Housing’s market revolution
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Editorial

What is the money picture for the year ahead? 47
It will probably cost more to borrow, but starts and sales are going to be up again in 1968, Here's why we should watch the doughnut, not the hole

Features

Housing's market revolution—and what it means to builders 48
The typical detached house on the typical subdivision lot is no longer the answer to homebuilding's future. More and more buyers want something different

A production-line builder tries his hand at mobile homes 60
John Long's new venture raises a question: Is there an opportunity for homebuilders in the mobile-home market? Here's a close look at Long's operation

Parades of Homes: What kind is best for your city? 68
Everyone agrees that these city-wide promotions spur sales, but sponsors are torn between single- and multi-site events. Here are the pros and cons of each

Why a dual-fuel system cuts apartment heating costs 25% 70
To avoid buying expensive bottled gas when heating loads peak, utilities offer a low rate to natural-gas users who switch to oil in sub-freezing weather

A component system for any one-story building 72
Homebuilders can get into light commercial, industrial or institutional markets with a pre-engineered system developed for school construction

News

NAHB convention brings housing industry new sense of power 5
Vice President Humphrey's visit assures builders of their status in Washington and they respond with a strong policy stand backing the Administration program

Model Cities selections turn out to be a model of politics 12
Who gets the money seems to depend on who knows the most powerful Congressman; problems with local groups also contribute to an air of cynicism

Federal savings bank bill raises new problem for mortgaging 16
A critic of the new legislation still likes to ask this million-dollar question: How do you put more money into home mortgaging by taking more out?

Departments

Mortgage-market quotations 16 New products 85
Housing-stock prices 18 New literature 106
Leaders 38 Reader Service card 89
Technology 89 Advertising index 103

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The luxury look in bathrooms: Mediterranean style and Mosaic tile.

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NAHB convention—homebuilding wins a new sense of power

A surprise visit by the Vice President of the United States lifted NAHB’s convention from a mood of discouragement to a new sense of power and political prestige.

Hubert Humphrey’s dramatic 30-minute speech brought a feeling of confidence to 34,076 delegates who for three days had heard gloom-and-doom forecasts of another mortgage crisis. The Vice President assured builders that they would have powerful friends on high in the difficult months ahead.

Humphrey’s visit took on added importance when it became known that President Johnson himself tried to make the trip to Chicago. He canceled at the last minute to visit the University of Alaska. Humphrey arrived in Chicago Jan. 14 to give the homebuilders a major boost and set the tone for their efforts to win passage of a 10% tax surcharge and a mortgage-interest ceiling.

The new partnership. Humphrey assured the homebuilders of specific economic aid from the Johnson administration. The NAHB in turn took a positive— and mature—stand on the deeper housing issues tormenting the administration: low-income housing, slum rebuilding and a mortgage money squeeze.

Here’s what Humphrey said:

• He appealed for support of Sen. John J. Sparkman’s housing bill, with its 3% subsidized interest rate for low-income homebuyers (News, Dec. 67). Sustained applause greeted the Vice President’s cry: “Don’t let the 90th Congress out of session until it makes the Sparkman bill the law of this land.”

• He called on the builders to redouble their efforts to win passage of a 10% tax increase—“the number one legislative objective of this administration.”

• He swung the Johnson administration solidly behind the effort to lift the 6% interest ceiling on FHA-VA mortgages. “We will not sacrifice FmHA,” he promised. “We will lift the ceiling and get that agency moving again.”

The industry’s pledges. NAHB’s leaders responded with two impressive steps.

First, they drafted a progressive policy statement that dealt seriously with the money crisis and urban problems.

Second, the leaders pledged to rally NAHB’s 46,000 members to translate the new policy into bricks-and-mortar action. The money threat. The directors called for the 10% tax surcharge and coupled it with a demand for an immediate—and drastic—reduction in spending.

In a sharp departure from their grassroots tradition, they pledged NAHB’s efforts to raise FHA’s mortgage-interest ceiling.

The directors took other actions to offset the new threat of tighter money:

• Endorsed FNMA President Ray Lapin’s proposal to sell trust certificates against the agency’s secondary market mortgages—a move that would increase FNMA’s capital for mortgage purchases.

• Recommended that the Home Loan Bank System, credit pool for the nation’s 6,200 savings-and-loan associations, be permitted to sell participation certificates against its pooled mortgages in another effort to attract new capital.

• Called for a Congressional investigation of pension funds, which have turned their backs on mortgage investment in favor of common stock purchases.

• Asked President Johnson to form an emergency commission to seek ways of averting a squeeze on mortgage credit.

New deal in the slums. Perhaps most significant, NAHB’s leaders placed housing for the poor at the very top of their priority list. The board wrote this credo: “The basic structure of our society... may be at risk if the hopelessness of the ghetto is not relieved.”

Such language mirrored a new awareness among NAHB’s white, upper-middle-class delegates who hold a reputation for laissez-faire conservatism.

The directors asked for the appointment of a new deputy assistant secretary of HUD to expedite urban programs. They also recommended exploration of income-tax incentives to attract builders and investors into housing for the center-city poor.

And the board urged the government to provide “appropriate incentives” to expand public housing and rent supplements.

In years past, the mere mention of such programs aroused strong opposition from many NAHB members.

The dismal beginning. The convention had opened in lackluster style.

The failure of Sen. Robert F. Kennedy (D., N.Y.) to appear for a keynote speech raised initial doubts about the housing industry’s stature in Washington. (Brother Edward M. Kennedy [D., Mass.] delivered a short speech in Robert’s place.)

Then, with two economic panels, the delegates’ spirits sagged further as financial experts predicted a 1968 mortgage crisis as severe as that of 1966. “For the next several months I expect tighter money and higher rates,” warned Chairman James J. O’Leary of Lionel D. Edie & Co., the New York investment counselors. “The gold rush has made the number one problem the defense of the dollar. Homebuilding will suffer.”

Said HUD’s investment adviser, John G. Heimann: “The essence [of the panels] was gloom. The next six months are going to be horrible.”

continued on p. 6
Dues going up: A graceful retreat brings President Clarke a victory

Lloyd E. Clarke knew when to compromise.

Three days before he was to become NAHB's youngest president at 38, Clarke faced his biggest test of the 1967 convention.

A brush-fire revolt spread among the NAHB's 400 directors after Clarke asked approval of a $25 dues increase for 47,000 members. When Clarke finally got his motion before the house, it was riddled with amendments to 1) cut the increase to $10 or 2) limit it to $10 in 1968 and $10 in 1969. There was also considerable opposition to any increase. Smaller associations said it would erode membership.

Facing this uprising, Clarke offered a substitute motion providing a $15 increase on July 1, 1968, with another $10 on July 1, 1969. All new members would be exempt from any increase until the full $25 increment was in effect on July 1, 1969.

The bone-weary directors had sat for three hours of acrimonious debate. (President Leon Weiner to Director Herb Popovich of San Francisco: "You will sit down or I'll ask the sergeant to remove you from the hall.") Clarke's call for a voice ballot was also a call to get everybody out of the drafty amphitheatre, so there was instant agreement to vote.

The ayes and nays sounded close to observers, but not to the chair. It ruled that the ayes had it—and there was no call for a headcount from directors tumbling toward doors to buses and taxis.

Clarke, a personable leader with a gift for diplomacy, explained his strategy later that evening:

"We could probably have won the full $25—by making enemies. This way, everybody could say he won."

A new sense of power ...

The mood eased only slightly when Sen. Sparkman (D., Ala.) expressed high hopes for passage of his committee's housing bill early in 1968. But Congressman William B. Widnall predicted that the tax increase (which was later endorsed by NAHB) would have only a 50-50 chance in next year's Congress.

The happy ending. Then NAHB's Executive Secretary Nat Rogg ushered the Vice President into the blazing spotlights of the International Amphitheatre. And as if by magic, the tenor of the convention changed.

From then on in it was all upbeat.

In a closing session, the delegates applauded Housing Secretary Robert Weaver's pledge to persuade savings banks and S&Ls to put billions into low-income housing and mortgages.

Then the board elected its 1968 slate of officers, led by President Lloyd E. Clarke of Iowa.

The convention's new resolve was reflected in Clarke's closing press conference. The 38-year-old builder pledged to fulfill NAHB's new partnership with government. He said:

"I want my contribution to be the involvement of our membership in the housing problems of all levels of our society. To that end I am going to preach—I am going to persuade—and I'll try to inspire."
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NEIVS
Photos: Bob Lightfoot

NAHB EXPOSITION has new air of glamor. The Carpet Institute even rolled out red carpet in aisles for 34,076 visitors. There were 425 product booths.

TOOL POWER is demonstrated at Price & Rutzbbeck booth. Handtool does fine finishing work.

TUBSIDE MANNER of salesman interests builder in fiberglass tub made by Universal Rundle Inc.

PLASTIC BATHROOM is shown erected and disassembled by Crane. Sales start in Spring.

The show: class products bring top builder traffic

NAHB's builder-members showed true sophistication as they shopped the 425 product booths at last month's convention. There were still many booths with high-pitched pitchmen, mellifluous models and last year's products in new colors. But that just wasn't enough to hold builders' attention this time. The builders wanted to see something new—and they did:

• Corning Glass Works of Corning, N.Y. drew consistently large crowds with its "counter that cooks." The smooth glass cooking surface, which conceals heating elements below, is flush with the counter for easy cleaning.

• Dacor Manufacturing Co. of Worcester, Mass. showed some of the finest imitation brick the industry has yet seen. There are about 80 different molds for each plastic brick pattern, so finished walls have the random look of antique brick.

