. This entitles him to a chance at a prize—and also gives Reynolds' Counselors a name to follow up. This is done by letter, telephone, and personal calls.

24. Follow-up letter. Within two days after prospect has visited the model and filled out a Sidewalk Superintendents' card, he gets a letter from one of the Counselors starting—"Dear Mr. Smith: Thank you for coming out to see our new models in Crossgates. Sunday. The models you saw are just part of twelve split level and ranch plans we offer from \$22,000 to \$30,000—if you found the models crowded or were unable to obtain information, won't you call me now at . . ."

25. Customized plan. When a buyer has indicated interest, the Counselor takes a special "customized" plan and sketch to him showing what his home could be like. Each room has the name of the future occupant, such as "Susy's Room," "Pat's Room" or "Mom and Dad's."

26. "Welcome, come in." Model homes have a welcome sign. In addition, an attractive young lady greets visitors, sees that they get taken care of by a Counselor, who personally guides them through the models.

27. Personalized demonstration. The Counselors are rigorously trained to demonstrate products and equipment, such as the gas range, kitchen fan, or heating. Reynolds also plays up Recall

value. During the model home tour, the Counselor persuades the wife and husband to try the new lotion dispenser on the sink. The aroma clings to their hands, will last even after the couple get home—a lively reminder of the Crossroads model they visited. Reynolds believes that many model home visitors forget the projects they saw, or become confused. He tries to stimulate "recall."

28. New Neighbor leads. More than 300 leads a year are obtained from a New Neighbor service giving much useful data about new families. These are turned over to the Home Counselors who follow up by letter, phone, personal calls.

29. Cold canvass. An important source of leads is a house-to-house canvass of older neighborhoods. The Counselor carries a "Housing Survey" form which takes 30 seconds to fill, secures data on size of family, rent, employment, size of quarters. Information is used for later mail or personal selling.

30. Kaffe Klatch selling. Once a month new families and old families are invited to a coffee hour (10:00 to 11:00 A.M.) to get acquainted, learn about developments in the project.

31. Tape recorder selling. A well known local TV announcer was paid to make a tape recording describing the Reynolds houses and project. This tape is continuously played during the hours model homes are open.

32. Ad evaluation. Reynolds keeps a record of sources of all visitors and buyers. Best source is the Toledo Sun-

day Blade, which he figures produces 6 adults for each inch of advertising. About 30% of Reynolds ad budget comes from cooperating suppliers.

33. Paint word pictures. Counselors are taught to "paint word pictures" rather than talk about brick and stone. They refer to "popping corn by your fireplace," "your boys will enjoy ping pong in your family room," "you will enjoy the sunset view from your bay window."

34. Direct mail selling. Lists are carefully composed of church members, certain clubs, new arrivals, and others. Three mailings are made, the first letter being an offer to send the "Crossgates Kit." It starts out: "The charm of a bygone period—the gas light era—has been revived at Reynolds' Crossgates—Toledo's fastest growing subdivision, located off Heatherdowns Boulevard near the Country Club . . ."

35. Letter when construction starts: This starts out: "Thank you for the opportunity to build your new home . . ." and continues with advice on when and where to select colors, wiring layout, fixtures, hardware and flooring. Names of firms are given. Letter ends: "Sometimes something gets off on the wrong foot—and you owners may see it on your evening inspection. If this occurs, call me at my home—Tel.—, we want to do everything possible to make this a pleasant experience."

36. Letter after completion. "We appreciate your cooperation the past few months—sincerely hope you will enjoy many happy years at —. Included are a Maintenance Sheet, an NAHB booklet, 'Your New Home' with a list of subcontractors, and Reynolds' Certificate of Warranty."



Each house has a gaslight with owner's name
Gaslights were installed on 50 vacant lots. As soon as one is sold, owner's name is attached. At night gaslights for entire project are lighted, inviting prospects to pay a visit.



"Demonstrate the product—show how it works"

Local utility provides a demonstrator to show prospects just how the kitchen works. The Reynolds Home Counselors are also trained to demonstrate products, materials and equipment.



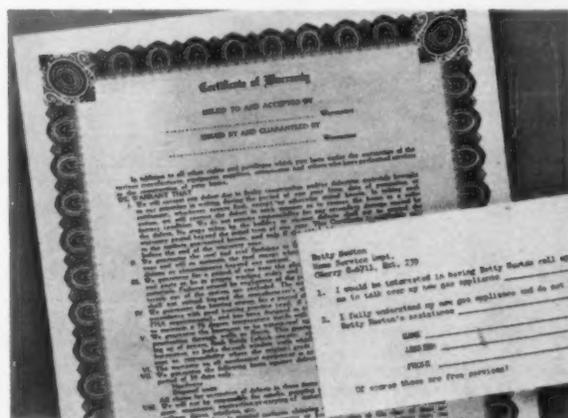
Sidewalk Superintendents contest gets names

Model home visitors are asked to enter contest by filling out card giving name and address and telling what they want in a home. Names are followed up by letter, phone, personal calls.



"Vive la Flamme" campaign brings buyers

Vigorous campaign featuring gas heating, cooking, appliances brought out many prospects. They are invited to "Take a gas-lite drive tonight in Toledo's fastest growing subdivision."



Post-sale selling—Certificate of Warranty

After the sale, Reynolds presents this Warranty, a Maintenance Book, NAHB booklet. He also arranges to have utility company send a Home Service expert to explain appliances.

BLUEPRINT HOUSE



TRADITIONAL CHARM highlights the street elevation where old brick, narrow siding and graceful iron trelliswork combine with authentic details and low roof lines. Sloping plot allows a full lower floor without giving house stilted look.

AMERICAN BUILDER BLUEPRINT HOUSE NO. 287

Everything a home buyer wants



FORT BOYD, home builder for the past twenty-five years, owes a nationwide reputation to excellence of design, sound construction, modern cost-control methods.

Georgia builder offers 1,871 sq. ft. of enclosed living space for \$19,250 and, for good measure, throws in a double carport, porch and a wealth of Early American detailing usually found in expensive custom-built houses

Sloping land and split-level houses were made for each other. Short runs of stairs lead up or down, following the natural contours of the property to gain maximum floor space, cut down on excavation and produce a style that is completely indicative of this day and age. When successful, this marriage of lot and house gives an owner one of the best "buys" on the market today.

And now to the house shown on these pages. It's a 'split-level' in the true sense, a design that fits a sloping plot as though it belonged and one that results in lots more living than its perimeter would indicate.

From the street the low inviting lines of the house are set midst tall

trees for extra drama. Old brick adds a mellow tone to the walls and, in combination with the tracery of cast iron supports, recall the classic lines of old Southern Georgian design. Well-proportioned windows, flanked by colorful shutters, also remind one of the past. But there are definite modern touches in the large view window, the double carport and the informality of the overall design.

The use of white asbestos shingles on the roof adds a crisp fresh look and, at the same time, helps keep rooms comfortable by deflecting the hot sun's rays away from the house.

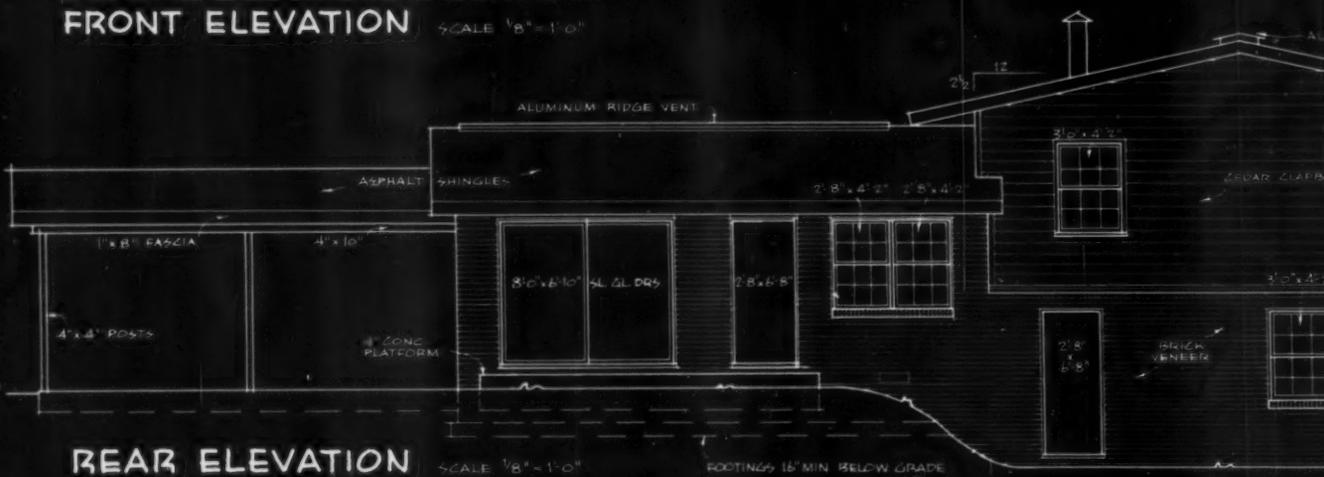
The charm, however, of this house is more than skin deep. Once inside, the visitor finds a masterpiece of effi-

... a quality house with

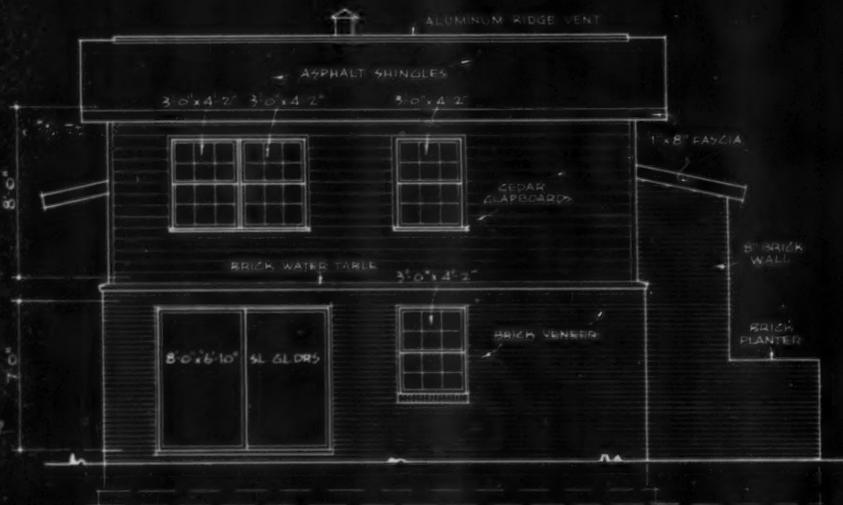




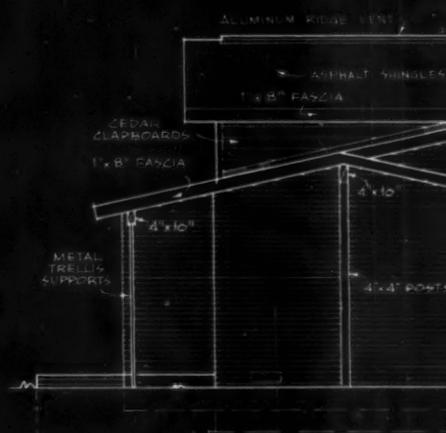
FRONT ELEVATION SCALE $\frac{1}{8}'' = 1'-0''$



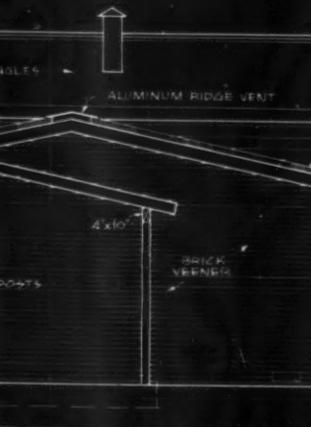
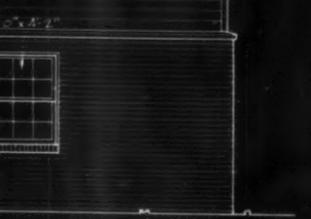
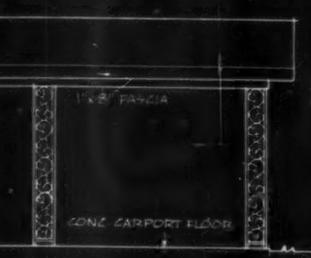
REAR ELEVATION SCALE $\frac{1}{8}'' = 1'-0''$



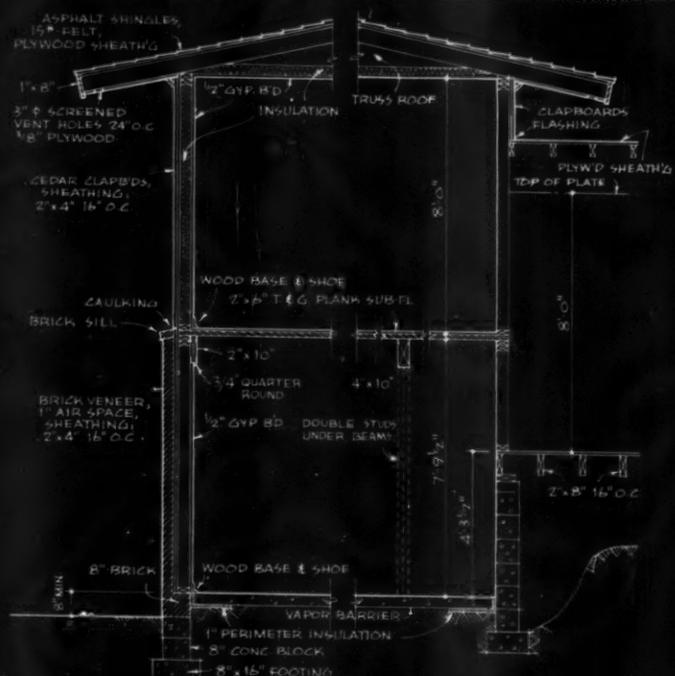
LEFT END ELEVATION SCALE $\frac{1}{8}'' = 1'-0''$



RIGHT END ELEVATION



ELEVATION SCALE 1/8" = 1'-0"



LONGITUDINAL SECTION SCALE 3/16" = 1'-0"



CROSS SECTION AT LIVING ROOM SCALE 3/16" = 1'-0"



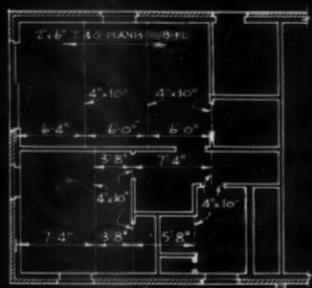
STAIR SECTION SCALE 1/8" = 1'-0"



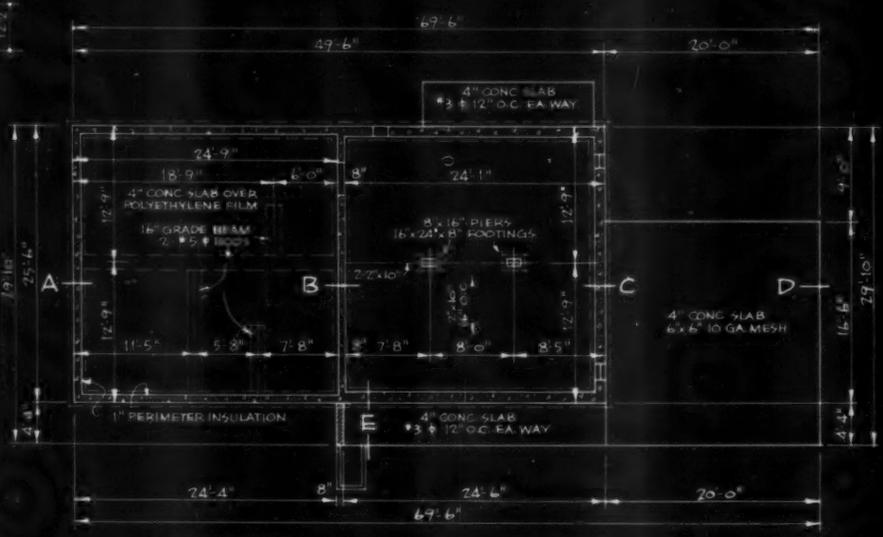
KITCHEN ELEVATIONS SCALE 3/16" = 1'-0"



LOWER FLOOR BATH
SCALE 3/16" = 1'-0"



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



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



THE KITCHEN, conveniently placed in an angle formed by the living and dining areas, shares the same roof-ceiling to give a sense of spaciousness and unity. Cabinets are natural custom-built wood and their L-shaped arrangement allows plenty of

floor space for setting up a dining table for informal family meals. For outdoor entertaining, a door leads onto a rear terrace. The sliding counter range and double wall oven unit add to efficiency of work space, give room an uncluttered look.

A house loaded with eye-appeal and efficient living

cient planning and good living. Not a square inch is wasted. No room is a traffic lane. From the main entrance hall access is possible directly into living room, kitchen and, up a few rises to the bedroom wing. Other stairs lead to the lower floor.

For flexible entertaining, both indoors and out, living, dining areas blend into one another without a dividing wall while an outside door leads from the kitchen to a rear terrace. There's room, too, in the kitchen for informal family meals.

The bedroom wing contains three bedrooms and a bath on the upper level, another bedroom and bath plus a family room and laundry below. Wide sliding glass doors in the family room open onto a side terrace. A great convenience on this floor is a large storage closet for outdoor furniture and equipment. All rooms are generous in size and are supplied with adequate closet space.

Hallways have been cut to a mini-

mum. On the upper level, convenient to the bath for short pipe runs, is an alcove large enough to include a clothes washer-dryer.

Summed up, this outstanding house is a "winner" with eye and sales appeal. It's worth any enterprising builder's attention. Architect: Henry D. Norris, A.I.A.

Quality Products used in American Builder Blueprint House No. 287

Plumbing, Kohler Co.; lighting fixtures, Lightolier; gas heating, Carrier Corp.; gas counter range and double wall ovens, Tappan Co.; insulation, United States Gypsum Co.; plastic countertops, Pionite; asphalt tile and vinyl-asbestos tile floors, Armstrong Cork Co.; gas hot water heater, Republic Steel Corp.; interior doors, Huttig; ceramic tile, Wenzel Tile Co.; kitchen cabinets, Chandler Cabinet Shop; exterior and interior paints, Benjamin-Moore; sliding glass doors, Peachtree Doors, Inc.; asphalt roofing, Certain-Teed Sales Corp.

Estimating Takeoff List

AMERICAN BUILDER HOUSE NO. 287

L = lin. ft.	C = cu. ft.
S = sq. ft.	U = unit(s)
LOWER LEVEL FLOOR AREA	640 S
MIDDLE LEVEL FLOOR AREA	600 S
UPPER LEVEL FLOOR AREA	640 S
CARPORT LEVEL FLOOR AREA	420 S
EXTERIOR PLATFORM AREA	170 S
BUILDING CUBAGE AREA	20 M

—EARTH EXCAVATION & GRADING—

Topsoil 6" Grade Exc. & Pile	7,610 S
Earth Basement Excavation	1,765 C
Earth Crawl Space Excavation	535 C
Earth Foundation Exc. & B'fill	725 C
Earth Hand Footing Exc. & B'fill	410 C
Earth Hand Pier Exc. & B'fill	220 C
Earth Floor & Platf. Leveling	1,230 S
Exc. Mater. Surplus Disposal	2,300 C
Gravel 6" Flr. & Platf. Sub-fill	1,170 S
Water Encountered Drainage	Sum

—STEEL ROD & MESH REINFORCING—

#10 /6x6" Stl. Floor Mesh Reinforcing	420 S
#5 Steel 1.043# Rod Reinforcing	214 L
#3 Steel .376# Rod Reinforcing	344 L

—CONCRETE CONSTRUCTION & FINISH—

2500# Conc. Wall & Pier Footings	175 C
2500# Conc. Wall & Pier Footing Forms	245 S
2500# Conc. Platform Curbs	105 C
2500# Conc. Platform Curb Forms	120 S
2500# Conc. Floor Haunch	50 C
2500# Conc. 4" Flr. & Platf. Slab O.G.	1,170 S

continued on p. 74

a budget price tag

▲ SECOND HALF OF BLUEPRINT
FOLDED UNDER.

WE'RE IN BUSINESS FOR YOUR HEALTH...