• The Crane Co. of Philadelphia showed a one-piece fiberglass bathroom (photo, left bottom) and a super-vanity with an electric motor. Both items, though high-priced, sparked builders' imaginations.

• And despite local code barriers, the half-dozen plastic pipe manufacturers with booths drew steady crowds. Last year, only one plastic pipe maker had an exhibit.

Aside from their eagerness for newness, builders wanted to see more glamorous products. For example, Venetian Marble of Dallas made its his-and-hers bathtub the focal point of its exhibit. The black granite tub itself—there were no models to climb in and out—drew strong traffic.

This added interest in class products—the glamour items—seems to parallel the industry's trend toward higher-priced tract houses. Today's buyers don't like razzle-dazzle merchandise in their new houses, and the builders and the manufacturers are getting the message.
START WITH WOOD

FINISH WITH OLYMPIC STAIN

Costs less than paint.
Lasts longer than paint.
Easier to apply than paint.
Protects wood with P.M.O.
Guaranteed not to crack, peel or blister.
66 Colors, solid or semi-transparent.

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WHO EVER HEARD OF A WATERPROOF FAUCET?

NOBODY...UNTIL PRICE PFISTER MADE ONE!

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Your new Price Pfister FLOW-MATIC utilizes an operating mechanism of such unique design and reliability that it is insured and warranted against failure for FIVE YEARS as follows:

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This warranty is insured by Fidelity and Casualty Company of New York.

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Model Cities—selections turn out to be model of politics

Smithville, Tennessee—Model City, U.S.A.

That’s right, Smithville. Indeed all of De Kalb County has been chosen as one of the 63 Model Cities to get first crack at extra federal aid under President Johnson’s controversial idea.

Mayor Othel Smith plans to use his federal money to help the De Kalb county improvement and beautification commission educate residents of Alexandria, Dowelltown and Liberty (other cities in the Smithville metropolitan area) as to how to get fix-up loans for their housing.

That Smithville was among the chosen few—alongside New York City, Philadelphia, and other American urban centers—is not just chance.

Smithville is the home of Rep. Joe L. Evins, and he’s the influential chairman of the House appropriations subcommittee that oversees the budget for the Department of Housing and Urban Development. Without Evins’ acquiescence and support, the President’s Model City program would never have gotten under way.

But Smithville residents aren’t the only ones to benefit from having returned their congressman to office long enough to give him seniority and a committee chairmanship. Pikeville, Ky., is another metropolis chosen—and not by luck. For the town of 4,754 (photos, above) is the home of Rep. Carl Perkins, chairman of the House Education & Labor Committee. It passes judgment on poverty programs.

Ballot power. The timing of HUD Secretary Robert Weaver’s announcement was no coincidence, either. Rep. Florence Dwyer, Republican congresswoman from New Jersey who didn’t get a grant in her district, claims HUD delayed announcing the chosen 63 cities until after Congress approved the money bill for the poverty programs.

HUD’s officials disclaim the allegations, although Weaver admitted to some politics —by inference—when he told reporters to judge for themselves. “Look at the list,” he said.

Even the National League of Cities, representing the chosen as well as the unchosen mayors, claimed that HUD’s delay had turned the selection process into “a search for political rationalization.”

Republicans jumped all over the choices. “Politics,” snorted the House minority leader, Gerald Ford of Michigan. (Strongly Democratic Detroit and Highland Park both won grants.)

Model ghettos? But politics isn’t the only cloud of dissent hovering over the new program. Considerable distrust of the entire idea has been voiced from some of the more influential Negro groups. Basically, they’ve chosen the Model City plan to integrate suburban white neighborhoods. But many contend Model Cities will only “gild the ghetto.” In a speech last summer, Jack Wood Jr. of the National Association Against Discrimination in Housing said:

“It is tragic and ironic that . . . when we should be engaged in housing programs affirmatively committed to . . . enabling minority families to move into the mainstreams of society, we are confronted instead with a Model Cities program bent on rebuilding the very areas of racial concentration and containment.”

Wood hastened to add that Model Cities need not necessarily “extend and reinforce racial segregation.”

The Negro attack left Weaver stunned; he had helped set up the National Committee Against Discrimination and he felt —predictably—that the committee was unfair in turning on him.

Fight for control. But Weaver’s headaches over Model Cities are far from finished, despite his nimble feat of fending off critics from the left and right. When Congress passed the program two years ago, it tucked in a few political bombshells:

• Local participation. Congress declared that local residents in the “target” areas are to be used and involved as much as possible. That means enemies of the local ward heelers are supposed to have a say in what’s going to happen. Government officials touring Model Cities sites last month ran into brutal criticism on that point from Negroes in Oakland and Richmond, Calif.

• Local workers. During the rebirth of the “target” area, local unemployed persons are supposed to be hired to “the maximum extent feasible.” But the core-area residents, mostly Negroes, are precisely the people who have been excluded from the building trade unions. Yet union labor, except for self-help rehabilitation of homes, must be used on the federally aided projects.

Innovation. Congress and HUD have leaned heavily on the competing cities to come up with new ideas for the same old problems. Yet many of these same ideas have drawn Congressional wrath in the past. Item: Through Model Cities money, Congress will be underwriting a guaranteed-income experiment in some cities—before ever having considered it.

Role of local groups. HUD’s assistant secretary in charge of the program, H. Ralph Taylor, is well aware of the problems. Congress specifically made sure the Model City plan will be under the control of the mayor in each city—failure to do that was the major stumbling block during early poverty programs that backfired in Syracuse, Tulsa, and several other major cities. But Taylor has to make sure that all residents get a voice in the mayor’s program—and he has to do it over the mayor’s shoulder.

Already, for instance, Washington’s own program is being criticized for not involving enough of the community. The Health & Welfare Council, Washington’s united giving organization, has complained:

“The citizens of the model neighborhood must take part—not through block clubs organized artificially—but through associations that have meaning in economic terms, that have a measure of administrative authority in program direction, as with voluntary agency boards.”

Taylor’s role of peering over the mayor’s shoulder has been made easier, however, by the experience of the controversial community action programs set up through the war on poverty. The mayor’s lobby has switched its support behind the program—once Washington quit trying to build up local poverty groups that posed potential political threats to City Hall.

If Taylor and Weaver can profit from similar experience, fend off distrust of the policies behind the plan and keep the Negro organizations at bay, the Model City program could provide massive amounts of new or rehab housing in blighted areas. But even Weaver admits major changes in these neighborhoods won’t show up for another couple of years—and there’s a hot summer each year.

"POLITE." snorted the House minority leader, Gerald Ford of Michigan. (Strongly Democratic Detroit and Highland Park both won grants.)

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We introduced this siding last January. But we didn't make much of it because we didn't know how popular it was going to be. So we ended up with a lot more orders than we could fill.

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Better: some markets up, others down

Of the 25 major areas surveyed, only Dallas, Denver, Seattle and California's Orange County reported significant immigration.

3. Families are doubling up in units.

4. The rate of employment growth declined sharply. Only 2 million new jobs were created in 1967, down from 3.3 million in 1966. Only the West showed a slight employment-growth increase of 5%.

5. Increasing house prices hurt sales in the West and East, at least. In Los Angeles for example, where land often sells for up to $30,000 an acre, the average tract-house price is now $32,000.

Expensive money. Another damper on the market was the high cost of mortgage money, a problem that Advance believes is about to get worse. Except in special cases persons came to the cities from rural areas.

under Wagner's administration in 1966. Lindsay also promised to build 50,000 low-rent units during his four-year term.

Wide World Photos
A dead ringer for natural brick and mortar. That's Kentile® Colonial Brick Solid Vinyl Tile. Shown above: Red, White, and Buff. Also available in Gold. Individual tiles are 9" x 9".

Looks just like brick—but it's solid vinyl tile!

Note the bold beauty and texture of Kentile Colonial Brick! No special underfloor needed. Helps sell your model homes. Perfect in stores and offices, too. Call your flooring man.
Federal savings banks—and a warning for mortgaging

The new federal charter bill for savings banks signals two prospects for homebuilding and mortgaging.

The immediate effect will be the spread of savings banks from their 18 states into all 50, with wider lending powers for them and for any S&L that converts into a savings bank.

The long-term result will almost certainly be to encourage the shift of institutional investors from bonds or mortgages into equity. This shift has already been defined as nothing less than an investment revolution by Daniel S. Ahearn, a former Treasury official who is now vice president of the Wellington Management Co. in Philadelphia.

The charter bill staged a surprise comeback back to win House Banking Committee approval by a vote of 17 to 12 in November. For the first time in a decade of ups and downs, the measure is given an excellent chance of passage. It now has the Johnson administration's support.

The House action represents a tremendous victory for the nation's 500 savings banks and an indicted opposition of the commercial banking system.

The immediate outlook. The bill could well have the effect of eliminating most of the nation's 5,380 mutual savings and loan associations, for they could convert to savings banks after two years. The 786 stock-type S&Ls could also convert, flanking traditional S&Ls into mutual banks. Since conversion would provide them with far wider lending powers, the incentive would be potent.

The mutual S&Ls, owned by depositors, hold $87 billion in deposits. The stock S&Ls, operating principally in California, are owned by stockholders. They hold $23 billion.

The S&Ls and savings banks are limited primarily to mortgage investment under present law. Of their $140 billion in assets, the S&Ls have more than 80% in mortgages. Of their $61 billion, the savings banks have 77% in mortgage loans.

The long-range revolution. The legislation would require the new federally chartered savings banks to keep only 60% of their cash in real estate. Even this requirement was inserted in the bill only as a means of softening commercial bank opposition. The commercial banks had pointed out to the House committee that the S&Ls and mutual banks enjoy highly favorable tax treatment precisely because they are supposed to aid homebuilding.