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

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

AMERICAN CANCER SOCIETY

Estimating Takeoff

continued from page 73

Monolithic Floor Sub-finish	440 S
Monolithic Plaster Floor	590 S
Monolithic Floor Finish	65 S
Kraft Paper Floor & Platf. Prot. & Curing	1,170 S
Rigid 1" Floor Insulation	190 S
Plastic 1" Floor Isolation	575 S
Trade Items Set-In	Sum

—BRICK & BLOCK CONSTRUCTION & VENEER—	
Face Brick 4" Foundation C.B. Veneer	25 S
Face Brick 4" Ext. Wall C.B. Veneer	100 S
Face Brick 4" "Cav." C.B. Veneer	960 S
Face Brick 4"x8" Window Sill	30 L
Face Brick 4"x8" Wall Sill	75 L
Face Brick 4" Wing & Plant Wall	75 S
Face Brick 8" Wing Wall	35 S
Common Brick 4" Wing Wall Backing	25 S
Common Brick 4" Ext. Wall Backing	40 S
Conc. Block 8" Foundation Walls	100 S
Conc. Block 4" Foundation Walls	250 S
Conc. Block 8" Structural Piers	5 S
Conc. Block S. 4" Foundation Cap	70 S
Acid & Mort. Expos. Brick Clean & Point	1,225 S
Trade Items Built-In	Sum

—METAL ORNAMENT & MISC. WORK—	
Wr. Iron 12"x7'6" Trell. Supports	5 U
Alum. & Mesh 16"x8" Brick Vents & Screen	3 U
1/2"-d. Steel 12" Anchor Bolts & Nuts	29 U

—METAL SHEET WORK—	
16-oz. Copper 12" Base Flashing	26 L
16-oz. Copper Vent Flashing	2 U
16-oz. Copper 8" Wall Flashing	25 L
16-oz. Copper 4" Wind. Head Flashing	60 L
16-oz. Copper 30" Termite Shield	25 L
16-oz. Copper 14" Termite Shield	75 L
Aluminum 30"x4" Roof Ridge Vent	45 L

—LUMBER FRAMING & CONSTRUCTION—	
4x10" S. Pine, D4S Floor Beams	40 L
4x10" S. Pine, D4S Roof Ridge Beams	85 L
4x10" S. Pine Door Lintels	25 L
4x4" S. Pine D4S Garage Posts	35 L
4x4" S. Pine Structural Posts	20 L
2-2x10" S. Pine Floor Beams	25 L
2x10" S. Pine Floor Planking Ledger	25 L
2-2x8" S. Pine Wall Plate	25 L
2x8" Fir Floor Joist Header	80 L
2x8" Fir Ridge Board	30 L
2x8" Fir Wall Sill	15 L
2x8" Fir 16"-o.c. Wall Studs	160 L
2x8" Fir 16"-o.c. Floor Joists	735 L
2x6" Fir 16"-o.c. Roof Rafter	2,310 L
2x6" Fir Bolted Wall Plate	105 L
2-2x4" Fir Partition Plate	470 L
2-2x4" Fir Wall Header	5 L
2x4" Fir Wall Ledger	5 L
2x4" Fir Partition Sill	400 L
2x4" Fir 16"-o.c. Partition & Wall Studs	4,405 L
2x2" Fir Floor Joist Ledger	50 L
1x3" Fir 16"-o.c. Wall Furring	55 L
1x3" Fir Floor Joist Bridging	150 L
2x6" T&G Fir Floor Planking	625 S
1x6" T&G Fir Wall Lining	1,645 S
3/4" Plywood Floor Lining	735 S
3/4" Plywood Roof Lining	2,310 S
3/4" Plyscore Floor Lining	150 S
3/4" Plywood 24"x6" Rafter Gusset	20 U
15# Felt Roof Isolation	2,310 S
15# Felt Wall Isolation	1,645 S
210# Asphalt Roof Shingles	2,310 S
Blanket 4" Wall Insulation	765 S
Blanket 4" Ceiling Insulation	625 S
Cedar 5" Expos. Wall Clapboards	630 S
Alum. & Mesh 3"-d. Soffit Louvers	94 U
Wood Misc. Furring & Grounds	Sum
Metal Structural Hardware	Sum

—WOOD EXT. & INT. MILLWORK—	
1 1/2" W.P. & Glass 5x7" Glaz. Ent. Dr., Sl. F&T	1 U
1 1/2" W.P. & Glass 2'8x6'8" Glaz. Ext. Dr., F&T	1 U
1 1/2" W.P. & Glass 6'x6'10" Sl. Ext. Dr., F&T	2 U
1 1/2" W.P. 2'8x6'8" Flu. Ent. Dr., F&T	1 U
1 1/2" B. Ven. 6'x6'8" Sl. Int. Dr., F&T	3 U
1 1/2" B. Ven. 5'x6'8" Sl. Int. Dr., F&T	2 U
1 1/2" B. Ven. 2'8x6'8" Flu. Int. Dr., F&T	1 U
1 1/2" B. Ven. 2'6x6'8" Flu. Int. Dr., F&T	4 U
1 1/2" B. Ven. 2'x6'8" Flu. Int. Dr., F&T	5 U
Fabric 5'6x6'8" Fold. Dr. Track. F&T	1 U
White Pine 3'x6'8" Cased Opening	1 U
Wd. & Gl. Sash 5'x5'4" Fixed Window, F&T	1 U
Wd. & Gl. Sash 2'8x5'4" D.H. Window, F&T	2 U
Wd. & Gl. Sash 3'x4'2" D.H. Window, F&T	10 U
Wd. & Gl. Sash 2'8x4'2" D.H. Window, F&T	2 U
P. Fin. B. Ven. 4'6x2'3" Sink Cab. & Hd.	1 U
P. Fin. B. Ven. 3'4x2'3" Range Cab. & Hd.	1 U
P. Fin. B. Ven. 2'6x2'3" D. Wash. Cab. & Hd.	1 U
P. Fin. B. Ven. 1'9x2'3" Base Cab. & Hd.	1 U
P. Fin. B. Ven. 1'2'3" Base Cab. & Hd.	1 U
P. Fin. B. Ven. 2'6x2'6x1" Wall Cab. & Hd.	1 U
P. Fin. B. Ven. 2'x2'6x1" Wall Cab. & Hd.	1 U
P. Fin. B. Ven. 1'6x2'6x1" Wall Cab. & Hd.	1 U
P. Fin. B. Ven. 3'4x2'1" Wall Cab. & Hd.	1 U
P. Fin. B. Ven. 4'x2'1" Wall Cab. & Hd.	1 U
P. Fin. B. Ven. 3'8x1'6x1" Wall Cab. & Hd.	1 U
P. Fin. B. Ven. 5'6x1'9x2'6 Van. Cab. & Hd.	1 U
White Pine 1"x12" Closet Shelving	55 L
White Pine 1"x8" Roof Fascia	270 L

White Pine 1"x6" Lintel Plate Riser	3 L
White Pine 1"x4" Corner Boards	60 L
White Pine 2" Mem. 1"x4" Wall Base	485 L
White Pine 1"x3" Shelf Cleats	80 L
White Pine 1"x4" Soffit Moulding	155 L
White Pine 1/4" Rd. 3/4"x3/4" Ceiling Moulding	75 L
White Pine 3/4" Closet Platform	10 S
White Pine 18"x48" Window Shutters	8 U
White Pine & Hd. 7 Riser x3' Stairs	1 U
White Pine & Hd. 8 Riser x3' Stairs	1 U
Hardware 1 1/2" dia. Hand Rail & Brack.	15 L
Hardware & Supp. 1 1/2" diam. Clothes Pole	35 L
Pianite Counter, Tops & B.S.	30 S
3/4" W.P. Plywood Soffit Boarding	480 S

—GYPSUMBOARD 1/2" CEIL. & WALL BOARDING—	
1/2" Gypsum T.J. Ceiling Boarding	1,165 S
1/2" Gypsum T.J. Wall Boarding	4,450 S
1/2" Gypsum Wall Lining	270 S
26 ga. Metal Corner Beads	170 L

—VINYL, ASPHALT & OAK FLOOR. & TILING—	
1/2" Vinyl Asb. Floor Tiling	150 S
1/2" Asphalt Floor Tiling	440 S
3/4" Oak Finish Flooring	885 S
Ceramic Tile Baths Flooring & Walls	230 S
Machine 3X Finish Flooring Sanding	885 S

—METAL FINISH HARDWARE—	
Metal Ext. Door Cylind. Locks	3 U
Metal Inter. Door Latch	8 U
Metal Inter. Door Lock Sets	2 U
Metal Slide Door Lock Sets	2 U
Metal 8' Slide Door Tracks	3 U
Metal 5' Slide Door Tracks	3 U
Metal Ext. Door Hinge Sets	3 U
Metal Inter. Door Hinge Sets	10 U
Metal D.H. Window Locks	14 U

—METAL & GLASS TOILET ROOM ACCESSORIES—	
Metal & Glass 2'6x2'6"x4" Mod. Cab. w/Mir. 2 U	
1/4" Polin. Glass 3'x4" Wall Mirror	1 U
Chrome Metal Toilet Paper Holders	2 U
Chrome Metal Soap Holders	2 U
Chrome Metal Tumb. & T.B. Holders	2 U
Chrome Metal Soap Dish & Grab Bar	2 U
Chrome Metal Towel Bars	3 U
Mtl. & Fabric 5' Shower Rod & Curtain	1 U
Mtl. & Fabric 3' Shower Rod & Curtain	1 U

—PAINT EXT. & INT. FINISH—	
Lead & Oil Ext. Millwork 3 Coats	1,765 S
Latex Int. Millwork 2 Coats	1,455 S
Latex Gypb'd. Ceil. 2 Coats	1,165 S
Latex Gypb'd. Wall 2 Coats	4,450 S
Lead & Oil Doors 3 Coats	350 S
Lead & Oil Wood Sash 3 Coats	200 S
Lead & Oil Metal Work 3 Coats	75 S
Stain & Varn. Inter. Sash 4 Coats	200 S
Stain & Varn. Inter. Doors 4 Coats	1,350 S
Varnish Oak Floor 3 Coats	885 S
Latex Conc. Floor 2 Coats	65 S

—PLUMBING SYSTEM & FIXTURES—	
Water Serv. Connection & Piping	1 U
Sanitary Serv. Connection & Piping	1 U
Gas Connection & Piping	1 U
Gas Furnace Connection & Piping & Acc.	2 U
Hose Bibb, Connection & Piping & Acc.	1 U
Wash. Machine Connection & Piping	1 U
Bath Tub, Connection & Accessories	1 U
Water Closet, Connection & Accessories	2 U
Kitchen Sink, Connection & Accessories	2 U
Shower Head, Connection & Accessories	2 U
Dish Wash, Connection & Accessories	1 U
Lavatory, Connection & Accessories	2 U
Elec. H.W. Htr., Connection & Accessories	1 U

—ELECTRIC SYSTEM & FIXTURES—	
Electric Service Connection	1 U
Electric Service Panel & Switch	1 U
Gas Heater Connection & Wiring	1 U
Telephone Service Connection	1 U
H.W. Heater Connection & Wiring	1 U
Dish Washer Connection & Wiring	1 U
Dryer Connection & Wiring	1 U
Elec. Oven, Connection & Wiring	1 U
Elec. Range, Connection & Wiring	1 U
Elec. Exh. Fan & H. Connection & Wiring	1 U
Sing. Switch Outlets & Wiring	16 U
3 Way Switch Outlets & Wiring	6 U
Ext. Sing. Switch Outlets & Wiring	1 U
Conv. Recept. Outlets & Wiring	36 U
Power Outlets & Wiring	2 U
Light Outlets & Wiring	14 U
Telephone Outlets & Wiring	3 U
Entr. Chime, Connection & Wiring	3 U
Ceiling Fixtures & Bulbs	5 U
Wall Fixtures & Bulbs	3 U
Exterior Fixtures & Bulbs	6 U
Fluorescent 30" Fixtures & Tube	1 U

—HEATING SYSTEM & FIXTURES—	
Gas Warm Air Furnace & Accessories	1 U
Gas Warm Air Ducts & Registers	14 U
Gas Warm Air Temp. Control Equipment	2 U
Gas Warm Air Furnace Filters	2 U
Gas Warm Air Vent Stack & Connection	1 U

AMERICAN BUILDER QUALITY MODEL HOME CONTEST

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

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

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

This year's contest, however, has been revised slightly. Each house entered will compete only with houses of similar square footage regardless of price. Thus, the heavily insulated 1500 sq. ft. house built on a basement for the North Central market will be able to compete directly with the lightly insulated slab house of similar size built for a southern market. Each house entered will be classified in one of three groups: (A) under 1200 sq. ft.; (B) between 1201 and 1800 sq. ft.; and (C) over 1801 sq. ft. The editors felt this method of judging would give builders in each part of the country an equal chance at winning. Regional variations in the cost of design, construction and labor will be eliminated.

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

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

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

● To qualify, your model house must have been completed and opened to the public for at least one week between October 1, 1960 and October 1, 1961.

● Each entry should include the following:

1. Completed data sheet
2. Working drawings of the house
3. One exterior and two interior photos
4. Photo of the builder
5. Samples of merchandising material

● Entries need not be mounted. But, if mounted no larger than 24"x36".

● You may enter more than one house. But, each house should be entered separately.

● Each entry should be in the AMERICAN BUILDER editorial office by October 4, 1961.

● Contest data sheets are available from the Contest Editor, American Builder, 30 Church Street, New York 7, New York.

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

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

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

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

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

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

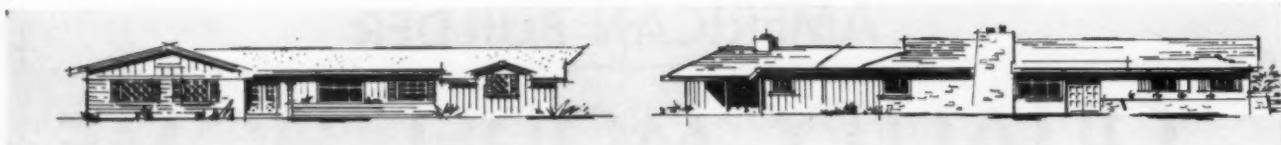
"Our salesmen are always well informed about them (awards), and actually use them as selling tools."—Centennial Construction, Dallas.



SPECIAL BONUS PRIZE

Top winners in each class will receive free round trips for two to Europe via Icelandic Airlines. Winners will receive a choice of visits to Norway, Sweden, Denmark, Holland, Germany, England, Scotland.

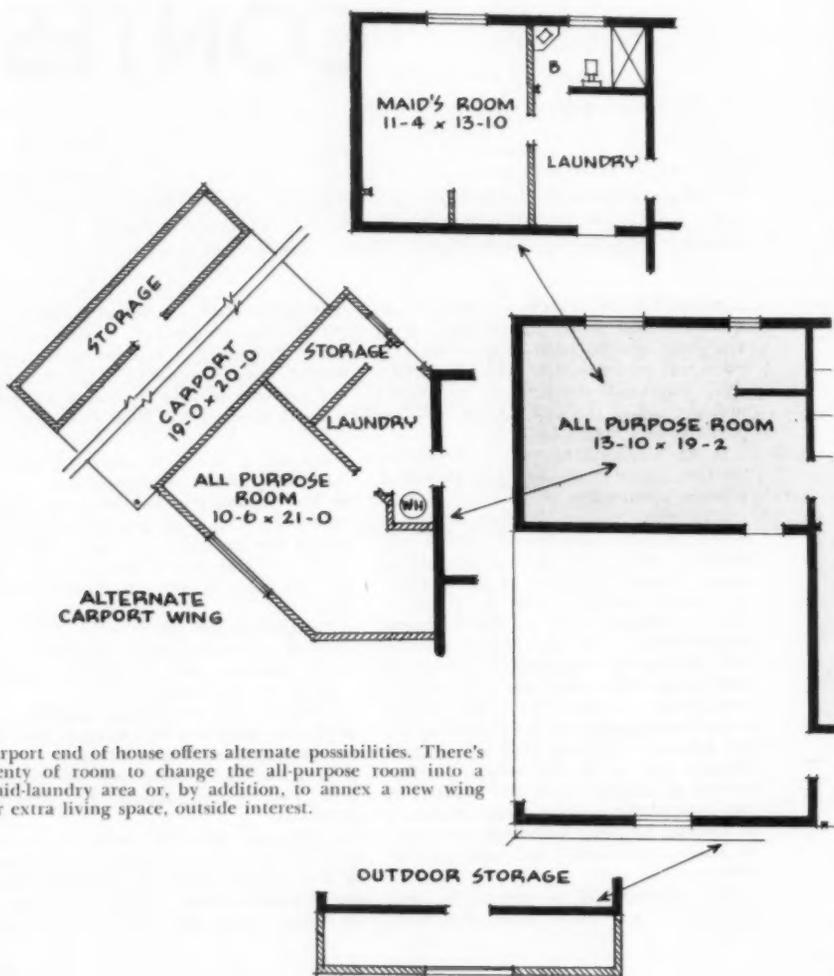
ICELANDIC AIRLINES
LOFTLEIDIR



YOUNG'S CUSTOMIZED exteriors have a wide, pleasing variety, yet all the above are based on a basic floor plan (below).



COVER PICTURE: Bernie Young (right) checks window bay component with superintendent Bob Smith. Young preaches closer cost and quality control "to deliver a better house for less money." He is president of the Custom Builders Council, newly formed group dedicated to improving business practices of custom builders, builds 30-50 houses a year.



Carport end of house offers alternate possibilities. There's plenty of room to change the all-purpose room into a maid-laundry area or, by addition, to annex a new wing for extra living space, outside interest.

Design components—

Savings up to \$2,000 a house possible with system based on design, cost control, using stabilized units

You can save up to \$2,000 a house with this system of cost control, says Bernie Young of Scottsdale, Ariz.—but don't pocket the money. Put it right back into producing a better quality house with more value for the money.

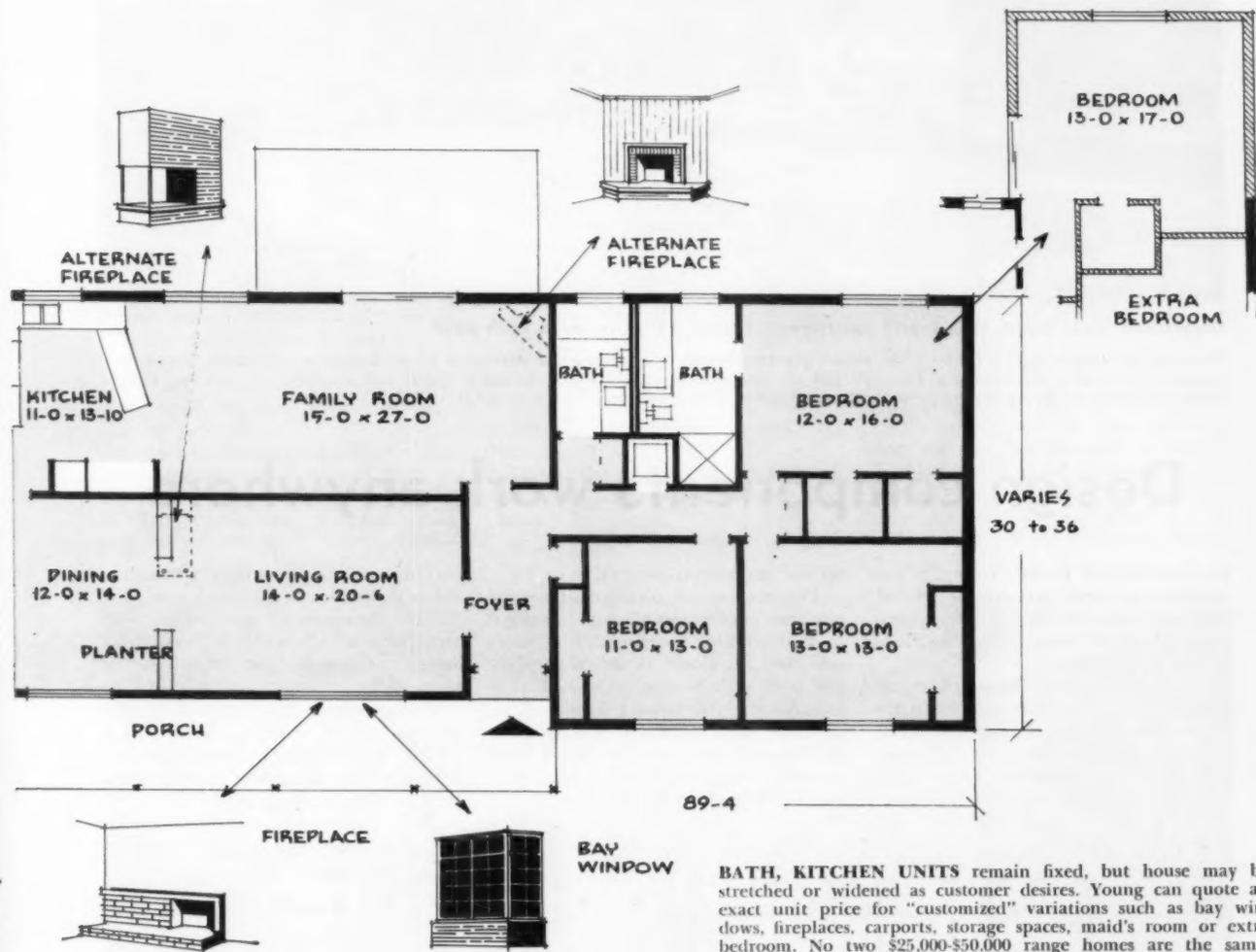
Young is a custom builder who averages 30 to 50 houses a year in the

\$25,000 to \$50,000 range, built on scattered lots. Each is a special design, oriented to the needs, the lot, the ideas of the buyer.

To keep down costs and give better value, he uses a system of stabilized "design components," as he calls them. The bathroom and kitchen, for ex-



VARIETY OF EXTERIORS: interiors is achieved by alternating special design units. Components are standardized for cost control.



BATH, KITCHEN UNITS remain fixed, but house may be stretched or widened as customer desires. Young can quote an exact unit price for "customized" variations such as bay windows, fireplaces, carports, storage spaces, maid's room or extra bedroom. No two \$25,000-\$50,000 range homes are the same.

the smart way to cut cost

ample, are identical in each house, and his subs know exactly how to build them, and the cost.

Using four basic floor plans, Young can produce a variety of exteriors to suit any buyer's wishes, but at a controlled unit cost. He adds a bay window for \$250, or a fireplace for \$600, or a maid's room for \$1500.

Most of his orders come from his furnished model houses or from people who visit one of the several speculative

houses under way. When a customer says: "I like this house, but could you change such-and-such?" Young says: "Tell us what you want—we'll be around with a set of plans tomorrow!"

The plans and sketches are specially prepared for each buyer, and look like no other house. But the component parts have been standardized so that costs are closely controlled. Under this system, Young has achieved the speed of a large tract builder, yet re-

tains the custom "approach."

Behind the design control, of course, is an excellent accounting system which permits quick and accurate pricing of units. Result: constant cost control.

The secret of the system, as Young puts it: "Develop accurate unit costs based on one stabilized, high quality, procedure. Don't fear changes: a custom builder must be prepared for them. But *systematize* your changes, and price them in advance." . . . ▶



Diversified investment: two 8-unit apartments face a 44' grass area with pool

Buildings are simple and inexpensive, yet there's plenty of renter appeal in the big grassy court and pool. Project consists of two 8-unit buildings with one- and two-bedroom apartments. Court

is enclosed at street end by an attractive 8' decorative wall with a fountain entrance. Built and operated by custom builder Bernie Young as a diversified investment.

Design components work anywhere

Custom builder Bernie Young, whose methods are described on the preceding pages, also builds small apartment units which he rents and holds as diversified investments.

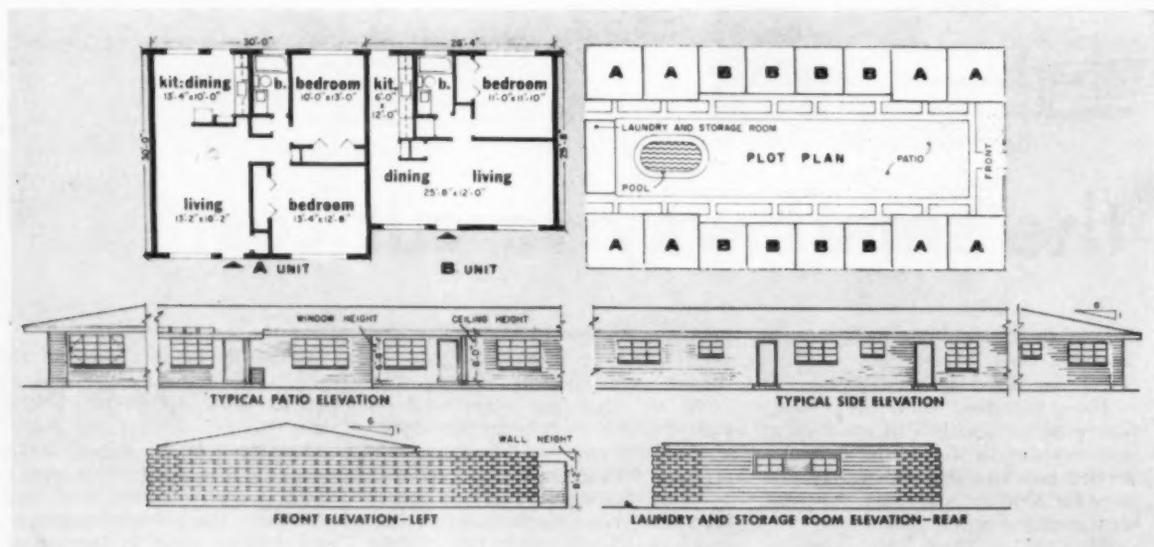
He uses the same crews, the same subs and the same materials as in his custom homes. Even the plumbing trees are the same. His system of standard design components helps keep costs down to the absolute minimum

on the investment project.

The apartments pictured above are one- and two-bedroom units arranged in two 30x276' buildings. The court and pool are closed at the front street end by a high decorative wall. This is punctured at the center by a striking entrance and fountain arrangement. At the rear, the court is closed by a laundry-storage room and behind that is covered parking for 14 cars.

The land use is extremely economical with the whole plot occupying 157 x298.6'. Access to all apartments is secured by a 10' wide asphalt drive which surrounds the buildings on three sides.

Young suggests that any builder who has not already done so, should check with a tax consultant about the advantages of diversified investments such as these apartments.



PLOT PLAN shows clever grouping of apartment units around pool. Lot size is 157x298.6'. Street side is enclosed by an 8' deco-

orative wall with a fountain at the center entrance. A 10' asphalt drive surrounds plot on 3 sides.

"We find our system works"

An ex-buyer for a large department store and an ex-real estate man formed a partnership and through hard, honest advertising and efficient job control have made Zane Construction the remodeling name in Baltimore

Nine years ago Joel Y. Zenitz and Alvin Greenfield incorporated their small Baltimore remodeling business and showed a gross of \$70,000. Called Zane Construction Co., the remodelers now operate in two states and the District of Columbia and, according to Zenitz, expect to show a gross of \$750,000 to \$1 million in 1961.