The bill would open other avenues of non-mortgage investment. The new banks could make unsecured personal loans up to $1,000 to their depositors, and they could put funds into equity. If a bank met certain rules, it could put up to 2% of its assets into any single equity investment.

The savings bankers told the House committee that the bill would let them increase mortgage lending. They already make 14% of the home mortgage loans.

The commercial banks and numerous mortgage experts question this claim, and their thesis has been best summarized by the American Bankers Association's highly articulate executive vice president, Dr. Charles E. Walker. He has repeatedly stressed the charter bill's provisions enabling the banks to lend more money outside of mortgaging.

How, he asks, do you put more money into mortgaging by taking more out?

Greener fields. The truth is that both mutual banks and S&Ls have long been searching for legitimate investment opportunities. Their quest was one of the fundamental reasons for their support of the charter bill. Ever since the credit squeeze of 1966 triggered an almost continuous rise in interest rates, the thrift institutions have sought a way to raise their investment income above the 6% usury limit set in ten states or the 6% FHA mortgaging limit established nationally. The search has taken them deeper into conventional mortgaging at the expense of FHA loans, and it has led the savings banks deeper into equity.

What is that place little less than a revolution in investment thinking," says Dr. Ahearn. "Conservative investors who once feared the risks of equity investment are now increasingly convinced that there are, if not equal, greater risks in bond or mortgage investments in an economy in which the main effort of government policy is to keep the pressure in the boiler near the bursting point, with consequent upward pressures on interest rates and the prices of goods and services."

The battleground. The mutual banks are deeply indebted to the S&Ls for their victory. The Association of Mutual Savings Banks had offered chartering bills with metronomic frequency—and inefficacy—over the last several years. The breakthrough came only last September, when the powerful U.S. Savings and Loan League, representing most of the nation's S&Ls, swung behind a new version of the legislation. The two organizations had worked out the compromise in a series of secret meetings during the summer. Irving Norman Strunk of Chicago, a legislative strategist whose ability to influence Washington's politicians is the despair of commercial banking.
Even if you don’t need creative financing, call on Kardon.

We’re good at ordinary mortgages, too.

The local mortgage banking subsidiaries of Kardon Investment Company have well-earned reputations for making your difficult mortgages easy. Being able to work with complex creative financing techniques like sale-leasebacks, leaseholds and wrap-around mortgages helps. So does not having any maximum loan limit.

For example, among recent Kardon mortgages: $2,200,000 for construction and permanent financing of 132 garden apartments in Newark, Delaware; $490,000 for a Syracuse, New York office building; $500,000 for a church in Nashville, Tennessee; $3,300,000 for an Atlantic City motel; and $3,500,000 for 179 homes in southern New Jersey.

The alert Kardon subsidiaries are just as eager to help you with an uncomplicated 5-digit mortgage as they are when you need intricate 8-digit financing—just as efficient with spot residential loans as they are with loans on large residential tracts and major income-producing properties. That’s saying a lot.
**U.S. winning battle to regulate S&L holding companies**

Congress is finally going to hand federal authorities the power to regulate the black sheep of the savings and loan industry—the S&L holding companies.

Not all of the 98 holding companies—controlling 134 individual S&Ls, mostly in California, Colorado and Nevada—have gotten into trouble. But enough have—by making too many speculative loans, particularly in land-development schemes—for the Federal Home Loan Bank Board to make a fight of it in Congress for the power to supervise individual S&Ls.

And a fight it has been.

The holding-company legislation has the support of the powerful U.S. Savings & Loan League, the S&L industry’s biggest trade group.

It has been opposed, however, by the California S&L League, by California’s S&L commissioner, Preston Martin, and by the S&L holding companies themselves.

As legislators in Washington describe it, the opposition has been as vigorous as anything seen since the days of Bobby Baker, when big southern California holding companies paid the former Senate page $100,000 to insure themselves highly favorable tax treatment (News, Mar. ’67).

**Maneuvering.** The California groups, for the record at least, say they don’t really oppose federal legislation. The California S&L League observes that under legislation the holding companies will have the same right to information about the activities of the holding company as the California S&L commissioner.

Still, the California groups have been ultra-active in Washington—and for a time it looked as though they would get their way.

The Senate passed a tough holding-company bill last June—writing in much of what the H.L.B.B had requested. But in October, a subcommittee of the House Banking & Currency Committee came up with its own holding-company bill, one that somehow omitted most of the teeth the Senate had put in. Going along with the Republicans on that version were subcommittee Democrats Richard T. Hanna and Thomas M. Rees, both of California.

Having lost that battle, though, the H.L.B.B seems to have come back to win the war. The full House Banking & Currency Committee chucked the subcommittee version and on Nov. 27 voted out a bill that doesn’t differ much from the Senate bill.

Approval by the full House is expected. Then it will be up to a House-Senate conference committee to iron out differences.

**Into the lion’s den.** The most dramatic moment of the campaign came last fall when Chairman John E. Horne of the H.L.B.B went to the U.S. League convention at San Francisco and delivered a tough pitch for the legislation. That is holding-company country—some 83% of holding-company assets are in California—but the usually soft-spoken Horne was emphatic.

Not all holding companies have problems, said Horne, but enough have them to worry both the board and the S&L industry. “Why should the industry in the non-holding company states,” he asked, “have to bear the burdens created by holding-company operations?”

The foreclosure rate of holding companies is abnormally high, said Horne—three times that of the rest of the industry.

“The assets of serious problem associations controlled by holding companies,” he added, “just about equal the liquid assets of the Federal Savings & Loan Insurance Corp. This poses an unwarranted risk to the safety of the insurance system.”

If holding-company legislation isn’t passed, he warned, “you’ ll be adversely affected both directly and indirectly.”

**Counterattack.** The California S&Ls don’t buy all the H.L.B.B’s figures, and they yelled “foul” when Horne began ticking them off at San Francisco. Nor, said Franklin Hardinge Jr., executive vice president of the California S&L League, do the H.L.B.B’s own figures show that any “association owned by holding companies in California has caused any loss to the FSLIC.”

Yet Congress clearly agrees with the H.L.B.B. It isn’t giving the board all that it asked for—but it is giving it a great deal more in the way of supervisory power than it ever had.

—GORDON WILLIAMS


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**Housing stocks down again**

Declines in California savings-and-loan shares have led House & Home’s list of 25 top housing stocks into its third decline in as many months. The average fell from 145.64 to 141.34. Here’s how it looked:

**HOUSE & HOME VALUE INDEX**

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Here’s how the five leading stocks in each category performed:

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**HOUSE’S STOCK PRICES**

**COMPANY**

| BUILDING | 7.69% | 2.12% | 7.49% | 1.17% |
| MORTGAGE BANKING | 8.41% | 2.13% | 8.05% | 1.23% |
| S&Ls | 9.96% | 2.92% | 7.91% | 1.57% |
| MOBILE HOMES | 10.39% | 3.17% | 7.18% | 1.85% |
| SHORT-TERM BUSINESS LOAN RATES | 11.22% | 3.33% | 7.55% | 2.36% |

**TOTAL MARKET價值 OF Januar" 1965-100**

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**Short-term business loan rates**

Average per cent per year

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<th>9 South</th>
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<td>Circle 37 on Reader Service card</td>
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That's the beauty of redwood. Redwood can be painted any color you wish. It can be tinted with pigmented stains or bleached to a soft driftwood gray. Or it can be left untreated to weather naturally, displaying the full grain and texture of the heartwood. Whichever, redwood is durable, protected by nature from the damages of decay, insects and weather. If you would like information on the grades, sizes, finishes or other beauties of redwood, please write.
help your prospects put up a beautiful front...

Shown with Designer Doors: Single Wall Oven RB-94K. Custom Imperial Undercounter Dishwasher DW-CIUN,

Frigidaire Designer Doors...

now available on many Wall Ovens, Compact 30 Ranges, Refrigerators, and Undercounter Dishwashers
Frigidaire Designer Door Appliances offer you more help in delivering the kind of individualized kitchens people want...

Today’s prospects don’t want the pea-in-a-pod look in *their* homes or apartments. They want to express their own tastes. Now Frigidaire makes it easy for you to appeal to these individualists—and sell them—with Designer Doors, special door-frame kits of smooth, stylish metal. The kits accept almost any material up to $\frac{3}{16}$” thick, to create truly individual appliance fronts.

**more help in creating the “total blend-in” look**

The smart look in kitchens today is the blend-in look—and appliances are part of it, merging and blending with floors and walls and cabinetry. With Designer Doors, Frigidaire appliances can match anything from the wallpaper in the breakfast nook to the wood grain of the cabinets. There’s almost no limit to the decor possibilities.

**more help with fast, easy installation**

Here’s a diagram of the Frigidaire Wall Oven or Compact 30 Door with Designer Kit. The customer supplies the decorative material of her choice. The customized front is assembled on the spot, using the Designer Door Kit, this easily:

![Diagram of Frigidaire Wall Oven or Compact 30 Door with Designer Kit]

**more help for you**

Complete, easy-to-follow installation guides are available on all Frigidaire built-ins for subcontractor use. Talk to your Frigidaire representative. Meantime, down with look-alikes! Up with Designer Doors. One more example of how Frigidaire bothers to build in more help, to help you sell more of what you build.

Innovate with Frigidaire Appliances! Designer Door Kits accept almost any material up to $\frac{3}{16}$” thick. Shown—Designer Door on Compact 30 Range Model RB-533N.

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JANUARY 1968

Circle 39 on Reader Service card
Jerry Wolman files for bankruptcy as his blitzing creditors close in

The Cinderella Kid of construction, who owns pro football’s Philadelphia Eagles, just couldn’t outrun the blitz.