Their formula for success:

- (1) Smart, "inducement-type" merchandising and an excellent sales training program;
- (2) A job and cost-control system that allows the Baltimore central office to know, at any time, the exact state of all field operations. (see box, next page.)

Zane's merchandising program's chief "lead-maker" is newspaper advertising. Ads are usually full page or special Sunday supplements in the Baltimore and Washington papers. They are "hard-sell," similar to department store ads, and feature "Spring Sales" and "Fall Sales".

"We would rather have a good salesman, initially, than a good estimator. We can always turn a crackerjack salesman into an efficient and accurate estimator. The reverse isn't always true."

This is the opinion of Zenitz when discussing Zane's sales training program.

As soon as a man joins the firm's

sales force, he is given a two-week crash program on lead follow-up and estimating. After he has settled in, he must attend a regular Friday morning sales meeting conducted by sales manager Max Spigelman. Here, through the use of photos, models and diagrams the salesman learns fast, accurate estimating.

If possible, the salesman is asked to clinch the job on his first visit. Eric Van, now job controller for Baltimore, ruefully admits that in his first sales days "I actually believed that they (prospects) would call me back if I asked them to."

Of equal importance to accurate estimating is the customer's ability to pay. Without asking the 'what's your yearly salary' question, the salesman sizes up the neighborhood, what the man does for a living, how long in the job, what type of car. To all this and more, he gears his sales pitch.

After the job is contracted, financ-



Two complete, up-dated kitchens greet visitor at Zane Construction's showroom

Picture window at Baltimore headquarters affords passers-by view of kitchen showroom. Color photographs, above, show typical kitchen improvement jobs. These pictures and more are included

in salesmen's kits. Gate at rear of showroom, not shown, leads to company's offices; each one having different wall paneling and ceilings, again pointing up Zane's work.



REMODELING (cont.)

"We take salesmen first—



Controller checks out plans on whole-house job

Eric Van (left) general foreman for Baltimore, goes over details with carpenter foreman Dwight Mellott. Van and Ralph Davis, his Washington counterpart, exchange their crews at will.



Typical Baltimore block scene of Zane job

Basement to attic renovation occurs in middle house on this block. Unit was completely reframed and refloored, features brand new kitchen leading to backyard garden.



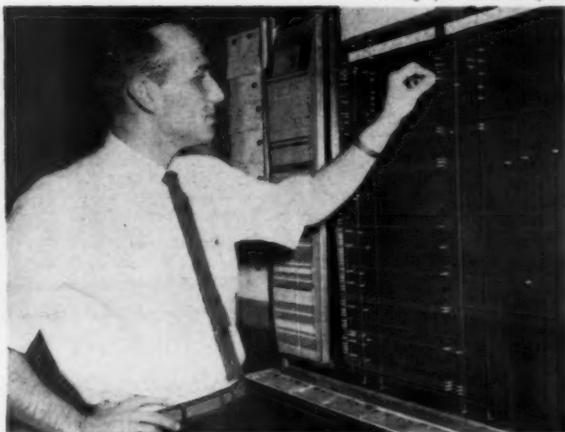
Before: Poorly laid out kitchen needs up-dating

Although stove and sink are fairly new, work efficiency is lost through careless placement. Exposed water lines, broken ceiling shows desperate need for kitchen improvement.



After: Kitchen becomes compact, easy to work in

View from door shows new position of gas counter range, built-in oven which are connected by counter space to sink. Zane keeps only kitchen cabinets in showroom stock.



Production board pin-points jobs' status

Al Greenfield, Zane partner, checks job control board which shows proposed completion time, number of subs on job.

Friday morning meeting a must for salesmen

Max Spigelman, Zane sales manager, explains sales approaches. An expert construction man, he teaches staff art of estimating.

and turn them into estimators"

ing arranged, and job started, the customer might desire additional work. If the item is small—an extra electrical outlet—it's thrown in free. For larger changes, the customer pays material and labor plus 15% of the order.

The company was founded in 1950; incorporated in 1952.

Eventual aim, according to Zenitz, is to make Zane the nation's byword

for remodeling. To achieve this goal, he has embarked on a lengthy market survey, plans to franchise the Zane system throughout the country. He says, "Our rise has been steady and sure, we're not in any hurry . . . we've found our system works and see no reason not to believe that one day Mr. Zane will be a national name in remodeling."



ZENITZ handles all merchandising.

Profits rise, costs drop through efficient job and sub control

Zane Construction's overall production (centrally located in Baltimore) is in complete charge of partner Al Greenfield. He also handles all financial problems, acts as the company troubleshooter. He is assisted by Eric Van, controller for Baltimore, and Ralph Davis, controller for Washington. Here's how they work.

(1) After sale is made, the salesman turns over a complete materials estimate sheet, contract, price agreed on and a detailed sketch of the job.

(2) This is translated to a job check sheet which lists such items as type of financing and institution, credit reports, material specs, extra orders, completion forecast—it is the complete control sheet for the job.

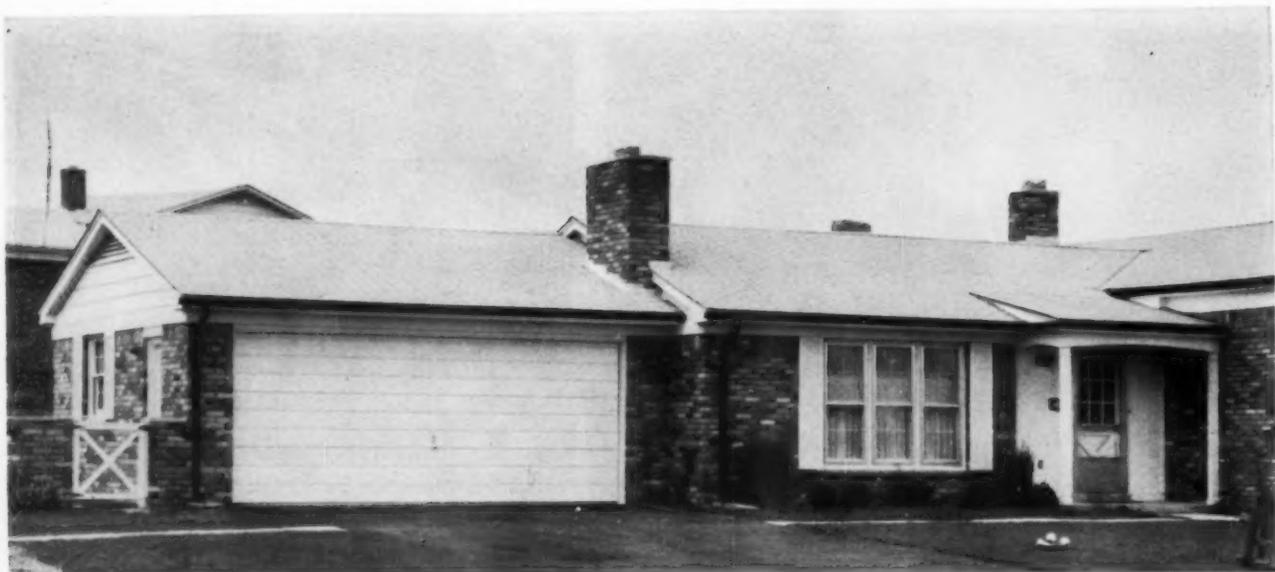
(3) Heart of Zane production is a large control board (photo, above) which shows (down to the day) the exact progress of each job in the entire Baltimore-Washington area. The board holds 100 jobs. As each one is started, a production schedule is filled out and slipped into a

hanging card file. The two-part board (Baltimore-Washington) is split into three month sections.

Job progress is symbolized by expanding strings. Subs are represented by minute, different colored pins, e.g. light red-carpenters, white-plumbing, pink-painters, etc. An "S"-stamped yellow pin means job has started. Subs reports keep the board up-to-date—at a glance, Greenfield, Van or Davis can pin-point job progress. They have found that individual jobs average around \$1,500 for the Baltimore area, jump to \$2,000 in Washington.

(4) Most of Zane's subcontractors work exclusively for the company. In many cases the sub is a single man (e.g. tileman, painter) and has difficulty getting credit for his materials. To offset this, subs, using a special form, trade on the credit of the remodelers.

Subs are paid by the job, not the hour, in effect pay for their own materials by charging Zane the usual materials plus labor. Most of Zane's subs have done hundreds of jobs for the company.



FOUR-BEDROOM SPARTAN model is one of custom group in Wake-Pratt's 150-acre University Hills project near the new

Commercial can balance your



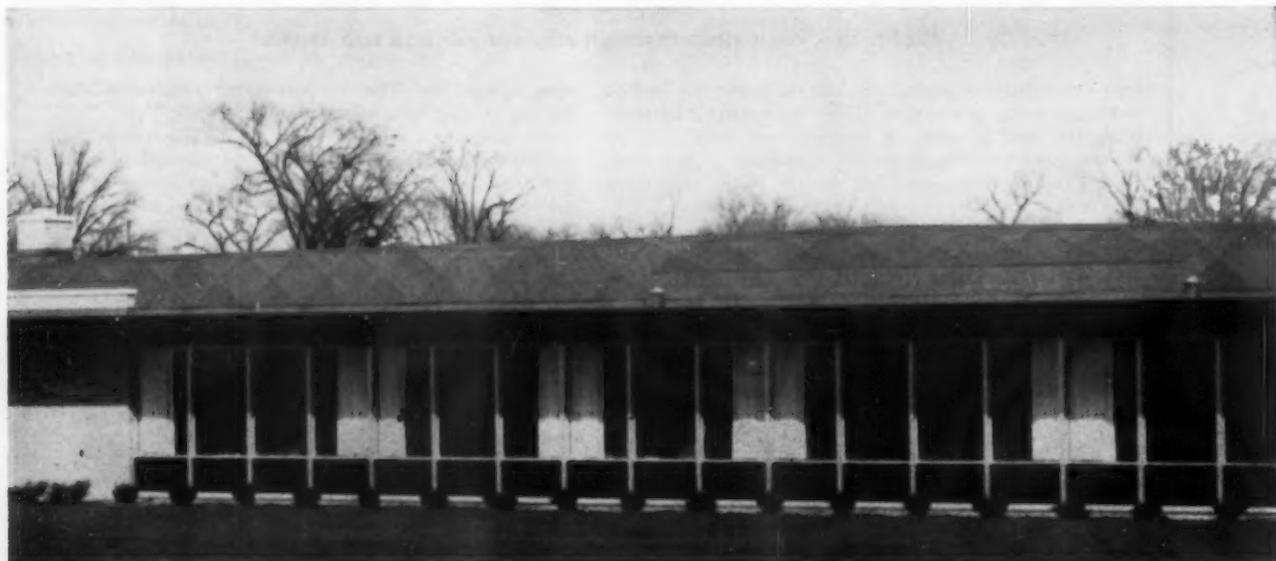
TED PRATT (left) with NAHB past-president **Martin Bartling**

Edward W. ("Ted") Pratt is widely known as a homebuilder and as Chairman of the National Housing Center. But what isn't too well known is that he is also a commercial and industrial builder.

"We have always done some commercial and remodeling work along with our custom home building," he told *AMERICAN BUILDER*. "Its more than

'fill in' business for us; it ranges from 10% to 50% of our volume—and last year it was closer to 50%." This practice proved valuable when his newest home project, 150-acre University Hills, was held up by a sewer line.

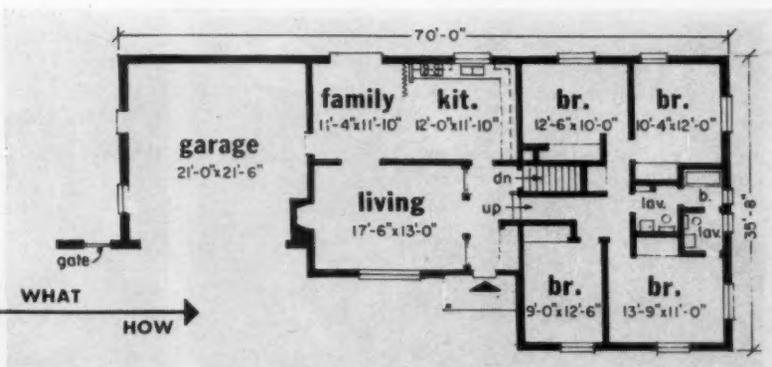
Ted Pratt believes that a skilled residential builder need have no trouble with small commercial and industrial jobs, and they are extremely important



40,000 SQ. FT. FACTORY for Milsmith Industries, Inc. is one of several commercial projects done by Wake-Pratt in recent years.



Michigan State Oakland County campus.

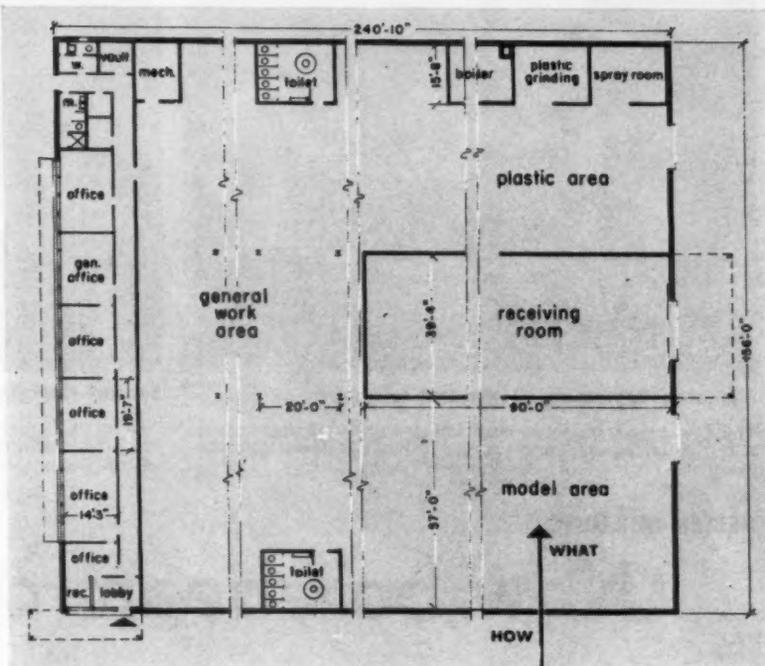


← WHAT
HOW →

business

to a balanced and profitable operation. He uses the same crews and most of the same subs in doing such jobs as a savings and loan building, a clinic, an 8-store unit, or remodeling a small factory.

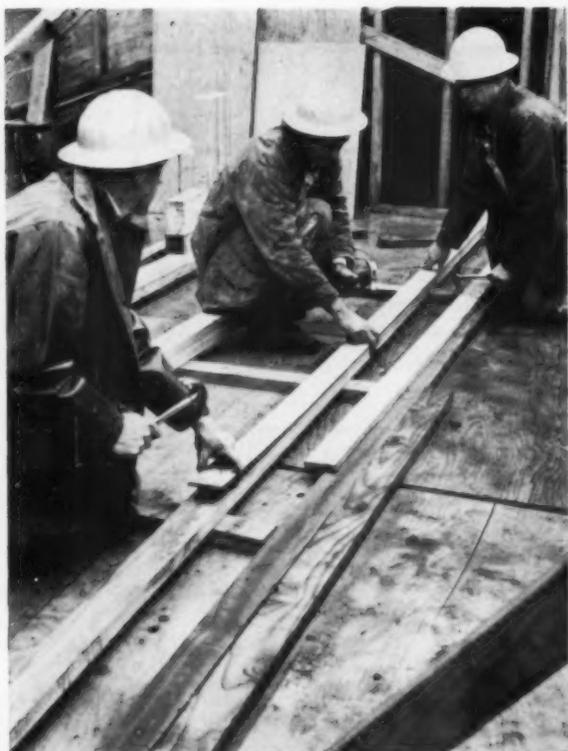
One aspect of his commercial work is that it also encourages a good volume of profitable industrial repair and maintenance.



↑ WHAT
HOW ↓



Plan and construction posed no special problems for experienced residential builder. Most of work was done with same crews.



First step: Laying up chords and stiffeners

These were made of two layers of 2x4 Standard & Better fir with a 4" strip of 1/2" plywood between, joints staggered. Space between the vertical stiffeners is hollow.



Second step: Setting the top chord into place

Nailing of this chord and stiffener system together was mainly a "tacking" operation. Plywood skin on both sides does adequate job of holding the interior framework together.

BETTER BUILDING

New box beam construction



Last phase: Lifting the lightweight box beam into place by hand takes only minutes.

Two men easily lift one end of the 30'-1 1/2" length beam which weighs only a fraction of regular timber beam. They used a third man to help steady it in lifting it by hand onto the stud

support. No block or other mechanical device was needed. Builder Elwyn Kinney says: "We are completely sold on the plywood box beam and will be using them in the future."



Third step: Attaching stub beam extension

Short "spur" beam extends beyond the end of the beam to support the eave and to match other extending beams below the roof peak. This also gives closeup view of chord-stiffener construction.



Fourth step: Applying 1/2" plywood skin

Plywood skin goes on quickly with glue and stagger nailing, and the beam is completed. Although the design did not require gluing, the builder applied it as an extra load factor.

takes 46 minutes, saves \$90

It took only 46 minutes by the stop watch to construct this simple box beam. That includes sawing the plywood, gluing and nailing it together plus nailing it into place.

It took only \$27.96 for the materials and \$31.50 for the labor. "This is a total of \$59.46 as against at least \$150 for glue-lam beams," says builder Elwyn Kinney of Portland, Ore.

But those are not all the advantages Kinney discovered.

Put together from four pieces of 4x8 1/2" sheathing, the beam allowed construction in the rain without fear of delamination. The sheathing was "premium," meaning the special interior glue line of Georgia-Pacific Corp. that can withstand moisture for a year and is highly resistant.

Use of the box beam, Kinney says, meant the house was under cover in record time. It also allowed the entire second floor to be free of bearing partitions for a completely free design.

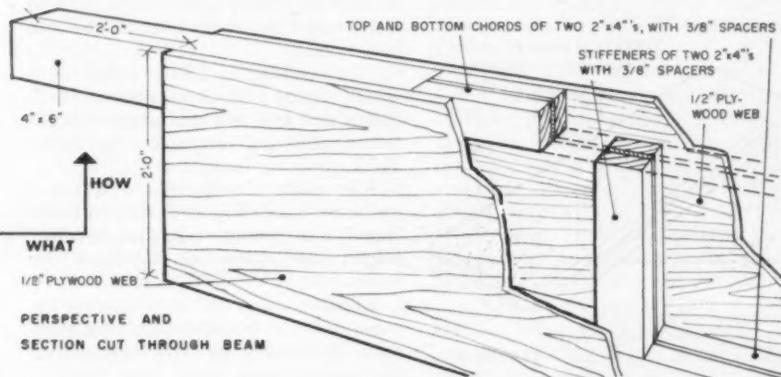
Weight load can vary

As designed by architect John Storrs, on commission from Georgia-Pacific, the beam can be made for almost any weight load. Here, it's a 24" deep beam for a 250-lb. per lineal ft. load.

As an extra load factor, Kinney applied glue on the job. A short "spur" beam was also extended beyond the end of the beam to support the eave and match other extending beams below the roof peak (see detail).

Among other advantages, the beam can be rapidly built on site with rough or finished materials available at any lumber yard. Almost any qualified carpenter can handle the light-weight beam, Kinney says.

He also points out that it can be built to job specifications with available materials.





Decking spans box beam and side walls

No rafters or beams are required here as 3x6" double tongue-and-groove white fir decking is applied over box beam system. This makes for greater freedom of design on second floor.



Decking is pre-drilled for spiking

To facilitate nailing, holes have been drilled into decking 30" apart. Holes are on one side only, and go 3/4 of way through. Spikes are placed in deep holes and hammered home.

BETTER BUILDING

T&G decking has 4-in-1 function



Decking gives interior finish

Completed upstairs hallway shows finished interior of plywood box beam and 3x6" white fir decking construction.

Roof sheathing . . . partial insulation . . . interior finish . . . a structural part of the roof. Double tongue and groove white fir decking provides these four-in-one values.

A natural tie-in with the box beam constructed for the Barnard & Kinney house, the 3x6" decking spans the entire distance from the box beam ridge to the side walls.

This simple technique bypasses the need for rafters and intermediate beam. In turn, this lets the room design become more flexible on the second floor. Originally the decking

was used for offices, stores and other commercial structures. But Georgia-Pacific Corp. adapted it to the home to demonstrate the unique and better uses of wood. Here's how it's done:

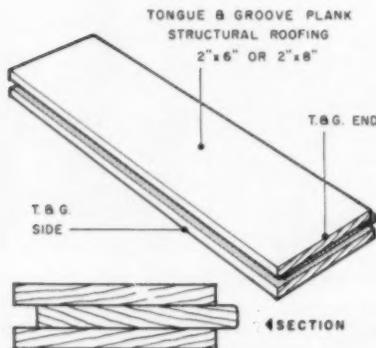
First, holes are drilled into the decking's groove side 30" apart. The holes are on one side only and go 3/4 of the way through the 6" width. (This is done, of course, by the contractor or the mill at his request.)

Then 8" spikes are placed in the deep holes and hammered home (photo, upper right). The holes facilitate nailing. A slowdown would occur if workers, during construction, had to drive spikes the entire distance through the wood.

The spiking and the tongue-and-groove edges make it possible to break joints and still retain the strength. In effect, the roof becomes a solid, 3" thick piece of lumber.

The white fir material sells for a price not much higher than kiln dried 2x4s. The bottom side has bevelled edges; the surface is V-jointed for looks.

Equally important (re: interior design) is white fir's non-darkening qualities. It retains its light appearance over many years.



Cooperation: The key word in trade-in plans for builders

There's no question of the need for trade-in programs. In many markets, 50% of the potential new-home buyers already own their own homes. But most builders need help in avoiding the pitfalls of trading

Slowly, builders across the nation are beginning to accept the need for a fresh approach to trading.

It may be too early to speak of a trend, but there is evidence that builders are trying to grapple with what may be their most vital problem during the rest of the 1960s.

In scattered markets, builders are turning to each other—or to realtors and bankers—for help in the development of cooperative trade-in programs.

Not a month passes that some builders' association does not put trade-in plans on its agenda. Of course, in many discussions of trade-ins, the attitude often becomes: "We don't want to get involved in trading any more than we have to."

But in Fort Worth, Texas, twelve builders found they wanted to form their own trade-in plan. The builders have staked out what appears to be a promising plan that permits them to buy trade-in homes and thus relieve homeowners of their chief obstacle in considering new homes. Their Builders Trade-In Exchange is already attracting attention in Fort Worth.

Help from brokers and bankers

In Fort Wayne, Indiana, meanwhile, the local home builders association has just formed its own corporation to take homes in trade.

It was the successful example of realtors that spurred the Fort Wayne builders to form their trade-in organization.

In some scattered areas of the Midwest, builders are already teaming up with realtors (overcoming traditional jealousies) to form joint trade-in programs.

Trade-in assistance need not be limited to realtors. In southern New Jersey, builders are rallying around the leadership of South Jersey Mortgage Company. This forward-thinking mortgage bank has just established Operation Trade-Up.

The plan has breathed new life into trading and has already prompted

rival mortgage companies into sprucing up their own trade-in plans. (For the complete story on Operation Trade-Up see next page.)

In Peoria, Illinois, First Federal Savings & Loan Company has stepped out with several plans of its own to help builders form trade-in programs. One plan gives builders six months grace before requiring payments on trade-in mortgages. This may be just long enough to permit participating builders to find new buyers for homes they've purchased in trade.

The trading tempo is slow

Despite the developing pattern that these examples present, the truth at the moment is: There is very little trading going on.

In many parts of the country, of course, builders don't have to trade—despite the large volume of homeowners who want to purchase new homes.

In Milwaukee, for example, realtors have moved into the void and taken special steps to stimulate trade-in sales. In Long Island, too, a builder never loses a sale to a customer who can't sell his old house.

Many realtors on the Island have become resale specialists, offering to buy old homes immediately—and receiving what amounts to a 10% fee. And even though there's a buyer's market in the East, there is a strong enough demand for old homes to absorb some of the inflation equity that homeowners have come to expect.

But where these factors are weak, builders eventually face the necessity of establishing their own trade-in programs. Unfortunately, however, these programs, if they materialize, are seldom successful.

A builder in West Hartford, Connecticut, for example, has just started his own trade-in program. He refuses, however, to take homes that are outside his limited marketing area. And yet, homeowners rarely move to new homes near their old ones.

A builder in New Jersey limits his trading to eleventh hour negotiations. He will not accept a trade with a customer unless it is the only way to save a sale. And yet, for a trade-in program to be at all successful, it needs active promotion. It is not something you hide in the drawer and sneak out at the last moment.

Builders who do promote their trade-in programs enthusiastically often run smack against another barrier: lack of money.

A builder in Houston, for example, recently found himself with an inventory of over 200 homes that he had taken in trade. Unable to sell most of the homes, he tried to lease or rent them. But these efforts failed to generate enough working capital—and he went bankrupt.

Congress, in 1959, tried to lessen the probability of such disasters by instructing the Federal Housing Administration to offer special 85% mortgages on traded houses.

But these mortgages have never proved popular with builders. Between last August and March 1961, for example, only 17 of them had been applied for (based on a sample of 70% of the FHA offices).

The thorn in the FHA plan, builders say, is that 15% of the mortgage loan must remain in escrow with FHA until a trade-in house is sold. Another stumbling block is the attitude of the Federal National Mortgage Association, builders contend. Fannie Mae is authorized to purchase so-called escrow commitment mortgages, but its stringent criteria have prevented any active participation in the program.

Watch out for the tax

There is another barb in trading that doesn't sting until the end of the year. But it can be quite painful nevertheless. It's the tax involved.

When a builder takes a home in trade, he often purchases it for something less than fair market value—otherwise there would be no profit in it. But this potential profit is taxable—even before it has been realized.

These pitfalls have forced most trade-conscious builders to look to cooperation as an answer to the trade-in market. (Only the large builder, who is able to establish his own broker-

Continued

Trade-ins *continued*

age operation and who is well equipped financially seems able to escape this eventuality.)

Cooperative programs, however, are still not fully understood by builders and will require further study. In Chicago, for example, the newly-

formed Home Trade-in Corporation, organized by realtors Roy Gottlieb and Kenneth Tucker, was designed to bring builders, home-owners and realtors together in a sort of trade-in clearing house. But already it has run into three problems:

● Getting the customers to accept a reasonable price for their old homes,

● Supporting the corporation financially, and

● Generating public acceptance through advertising.

All three of these problems actually revolve around the cost of supporting a trade-in program.

Trades are never accomplished without expense. In some markets the

Here's how operation trade-up

Builders in southern New Jersey are receiving unprecedented aid in selling trade-in buyers.

Four mortgage companies have introduced special trade-in programs there in recent months. In each program, the companies offer to assume title to old homes, thus freeing homeowners of their chief worry in trading.

Big gun behind the trading drive is South Jersey Mortgage Co., Camden, N. J. The company has hammered out a program, called Operation Trade-Up, that is drawing kudos from builders, brokers, new-home buyers—and even competing mortgage companies.

The Central Mortgage Co., in Camden and Philadelphia, for example, is so impressed by South Jersey's efforts that it has introduced a carbon copy plan of its own.

Probably the most important aspect of the South Jersey development is the psychological effect it has had on homeowners in the Camden area. For years, they have looked suspiciously at trading. "But now South Jersey Mortgage has given it prestige," says a builder in Camden. "When South Jersey names a price and shows how it has arrived at it," he notes, "a homeowner is much more responsive than if someone else had come up with the same price."

Highlight of the South Jersey plan is promotion. The company has stepped out with a hard-hitting newspaper campaign that is without precedent. Every Friday, OTU takes full page ads in a Camden newspaper to dramatize

Operation Trade-Up, and steer homeowners to the new housing developments that are springing up in the area. These ads have actually created a market place where none existed before.

The telephone at South Jersey is constantly ringing with inquiries from homeowners. To answer them, Malcolm Rosenfeld, vice-president in charge of new business, has installed an automatic answering service through which a recorded voice describes OTU.

In addition, Rosenfeld has made certain that builders and brokers are amply supplied with advertising materials to spark interest in Operation Trade-Up.

Behind all this promotion is shrewd thinking. The men who masterminded OTU knew that when they unveiled their program to brokers and builders at a recent champagne luncheon, the enthusiasm it generated would soon wear off.

To keep enthusiasm alive, South Jersey went to the consumer. It found that it takes buyers who want to trade to convince builders just how important trade-ins are to an effective sales program.

What's needed: a unified trading atmosphere

Now that Operation Trade-Up has been successfully launched, South Jersey is trying to step out of the promotional spotlight and assume the role it has hopefully carved out for itself: middleman.

"Probably the thing that trading needs most is a unified atmosphere," says Rosenfeld. "Builders can't sell homes to existing home owners until these customers have disposed of their old homes. And yet builders are loath to refer their customers to brokers because they are afraid of losing a sale.

"Builders and brokers should work together. They'd gain tremendous flexibility by placing the buy-and-sell operation under one roof," he points out.

In one instructive example, Rosenfeld shows what can be achieved by bringing the builder and brokerage functions into harmony: A trade-in deal was just on the verge of completion, Rosenfeld explains, when the customer called him and declared he couldn't go through with it.

By coaxing a little more information from the customer, Rosenfeld learned that he needed \$300 more to meet the downpayment on his new house.

Rosenfeld quickly called the builder, who was anxious to complete his sale, and explained the problem. With all the facts before him, the builder hit upon a solution: He would contribute \$300 to OTU, providing the money would be used to raise OTU's purchase price of the customer's old home. This maneuver saved the deal.

Without reducing his sale price, the builder actually gave the seller a discount. The builder stands a good



SPEARHEADING Operation Trade-Up is Malcolm Rosenfeld, vice president of new business at South Jersey Mortgage Company, in Camden, N. J. Here he holds OTU promotion booklet.

homeowner may be willing to reduce his selling price to relieve himself of an old home, or the buyer may be willing to pay the high price.

But when neither side is willing to absorb these "costs", the trade-in market becomes sticky.

Dislodging prospective homeowners in a sticky market requires time—and

money—especially if the trade-in organization must become temporary homeowners of old houses.

All this Gottlieb and Tucker have found out. Their solution is to look to builders and realtors to fill in the financial gaps that exist when homeowners and buyers do not readily come together.

Their problems illustrate the most important aspect of trading. As Roy Gottlieb observes: "There is no question as to the need for a trade-in program—only as to its implementation."

Whatever that implementation, it is going to cost builders some money. But it may be the only way to get the trade-in market rolling.

helps builders in New Jersey

chance, too, of getting this discount back if OTU does not take any loss on the resale of the property.

Although OTU has been generally well received, it does have one serious shortcoming: It takes OTU too long to come up with an offering price.

Some want to strike when the iron is hot

"This delay is a key draw-back," laments a broker in Camden. "It takes three to six weeks before OTU gives you their price. (Part of this delay involves waiting for an FHA appraisal.) For builders this program is O. K.," the broker notes. "But for brokers, it is difficult to keep up a buyer's enthusiasm when you're trading. You've got to strike when the iron is hot."

This thinking is one reason why a trade-in plan sponsored by Brokers Mortgage Service in Camden has proved popular with many brokers in the area. This firm will produce an offering price within five days; it doesn't wait for an FHA appraisal.

Participating brokers are required, however, to deposit with Brokers Mortgage their full commission on the tie-in home (the new home), which will not be returned until the old home is sold. "With this arrangement, we can stimulate the broker to sell the old home as soon as possible," says a spokesman for the company.

Some brokers, however, are not happy about this escrow feature of the plan. "It's the same drawback as you have using the FHA," one broker told AMERICAN BUILDER. "It ties up capital too long." (Using FHA, 15% of the mortgage loan on a trade-in house must be placed in escrow until the house is sold.)

Despite this criticism, the "strike while the iron is hot" approach to trading is catching on in Camden. A second mortgage company, Burlington Mortgage Service, is promoting a trading plan that is similar to Broker's. But Burlington will furnish an offering price in 48 hours—instead of five days.

The seasoning process takes time

Rosenfeld points out that both these plans are geared for the anxious homeowner, one who must make an immediate sale at what might seem to be a sacrifice price.

"The primary purpose of OTU, on the other hand, is not bailing out a homeowner from a desperate situation but rather permitting a prospective buyer of a new house to become a trade-in buyer," Rosenfeld contends.

But even if buyers are interested in owning new homes, it is no easy task to get them to accept realistic prices for their old houses. "It certainly can't be done in 48 hours or even in five days," says Rosenfeld.

"If we announced OTU's offering price in that short a time, most homeowners would reject it outright. But after

OTU shakes loose reluctant buyers

Operation Trade-Up gives homeowners a starting point to find out about trading. Here's how it works:

A homeowner applies to OTU for an FHA conditional commitment. (This costs \$20.) In the meantime, OTU encourages the homeowner to list his house with a broker, and look for a new house.

When OTU has received FHA's commitment, it sends it to either a broker or builder, who sits down with the homeowner to discuss his old home. If the homeowner wants to apply for an OTU purchase contract, he submits a \$25 fee.

OTU determines a contract price and forwards a sample contract back to the broker or builder.

If the homeowner accepts OTU's price, he submits a 1% fee (the \$25 becomes part of fee).

A first 45-day period begins. During this time, the homeowner may accept a higher offer from another buyer and thus cancel his OTU contract.

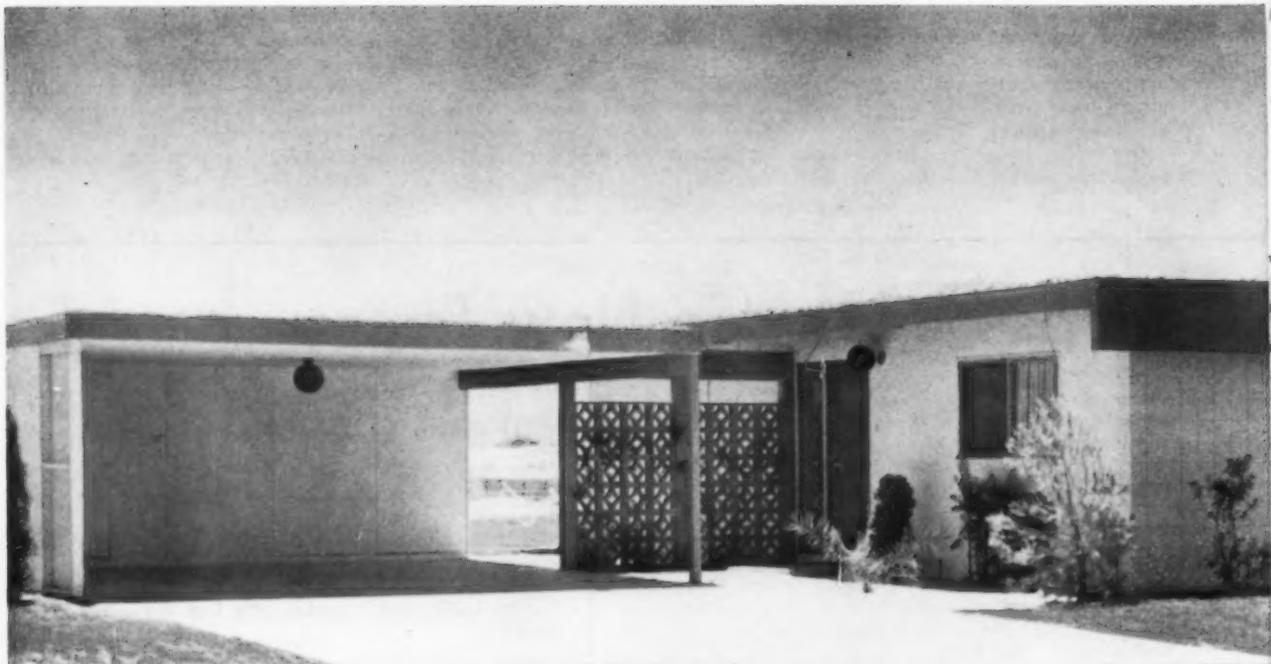
In a second 45-day period, the homeowner may remain in his home, but any sale is now made in the name of South Jersey Mortgage Co.

At the end of 90 days, the title of the trade-in home shifts to South Jersey and the customer receives the settlement price.

they've had a few weeks to list their homes at a high price—and after they've seen FHA's appraisal—they're more likely to accept our price. This 'seasoning process' is fundamental to OTU.

"After all," says Rosenfeld, "our purpose is not to save trade-in deals. Our true purpose is to shake loose homeowners who are reluctant to buy another home. By oiling the trading process, we permit homeowners to go out and select new homes, confident that even if they can't find someone who wants their old homes, South Jersey Mortgage Company will come forward and buy them."

The best part about OTU is that South Jersey has rarely had to buy any homes, or even come up with an offering price. "By the time OTU makes an offer," one Camden builder recognized, "most homeowners have found someone who'll take their home. The thing OTU does is pave the way for trading."



DECORATIVE HARDBOARDS give homes a variety of finishes. Outside, they're used on front and one side of each house, and

Hardboard spurs Nevada

With buyers growing more particular by the day, builders can no longer sell houses in monotonous, barracks-like subdivisions. They must offer a wide variety of house finishes, both interior and exterior.

Two builders who are prospering through the above principle are Irwin Molasky and Merv Adelson. In their

560-acre Paradise Palms Estates, near Las Vegas, they expect 250 sales this year, 1500 "over several years."

A large part of their success is due to their clever use of one material—decorative hardboard. They use it as both interior and exterior paneling, and achieve an almost unlimited variety by mixing the many types of hard-

board finishes available. We might use a basketweave pattern as siding and paneling on one home, says Molasky, striated on the home next door, random plank on still another. This gives us added sales ammunition without boosting cost.

A total of 3,350 sq. ft. of hardboard is specified for each house, all supplied



Nevada builders maintain good sales pace

Builders Irwin Molasky (right) and Merv Adelson expect 250 sales this year in their Paradise Palms Estates. They offer community facilities plus many different house styles.



Hardboard siding nailed right to studs

Workmen nail decorative hardboards over tar paper. Other homes in tract will get different textures. Added custom look-lots are in irregular patterns on winding streets.



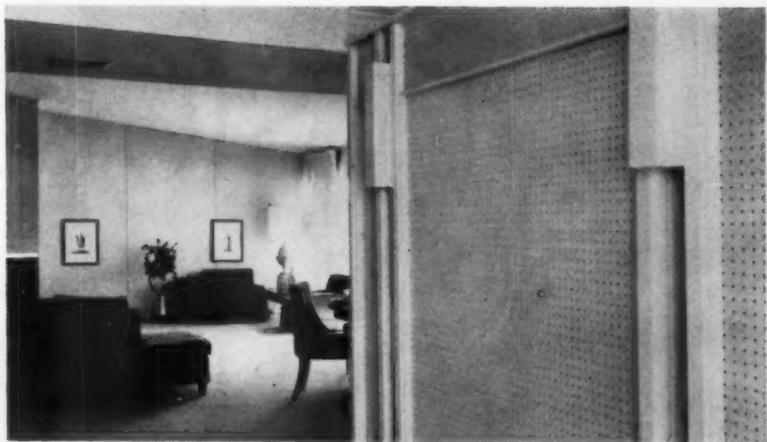
as decorative screens, fences.

tract sales

by one manufacturer—Simpson Timber Company.

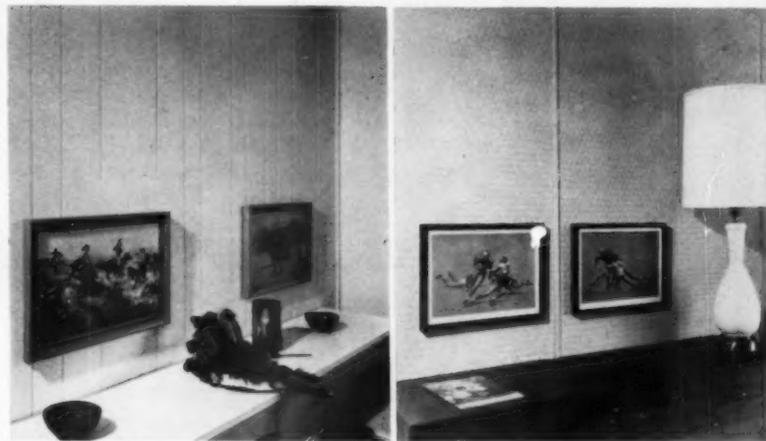
The homes are 3- and 4-bedroom contemporaries. They feature full air-conditioning (by heat pump) landscaped lots, all-wool carpeting, appliances. Prices are \$24,995 to \$28,625.

For details on Simpson hardboards, circle No. Z9, on reply card.



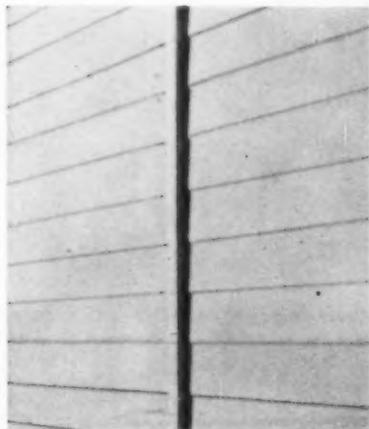
Decorating idea: mix finishes of interior panels

Note the pleasing visual interplay between perforated storage wall at right and the embossed-hardboard living room accent wall in the background. Perforated panels are also used as decorative screens and dividers, and in carport storage areas.



Bedrooms decorated with embossed panels

Random-plank, left, and basketweave hardboard make attractive, low-maintenance walls of model home bedrooms. In all, some 3,350 sq. ft. of hardboard are used in each Paradise Palms house. Interior paneling is nailed directly to studs.



Close-up of louvered panel

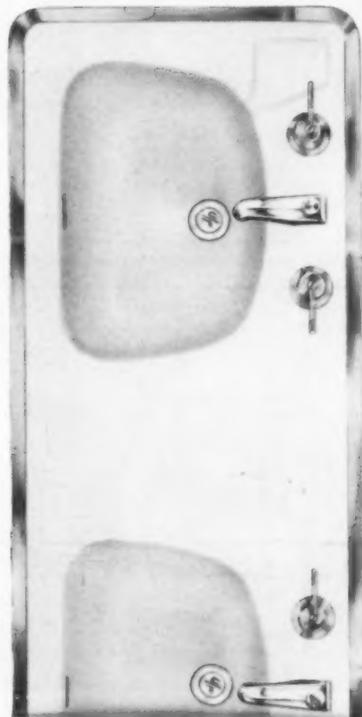
Visual interest of the shadow lines, plus that of the vertical battens, makes an appealing accent wall (photo right).



Louvered accent wall board blends with masonry fireplace

Such simple, tasteful blending of materials can lend a custom touch to any room without running up your decorating budget. Wide variety of panel finishes, plus large selection of paint colors makes it easy for builders to avoid "tract monotony."

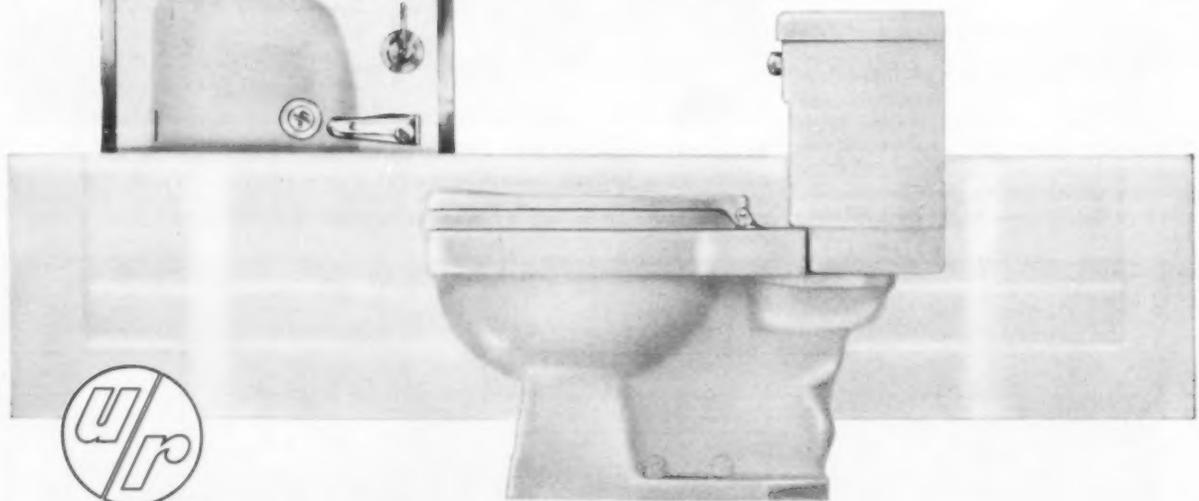
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GUIDE TO NEW PRODUCTS



Big sheets speed application, save labor

Hardboard is produced in 4' wide sheets in lengths up to 16'. Long sheets like this grooved 16-footer cover large areas quickly, greatly reduce labor in siding application.

Hardboard: New uses for a proven material

Versatile material, made from wood fibers, is worked with standard tools, techniques. Popularity grows among builders as manufacturers come up with new finishes

Hardboard's popularity as a building material has grown steadily over the years. In 1960, for example, more than a billion square feet of this material was used in home construction and remodeling—about twice the amount used 10 years ago.

One outstanding reason for this growth is versatility. Hardboard is made in a wide variety of types and finishes, for both interior and exterior applications.

What makes up hardboard?

Essentially, hardboard is a panel product made by reducing wood to its basic fibers, then applying heat and pressure to give added strength and stability. It comes in standard thicknesses of $\frac{1}{8}$ ", $\frac{3}{16}$ ", and $\frac{1}{4}$ " (although heavier types are made for special uses—like cabinetry). Hardboards, both plain and decorative, are made in panels 4' wide and 4' to 16' long. They generally have a smooth surface on one side, a rough screen pattern on the other. Basic shades range from light to dark brown.

Comes in four types

Hardboard is manufactured in four basic types:

Standard—with hard, durable surface, used for wide variety of interiors not requiring extreme moisture resistance.

Tempered—heat treated with oils or resins to give added stiffness, plus moisture and abrasion resistance. Recommended for exterior use, and for interior uses where extra moisture resistance is needed.

Low-density—used where the hardness and strength of standard or tempered are not required—usually for walls and ceilings.

Underlayment—for use under resilient floor coverings. A big advantage of hardboard is that it works easily with standard carpenters' tools. It cuts with hand or power saws, can be machined with shapers, routers, planers, etc. In addition, it's tough and flexible, takes standard fasteners, is often factory-primed, and has excellent painting characteristics.

In recent years, hardboard manufacturers have done much to increase the usefulness of their product. Results show in the wide range of specialty and decorative hardboards now on the market. Some uses for these money-saving products are shown on the following pages. (Circle No. Z1, reply card.)