In December, the financially harried Jerry Wolman finally sought court protection as a debtor in possession under the U.S. Bankruptcy Act’s Chapter 11. Said Wolman, “I need time and cash.”

In just 16 years, Wolman, a 40-year-old high school dropout, had amassed a $92-million empire that included $53 million in real estate. But his liabilities had reached $85 million, and his Maryland-based construction company was woefully short of cash. A bankruptcy ruling would give Wolman time to sell holdings in order to raise funds.

For a year, the chain-smoking entrepreneur has been working 18 hours a day to raise cash. Tight money scrubbed some sales. And when he sold 40% of his holdings for only $85.5 million, his company lost $10.5 million. Then he lost $5.5 million more by selling his share in the 100-story John Hancock Building in Chicago.

Last November a creditor sued, and Wolman quickly called a press conference to head off a chain reaction. While admitting that he needed $6.8 million cash to keep 300 creditors off his back, he indicated that he had a plan.

Wolman proposed to wipe out 20% of his debts by selling Connie Mack Stadium, Spectrum Sports Arena and Yellow Cab Co. (all in Philadelphia) and several apartments in Philadelphia and Washington, D.C. Within two years, he could cover all debts by selling everything but his beloved Eagles (worth: $15 million).

Wolman wants to pay his debts without borrowing from friends. So he has refused loans from other football team owners, and he has returned $1,000 checks sent by Eagle fans. Even some creditors are cooperating.

So far his creditors seem willing to defer claims for six months or more. Without such cooperation, Wolman would be insolvent.

He is getting cooperation partly because many creditors are old friends, and others can’t help rooting for him. As one man said: “How can you do anything but root for a young man who started with nothing?”

Wolman came from Shenandoah, Pa., to Washington, D.C., 18 years ago with a bride and a $5 bill. Through the years, he has remained a likable, small-town guy who prefers sweaters to suits and who keeps a beer keg in his bedroom. He hasn’t lost his sense of humor, either. At his press conference, a newsman asked him when his financial problems began. Replied Wolman:

“When I left Shenandoah.”

—Lisa Lazorko

McGraw-Hill News, Philadelphia

Lyn E. Davis elected president of NAREB

After serving as treasurer of the National Association of Real Estate Boards for two years, Lyn E. Davis of Dallas was elected president at the organization’s 60th annual convention in Washington in November. He succeeds Richard B. Morris of Buffalo.

Davis has been a member of the Dallas Board of Realtors since 1939. He was Realtor of the Year for Texas in 1960.

John Cotton of San Diego, Calif., is NAREB’s new treasurer.

Former Reston official joins research group

William G. Brangham, 46, formerly vice president for marketing for the new town of Reston, Va., has become executive vice president of the Sanford R. Goodkin Research Corp., a nationwide real estate marketing service based in Los Angeles.

Brangham is former president of New Horizons, the sales and marketing corporation that sold 17,000 houses at the three Rossmoor Leisure Worlds in California.

BUILDERS: Robert K. Widdicombe Jr. has been appointed executive vice president of the IRA of Chicagoland. Widdicombe, who held a similar post with the IRA of Suburban Virginia, succeeds Richard W. Grelecki, now advertising chief for the Irvin Blietz Organization, Evanston, Ill. Lewis Emerick of Las Cruces is the new president of the Building Contractors Association of New Mexico.

NEWS continued on p. 28
The right place for Marlite paneling is where you decide to put it.

Homes, apartments, schools, business interiors. Walls, ceilings, counters, doors, partitions. Wherever your plans call for soilproof beauty with next-to-nothing maintenance, that's the place for Marlite Decorator Paneling.

You can get great ideas just looking at Marlite. No other prefinished hardboard paneling offers such a stunning selection of deep-embossed textures, distinctive woodgrains, rich colors, unusual patterns and designs. (More than 70 in all, last time we counted.) And when your job is done, Marlite keeps on pleasing your customers. Its rugged, baked plastic finish shrugs off heat, moisture, stains and dents—stays clean as new with just a damp cloth wiping.

So put Marlite in its place: your next building project. See our 1968 line in Sweet's File or write Marlite Division of Masonite Corporation, Dept. 122, Dover, Ohio 44622.
COMPETITIVE EDGE

You have it with these exclusive Kemper features

A perfect example of what we mean by "Competitive Edge" is the Kemper English Oak kitchen shown below. On the left is our Contemporary design with its (optional at nominal cost) exciting new hardware. Its smooth, clean lines appeal to the tastes of today's young moderns. The Kemper Kitchen on the right is our Old English design with its deeply sculptured full grained oak doors and massive brass hardware. Both kitchens are really one and the same. The exclusive Kemper reversible door and drawer panels make the change from Contemporary to Old English a simple matter. No one else offers this outstanding feature in a standard kitchen. In addition, the homemaker can replace the panels entirely with decorative plastic, screens, and other materials available from local stores.

The Kemper "Competitive Edge" continues with pricing that allows you a profit, superior cabinet construction and the finest finish in the industry. And here's another plus feature . . . Kemper's famous warranty. Kemper is the only kitchen cabinet maker licensed by NAFM to offer their exclusive guarantee.

For that "Competitive Edge" in 1968, call your Kemper Distributor. He's in the Yellow Pages. Or, if you prefer, write for our completely new, full color English Oak Product File.
We build images.
We don't sell laundry equipment, we're not a distributor, there is no "man from NACLEO" (or girl), and that young lady at our booth was not for rent.
We do make money for you.

NACLEO means National Association of Coin Laundry Equipment Operators, Inc. We are the largest service organization of this kind anywhere. No one owns and services more coin laundry equipment than we do. No one else requires each member to pass stringent tests to qualify as certified operators. No one else has a national organization that can meet the demands and requirements of any developer, owner, builder or investor, anywhere. No one!

And yet, we still stay charmingly (and honestly) local. Call our executive offices collect for more information.

NACLEO
National Association of Coin Laundry Equipment Operators, Inc.
Maryland Trust Building
Baltimore, Maryland 21202 301-PLaza 2-1788

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NEWS
continued from p. 24

Neurotic apartments: An architect tells how to avoid building them

 Builders and investors know instinctively that a building that doesn't turn a profit is a sick building; but architect Samuel Paul's new book, Apartments: Their Design and Development*, argues that there are many other ways for a building to tip out of balance. The building is just as neurotic, says Paul, if the balance sheet looks good but the apartment is a visual affront to the community, or if it doesn't meet the living requirements of the tenants.

Balance is the theme of Paul's book, and he holds that only the building that is economic, aesthetic and functional is in balance. Not only does he pose these conditions as the ideal, but he also shows how the apartment-development team must be put together to achieve them.

Paul's credentials are unimpeachable: He has been designing multifamily buildings of all types for more than a quarter century, and his firm name (Paul & Jarmul) is stamped on the plans of more than 50,000 living units. He has worked with leading builder-developers and clearly understands the role and relationship of every member of the apartment building team.

Paul doesn't bemoan facts; he faces them. If builders sometimes try to build on cost alone, if lenders fail to exert their influence for better design and planning, if government bodies delay and confuse, and even if architects design beyond the outer reaches of the budget, Paul says merely, "OK, but how can we all do our jobs better?"

Some chapters alone are worth the price of the book to the novice (and not such-a-novice) among apartment builders. For example, the section headed "Program of Requirements" lists all the vital needs that must be met in a good apartment and illustrates a solution with the program for one of Paul's most successful (and handsome) buildings in New York City. Another chapter, "Building the Team," outlines all the talents needed in apartment building and provides a guide to putting an apartment team together.

Chapters on financing, structural design, mechanical engineering and sound control were properly farmed out to outstanding experts. Each subject bears the unmistakable stamp of men who have been there, who have done it and who know.

Plans and photographs of outstanding apartments in the U.S. and western Europe complete the book. They prove graphically that handsome, workable and profitable apartments should be the industry norm, not the exception.

Irvine Ranch reveals 2%-down plan

Working as a team, the Irvine Co., developer of California's Irvine Ranch, and builder Robert H. Grant moved buyers into an inventory of unsold houses for $534 down.

In 1966 tight money forced the Dick Dunn Development Co. to bow out of the $8,000-acre development after selling 100 of the 215 houses it had built. Irvine hired Grant, a veteran southern California builder, to sell Dunn's remaining 115 houses.

Subcontractors agreed to refurbish the project after Grant assured them they would be paid. Grant raised house prices $1,000 across the board to from $26,700 to $30,800. Sales did not suffer.

Buyers put up 2% downpayments. Pacific Mutual Life Insurance of California gave conventional 75% first trust deeds and the Irvine Co. issued discounted 23% second trust deeds. The combined interest on the two was 6%/.

After a year, all 65 buyers on the 2%-down plan exercised an option to bring their equity up to 10% under the first deed. Irvine's second deed was then closed out. As a sweetener, 5% of buyers' monthly payments during the first year was applied against the Irvine second deed. And Grant, not the buyer, paid closing costs and each house's first annual lease-hold (roughly $300).

Sales result: 113 of the 115 houses were sold in six months. In appreciation to Grant, Irvine's President William Mason has chosen him as the first builder to receive clear title to Irvine land. Others have leased.
We say it again, not just because it's the New Year but because it's well worth saying again: Starts this year will reach 1.5 million and hit an annual rate of 1.6 million in the last quarter. Way back in 1966 we said that high interest rates would not stop sales; only a complete lack of money could do that. And 1967 proved this true: Starts have risen throughout 1967 despite a parallel increase in mortgage rates that began in May. Starts were running at a rate of 1.5 million late in 1967, their highest level in two years. That represents a strong recovery from the debacle of 1966.