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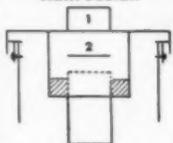
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	Z11	Z24
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	Z13	Z26
Z1	Z14	Z27
Z2	Z15	Z28
Z3	Z16	Z29
Z4	Z17	Z30
Z5	Z18	Z31
Z6	Z19	Z32
Z7	Z20	Z33
Z8	Z21	Z34
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| <input type="checkbox"/> Builder or Contractor | <input type="checkbox"/> Architectural | <input type="checkbox"/> Finance |
| <input type="checkbox"/> Sub-Contractor or Building Trades | <input type="checkbox"/> Engineering | <input type="checkbox"/> Realty |
| <input type="checkbox"/> Building or Planning Own Home | <input type="checkbox"/> Manufacturer or Producer | <input type="checkbox"/> Organization |
| | <input type="checkbox"/> Distributor | <input type="checkbox"/> Government |
| | | <input type="checkbox"/> Student or Teacher |

Signature

Z37	Z42	Z47	Z52	Z57	Z62
Z38	Z43	Z48	Z53	Z58	Z63
Z39	Z44	Z49	Z54	Z59	Z64
Z40	Z45	Z50	Z55	Z60	Z65
Z41	Z46	Z51	Z56	Z61	

American Builder

Reader Service

★ AUGUST 1961

	Z11	Z24
PRODUCT LITERATURE	Z12	Z25
	Z13	Z26
Z1	Z14	Z27
Z2	Z15	Z28
Z3	Z16	Z29
Z4	Z17	Z30
Z5	Z18	Z31
Z6	Z19	Z32
Z7	Z20	Z33
Z8	Z21	Z34
Z9	Z22	Z35
Z10	Z23	Z36

NAME (Please print)

FIRM NAME

TITLE

STREET

CITY

ZONE

STATE

PLEASE CHECK YOUR FIELD OR OCCUPATION

- | | | |
|------------------------------------------------------------|---------------------------------------------------|---------------------------------------------|
| <input type="checkbox"/> Builder or Contractor | <input type="checkbox"/> Architectural | <input type="checkbox"/> Finance |
| <input type="checkbox"/> Sub-Contractor or Building Trades | <input type="checkbox"/> Engineering | <input type="checkbox"/> Realty |
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Signature

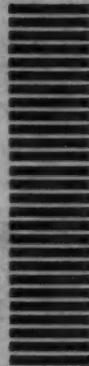
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Z40	Z45	Z50	Z55	Z60	Z65
Z41	Z46	Z51	Z56	Z61	

**Mail one of these postcards today
to get free product information.
Service on August reply cards
expires November 1, 1961.**



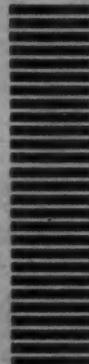
BUSINESS REPLY MAIL
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**Business Manager
AMERICAN BUILDER
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BUSINESS REPLY MAIL
First Class Permit No. 153, New York, N.Y.

**Business Manager
AMERICAN BUILDER
30 Church Street
New York 7, N. Y.**





Tempered, grooved panels make attractive siding

Exterior of this house is covered with V-groove tempered hardboard. Other styles available for this use are random-groove, rustic, plain, board-and-batten, striated, combinations.



Sheets bend to form modern ceilings

Hyperbolic paraboloid ceiling is covered with Weytex (Weyerhaeuser) sheets. Hardboard bends cold and dry into large-radius, permanently supported curves. (No. Z2, reply card.)

Hardboard — product of a hundred uses



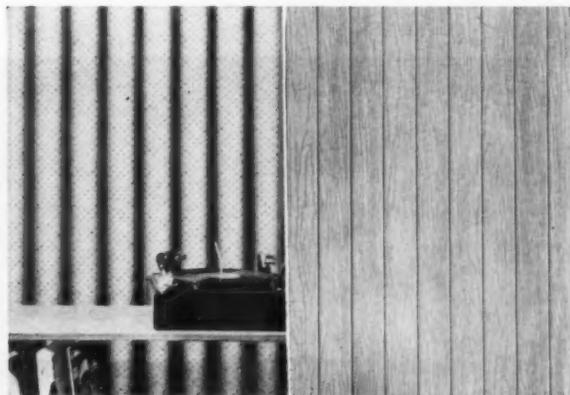
Mosaic panels add sales-making glamor to built-ins

Sliding cabinet doors are of Sandalite, a Forest Fiber hardboard with hard, sealed surface. Comes with scatter mosaic design. For built-ins or paneling. (No. Z3, reply card.)



Material suited to damp areas of house

All cabinetry in this utility room is of tempered, moisture resistant Georgia-Pacific hardboard. Builder used $\frac{3}{8}$ " for cabinet doors, $\frac{1}{8}$ " for bin bottoms. (No. Z4, reply card.)



Distinctive finishes for interior decoration

Corrugated, punched $\frac{1}{8}$ " panel at left (Georgia-Pacific) makes ideal music room wall when backed with sound absorbing material. At right is Masonite Seadrift for interior use.



Durable hardboard lap siding goes on fast

Prime coated Masonite "X" lap siding is $\frac{7}{16}$ " thick, 16' long. Edges have guide lines for 10½" or 11" exposure. Said to have exceptional dent, weather resistance. (No. Z5, reply card.)

“More favorable comment about



TWINDOW will give this attractive home more sales appeal.



This room will be more comfortable year 'round, because of TWINDOW.



TWINDOW, shown here installed in a Caradco Sash, will help keep this home warmer in winter, cooler in summer.

TWINDOW[®] than about any other item,"



says Wayne DeDoes
A. N. W. Home Builder
Kalamazoo, Michigan

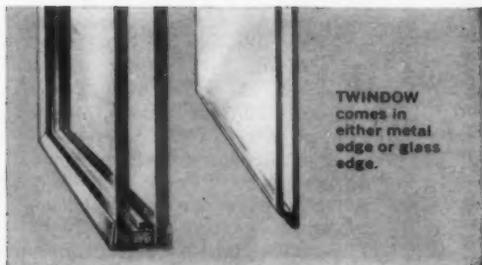
In and around Kalamazoo, Michigan, Mr. Wayne DeDoes builds homes in the \$20,000 to \$30,000 price range. Here's what he says about TWINDOW: "I use TWINDOW insulating glass in most homes I erect. I don't know of

another single item I put into my homes that brings so many favorable comments. Many of these comments come from buyers who have lived a comfortable winter or two in their TWINDOW insulated home. It gives me a feeling of pride when my buyers tell me how much they enjoy the comforts that TWINDOW brings to them."

TWINDOW is two panes of Pittsburgh glass with a layer of dry air sealed between. It insulates; helps keep a home warmer in winter, cooler in summer. TWINDOW eliminates storm windows and minimizes downdrafts, window fog and frost. TWINDOW brings outdoor beauty indoors without cold, heat or dirt.

With TWINDOW in every window and sliding door, homes have more sales appeal. TWINDOW Glass-Edge and TWINDOW Metal-Edge come in all popular sizes for a wide variety of window and door styles. Our free TWINDOW booklet has all the information. Write today, to Pittsburgh Plate Glass Company, Room 1175, 632 Fort Duquesne Blvd., Pittsburgh 22, Pennsylvania.

... the windowpane with insulation built in



TWINDOW[®]



Pittsburgh Plate Glass Company

Paints • Glass • Chemicals • Fiber Glass In Canada: Canadian Pittsburgh Industries Limited

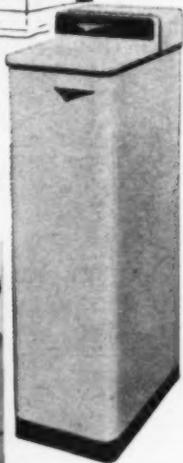
VERN DONNAY homes

have a new "SOFT SELL"



Rain-Soft Water by the Lindsay Princess

Vern Donnay, president of Donnay Homes, tells Mrs. David W. Rau that her beautiful Lindsay Princess will assure her family an unlimited supply of pure soft water for baths, cleaning, dishes, and laundry. The Rau's new home is in Oak Park, Minn.



... Saves the Home Buyer a House Payment a Year!

Vern Donnay, Minneapolis builder, believes sincerely in his responsibility to the people who purchase his homes. And that's why his homes feature those "extras" that add up to quality.

Since 1949, he has undertaken eleven major community developments. The most recent are Donnay's Oak Park and Donnay's Brookdale Estates. In these areas, Mr. Donnay has provided spacious parks and recreational facilities where both adults and children can find leisure-time fun and relaxation. Many different home styles, which include modern colonials and attractive ramblers, give unusual charm and individuality to these Vern Donnay-developed neighborhoods.

In touring a Vern Donnay home, you quickly see evidences of quality. The prospective home-owner notes, for example, that national brand name materials and fixtures are used throughout.

One of the welcome "plus" features offered in the Vern Donnay homes is the Lindsay Princess water softener. This provides the home-owner with rain-soft water at the turn of a faucet.

Actually, Vern Donnay homes are built in a hard water area, as are

85% of all new houses built in the U. S. A. However, Vern Donnay is a builder who has provided a solution for all of his home-owners. With the Lindsay Princess water softener, he promises soft water for more pleasant daily living—brighter, cleaner washes for the busy housewife, delightful, sudsy baths, easier shaving. Dishes and windows come cleaner and more sparkling. The pure rain-soft water is a beauty aid to hair and skin, too. All this at a savings of up to \$117.60 a year... a house payment a year!

And those, Mr. Donnay says, are real sales points!

The Lindsay Princess is trim, only 12" wide, 43½" tall. Choice of five colors—in genuine porcelain inside and out. Snow White, Springtime Green, Vogue Pink, Sunny Yellow, Cinderella Blue. It's all-automatic, too—with an automatic by-pass in the regeneration cycle.

The beautiful Lindsay Princess is designed and engineered by America's largest manufacturer of home-owned water conditioners. Why not follow Vern Donnay's successful pattern? Drop us a letter for the full story on how you can put the Lindsay "soft sell" in your homes.



The Lindsay Company

St. Paul 4, Minnesota
Division—Union Tank Car Company



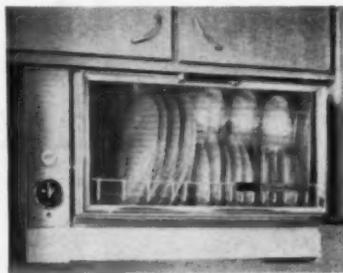
NEW PRODUCTS



THICK PRIME COATING gives exterior hardboard a durable surface that takes all types of finishes.

Siding panels give extra durability

Weyerhaeuser's Silvatek Division is producing a new prime-coated, tempered hardboard for exterior applications. The coating is a resin-based material that gives a hard, durable surface said to be an ideal base for top coats. Thickness of the coating is 1.5 mils, compared to an industry average of .75 to 1.0 mil. The hardboard comes in U-grooved, V-grooved, striated, smooth surfaced, and combinations. (Circle No. Z6, reply card.)

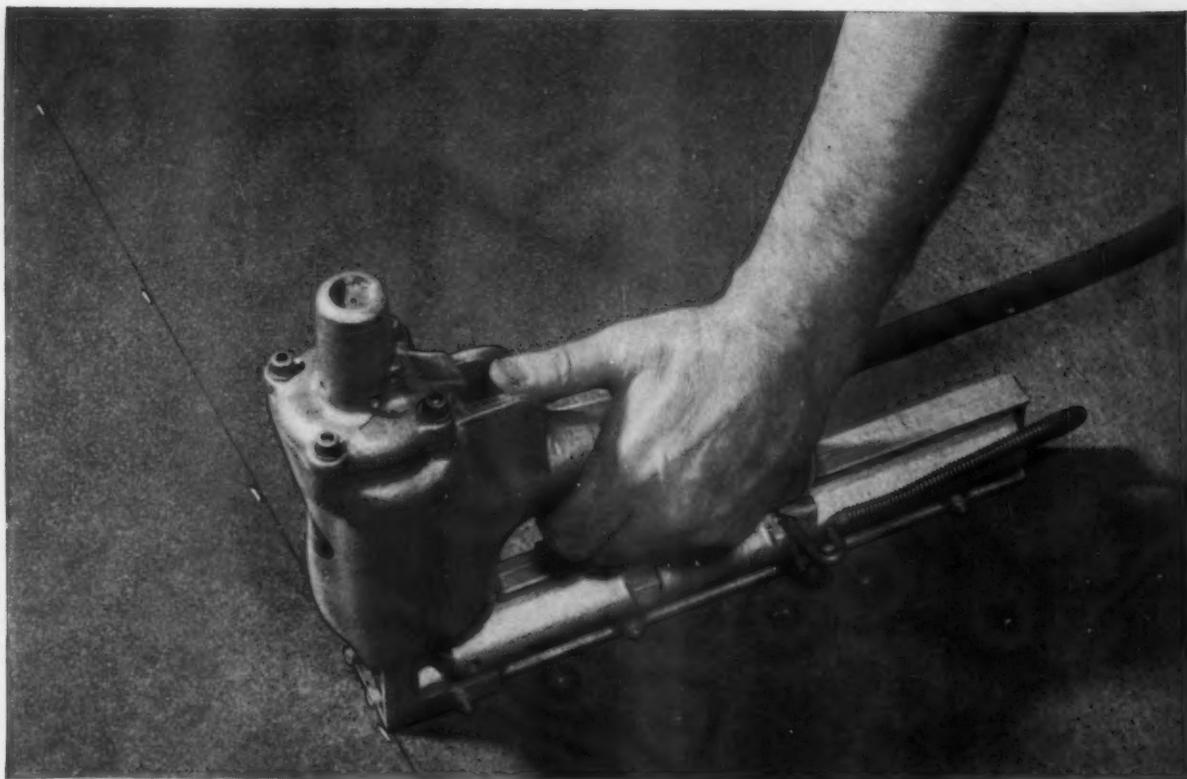


Fast, compact dishwasher

New Temco dishwasher is said to wash and steam-purify a full load in 25 minutes—half the usual time. In addition, its compact design makes it an ideal built-in for mounting above or below a counter in or on a wall, above or below an oven, on a countertop or in a room divider.

Three models are available, accommodating service for 6, 10 or 15 people. All models are 30" long. Smallest model is 13" deep, 15" high. Others are 13x18" and 23x18".

Washing operation takes only one cycle. Water spotting is said to have been eliminated by built-in steam generator. Controls and motor are mounted in 4" space. (Circle No. Z7, reply card.)



NAIL DOWN PROFITS

... WITH SPOTNAILERS Every time a carpenter fumbles in his apron for a nail and drives it with a hammer you lose money. Efficient builders on the jobsite and home manufacturers in the factory are driving fasteners up to 2" long with the touch of a trigger or pushbutton. They are cutting costs, reducing worker fatigue and erecting homes in all weather with automatic Spotnailers—how about you? Compare the cost savings below and estimate how much you can save.

An eastern contractor's crew applied sheathing 4-5 times faster with a Spotnailer.

A contractor found he could Spotnail plywood at 25% of his hand nailing costs.

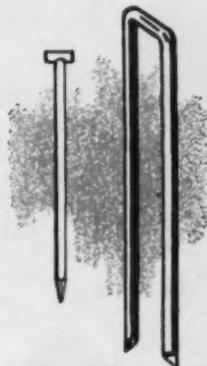
A Pennsylvania contractor saved \$125 per house by Spotnailing sub-floors, interior walls and the roof.

An Ohio builder doubled production of roof trusses just by giving the same crew a Spotnailer and box of staples.

A California builder found he could consistently Spotnail 3 times faster on 4 different rough sheathing jobs and on other finishing work.

An Oregon builder applied roof shingles 6 times faster with a Spotnailer.

Send for our "Builder Brochure" with F.H.A. Standards and 14 illustrations of Spotnailers cutting costs.



SPOTNAILS, INC. 1100 HICKS ROAD, ROLLING MEADOWS 6, ILL., CLEARBROOK 9-1620

BRANCH PLANTS: CLARK, NEW JERSEY • LOS ANGELES, CALIFORNIA • OFFICES IN PRINCIPAL CITIES
Spotstaples meet F.H.A. Standards for subfloors • wall sheathing • roof sheathing • gypsum lath • floor underlayment • asphalt shingles



The indoor-outdoor utility of wood makes this room blend beautifully with its natural surroundings. The wall extension, the joists, beams, and decking of the porch, the door and window frame—all of wood—combine with the tree for an effect of secluded privacy. Architect: Boyd Georgi, A.I.A.

Open rooms of wood increase the sales-appeal of indoor-outdoor living

WOOD sells the rooms that sell the house

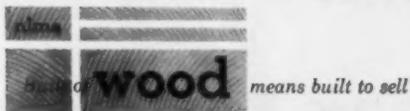


Wood gives this sun deck the feeling of all outdoors, yet keeps it as cozy as any room. The airy beams, the paneled walls, the floor and window frames all emphasize wood's beauty and comfort.

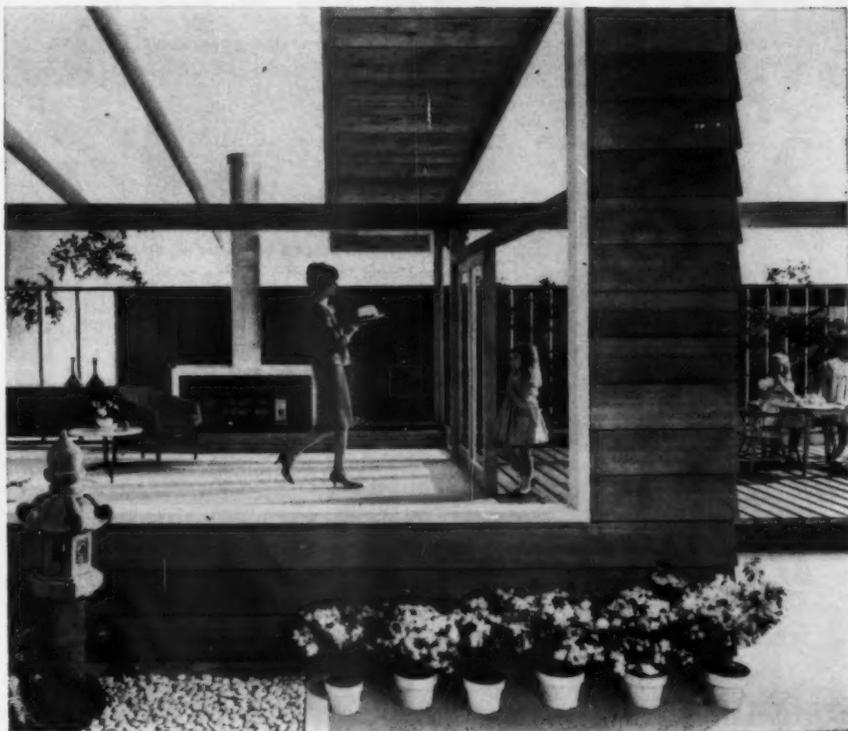
Most of your prospects will buy homes with living quarters reaching into the open. On your part, this requires continuity of design and material . . . what else but wood? Nothing in the world is so relaxing, so functional, or fits so many budgets. Wood posts and beams make solid and attractive supports for a ceiling as well as a porch roof. Outdoor areas decked with wood extend the beauty and utility of wood floors. And doors of wood look good from either side. Also, as a builder you appreciate wood's natural weather resistance and the ease with which carpenters can put together even highly complex designs. Any or all of the uses of wood can help convince your prospects to stop holding out and start moving in.

Do you recall seeing the picture below? It appeared as the illustration of a two-page, full-color NLMA advertisement in *LIFE* a short while back. Your prospects were among the millions who saw it. Now more than ever, they will be looking for indoor-outdoor uses of wood in the houses you build. For more information on better homes of wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1319 18th St., N.W., Washington 6, D.C.



You can find all the selling points for indoor-outdoor uses of wood in this picture. Wood's comfort, beauty, and strength are dramatically shown, as are its varied applications for structural unity and continuity of design.



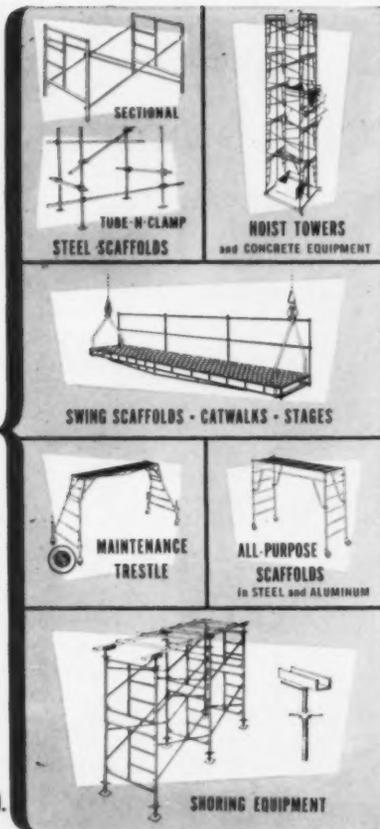
TO GET UP IN THE
WORLD YOU NEED THIS
BIL-JAX CATALOG . . .



Check here the types of equipment in which you're most interested . . .

- | | |
|------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Tubular steel scaffolding | <input type="checkbox"/> Maintenance Trestle |
| <input type="checkbox"/> Tube 'N-Clamp Scaffolding | <input type="checkbox"/> All Purpose Scaffolds (Aluminum and Steel) |
| <input type="checkbox"/> Material Hoisting Towers | <input type="checkbox"/> Shoring Equipment |
| <input type="checkbox"/> Swing Scaffolds, Metal Stages, Catwalks | <input type="checkbox"/> Bleachers and Recreational Equipment |

BIL-JAX, INC. • ARCHBOLD, O.



NEW PRODUCTS



STEEL-FRAMED structure has 2-story-high wire studs, block foundation. Diamond lath goes inside. Mesh goes outside to hold stucco.

Machine-applied wall on paper-backed mesh

Keystone Steel & Wire Co. is conducting first test applications of its Keymesh Lath in a curtain-wall construction that shows great promise for one- and two-story buildings—especially in the commercial, industrial and institutional field, where its high fire resistance will be of special value.

The lath is a mesh of 1½" spaced galvanized 17-ga. wire. It's backed with a double ply of breather backing paper attached by stitch wires.

The wall construction, designed for machine application of exterior stucco or other finish, and interior plaster over diamond mesh lath, includes a 3" thick sprayed-on layer of perlite concrete between the two-story-high steel wire studs.

Application of the mixes is by "dry cast" developed by the Plaster Development Center of Chicago.

This method, which uses an unusually dry mix of Portland cement concrete, greatly reduces the amount of shrinkage in the drying concrete.

On the outside, metal corner and divider beads give any desired panel effect. (For more information, circle No. Z8, reply card.)



CLOSE-UP of Keymesh Lath that serves as base for 7/8" machine-applied marble-chip concrete. Wall is 3" of sprayed perlite concrete.

When the heat's on



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.

be sure

it's **HYDROTHERM**



HYDROTHERM, INC. • DEPT 13AB, NORTHVALE, N. J.



It's a 3010... for heavyweight stability above ground... better work 13½ feet down

Built for the big jobs, the new John Deere "3010" furnishes a steady platform for fast, efficient trenching, plus the high mobility only a wheel tractor can provide.

Two John Deere backhoes are available for "3010" work—the center-mounted 50, and five-position 51 for regular and offset digging. Each operates with simple two-lever control, has a 13-1/2 foot digging depth.

With a "3010," the operator sees his job through from start to finish in comfort. Adjustable, weatherproof backhoe seat is contoured fiberglass plastic. Tractor seat is adjustable to

operator's height and clean platform provides easy off-on access. Low profile improves stability.

The unit is available with a choice of power—64 engine h.p. gasoline or 69 engine h.p. Diesel. Power steering and power brakes are standard. Constant-mesh transmission.

For a "3010" demonstration, contact your John Deere equipment dealer now through the yellow pages. Ask him about the advantages of the John Deere Credit Plan, and long-term leasing arrangements available. John Deere, 3300 River Drive, Moline, Illinois.



**LOADERS
BULLDOZERS
BACKHOES
AND
EARTHMOVING
EQUIPMENT**

PROVIDE YOUR HOMES WITH LIFETIME PROTECTION AGAINST MOISTURE MIGRATION!



Premoulded Membrane
TRADEMARK

VAPOR SEAL

Today's sophisticated home buyer realizes that the problems of excessive moisture must be eliminated. Dampness, condensation, paint and insulation failures, mildew, etc., can be eliminated only with the installation of a true vapor seal... "Premoulded Membrane." Provide that "quality" extra needed for sales... protect your homes and business reputation... eliminate "call-back" costs... with "PM," the original true vapor seal.

FEATURES OF "PM"...

- Waterproof... water-vapor transmission rating of only .0066 grains per hour per square foot.
- Strong... will not rupture or tear during installation handling, trundling of wheelbarrows or pouring of aggregate.
- Provides a monolithic vapor seal without voids or open seams.
- Permanent... will last the lifetime of the structure.



Write for complete information. Request your free copies of Bulletin No. 16 and Catalog No. 1660.

W. R. MEADOWS, INC.

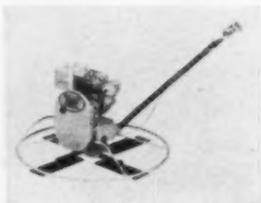
8 KIMBALL ST. • ELGIN, ILLINOIS

NEW PRODUCTS



Improved drywall tape

New Embossed Tape is said to reduce uneven expansion and edge wrinkling which help cause edge cracking in walls and ceilings. The tape is said to remain stable under varying humidity conditions, go on easier, dry rapidly with no air retention.—Bestwall Gypsum Co., Circle No. Z10, reply card.



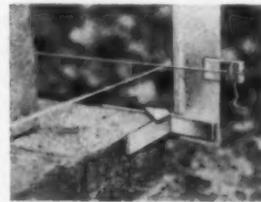
Improved trowels have more power

Muller 24" and 29" power trowels now come with 3-h.p. engines in both 3- and 4-blade models. Also have improved de-clutching mechanism to give operator complete control over blade operation. Handle adjusts to height desired by operator. Operates close to sidewalls and baseboards without bounceback. — Muller Machinery Co., Circle No. Z23, reply card.



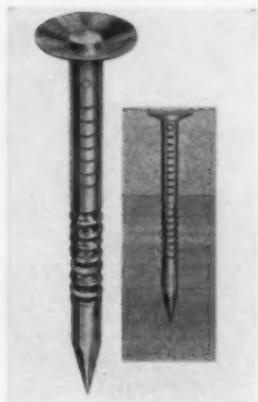
Powder speeds railing installation

Quik-Rok, when mixed with water, forms a mixture that expands upon setting and is harder than concrete. It's used as a grout to speed anchoring in masonry of fence poles, railings, metal windows, pipes, electric wall boxes, cabinets. Sets in 20 minutes.—Preco Chemical Corp., Circle No. Z24, reply card.



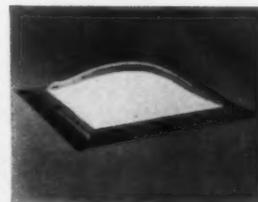
Story poles cut masonry costs 20-30%

Aluminum story poles are said to cut in-the-wall cost of unit masonry as much as 20-30%. Poles are 6' long, fit outside and inside corners, at the tail of the lead or anywhere along the line. Won't rust; easy to carry and set up.—Goldblatt Tool Co., Circle No. Z13, reply card.



Drywall nails save one hour per house

Special heads of these lightweight drywall nails are said to resist distortion, are automatically countersunk by last blow of hammer. Said to speed joint taping, save one hour per house. Also resist popping, fasten 25% more drywall per cwt.—Arnico Sheffield Div., Circle No. Z15, reply card.



Skylight has insulating air space

Wasco Twin Dome is actually two domes with an insulating air space between. Inner dome is translucent white. Unit comes with nailing flange attached for rapid installation. Needs no flashing.—Wasco Products, Circle No. Z25, reply card.

Fiberglass receptor looks like tile

One-piece receptor is made of fiberglass looks like ceramic tile. Said not to chip or crack. Lightweight, easy to install. Eight colors, four sizes—32½"x35", 36½"x39", 48½"x39", 39"x39". — Jayco Fiberglass Prods., Circle No. Z11, reply card.

Eight new tile patterns available

Quickset 3x3" mounted wall tile are only ¼" thick and are mounted on an improved semi-rigid paper that's said to be easier to handle. Come in eight designs trade named Blended Threes. Said to be ideal for thin-set mortar or adhesive application.—U. S. Ceramic Tile Co., Circle No. Z12, reply card.

Pool coatings outlast paint

Complete line of Gaco swimming pool coatings are said to last up to 10 years. Based on chlorinated rubber, polyvinyl chloride, epoxy and polyurethane. Available in turquoise, blue, aqua and white. Free color card available. — Gates Engineering Co., Circle No. Z21, reply card.

Steel door frame fits any type wall

Steelcraft door frame is fastened to walls with galvanized iron clips that are not welded to the frame. To adapt frames to any type of construction, all that's necessary is to use different clips.—Steelcraft Mfg. Co., Circle No. Z27, reply card.



7:00 Kingsberry package arrives at site *complete*—on pre-arranged schedule. Components are bundled, marked, and unloaded in proper sequence. No waiting for items from individual suppliers.



4:30 Houses are erected and closed-in by seven-man crews in 8 hours, and are ready for interior finishing. Prime-coat painting of the exterior components safeguards them from inclement weather.

Kingsberry's speed of erection helps you profit 4 ways!

Kingsberry houses close-in quick . . . finish-out fast! Kingsberry Homes cut construction labor 62% to help you earn more money

Making your money work faster is the key to success in today's market. That is why so many southern builders are turning to Kingsberry's unique advantages.

1. Cut construction costs: Save 62% on labor costs—manufactured wall sections go up fast without cranes . . . most models dry-in with a 7-man crew in one working day . . . labor and material savings in Kingsberry's truss-roof system permits flexible floor planning . . . pre-finished and pre-hung door units. Kingsberry's complete package lets you schedule delivery of 80% of building material at a firm cost . . . no expensive labor waiting for material . . . no purchasing agent, no expeditor. Finished cost comes out right on original construction-cost estimates. You eliminate all warehouse problems and reduce material waste and pilferage.

2. Pre-sell from models: Customers get into their homes quicker (2 weeks from start to finish), and you can pre-sell from model homes. Build to firm orders and avoid speculative building risks. Shift quickly with market changes, build houses in demand. Kingsberry's Salesmaker Program creates a sales-producing, customer-promotion program, and gives you up to $\frac{2}{3}$ the necessary advertising money.

3. Reduce interest on construction loans: Kingsberry's fast-building schedule permits you to save \$150 to \$450 per house in financing expenses. By shortening your building cycle, in time, you can build more houses, make more profit with the same capital investment and overhead. Kingsberry's Construction Loan Program can also help you further control your construction costs.

4. Build all year 'round: Costly weather delays are less frequent. Build right through the winter season, and keep experienced crews together all year long.

Kingsberry offers these savings in a tremendous selection of quality homes, priced to sell from \$9,000 to \$35,000 with land. To learn how you can increase sales, speed construction and increase profits, write or call today: Jerry Nowak, General Sales Manager, Kingsberry Homes, Phone, Fort Payne Alabama 845-3550.

TIME IS MONEY

Here's proof the Kingsberry System cuts building time to help you earn more money.

Conventional on-site time required for dry-in and trimming, interior and exterior (1548 square-foot house)	720 man hours
Time required for same operations with Kingsberry system	275 man hours
Your savings in man-hours alone	445 man hours

With a fast, efficient building cycle plus a reduction in on-site labor, your costs can't get out of line!



KINGSBERRY HOMES

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

everyone's

talking
about

BLACK TECH'S

Mighty Mortar

the NEW
wonder
epoxy



BONDS

BRICKS • CONCRETE BLOCKS

TERRAZZO • TILE STEPS

• CUTS LABOR

No mixing sand and cement.
No clean-up!

• EASY TO APPLY

Squirt like toothpaste from a
caulking gun.

• HIGH STRENGTH

Stronger than the material
it adheres to.

• ECONOMICAL

Triples production—cuts costs.

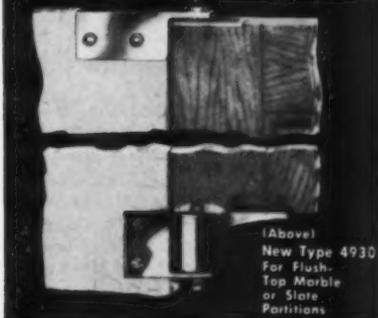
BLACK TECHNICAL INDUSTRIES

115 NEW MONTGOMERY ST., SAN FRANCISCO

For School-Repair Profits and
Maintenance-Free Service

"UNIVERSAL" GRAVITY PIVOT HINGES

for Lavatory Doors



(Above)
New Type 4930
For Flush,
Top Marble
or Slate
Partitions

Here's your performance-proved leader in lavatory door hinges for school, institution, and public buildings. "UNIVERSAL" Type 4930 delivers extra strength and durability for years of door-swinging service. Beautifully modern in design, totally enclosed dustproof construction, with sag-proof tapered pintle, smooth-operating ball bearing rollers—hold doors in any desired position. Brackets designed for marble, slate, wood or metal partitions. In bright or dull chromium, or nickel finish. Ask for prices. For other MILWAUKEE Hardware see Sweet's Architectural 18-M-1



MILWAUKEE STAMPING COMPANY

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NEW PRODUCTS



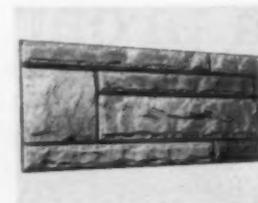
Vanity comes ready to build-in

Complete vanity cabinet is shipped with all fittings, is ready for immediate bathroom or bedroom installation. It's 36" wide and has two deep cosmetic drawers plus a large 2-door storage area.—Brammer Mfg. Co., Circle No. Z19, reply card.



Small utility vehicle saves money

Utility vehicle is powered by economical 4-cylinder engine. Available with 2- or 4-wheel drive. Carries either cargo or passengers. Wheel base is 100", length is under 13".—International Harvester Co., Circle No. Z20, reply card.



Stone panels nail to wall

Waterproofed fiberboard panels (14x32") have pieces of cast stone (1" thick) bonded to them. They're nailed to interior or exterior walls, fireplaces, planters.—Terra Industries, Circle No. Z16, reply card.



Special Hardboard adds storage quickly

Evanite Garage Liner is a 1/4" tempered perforated hardboard specifically designed for fast installation in garages, basements, storage rooms. Factory finished.—Evans Prods. Co., Circle No. Z14, reply card.

Free display touts flooring

Easel type display card (VD-445) describes hidden values of Vina-Lux vinyl asbestos tile floors. Available free to flooring dealers, contractors and home builders. Colors are yellow and black on white background; size is 12x25".—Azrock Floor Products Div., Circle No. Z28, reply card.



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.

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The Market Place for buying and selling used merchandise, help wanted, positions wanted, and other classified listings.
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STAIRWAY CONSTRUCTION HANDBOOK
Save time and money. A well illustrated, easy to understand working guide on every detail of stairway construction. Money back guarantee. Price \$2.50 postpaid, C.O.D. fee extra. Washingtonians add 4%. Douglas Fugitt, 11347 N.E. 124th Street, Kirkland, Washington.

HELP WANTED
Housing Executive: publicly owned company engaged in extensive home building and contract housing seeks young, well-educated housing executive with administrative and/or marketing experience to further enhance the company's growth in the Southwest. Excellent compensation and future. Send complete resume to Box No. 298, American Builder, 30 Church St., New York 7, N.Y.

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Dynamic Dutchman, 32, building materials and consumer goods specialist, lawyer, fluent English, French, German, Italian, Dutch, would like to act as your commercial and general representative in Western Europe. Dr. van Aartsen, Diependaalselaan 340, Hilversum, Netherlands.

Introducing . . . the new steel, rigid-foam-core, flush

Ever Strait Door

by PEASE

IT CAN'T WARP

COSTS LESS THAN A WOOD DOOR

EVER-STRAIT,* the new Pease exterior residence door is the lowest-cost answer to warp-free doors. Latest product of research and development in the family of Pease building materials, the EVER-STRAIT is the finest looking door you can buy. Light weight ($\frac{1}{3}$ lighter than conventional doors). Available in eight flush designs.

This door has a substantial feel and never has an "oil can" sound. It's made of steel | foam | steel construction, with a rigid Koppers Dylite** core.

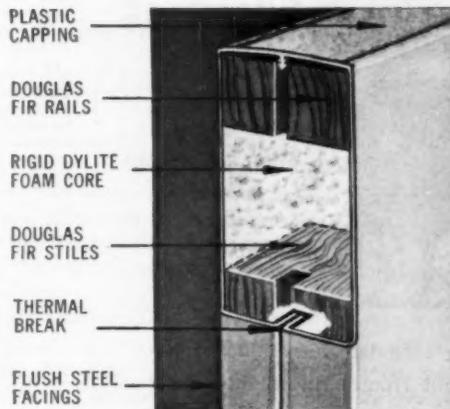
In the exclusive Pease process, Dylite foam is compressed to a rigid core between two steel panels. The resulting EVER-STRAIT door is heat-proof, cold-proof and warp free!

Its compressed foam core—plus the unique thermal break between the flush, smooth faced steel panels—provides extraordinary insulation. When heated to 75°F inside and cooled to -20°F outside, the door shows no trace of condensation or frosting.

COMPLETE PACKAGE SPEEDS INSTALLATION

Pease EVER-STRAIT doors are factory zinc coated, bonderized and primed for long lasting rust protection. They come pre-hung in a primed, weatherstripped outside Ponderosa Pine frame with Oak sill, complete with aluminum threshold, outside casing, metal flashing, drip cap and (when specified) door lights. All you need is the wall!

WRITE TODAY FOR SIZES, PRICES AND DESIGNS IN THE BOOKLET "WELCOME TO WARP-FREE DOORS"



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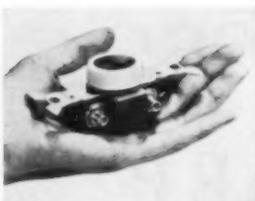
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NEW PRODUCTS



Sales booster: a new light dimmer
Dreamlitter 600 is said to be the first elec-
tronic light dimmer. It fits into a standard
single wallbox, gives smooth control of
light density on incandescent circuits up to
600 watts. Electro-Solid Controls, Inc.,
Circle No. Z17, reply card.



Masking paper speeds painting
Easy-Mask principle speeds masking of win-
dow frames, baseboards, moldings, etc. be-
fore painting. Combines paper and tape to
eliminate alignment troubles.—Daubert
Chemical Co., Circle No. Z18, reply card.

Tiled panels speed bathroom finishing
ViroGlas 3D panels are said to let one
man install a tub or shower stall area in
two to three hours. Made of 3/8" gypsum-
board faced with grouted tiles. Shipped in
packages containing panels, cement, nails,
caulk and grout for a complete tub or
shower area. Panels also available separately
in two sizes.—25 1/2 x 60" or 34" x 60"—Ridge
Tile Co., Circle No. Z26, reply card.

Door frame goes in after drywall
Tartan steel door frames (Series 610) can
be installed "in a matter of minutes" after
drywall is in place. Designed for 1 3/4" wood
or steel doors. Take 3 1/2 x 3 1/2" template or
non-template hinges. Come in standard
widths of 1'—6 1/4" to 3'—0 1/4", heights of
6'—8 7/8" to 8'—0 7/8". Also work with plaster.
—Republic Steel Corp., Circle No. Z22,
reply card.



Aluminum siding in Early American
Each 9" panel of this aluminum siding
looks like two 4 1/2" panels, giving thin-
line Early American effect. Coated on both
sides with vinyl paint, in white or pastel
colors.—Hastings Aluminum Products, Inc.
Circle No. Z29, reply card.

Prehung door features low price
Latest addition to Wepco line of aluminum
storm-screen doors is priced to retail for up
to \$20 less than "comparable" doors.—
Weatherproof Co. Circle No. Z30, reply
card.

PATIO, PORCH, CARPORT
shelter is prefabbed of alumi-
num, has a baked enamel finish.
Comes in standard sizes or cus-
tom sizes from 4x4'. Equipped
with concealed gutters.—Acosta
Awning Corp. Circle No. Z31,
reply card.

ALUMINUM CARPORT and
patio cover is made of formed
fascia sections and interlocking
roof panels. Called Flat-Top.
Supported by aluminum posts.
Designed for 35 psf snow load.
Baked-on white or aluminum
painted finish.—Hindman Mfg.
Co. Circle No. Z32, reply card.

HARDBOARD PANELS, in
4x7', 4x8' sizes, resist mars, abra-
sion, scuffs, impact. Clean with
damp cloth. Royalcote cherry-
grained finishes are called Na-
tura, Frosted and Colonial.
Panels have painted grooves.—
Masonite Corp. Circle No. Z33,
reply card.

INLAID LINOLEUM (Tangier)
is a standard gauge yard goods
said to have a vinyl-like finish.
Priced to retail at about \$4 a yd.
Comes in 8 patterns.—Congo-
leum-Nairn Inc. Circle No. Z34,
reply card.

SLIDING DOOR hardware, de-
veloped especially for use with
economical "flakeboards," are
treated in 4-page brochure.
Shows details of hanger as-
sembly, plus scale installation
drawings.—Ame Appliance
Mfg. Co. Circle No. Z35, reply
card.

SOL-SEAL ROOF SHINGLES
are factory treated with an ad-
hesive that seals "weathertight"
by the sun's heat. The 3-tab
12x36" shingles go on faster,
come in variety of colors.—
Philip Carey Mfg. Co. Circle No.
Z36, reply card.

NATURAL STONE is said to
go on twice as fast. Available in
sawn or split finish. Comes in
large interlocking pieces, already
palletized.—Briar Hill Stone Co.
Circle No. Z37, reply card.

**REFLECTIVE ROOF COAT-
ING** can lower interior tempera-
ture as much as 15°. It's a white
butyl rubber formula, called
White Top. Said to extend roof
life 4 or 5 years.—Superior Paint
& Varnish Corp. Circle No. Z38,
reply card.

ASBESTOS-CEMENT SIDING
is finished with baked-on acrylic
based resin. Comes in ten colors,
with a shake-like texture.—U. S.
Gypsum. Circle No. Z39, reply
card.

HARDBOARD SIDING, called
Shadowcast, meets FHA specs
for lapped exterior siding.
Marked for fast application
with 10 1/2" or 11" exposure. Its
7/16" nominal thickness gives
deep shadow line. Length is 16'
(nom.). Needs no site condition-
ing, has high impact resistance.
—Celotex Corp. Circle No. Z40,
reply card.



Knox B. McMasters. (left) President, Master Fabricators, Inc., Birmingham, Ala., explains one of his current projects to Emmett Burton, his Dodge Representative.

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Master Fabricators is a thriving business that produces products ranging from ornamental aluminum railings for building interiors to steel stairs, structural ironwork and missile launching platforms in use at Cape Canaveral. Mr. McMasters says, “Dodge Reports have made it possible for us to expand from a purely local supplier to one operating in a multi-state area. Even if we had a large full-time new business staff, we could not hope to produce the volume and accuracy of advanced construction news that Dodge Reports provide us.”

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ing. With competition as keen as it is in this day and age, we cannot afford to fall even 24 hours behind the very latest developments in the construction industry; otherwise, competing firms could take quick advantage of any lag on our part.”

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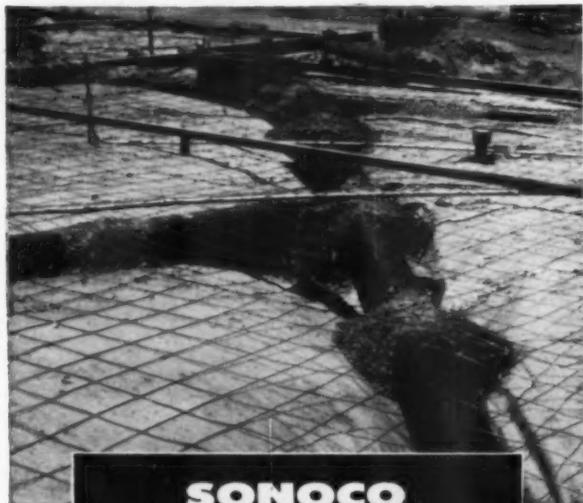
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To protect your reputation, your profit margin, and the interests of your customers, always install Sonoco SONOAIRDUCT—the Best in Fibre Duct. Available in 23 sizes, 2" to 36" I.D., standard 18' lengths. Special sizes to order.

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CATALOGS

STANDARDIZED MILLWORK: 80-page pocket manual contains installation and sectional drawings of an extensive line of millwork for sliding doors, wood windows, entryways, built-ins, mantels, etc. Filled with details, photos, technical data.—Ideal. Circle No. Z47, reply card.

SELF-PROPELLED ditcher is shown and discussed in brochure. The model 4T digs several size ditches, speeds installation of utility lines, other underground pipes. Works close to foundation walls or shrubs.—Vermeer Mfg Co., Circle No. Z48, reply card.

COPPERTONE RANGE HOOD is shown in an illustrated booklet. Lists types available, shows them in use, outlines specifications. Units are said to give trouble-free operation; carry one-year guarantee.—The Roberts Co., Circle No. Z49, reply card.

SOLID PARTITIONS are the subject of a newly revised 5-page technical bulletin. Describes the partitions and their uses, presents many tables on stud sizes, spacing, attachment of lath.—Metal Lath Mfrs. Ass'n., Circle No. Z50, reply card.

ALUMINUM SIDING: "Facts about Aluminum Siding" is a 14-page booklet that outlines the advantages of aluminum siding, shows why its use has increased.—Reynolds Metals Co., Circle No. Z51, reply card.

TECHNICAL BULLETIN discusses three styles and 14 sizes of metal folding doors for closets. Shows how the doors save construction costs and increase buyer appeal.—The Roberts Co., Circle No. Z52, reply card.

RECESSED LIGHTING: Attractive brochure covers three 13"x13" ceiling recessed incandescent luminaires with prismatic glass reflectors and lenses.—Holonhane Co., Inc., Circle No. Z53, reply card.

LUMBER DATA: Four-page publications file is also an order form for 100 items of merchandising, technical, educational material pertaining to Western Pine.—Western Pine Ass'n., Circle No. Z54, reply card.

TUB PROTECTION: Brochure describes a plastic coating that's brushed onto bathtubs to protect them during construction. Strips right off when work is completed.—Spravlat Corp., Circle No. Z55, reply card.

COLONIAL PLANK FLOORS: Color illustrated brochure gives installation instructions for Solid and Ribac colonial plank floorings. Contains detail drawings.—Harris Mfg. Co., Circle No. Z56, reply card.

ORNAMENTAL METAL products are presented in two-color 32-page catalog. Contains outdoor furniture, house and yard markers, planters, etc.—Tennessee Fabricating Co., Circle No. Z57, reply card.

TEXTURED PLASTIC COATING for exterior and interior masonry is described in 4-page color brochure. Compound is sprayed on simultaneously with aggregate to form tough, durable, weathertight finish.—B. B. Chemical Co., Circle No. Z58, reply card.

TRANSLUCENT PANELS: Bulletin has 4 pages of data on reinforced panels for industrial and residential daylighting, outdoor overhead use, decoration, security applications. Many types shown.—Alsmite, Circle No. Z59, reply card.

CATALOG AND PRICE LIST features complete line of masonry and concrete cutting equipment. Also contains latest Eveready blade recommendation and comparison charts.—Eveready Brick-Saw Co., Circle No. Z60, reply card.