The point here: High rates no longer inhibit starts or sales—a fact of deep significance for every builder in the land. Today's sophisticated new consumer realizes that all credit costs more these days, and he doesn't balk at 6½% or 7%, or perhaps even 8% interest on a new home in an economy that charges him 18% to 20% interest on a television set and 20% or more on a small loan.

There is other good news for the entire homebuilding industry: Demand is at very nearly the highest and vacancy rates at very nearly the lowest levels since World War II.

That doesn't mean that all's fine and dandy. Quite obviously, we need an income tax increase and cuts in the federal budget to cool our economy. But there are indications that, after taking a hard look at the Administration's proposed budget this month, the House Ways and Means Committee will report a bill for a tax surcharge.

All right—our market still faces the threat of disintermediation, or a flowdown of savings in the thrift institutions where most mortgage money originates. The first ten days of this month should tell us whether there is to be a strong or a weak flowdown. Either way, we do have six good hedges:

1. The remarkable flow of money into S&Ls in the last half of '67 was enough to guarantee adequate funds through the first half of this year, at least.

2. The savings habits of the American public now favor the mortgage market: The savings rate by the end of '67 was 7% of disposable consumer income, highest in years.

3. Federal regulatory authorities won the right, during the credit crunch of '66, to control the rates that banks and S&Ls can offer to savers. The regulators can thus give thrift institutions an edge over the bond or stock markets in attracting money.

4. The Home Loan Bank Board, credit reservoir for the 6,200 S&Ls, has $2 billion in liquid assets now, three times what it had when it faced the crisis of 1966.

5. The S&Ls have worked down their debt to the Bank Board to $4 billion, from $7 billion in 1966, and their cash and government securities—their reserves—are $12 billion, up $2 billion in the last year.

6. Under legislation passed in 1966, the Fed can buy securities of the HLBB, and other federal agencies, as part of the open market operation through which it creates money—a tremendous guaranty for the mortgage industry.

But a lot more needs to be done. We should all support strongly, as the NAHB urged us to do in December, Title II of Sen. Sparkman's housing bill. It would remove the 6% interest ceiling on FHA and VA mortgages. We should also do what we can to repeal the usury laws in the ten states that now limit mortgage interest to 6%. And even though it is a long way off, we must work for a national mortgage instrument that will be a competitive investment note. Our mortgages in today's capital markets are old—and tired—and complicated—and hard to sell.

Finally, one of the most desirable changes for housing would be for the Home Loan Bank Board to return to a policy of making long-term notes available to S&Ls up to 25% of their assets. The NAHB at its annual convention in Chicago passed a good solid resolution in favor of such a policy.

The role intended for the HLBB, since its inception in 1933, has been to provide expansion money for the housing industry. The whole system was set up to provide mortgage money, not as a bank of last resort. For more than half of the time it has been in business, the system made long-term advances to S&Ls. It abandoned the policy only three or four years ago. Officially, the current availability of money to S&Ls is 17½% of assets, but unofficial policy permits them to borrow only up to 10% of assets on a one-year basis.

The HLBB let the S&L industry down in 1966. While it had the authority to help housing, it didn't use it. The board could have increased funds available by using its authority to reduce the S&Ls' liquidity requirements by another 2%, which would have provided them with $3 billion more for lending. That would have amounted to half of the contraction in lending that took place.

An increase in long-term advances would allow S&Ls to borrow long to lend long. They now must borrow short to lend long—clearly an upside-down policy. If manufacturers, builders, and all others vitally interested in housing would realize the importance of this matter, they would line up en masse to support the needed change in the board's lending policy.

—RICHARD W. O'NEILL
It's time we realized that the typical single-family house on the typical subdivision lot is not the answer to the housing industry's future. Today's buyer wants something very different. And that's what's behind...

HOUSING'S MARKET REVOLUTION

The revolution hasn't made a really big dent—yet. For a long time to come we'll go on building the Good Old Reliable Subdivision House with its hackneyed design, monotonous land plan and wasted lot area.

But not indefinitely. A new market is beginning to take shape that will eventually make the Good Old Reliable Subdivision House as out of date as the Model T.

The key to this new market is deceptively simple: More and more, buyers are looking for not just a new house but a whole new way of living. And we've been seeing evidence of this all around us for quite some time:

We've seen it in the apartment and townhouse boom of the past six or seven years.

We've seen it in planned unit developments, with their clusters, greenbelts and varied types of housing.

We've seen it in the new emphasis on recreation and community facilities planned as integral parts of projects.

We've seen it in the fantastic growth of condominiums, with their emphasis on maintenance-free living.

And we're beginning to see it in the buildings themselves—the townhouse, the patio townhouse and the walled-in house.

Up to now, the tendency has been to look at all these things as innovations within the old framework. But the interest—and sales—they have created, coupled with a growing public apathy towards conventional housing, is strong evidence that they are actually the beginnings of a new framework.

If this is so, it means that sooner or later every homebuilder will have to plan and put into effect his own housing revolution.

To see why the Good Old Reliable Subdivision House is becoming obsolete, turn the page
The Good Old Reliable Subdivision House is on its way out because it no longer makes very much sense

Twenty years ago it seemed to make great sense. A depression and a war had created an enormous need for housing. And since 1) we were traditionally a nation of single-family homes, 2) that tradition was backed by zoning laws that frowned on high densities and 3) there was plenty of land around anyway, the Good Old Reliable Subdivision House, mass-produced in the manner that made America famous, seemed the logical way to fill the need.

And so it proved. Between 1950 and 1960 we turned out some 12 million single-family houses, mostly in the lower price ranges (the average FHA and VA house price in 1955 was only $12,000). Considered en masse, their design was uninspiring to say the least, and their seemingly endless repetition on neatly aligned rectangular lots produced some pretty dreary neighborhoods by today's standards. But the Good Old Reliable Subdivision House did its job: providing badly needed shelter.

The trouble is, once this shelter market got cranked up and rolling it proved almost impossible to stop. In the late 1950s the lower-priced end of the market began to slip, and a lot of builders, either unable or unwilling to change their product, found themselves in deep trouble—or bankruptcy. Those who survived were the ones who realized that the market was shifting toward higher-priced houses, and who shifted with it.

Yet even these builders were, for the most part, carried along by the momentum of the old market. Their houses were bigger, better equipped and often better designed, and such land improvements as curved streets, cul-de-sacs and small parks began to appear. But in the final analysis they were only an improved version of the Good Old Reliable Subdivision House.

And where do we stand today? Pretty much in the same place, but with one important exception: The single-family house's share of the total market has dropped from 93% (in 1956) to only 65%. The gainer, of course, has been multifamily housing, and this should serve as a loud and clear warning. It doesn't necessarily prove that more and more people would rather rent than buy (after all, an increasing proportion of multifamily units are townhouses and condominium apartments), but it does show that more and more people are willing—indeed, may prefer—to live a life totally different from that provided by the Good Old Reliable Subdivision House.

Now let's look at some more specific reasons why the Good Old Reliable Subdivision House is on its way out:

Reason No. 1: It doesn't use land efficiently—or economically

Indeed, the problem of land is probably the strongest force pushing the Good Old Reliable Subdivision House toward oblivion. Since 1951 construction costs have risen about 85%; in that same period average land costs have nearly tripled, and good close-in land has been priced out of sight in many markets. So it's simply common sense to put every square foot of a house lot to good use.

But this is just what the Good Old Reliable Subdivision House doesn't do. It is set down near the center of its lot, creating totally useless front and side yards for which the builder—and ultimately the buyer—pays through the nose. Hence a house priced at, say, $21,000, may sit on a $6,000 lot, but it's wasting at least $3,000 worth of that lot.

This, of course, is the main reason why the low-cost house has all but disappeared. The builder who wants to sell $18,000 houses (roughly equivalent to a $10,000 house in 1951) must go miles out of town to find land that can be developed at reasonable cost. And the lower-income family, depending heavily on urban transportation and convenient employment, can't afford to live that far out.

It can be argued with some merit that zoning boards have been the chief culprits by refusing to reduce lot minimums and useless setbacks. But the fact is that the Good Old Reliable Subdivision House would become even less livable were it jammed onto a smaller lot.

Reason No. 2: It doesn't provide adequate privacy—especially outdoors

The centuries-old detached house (which we're still building today) was designed to be surrounded by acres of land. Today, sitting on its quarter-acre lot, it is surrounded by other houses, and for the family that occupies it the result is a fish-bowl existence. Ten to twenty feet of side yard is not enough to eliminate house-to-house noise; and windows that stare into facing windows must be curtained—so why have a window anyway?

Outdoors, the problem is even worse. The kind of outdoor living once confined to California and Florida is spreading fast: barbecues, terraces and swimming pools have become popular throughout the country. But
Reason No. 3: It creates a dull, monotonous environment

It is perhaps unfair to point to the row upon row of identical ranches and split-levels put up in the early '50s; after all, we don't do that anymore.

But is what we are doing so much better? By definition the Good Old Reliable Subdivision House is a conventional house on a conventional lot in a conventional subdivision.

Regardless of how much variety is introduced into facades, colors and model placement, the over-all effect is still rows of basically similar houses. And while a park or recreation area may relieve the monotony for adjacent houses, it does nothing for those beyond its immediate vicinity.

In the long run, however, the worst feature of the Good Old Reliable Subdivision House may well prove to be the social and economic monotony it produces.

Reason No. 4: It doesn't fit the life that more and more families want to live

The key to that life is, of course, recreation. People have more money to spend and more time to spend it, and the result is that activities like swimming, tennis, golf and riding are booming, along with such allied amenities as saunas and health clubs. In an increasing number of areas, builders who don't offer facilities for these activities don't sell houses.

Now, the Good Old Reliable Subdivision House project certainly doesn't preclude recreation, but it doesn't encourage it much, either. In a conventional land plan, the space needed for swimming clubs, community centers and perhaps tennis courts comes from what otherwise would be salable lots; added to what the municipality requires in the way of parks and (if the project is large) schools, the loss of lots can hurt.

Nor is the Good Old Reliable Subdivision House itself well suited to recreation. For one thing, those useless front and side yards require maintenance, and most people would rather swim than mow. For another, private recreation facilities—notably pools—must be stuck out in the middle of a backyard that, as noted above, provides little or no privacy.

Reason No. 5: It doesn't offer anything excitingly new

And there are increasing signs that this lack of excitement is the chief reason for the housing industry's present failure to sell much more than essential housing:

1. A country-wide survey of buyer motivations (HC&H, Nov. '67) showed that 40% of the prospects who toured model homes were disappointed in what they saw. (Significantly, they registered their biggest disappointment over the outdoor living areas.)

2. A House & Home survey of 12 metropolitan housing markets (HS&H, Oct. '67) showed that the builders who suffered most during the recent sales slump were those who were sticking with the same old models.

There's no statistical evidence on just why people are disappointed in most of the houses our industry is building today, but the reason isn't hard to deduce: In an era of exciting newness in everything from clothing to communications to travel, housing's basic product, the Good Old Reliable Subdivision House, is old. And no amount of re-equipping, plan-juggling, face-lifting, or high-powered merchandising will make it new.

But exciting new housing is beginning to replace the Good Old Reliable Subdivision House. To see it, begin on the next page
Detached houses still make sense in settings like this...

The handsome colonials at right and below each occupy almost a full acre of wooded land. Their builder, Carl Gunther of Trumbull, Conn., is one of several builders around the country who have found a growing demand for authentic traditional houses.

"Other builder houses in the area give more space for the money," says Gunther. "What we offer is design, craftsmanship and the atmosphere of the development." Buyers seem to like these features:

The 27-house project is selling steadily at prices from $45,000 to $55,000.

...but patio houses look like the coming thing in subdivisions

A wall surrounds the entire lot of the house below, turning all its 7,000 sq. ft. into private, delightful living space. Despite the newness of the concept, builder Harlan Lee (H&H, Sept. '67) has sold out just about all of the 220 units in Westlake, Calif., near Los Angeles. There are five models, priced from $30,000 to $39,900.

"Buyers feel the whole yard is their living area," says Lee. "And all of them are doing fantastic landscaping work around the houses."
This garden-court house makes the most of a very small lot...

The section's over-all density is four per acre, but almost half the land is in greenbelts so the houses sit on 50'x100' lots. But a completely walled rear court provides such attractive outdoor living that Kettler Brothers Inc. has sold nine houses (at $43,500 to $53,000) to normally conservative Washington, D.C.-area buyers before the formal opening. The houses are in Montgomery Village, a 2,200 P.U.D. in Gaithersburg, Md. (see p. 55).

These patio houses bring real excitement to outdoor living

Deane Brothers Inc., which introduced the garden kitchen to California buyers (H&H, June '64 and May '65), has taken the next logical step of walling their lots. The garden kitchen remains (lower left), and in some of the models a swimming pool is right at the back door. The first 39-unit section, in Huntington Beach, Calif., sold out in less than three weeks at prices from $27,950 to $32,950.
Townhouses are a key part of the new market

Here's proof that high density doesn't rule out livability

There are 130 units on 8½ acres in Oklahoma City's Georgetown project (above, and H&H, May '67). But landscaped commons give the area a feeling of spaciousness that most Good Old Reliable Subdivisions would envy. And a density of over 12 per acre still allows these Buffalo, N.Y. townhouses (below, and right, and H&H, Oct. '67) plenty of room for a common landscaped walk, plus deep, walled terraces in front of each unit.
P.U.D.s offer a whole new concept of subdividing

They’re not just projects, they’re real communities

The importance of the planned unit development lies in its avoidance of the two principal curses of the Good Old Reliable Subdivision: unrelieved rows of houses and a stratified community. And while P.U.D.s have recently become identified with monster new towns, they make just as much sense for small and medium-sized projects. The two P.U.D.s shown here are cases in point.

The project at right was built on a 123-acre site in Amherst, Mass. Developer William Aubin (H&H, July '66) is building 256 units, with a mix of townhouse apartments (which can later be converted to condominiums), patio condominium houses and single-family detached houses on cluster lots. Greenbelt and recreation areas will total 44 acres (vs. four acres had the site been developed conventionally).

The 2,200-acre P.U.D. below was recently opened by Kettler Brothers Inc. in Montgomery County, Md. Present plans call for about 10,000 units, ranging in price from $25,000 to around $65,000. Some 550 acres will be left as greenbelts and parks, and another 200 acres are allotted to commercial use.

JANUARY 1968
Rental projects like these are setting a high standard

Tenants in this project get real country living

Indeed, as the photo at right shows, the project looks more like a country estate than an apartment project. The four-acre site faces a pond and is surrounded by trees. And the 21 units are in buildings designed to look like large houses.

The estate atmosphere is deliberate: Lincoln Development Co. of Cambridge, Mass. is, in effect, competing with its own single-family houses. This site is one corner of a 95-acre residential development where lots sell for up to $20,000. And the rental range—$215 to $450—is keyed to older families who like the area but don’t want the upkeep of a large house, as well as to young executives from the Boston area.

Will recreation facilities like these spoil future homebuyers?

Very possibly. Families who leave Detroit’s 2,400-unit Somerset Park to buy houses will take with them memories of eight neighborhood swimming pools, a 45-acre, nine-hole golf course complete with golf pro, and a 12-acre children’s recreation park with pool, tennis courts, shuffleboards, winter skating area and a nursery for very small kids. Complementing this physical layout (which represents an investment of almost $4 million) is a highly organized program that offers tenants everything from guitar lessons to ski trips.

Certainly no family that moves into a smaller subdivision will expect recreation on such a grand scale as this. But just as certainly they’ll expect something more than the typical small swimming club tucked into what would otherwise be a couple of small house lots.
More and more, builders must offer environment like this

There's little excuse for detached-house builders to offer raw subdivisions when landscaping like that shown above (a rental project in San Rafael, Calif.—H&H, July '65) can be achieved in a density of 11 per acre. And the spectacular vista below (which will be even more lush when the new trees have grown) is part of a 994-unit project—Woodlake Apartments in San Mateo, Calif.—which has an overall density of 40 families per acre.

continued
At its best, the new market offers living like this

And it's fair to say that only living like this could have made a success of Heritage Village (H&H, April '67). When Paparazzo Development Corp. opened the project less than a year ago, the obstacles included 1) a specialized market—empty nesters over 50, 2) an 80-mile distance from New York City, its primary market, and 3) unfamiliar condominium ownership. Yet 225 families have already paid from $18,900 to $31,300 for townhouses and apartments, and sales are continuing steadily on schedule.

Granted, one project, however successful, is too small a sample to support any absolute conclusions. Nevertheless, Heritage Village poses a crucial question for all builders: May it not be less risky to try something new like this than to stick with our Good Old Reliable past?
Buildings, by architect Charles Callister, share the area’s rusticity.

Swimming club is part of community activities area.

Lake was created by damming up an existing stream.

Newly finished 18-hole golf course winds through the trees.
One of the most progressive figures in the mobile-home industry is a homebuilder who knew hardly anything about mobile homes four years ago.

John F. Long had built 20,000 low-priced houses in Phoenix and then watched his market go sour. His expertise as a high-volume builder was standing idle, and the huge overhead he had built up was eating into his profit.

So Long converted his homebuilding reputation, his homebuilding components factory and his homebuilding labor force into a full-scale mobile-home operation. He created Longmark Manufacturing Corp., which is now producing from three to six medium-to high-priced mobile homes a day for customers in 14 western states from Oregon to Texas—up to 1,800 miles from Phoenix.

To the mobile-home industry Long brought a set of construction and design standards that few of the manufacturers had ever applied before. Longmark mobile homes are so much like houses that they meet FHA specifications and give buyers the feeling of living in a conventional house.

Long hasn't abandoned conventional homebuilding. To be sure, his house volume is a fraction of what it once was, and he subcontracts the work because his permanent crews now make mobile homes. But his average selling price has increased thousands of dollars to about $21,500 this year, and his unit volume is also on the rise.
mobile-home market?

Long's conventional houses are, in fact, improved by his mobile-home work. Designing floor plans for compact mobiles teaches him new ways to squeeze in laundry areas, foyers, extra baths and storage space. And shopping for low-maintenance products and snap-in finishing systems for mobile homes produces many new ideas for houses.

But the overlap between houses and mobiles stops at design and products. John Long has found that 30 years in the homebuilding market doesn't equip a builder to clean up in the mobile-home market. He may have learned how to build a better-than-average mobile home, but marketing it will be a new—and probably painful—experience.

A homebuilder has little in common with the men who build and sell mobile homes

The first thing Long discovered is that marketing mobiles is more like selling cars than selling houses. Manufacturers change their models every 12 months and sell them with furniture packages so complete that even ashtrays and paintings are included in coordinated colors.

The mobile-home industry has long been notorious for its fly-by-night dealers and fast-buck manufacturers. A dealer can still find flimsy units that wholesale for less than $3,000—and occasionally blow apart in transit. And the manufacturer who practices any loyalty toward his dealers—or vice-versa—is still in the minority.