BATHROOMS: "Glorifying the American Bathroom" is a 28-page catalog packed with photos, specs and descriptions of mirror-cabinet combinations, recessed and surface cabinets. Also shows complete line of bathroom accessories.—Miami-Carey, Circle No. Z61, reply card.

ALUMINUM PRODUCTS file is packed with installation detail drawings and spec tables for four price lines of sliding windows; single hung, picture and awning windows; jalousie units; sliding and stationary window walls.—Rogers Industries Inc., Circle No. Z62, reply card.

INSTALLATION DATA for 2.4.1. T&G panels is presented in a well illustrated brochure from DFPA. Panels are combined subfloor-underlayment and are used without cross blocking.—Douglas Fir Plywood Ass'n., Circle No. Z63, reply card.

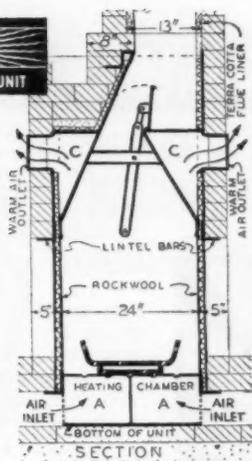
EXTENSIVE PRODUCT catalog contains 65 pages filled with a wide variety of building supplies. Among items shown are aluminum screen door grilles, louver vents, extruded thresholds, mail boxes, weatherstrips, calking guns.—Macklanburg-Duncan Co., Circle No. Z64, reply card.

AUTOMATIC WASHER: specifications sheet describes Whirlpool LJA-12 automatic washer. Unit has 2 cycles, 2 speeds. It's only 24" wide, yet is said to wash full family-sized load.—Whirlpool Corp., Circle No. Z65, reply card.

OUTDOOR LIGHT FIXTURES for gardens, patios, pools, shrubs, driveways, etc., are shown in a 4-page brochure and price list. In use, fixtures are pushed into the ground and plugged in. Also shown are outdoor convenience outlets and instructions for permanent underground wiring.—Stebber Div. Circle No. Z41, reply card.

YEAR ROUND CONCRETING is the title of an 8-page booklet. It summarizes latest standard recommendations for cold weather concreting. Also shows effects of 2% calcium chloride at 73°, 55°, 40°, and 25° F, on type 1 and type 3 cement.—Calcium Chloride Institute. Circle No. Z42, reply card.

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WARM AIR-CIRCULATING-FIREPLACE UNIT



The use of Model "D" Heatform is the only method of securing any volume of heat from the two-way opening fireplace. Heating chambers below and above fire, connected by side air passages, capture and circulate into the home a large percentage of heat lost by the all masonry fireplace.

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process insulates against heat and cold. Light in weight, easy to handle—means less installation time and costs for you.

Maintenance-free! Perfect outdoors, indoors—for patios, carports, awnings, interior partitions, skylighting, glazing, roofing—

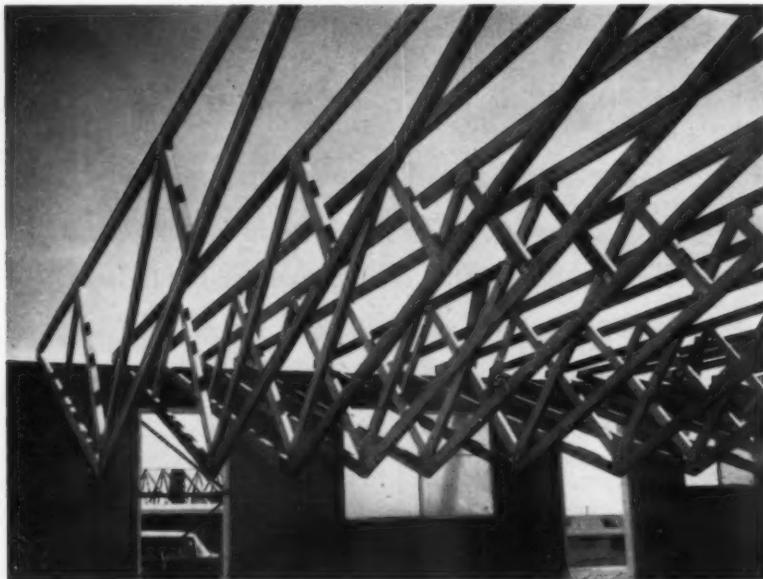
wherever you want light plus strength! BARCLITE XR1000 at your lumber dealer, or write: Barclite Corp. of

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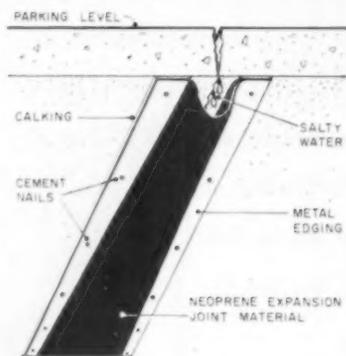
Pre-set roof trusses shorten assembly time for this Phoenix builder



Laborers position 28' Sanford roof trusses—21 to a house—for Builder John Long of Phoenix, Ariz. They're spaced approximately where they will be spiked to the plate.

Then the carpenters take over. It takes them only 11 man hours to nail the trusses in place for a 1,300 sq. ft. house, saving time costs which can be passed on as savings to the person who buys the house.

Expansion joint material used as a ceiling gutter



Parking garages during the winter months are often faced with the problem of salty water running off parked cars and dripping down through floor cracks onto cars below. Calking doesn't stop drips.

An enterprising Worcester, Mass., builder found the answer in neoprene expansion joint with metal edges (Expand-o-Flash).

Cement nails hold metal edging, best laid in a bed of calking. Pitch is obtained by using material full width at one end of the crack and narrowing it at the other.

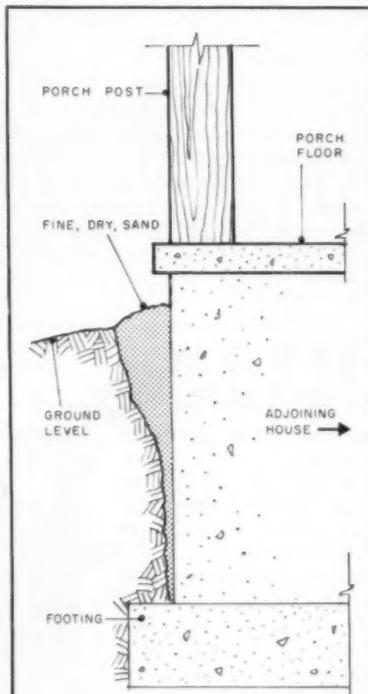
Hardware cloth prevents hammer head from slipping off handle

Builder H. Muller, Danboro, Pa., prevents hammer head slippage by: (1) Tapering the handle with a rasp and sandpaper until it just fits the socket in the hammer head; (2) Wrapping the tapered handle with a single layer of fine wire screening or hardware cloth, as shown.

When the handle is driven into the socket, the screening bites into the wood and holds head firmly.



Photo: Stanley Warren



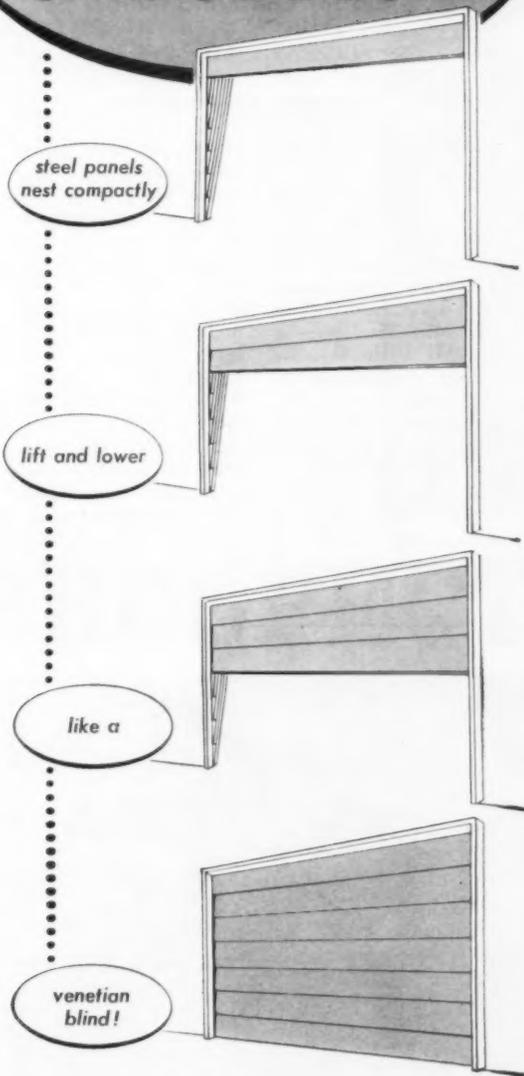
Sand fill trick prevents porch from moving out

The next time a porch settles away from the house it adjoins, give this a try:

During dry weather, when the openings occur between the dirt fill and foundation, dig away some of the dirt, forming a V-shaped trench.

Then fill the trench with dry sand. The sand will sift into the crevice next to the wall. By wetting the sand, the porch foundation will be pushed back and held in position.

Amazing New
PANEL-LIFT
 —lowest-priced, electrically-operated
GARAGE DOOR!



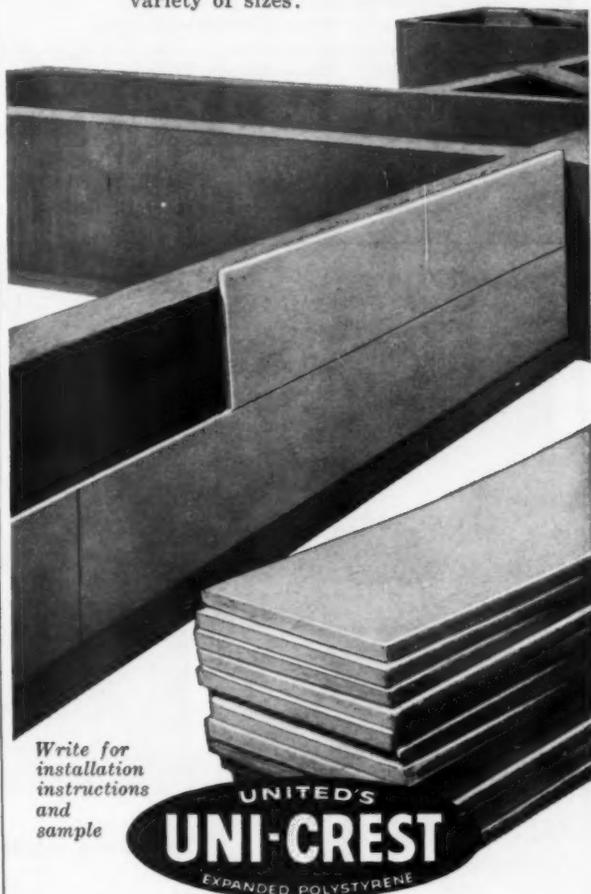
• Prime-coated steel panels lift and lower vertically . . . glide quietly and smoothly in separate channels. Eliminate overhead tracks, counterweights, and springs. Result? You save valuable headroom . . . slash installation and maintenance costs.

Get all the facts about Panel-Lift Doors. Write today for brochure, specifications bulletin and complete information. Address Dept. A-861.

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Now, through the combination of modern chemistry and the experience of United's 50 years as a leading manufacturer of insulating material, comes Uni-Crest. A thoroughly proven foam plastic insulation of outstanding thermal properties . . . labor saving and cost cutting benefits. Highly recommended for walls, ceilings, floors and around foundations or under slabs. Readily adheres to masonry, eliminates furring or lathing, provides an excellent surface for plaster, cement or other finishes. Easy to work with, light, non-dusting, odorless, non-toxic, can be cut with all standard tools. Will not shrink or rot and retains its insulating value indefinitely. Regular and self-extinguishing available in a variety of sizes.



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Chalk trick shows builder how to find low spots on asphalted parking surface

When using asphalt to pave large areas, it's often difficult to get the surface level and the drainage pitch right. Rollers that compact the material also crush it into soft spots in the ground. Wetherill's Home Supply Center, Levittown, N. J., which has a parking area for more than 100 cars, came up with this problem-solver: After it rains, all puddles are chalk-marked, as pictured. When the surface dries, the marks show the paving contractor where the low spots are and where extra asphalt is necessary.

Steel strap marking system speeds framing job for California builder

Earl Smith, El Cerrito, Calif., uses steel straps to locate framing members in each length of partition he constructs in his houses.

The strap is marked with everything applicable to the wall—studs, trimmers, headers, etc. It's exactly the length of the partition wall to be built. The strap is drilled so it can be tacked temporarily to the plate, which the carpenters turn on edge, ready to receive the other members.

As soon as assembly of the lower plate is made, the strap is moved to the head plate. The members

there are spotted and nailed according to the strap markings.

All rafter bearing points are also transferred from the strap to the plate, before the guide is removed from it.

Smith uses $\frac{1}{8} \times \frac{1}{2}$ " spring steel for the straps, which are stored in boxes until they are used. The longest strap is 20'. For partitions longer than this, he uses an extension, also made of steel, which is marked and positioned to correspond with the other strip. (Courtesy of the NAHB Business Management Committee Booklet.)



Photo: Stanley Warren

Grind screwdriver point to prevent slippage

Some Phillips-type screwdrivers—especially #1 and #2—are often too pointed. When pressure is on, they bottom in the screw-slot, slip out, and damage the stock.

To prevent this, Builder S. Clark, East Brandenton, Fla., grinds about $\frac{1}{32}$ " off the point of the blade.

This keeps the tip away from the bottom of the slot, and permits each flute to have full contact in the screw head, which discourages slippage.



Front-end loader takes concrete where mixer trucks can't go

Mountains of dirt made by excavators in new subdivisions can keep concrete trucks from getting close enough to sites to dump pay loads. The job then becomes one for wheelbarrows, which move material at a costly snail pace. Builder Don Decker, Omaha, Neb.,

has a better way:

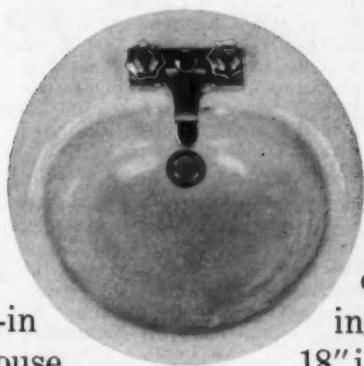
He uses the large bucket on his front-end loader to haul the concrete to the crews. The load can be accurately dumped; tractor goes over or around dirt piles with ease and the weight doesn't bog it down.

NEW 5½' CONTOUR BATHTUB has the power to stop prospects. It features the exciting off-center design of the popular 5' recessed and corner Contour. This first new bathtub shape in 25 years has extra space where needed;



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

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cast iron with a thick coating of enamel, the Circlyn is 18" in diameter with a 5½" deep bowl and front overflow. In six decorator colors and white. See your American-Standard representative for more details or write AMERICAN-STANDARD PLUMBING AND HEATING DIVISION, 40 W. 40th St., N.Y. 18, N.Y.

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INTERNATIONAL HARVESTER

Reshaped hillside land

Bypassed land for medium-priced houses gives builder big sales edge in high-priced area. Combination of terraces, berms, swirls, planking and tree plantings prevents flooding and soil erosion of hillside project.

When builder John De Rosa climbed to the top of a steep 14-acre site he planned to buy, he could see the main problem: it presented stretched out before him.

Within a span of less than 600' the heavily wooded property rose from a base of 180' to a peak of 320'. The average grade was about 20°; in some spots it was as high as 35°.

Despite the massive grading job called for, it still looked like a bargain to De Rosa.

Due to the shortage of appropriately zoned land in lower Westchester County (N.Y.), the average unimproved quarter-acre lot costs the builder between \$2,500 and \$3,000. De Rosa figured on cutting this to an average of \$1,500—an important item in his program to sell houses in the \$23,000-\$25,000 bracket instead of the regular base price of \$30,000 for the area.

So he and his partners, James Iarrobino and Robert Lord, formed Lakeview Manor Homes and bought the land for \$103,000.

It was after selling off the model houses—24 sold in a six week burst—and the foundation work started that the really tough problems of drainage and erosion came to the fore.

"Flash floods would come cascading down the hill, De Rosa says, "sweeping silt, boulders and lumber into the street below. Water ripped out a lot of our work and caused many delays."

Aside from the steepness of the hillside which gave impetus to the "river

of water" rolling down the hill every time it rained, there was the factor of "disturbed" land.

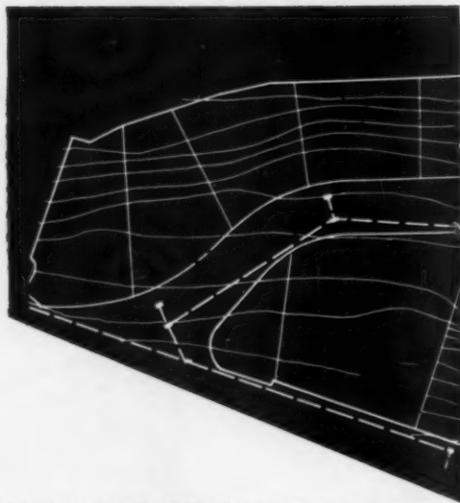
One of the previous owners had been an excavator. In supplying the fill for his contracting jobs, he had stripped a 300x300' area of all natural vegetation and top soil.

Other things aggravated this situation. As the early buyers moved into their completed homes, De Rosa requested that they refrain from cutting down any trees until he finished the project. Wherever possible, he had retained trees to stabilize the soil. But his advice was sometimes ignored, and the removal of trees complicated the drainage work in progress.

One time a homeowner came home after a rain storm to find a thick carpet of mud spread across the first floor. His house was just below the bend of the street that bisects the project from North to South. Water had come sweeping down the street, leaped over the edge and swept through the backyard at the bottom. De Rosa diverted some of his work force to clean up.

To prevent the erosion of dampened soil and provide drainage for the entire subdivision, De Rosa used a number of techniques he picked up from engineers, building publications and other builders. Each of the 41 home sites needed individual contouring which combined two or more of these techniques.

Terracing. Between the street that bisects the development and the road



below a series of artificial terraces run parallel to both. Five in all, the terraces were cut by a bulldozer in a consecutive slope, flat, slope, flat sequence.

Together with the street above, they serve to stall and divert the flow of water down the hillside. Under the street is a 20" storm drain that carries excess water out of the area. (See contour map)

Berms. These artificial ridges or "bumps" in the land stem and redirect the flow of water. As added protection, berms were also created on the edges along the terraces.

Swirls. These are slight indentations in the ground that channel rain water around the homes and into the storm drains. Swirls merge and carry the water away in contrast to berms which slow it down.

Curbing. Running along the central street, high curbs help protect homes on the low side from water coming



Terraces slow water coming down steep hillside

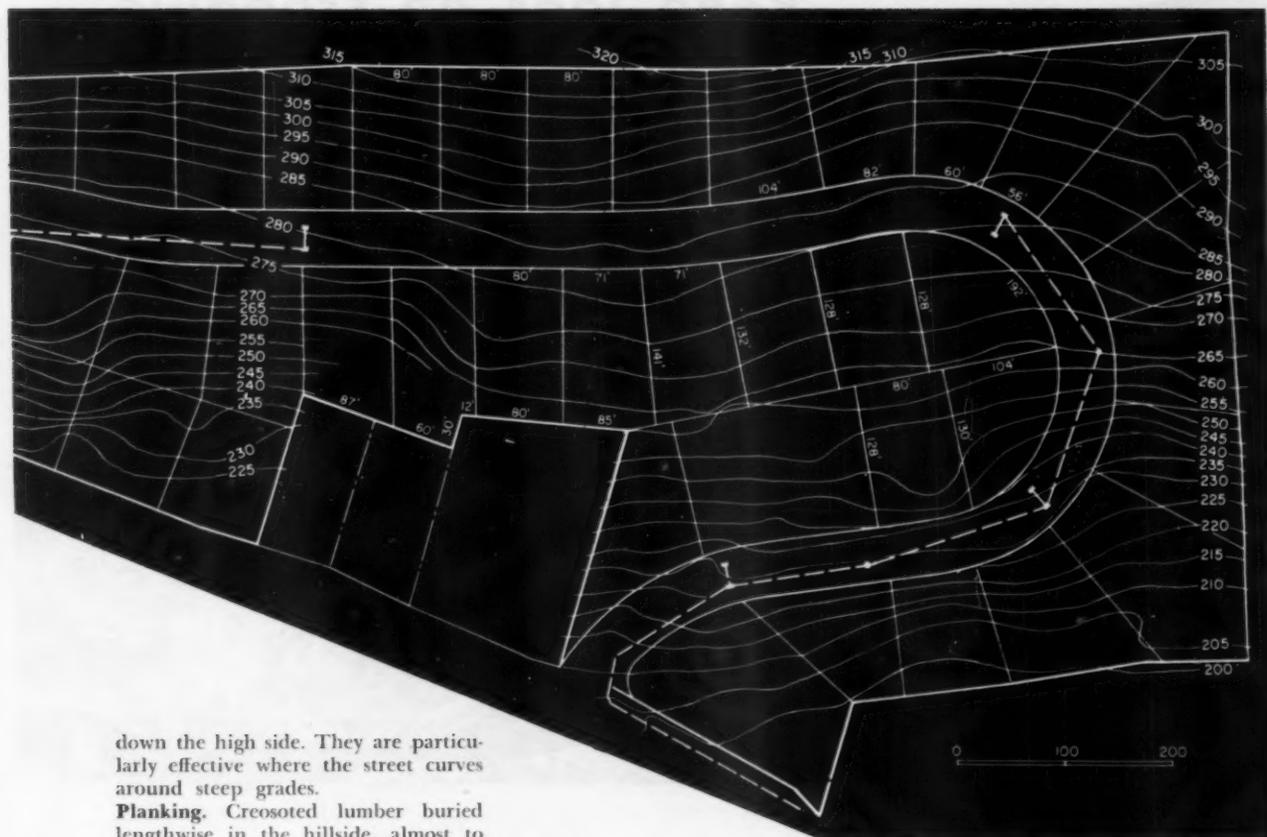
Five artificial terraces, four to ten feet in height, extend about half the length of the subdivision. Their purpose is to protect the houses and road below the hillside from flooding.



. . . while swirls carry water to catch basins

Black top paving was used for this swirl because water from the gutters and drainspouts of two houses on a higher level used to rip out the regular path designed to carry water.

costs \$1500 less per lot



down the high side. They are particularly effective where the street curves around steep grades.

Planking. Creosoted lumber buried lengthwise in the hillside, almost to the top, help distribute the water that gets by the street curbing. Eventually, the wood will rot away and become part of the landscaping.

Seeding. After grading, every piece of land outside the house foundation was seeded to offset erosion. De Rosa used 15 men to smooth down the terraces, and had them dig into the slopes with their rakes so the seed would stick as

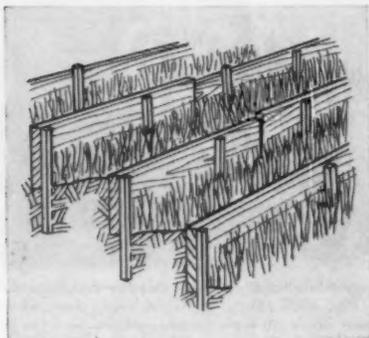
it was thrown down. Salt hay keeps seed warm and stabilizes the soil.

Tree plantings. In addition, 240 white pines and hemlocks, four to seven feet in height, were planted on the sides of those houses where the grade fell most sharply.

Tying in with this work, six homes located on the lower side of their own

plots were protected with catch basins directly behind the houses. These tied into the grade, storms.