Unlike houses, a mobile home has no fixed selling price. Long's conventional-house salesmen don't bargain with customers because their price is based on an FHA valuation. If they lowered the price for one customer, FHA might review its estimate and set a lower valuation. But mobile-home dealers—Long's included—can charge as little or as much as their markets will bear. Long estimates that his dealers should net at least $1,000 on double-width units like the one at left, but markups vary drastically: The same model may retail for as little as $16,500 or as much as $19,500.

Unlike homebuilders, a mobile-home manufacturer has virtually no control over his product's merchandising and siting. These essential marketing jobs are in the hands of the dealers and the mobile-home park operators.

But both jobs are critical to Long because 1) he is basing his success on high-quality, high-priced design and 2) he is specializing in double-width units that need larger-than-average lots. Roughly 85% of his mobile-home buyers are at least 45 and have above-average incomes. And half of his business is now in so-called "double-wides"—he has 16 models in 20' and 24' widths.

Long has tried to solve his mobile-home marketing problems in two ways:

First, he test-markets his models thoroughly by retailing half of his production himself. His retail salesmen operate independently of the manufacturing plant, applying full dealer markups to their selling prices. Their reports on the progress of each new model help Long clean up design flaws and determine realistic retail prices before he wholesales his product to dealers.

Second, Long runs his own mobile-home park in Phoenix. It is a shining example of up-to-date park layout and attractive mobile-home siting. Long is one of a handful of manufacturers who operate their own parks, and his efforts have attracted the enthusiastic support of the industry's trade associations.

Long's mobile-home venture has expanded his operation in two directions:

1. He is tapping a seemingly unlimited market for relocatable nonresidential buildings—restaurants, industrial offices and classrooms—which now account for half of his retail business.

2. He is going back into the low-cost house market. He recently got FHA approval for a sectional house—a three- to four-bedroom unit shipped in two halves but set on a permanent foundation and financed conventionally. Long says it is the only FHA-approved sectional on the West Coast, and several builders are interested in it.

For a look at how homebuilder Long designs, builds and merchandises mobile homes, see the next six pages.

continued
CORRIDOR KITCHEN, adjacent to laundry area, is packed with house-size appliances and storage.

U-SHAPED KITCHEN shows off Long's laminate-faced cabinets and oversize oven with rotisserie.

Long designs his mobile homes to live like houses

Says builder Long: "We can never make them look like houses outside—but inside we can do anything." His double-wides have the same well-equipped kitchens—with tilt-out spice racks, built-in cutting boards and pantries—that his conventional houses are famous for. He plans traffic patterns that bypass main living areas and provide separate entry foyers and back-door mudrooms. His bedrooms—where other manufacturers save space—are house-size, and some include study or sitting areas. Like a custom home-builder, Long offers options in his mobiles such as relocatable doorways, built-in bars and breakfast nooks. A typical customer's reaction: "This looks and feels like a house more than any other mobile I've been in."
RECESSED ENTRY flanked by carriage lamps is set off by a sand-blasted wood door. Strip window is amber-colored plastic.

RAISED FOYER off living room helps create the feel of a house.

WET BAR and storage unit built into a family room are standard in a 24'x57' Longmark model.

MIRROR DOORS enclose wall-length closets in Long's exceptionally large mobile-home bedrooms. Foam-padded carpeting covers even closet floors.

PARTITIONED BATHROOM—12'x14'—includes dressing table, twin-sink vanity, wardrobe and linen closets (plan at lower left on opposite page).

FOYER ALCOVE instead of guest closet is typical of many plan options Long gives dealers.

STEP-UP DINING AREA and spacious living room are enhanced by glass walls. Standard ceiling height in Longmark mobiles is equal to that in houses—dealers can choose 8' or 7'6". 

continued
Build each home as if you plan to own it.

12-STATION ASSEMBLY LINE (plan, below) for Long's mobile homes is in a 30,000-sq.-ft. plant formerly used for prefabricating conventional houses.

20-ACRE PRODUCTION COMPLEX includes a well-equipped cabinet shop (Bldg. C) which also supplies Long's houses. Staging area outside the main assembly line is used for fitting halves of double wides, which are produced separately. Peak capacity of the line (plan, above) is six units a day.

Long manufactures his mobile homes to house standards

EXECUTIVE OFFICES for Longmark consist of multiple mobile units with clear-span interior.

His construction, in the plant shown here, meets most FHA specs and in some respects—like glue-nailed sheathing and double-insulated walls—exceeds them. His framing, formerly kiln-dried 2x3s for partitions as well as walls, is now kiln-dried 2x4s on conventional 16" centers. He uses a recirculating forced-air heating/cooling system with ceiling ducts and floor returns. And his shower stalls are molded one-piece fiberglass with tempered-glass doors. The assembly crew, run by a superintendent who built Long's conventional houses for 18 years, includes many tradesmen who learned their skills in homebuilding. How good is a Longmark mobile? The best indication is that the company has never needed to set up a service department.
WELDED CHASSIS, made of precambered 10" I-beams and 11-gauge cross members, is assembled by Long's own men. Axles and wheels are subbed.

FLOOR SYSTEM combines 2x6 joists and let-in 1x4s laid over 5/8" asphalt-impregnated insulation board and covered by 5/8" heelproof sheathing.

PLUMBING AND WIRING, laid under glue-nailed subfloor, meet national standards. Waste lines are ABS plastic, supply lines are 5/8"-dia. copper.

EXTERIOR WALL—being finished on a vertical jig—incorporates fiberglass insulation plus polystyrene-core sheathing with a K factor of .24.

ROOF AND CEILING are fabricated vertically in one piece, then hoisted into place as mobile units move down the line. Long uses a bowstring truss to provide space for overhead heating/cooling ductwork, which is insulated. Roofing is 20-gauge galvanized iron; siding is .019 self-venting aluminum.

JANUARY 1968
ENVIRONMENT of Longhaven mobile-home park compares favorably with many conventional-house subdivisions. All streets are wide and well landscaped.

NEW MODELS of Longmark homes are tested for livability in Long's park. Competitors' homes are not restricted, but cannot be more than two years old.

Long merchandises his mobile homes like houses

His merchandising area is the tree-lined community of Longhaven (above)—a mobile-home park next to one of his conventional-house subdivisions and a stone’s throw from his factory and retail sales lot.

Long's neighboring homebuyers put up brief resistance when they learned of his park plans three years ago. But soon after the park began to fill up, some of the same people were exchanging their houses for mobile homes and moving across the street for what they considered an easier way of life. The park’s 150 units—now being increased to more than 300—are sited and landscaped as much like houses as possible (photos) around a well-equipped clubhouse for movies, swimming, dinners and games.

Longhaven is Long's product showcase. Says he: "It doesn't do much good to upgrade mobile homes unless mobile-home parks are upgraded, too. How can a manufacturer build an image of quality for a line of high-priced double-wides if they’re always set in obsolete parks?" Long's park is a starting point toward manufacturer-controlled park environment.

And Longhaven—combined with the retail sales lot—is also a product proving ground. It lets Long observe prospects’ reactions to a new model and learn the likes and dislikes of veteran mobile-home owners after they buy his units. He has built many new models only once, just to gauge acceptance for a new design or product idea.
LANDSCAPING for individual units must meet minimum park standards, but Long helps residents exceed that by paying half their costs up to $100.

SITING a mobile home in Longhaven involves excavating about 3' and backfilling. Wheels are hidden below grade so unsightly skirts are avoided.

UTILITIES and heating/cooling equipment are kept out of sight at rear lot lines. To minimize maintenance, crushed stone is used as ground cover.

Long's venture shows that mobiles are a marginal market for builders

There are three ways for a homebuilder to get into the market, but all of them are booby-trapped:

The fastest way to enter the market is to become a mobile-home dealer. But the average builder wouldn't stand a chance in this highly competitive business. Ethics are different; financing is different; and since no homebuilding skills whatsoever are necessary, his past experience would be useless. To become a mobile-home dealer, the homebuilder must change himself into a car salesman.

The second way is to become a mobile-home manufacturer, as John Long did. But how many builders have Long's capital, his plant facilities or his years of manufacturing experience? (For the handful who do, Long is considering offering his services as a consultant in setting up mobile-home plants for builders.)

The third way is to become a mobile-home park developer. But few communities appreciate the parks, and zoning fights can be long and expensive. Further, to make any money the developer has to retain the park and manage it himself, and it may take up to two years to reach 70% occupancy—the usual break-even point—so the developer must be well capitalized. Finally, parks require a lot of land—at least 100 spaces to be economically feasible—and the new double-width mobiles permit only six to seven pads per acre instead of 12 to 15 as in the old days.

What about the many recent experiments in stacking mobile homes to create townhouses and high-rises? They may find a place in government-sponsored low-cost housing, but they promise little for the homebuilder. Code problems would be multiplied in such units, and design would be even less flexible than with single units.

Homebuilding's only real opportunity in the mobile-home field lies in a mobile-home offshoot—the sectional house, built on a conventional foundation under existing codes and financed through conventional housing channels. Right now only a few companies are manufacturing sectional houses, but they are all finding good markets.

The future of sectional houses depends largely on what manufacturers can do with them in terms of size and design. So far they have produced nothing more than upgraded double-width mobiles, limited to a 24'x60' rectangle and thus to a relatively low price range. And when sectionals are hauled a few hundred miles, their in-place cost reaches $14 to $15 a sq. ft. So their markets are limited to fringe areas where they don't compete with builders who can produce conventional houses for much less.

In a word, the sectional house is a strong possibility in some low-price markets, but the mobile home is of interest to hardly any builder anywhere for any reason.

—H. CLARKE WELLS

JANUARY 1968
Parades of Homes: What kind is best for your city?

In Dayton, entire families go house-hunting at the city's single-site Parade of Homes.