"The experience I picked up on this job qualifies me for anything," De Rosa says. He is currently using it to develop a 60-home community in Hartsdale where the same problems exist, but on a lesser scale.



... and planking disperses it

Creosote-treated planks were buried lengthwise, almost to the top, in a very steep grade and seeded with grass and ivy.

What it cost to develop the site into prime land

De Rosa and his partners bought the 14 acres for \$103,000, including three houses. After remodeling one house, they sold them for a total of \$41,500, bringing the average lot price down to \$1,500.

It cost about \$300 to change the land contour of each plot.

In grading the hillside, more than \$14,000 was spent in moving 30,000 yards of soil from the top of the hill to the bottom.

During the winter, it cost \$120 a day just to clear the mud off the roads so materials could be brought to the project.

The street was contracted out for \$80,000, but another \$30,000 went for excavating stone. A 15 percent markup was figured on for the houses. A few miscalculations and a run of bad luck reduced this to seven percent. De Rosa got 40 percent of the profits; his partners, 30 percent each.

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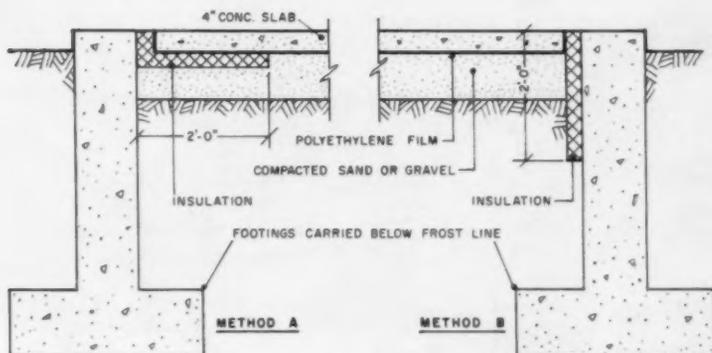


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Ask the Experts



How to build a good slab foundation

QUESTION: Can you show me the best method for building a slab foundation? I plan to insulate the slab and heat the house electrically.

Clem Cackroft
Red Bank, N. J.

ANSWER: Carry the wall footing to a depth below the frost line. This depth is usually specified by local building codes.

Use any rigid insulation meant for this purpose, like Scarbord (Dow Chemical) or Foamglas (Pittsburg-Corning). Install the in-

ulation as shown in either A or B above; insulation manufacturers recommend both.

You should lay a polyethylene vapor barrier over the sand (or gravel) and insulation. The vapor barrier should be 4 mils thick if laid over sand, 6 mils if laid over gravel. Take care not to puncture it.

The slab should be the usual 1:2:4:3 mix and should be 4" thick. Reinforce it with one layer of 6"x6"—#8x#8 welded wire fabric.
George A. Kennedy & Assoc.
Structural Engineers

Where to get insulation data

QUESTION: Where can I get information on insulation of industrial and commercial buildings?

C. Meyers
Queens, N. Y.

ANSWER: From the National Insulation Mfrs. Ass'n, 441 Lexington Ave., New York 17, N. Y.

The Editors

Favor batts for insulation

QUESTION: We're putting up a nine-apartment, ground-level building.

We were thinking of blowing insulation between joists after the ceiling has been covered with gypsumboard. Please advise as to the effectiveness of 6" blown rockwool compared to 3" or 4" of rockwool batts. Also, would a vapor barrier be needed?

Alfred Gengler
Oswego, Ill.

ANSWER: If it is possible to lay the batts, we'd advise you to do so. With blown insulation, there's always a chance of the material not being equally distributed.

Four-inch batts would serve just as well as 6" blown insulation. These can be purchased with the vapor barrier attached to one side, and are very easy to staple in place. However, always allow at least a 1" air space between the batts and floor or ceiling.

The Editors

Do you have a construction problem?

Write to:
Ask the Experts
c/o American Builder
30 Church Street
New York 7, N. Y.

Right way to build gas station

QUESTION: Can you help me with a proposed building? It's to be a 20x30' gas station with walls of 8" concrete block one story high. Roof will be flat, covered with built-up roofing. Front half will be mostly glass. The rear half will contain masonry-walled rest rooms and storage. It is to be built on dirt fill placed around six 16x16" concrete block piers.

What type footer would be sufficient? Also, would it be best to build outside walls, then pour the floor, then lay up the partitions?

Ed Franz
Ashland, Ky.

ANSWER: A concrete footing 8" thick and wide enough to extend 6" beyond the supporting pier on all sides would be sufficient. Build outside walls first, to enclose your building. Then the floor can be poured at any time when frost is out of the ground.

If the slab is not supported completely underneath, install plenty of reinforcing. Partitions can then be laid on slab.

The Editors

Raising the roof is costly

QUESTION: I would like to raise the roof of a garage and build an apartment. The garage is 30x24' with 5-12 pitch roof. Rafters are 2x6's placed on 16" centers. There is an overhang front and back. What is the most economical method?

E. T. School
Clinton, N. Y.

ANSWER: Raising the present roof would be very expensive. It would save time and labor if it were removed and the timbers used to build your new roof. If this is not possible, the lumber might be used to reinforce the framing of the floor for the new apartment.

The Editors

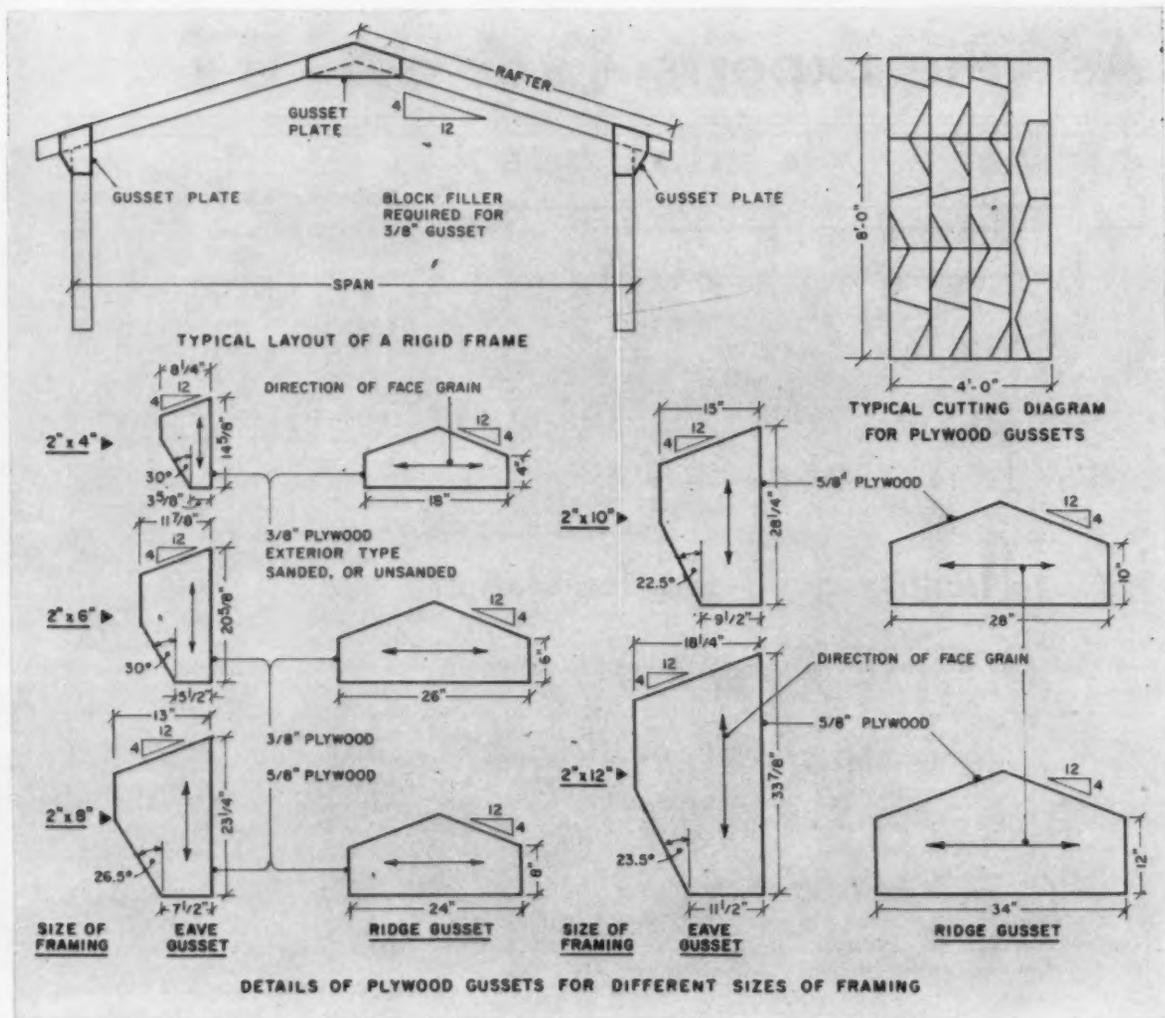
Pressure-treated lumber

QUESTION: Where can I get data on pressure-treated lumber for use in farm and commercial building?

J. Rowe,
Brooklyn, N. Y.

ANSWER: Write to the American Wood Preservers Institute, 111 West Washington St., Chicago 2, Illinois.

The Editors



Exterior plywood gussets

Gussets applied to the outside face of posts and rafters in rigid construction offer a straight wall inside the building for interior finishes. Types and sizes are shown in the above diagram along with an economical way to cut these

gussets from a standard plywood panel. Rafter length indicated is for a horizontal overhang of one foot.

Because this type of framing allows spans up to 40', the builder is free to use every square inch of floor space.

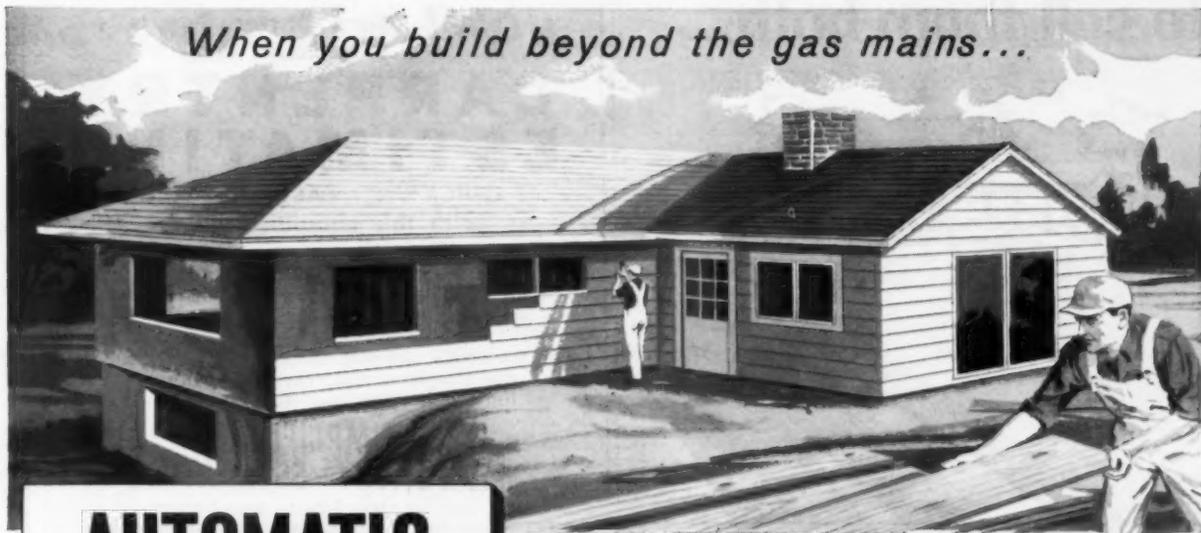
Wall heights, measured from the inside edges of studs and rafters, can range from 6' to 12'. Exterior gussets should always be of weatherproof plywood and angled to the wood's grain. Data: College of Agriculture, Univ. of Ill.

Rafter Lengths for Various Spans and Sizes of Frames

Framing member	Rafter length when span is*							
	12 ft.	16 ft.	20 ft.	24 ft.	28 ft.	32 ft.	36 ft.	40 ft.
2 x 4	7'-7"	9'- 8¼"	11'- 9½"					
2 x 6	7'-8¼"	9'- 9½"	11'-10¾"	14'- ½"	16'-1¾"	18'-2¾"		
2 x 8	7'-9½"	9'-10¾"	12'- ½"	14'-1¾"	16'-2¾"	18'-4"	20'-5¾"	
2 x 10		10'- ½"	12'- 1½"	14'-2¾"	16'-4"	18'-5¾"	20'-6¾"	22'-8"
2 x 12			12'- 2¾"	14'-4¾"	16'-5¾"	18'-6¾"	20'-8"	22'-9¼"

*The rafter lengths shown are for an overhang of one foot measured on the horizontal projection.

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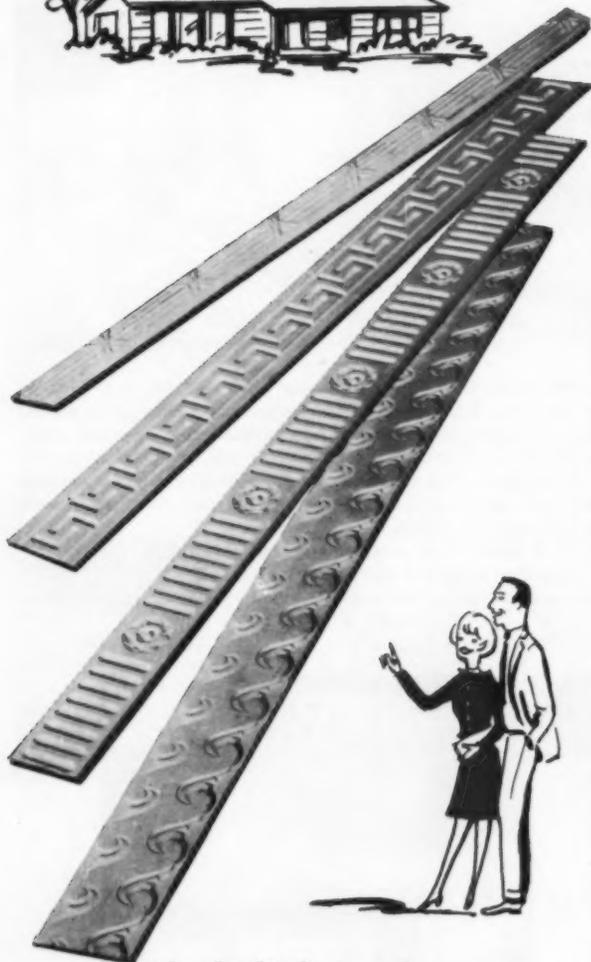
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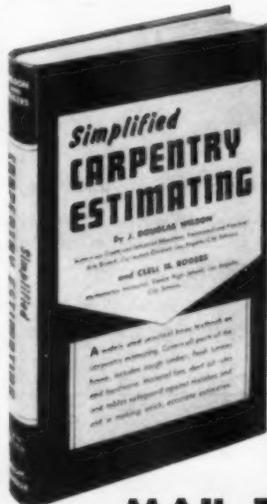
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American Gas Association	26	Kentile, Inc.	21	Union Tank Car Company	
American Standard,		Keystone Steel & Wire Company	34, 35	The Lindsay Company Division	102
Plumbing and Heating Division	119	Kingsberry Homes	109	United Cork Companies	117
				United States Ceramic Tile Company ...	25
B				Universal Rundle Corporation	92
Barclay Manufacturing Company, Inc. ..	115	L		V	
Bendix Mouldings, Inc.	128	*Laoco Industries	44C	Van-Packer Company, Division of The	
Berry Door Corporation	Cover 2	Lawyers Title Insurance Corporation ...	45	Flintkote Company	24
Bil-Jax, Inc.	106	Lindsay Company, The		Volkswagen	18
Bird & Son, Inc.	20	Division—Union Tank Car Company ..	102		
Black Technical Industries, Inc.	110	Lockwood Hardware Manufacturing			
Boro Wood Products Co., Inc.	43	Company	4		
Bostrom-Brady Mfg. Co.	115	Long-Bell Division,			
Brand Names Foundation, Inc.	130	International Paper Company	19		
				W	
C		M		Wagner Manufacturing Company	127
Case Co., J. I.	124	Macklanburg-Duncan Co.	28, 29	West Coast Lumbermen's Association ..	48, 49
Chevrolet Division of General Motors ..	46, 47	Meadows, Inc., W. R.	108	Westinghouse Electric Corporation	94
Classified Advertisements	110	Milwaukee Stamping Company	110	Weyerhaeuser Company	23
Condensation Engineering Corporation ..	96	Morgan-Wightman Supply Co.	112		
Congoleum-Nairn, Inc.	Cover 3				
Consoweld Corp.	3	N			
Crane Co.	50, 51	National LP-Gas Council	127		
		National Lumber Manufacturers			
D		Association	104, 105		
Dodge Reports, F. W. Dodge Corporation	113	National Manufacturing Company ...	Cover 4		
Donley Brothers Company, The	93	NuTone, Inc.	1, 2		
F		O			
Fasco Industries, Inc.	12	Onan Division, Studebaker Packard			
Flintkote Company,		Corporation	30, 31		
The Van Packer Division	24				
Follansbee Steel Corporation	52	P			
Ford Motor Co.	36, 37	Panel-Lift Door Corporation, Subsidiary			
		of Standard-Toch Industries, Inc.	117		
G		Pease Woodwork Company	111		
Gang-Nail Sales Co., Inc.	129	Pittsburgh Plate Glass Company	100, 101		
Georgia-Pacific Corporation	38				
Gerber Plumbing Fixtures Corp.	27	R			
		Red Cedar Shingle Bureau	32, 33		
H		*Roberts Co., The	44D		
Hall-Mack Company	14	Rowe Manufacturing Company	22		
Hydrotherm, Inc.	106				
		S			
I		Simmons-Boardman Pub. Corp.,			
Inland Homes Corporation	6	Book Dept.	96, 120, 128		
International Harvester Company,		Skil Corporation	10		
Farm Equipment Div.	121	Sonoco Products Company	114		
International Paper Company,		Spotnails, Inc.	103		
Long-Bell Division	19	Standard-Toch Industries, Inc., Panel-			
		Lift Door Corporation, Subsidiary of			
J		Studebaker Packard Corporation,			
John Deere Industrial Division	107	Onan Division	30, 31		
Johnson Company Leonard, The	127	Superior Fireplace Company	115		
		T			
		Texboro Cabinet Corporation	44		
		Thermo-Rite Mfg. Co.	96		
		Trane Company	16		

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Make friends with your utility

Regardless of how you view it, your local utility continues to grow as a source of help in pushing the most important phase of your business—selling houses.

No matter how well you build a house (and that's very important) nothing matters more than putting that house in the hands of a paying prospect. How can you do this? There are a variety of methods. Most of them you can establish for yourself. But, for many of us who cannot afford expert help, a source lies open that grows in importance each month. That source is your local utility.

Your local utility will offer you help for the prime reason that the more houses you sell the more power or fuel it will sell. For that reason, each one wants to help you. So ...

Utilities can help you sell houses

Next month, AMERICAN BUILDER will feature a special report on the role your local utility can play in helping you boost sales. This help, as the report will point out, can range anywhere from sales help to deep-rooted market research. Most importantly, you should know what forms are available and how you can take advantage of them.

To show you how, American Builder editors found examples of builder successes through utility cooperation. These will be featured next month.

We'll tell you how a New Jersey builder tied in with his utility and a national manufacturer to promote and create a new, and successful, method for selling homes. We'll present a Pennsylvania builder's novel approach—with his utility's help—to selling houses through a "downtown" store. We'll show you how one utility helped get a builder into the booming remodeling market. And we'll tell you how a West Coast utility helped a builder recognize and sell a market that builder hadn't realized existed.

Don't waste National Home Week

Whatever you do, don't waste what can be the most important sales boost you've experienced all year—National Home Week. AMERICAN BUILDER organized the idea—other business magazines have followed suit, along with major manufacturers—with one purpose in mind. That purpose was to boost fall selling. It has worked in the past and successful builders are quick to praise its merits. So, get on the bandwagon and get your model homes into the most important promotion of the year. We'll do our part to boost house sales. You do yours by taking part in the most successful merchandising venture in our industry.

IN OCTOBER: A time for planning . . .

- Watch for American Builder's annual Builder's Planning Issue. This invaluable number will be devoted to helping you plan your business through 1962. We'll cover the future of marketing, new methods, management, materials.



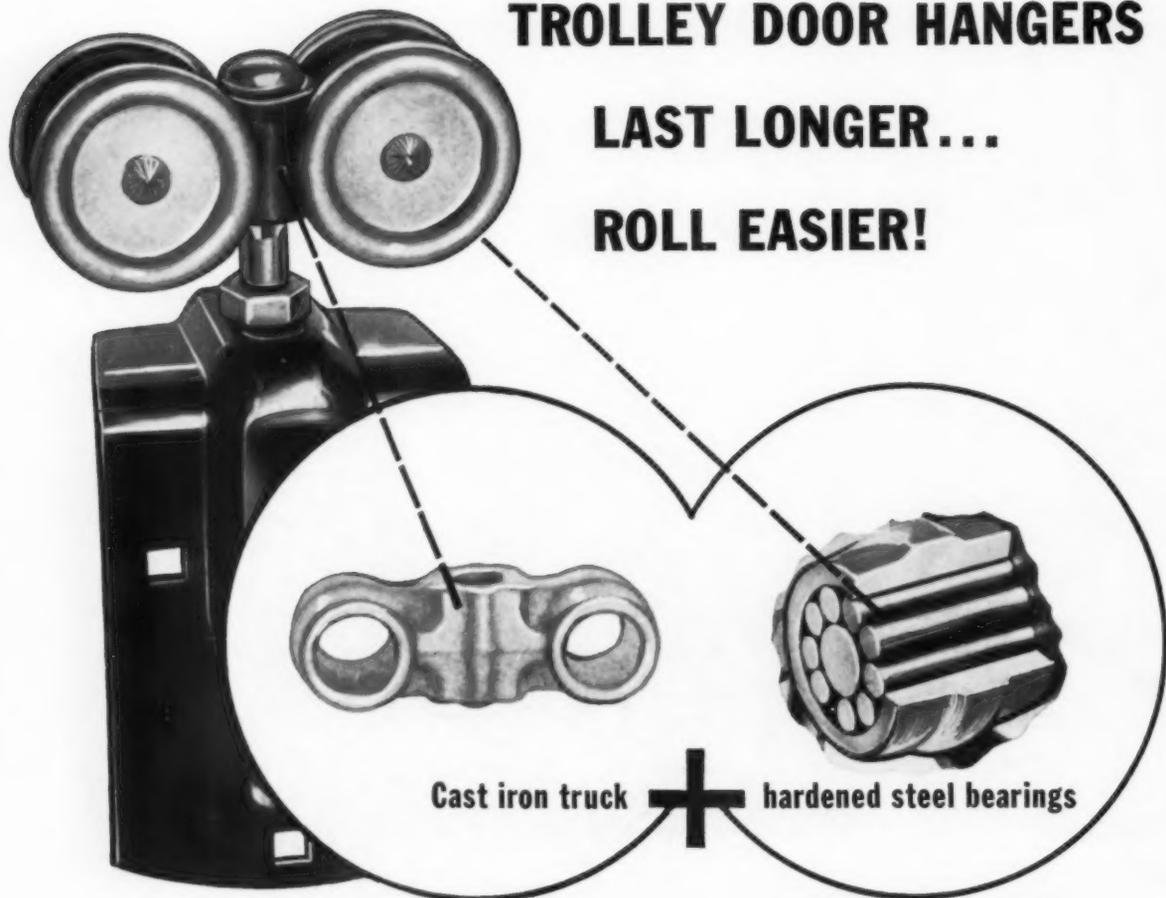
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