Single-site Parade or...

"The single-site Parade is the best medium we have to promote home ownership. The public reacts best to a variety of designs and styles in one location, and builders, suppliers and manufacturers are all made more conscious of the importance of exciting merchandising."

So says Jacque R. Sheley, executive officer of the Dayton Homebuilders Assn. Dayton is one of a growing number of cities that are sold on the advantages of the one-location Parade of Homes. Some of the reasons:

1. No single builder, regardless of his promotional budget, could draw the crowds that go through a successful Parade site. For example, Ft. Wayne, Ind. (pop.: 172,000) recorded 22,000 paid admissions to this year's 22-house Parade (and unpaid guests and children probably equalled this figure). Other cities also did well: Dayton drew 32,000; Cincinnati drew 90,000 paid; and Birmingham, Ala., drew 20,000 in eight days in spite of almost incessant rain.

2. The show-biz excitement a Parade creates spurs sales. An entire street of new houses, furnished, landscaped and night-lighted, turns what would otherwise be just a neighborhood into a theatrically exciting spectacle.

Says Orville Brown, executive officer of the Cincinnati HBA, who runs the nation's largest one-site Parade: "Every year I hear of families who come to our Homerama [a registered name also being used by Dayton and Oklahoma City] with no intention of buying, who wind up as new house customers."

3. When the entire local housing industry participates in a Parade, it creates a strong public image.

Says Brown: "It is most important to remember that a Parade is endorsed by everyone connected with housing. Many builders can sponsor successful promotions, but none can get the backing of the entire community and all media."

4. The competition of builders trying to outdo the model next door will always make Parade houses just a little bit better.

Says Ft. Wayne HBA President Allan J. Wise: "Our biggest asset is the rivalry of our members building side-by-side. This year we had a beautifully landscaped Parade because a few builders put in sodded lawns and large caliper trees, and everyone else felt he had to do the same to make his house just as attractive. Everybody gained, especially the public."

5. Sales continue long after the Parade ends—sometimes for years.

Small builders often make all of their sales for the coming year from a single house in a Parade. Birmingham's executive officer, George Perkins, says that buyers sometimes come in with a plan book from several years back and ask that a model be duplicated—now that they can afford it.

It takes lots of rehearsal time to put on a really good Parade

Early planning and hard-working committees are behind the successful one-site Parades. Most are held in the fall (so winter weather can't foul up the timetable), and committees are formed as much as a year ahead.

Russell Harding, executive officer in Ft. Wayne, has his Parade committee and site subcommittee picked by January. Later, as the promotion progresses, committees are named for grounds, plan book, architectural control, publicity and awards.

Site selection is the biggest problem 1) because members are partial to different areas and 2) because of possible conflict between the interests of the developer and the participating builders. Says Harding: "Our site committee solicits offers from all land-developer members. In addition to his Parade site, each builder must get an option to buy up to five more lots for sales he might make from his Parade model. We know that the Parade of Homes assures the success of any subdivision, and we have had as many as 11 developers competing for it."

Since 1959 the Birmingham association has developed its own Parade site, and entrants get lots at cost. Says George Perkins: "In 1965 we bought 43 acres in an excellent location which will take care of us until 1968. We are assured of prices that our builders can afford."

"Because our site is fixed, we can start publicity releases early in the year, and build up to opening day in the fall. Our problem has never been how to bring out crowds, but rather, how to handle all the traffic and parking."
... scattered-site Parade

“Our market lies in two states [Missouri and Kansas] and six counties, and it’s divided into definite geographical patterns. So for our builders, the only possible way of reaching all prospects is with a scattered-site Parade.”

So says Leo D. Mullin, executive officer of the Kansas City HBA. After 13 years, the city’s annual Parade of Homes has become a local institution, and a model for any multi-site promotion. Kansas City has had as many as 145 houses and apartments on display during the eight-day event that is held each fall. And up to 30,000 free copies of the Parade’s plan and guide book are distributed to people who visit model houses.

Mullin cites the following six advantages for the scattered-site Parade:

1. All areas of the metropolitan market and all price brackets are included.
2. All builders—small, medium and large—are able to take part.
3. Entry fees are low. Just $170 gives each entrant a page in the plan book, signs, pennants, advertising backup and an exhibit of his rendering and plan in the Home Show held the following spring.
4. Furniture dealers are anxious to take part. Normally, more than two-thirds of all entries are furnished models, and many dealers promote the Parade in their own advertising.
5. Small builders, usually non-advertisers themselves, benefit greatly from, the over-all Parade advertising in newspapers, on radio and on television.
6. Each builder can sell from his own site or his own subdivision.

In Oklahoma City, where the local association puts on both a scattered-site and a single-site Parade each year, executive officer Sidney Davidoff thinks the multi-site event is more effective.

“The think it serves the total industry better, though a single-site Parade is probably more exciting to the community at large. By definition, all the houses in a single-site Parade must be within a limited price range, but in a multi-site promotion, anything from a $13,000 to a $130,000 house can be shown.”

Parade homes must always be really new and exciting models
Both Mullin and Davidoff agree that one common weakness in multi-site Parades is the builder’s preference for entering a day-in, day-out model rather than creating a brand new house for the Parade. If too many entries are the same old soup warmed over, the public senses that the Parade of Homes is no different from what they can see 52 weeks a year.

Oklahoma City demands that all builders submit plans of the houses they intend to hold open, and no house that has been on the market unsold for a long time is accepted. This spring, 63 houses were shown in all parts of the city and in all price ranges. (By comparison, there were 14 houses in the October single-site Parade, and all were $30,000 to $40,000.)

Mullin tries to get all of his builders to point at least one brand-new model towards the fall Parade. Many small-volume builders use their display house as “this year’s model,” from which they get sales for months to come.

Larger-volume builders find that traffic and sales slack off during the Parade due to the strong competition for public attention, says Mullin. In the long run, however, the many luxurious custom and semi-custom houses in the Parade build up an interest in all new houses, and there is always a post-Parade burst of sales in subdivisions of lower-priced, mass-built houses.

For the past six years, Kansas City has had all types of new housing in its Parade, including duplexes, townhouses and rental apartments. Says Mullin:

“We consider this to be an industry-wide show, and we want to appeal to every possible customer for better housing, whether they be buyers or renters.”

The Kansas City Parade helps the city’s builders long after the Parade itself is over. The plan and guide books are given to the Chamber of Commerce and to the personnel departments of all major local industries for the benefit of incoming transferee families. Each house or apartment is classified by geographical area, type, price or rental range, and number of bedrooms.

Concludes Mullin: “In many cities, families tend to stay in the same general geographic area, even when they move up into a more expensive house. So a scattered-site Parade can appeal to all families in all locations.”

Map of Greater Kansas City shows 99 model locations that were open last fall.
This oil/gas heating system cuts apartment fuel rates 25%

You save money with this dual-fuel setup not because it burns less fuel but because natural-gas utilities give you a special price for using it. Specifically, if a gas utility's best rate for high-volume users is 90¢ per thousand cu. ft. (cfm), the rate for dual-fuel plants may be as low as 65¢ per cfm, which is the case for Long Island (N.Y.) Lighting Co.

Gas utilities call this special price their “temperature-controlled” rate, or “interruptable” rate.

Just about everyone benefits from oil/gas heating systems except oil-fuel suppliers:

1. Gas utilities like dual-fuel heating because it gets customers off their lines during periods of peak demand—namely, whenever outdoor temperatures fall below 20°F.
2. Apartment operators like dual-fuel heating because it slashes fuel bills.
3. Equipment manufacturers like dual-fuel heating because it requires a larger investment in boilers, burners and controls than a one-fuel system requires.
4. City and state governments like dual-fuel heating because it reduces air pollution.

But oil suppliers don't like dual-fuel heating because it doesn't burn much oil—the system's primary fuel is gas.

Gas men thought up oil/gas heating to save themselves some money

By persuading customers to switch from gas to oil in sub-freezing weather, the natural-gas utilities help solve an expensive supply problem. The problem lies in their having to contract for gas supplies at the beginning of each year.

When the utilities encounter a severe winter with its sharp increases in heating loads, they often have to buy quantities of manufactured gas to keep up with demand. This is costly for the utilities because regardless of how much they pay for manufactured gas—perhaps $2 per cfm—they have to sell it to customers for their normal rate, which may be only 90¢.

So the gas men came up with a special low rate for customers who would shut off their gas-heating lines and switch to a different fuel whenever thermometers fell below a specified level—usually about 20°F. The rate is not for single-family houses. It is feasible only for high-volume users like apartment projects of 30 units or more, where total heat losses exceed 1,000,000 Btuh and annual gas costs are more than $1,500.

Temperature-controlled gas rates aren't new. They were introduced in the 1930s, and are available in several states and localities.

But gas utilities have only recently started to make a serious effort to sell the special rates. Reason: Their biggest competitor—No. 6 oil—is being pressured out of business by pollution-conscious lawmakers.

Government agencies are outlawing No. 6 oil in favor of Nos. 4 and 2.

Anti-pollution agencies don't like cheap No. 6 oil because it's dirty. When it burns it sends a high percentage of sulfur dioxide and soot into the atmosphere. So the federal government and some states—New York, for example—are passing laws that limit sulfur emissions from oil to 2% or less by weight, a restriction which will eventually eliminate No. 6 oil.

Gas utilities can't begin to compete with the price of No. 6 oil, but they can compete with higher-priced Nos. 4 and 2. In fact, the utilities' temperature-controlled rate is much lower than the price of the high-grade fuel oil, No. 2, which is used almost exclusively by single-family homes.

So gas utilities are now jumping onto the clean-air bandwagon. They are promoting oil/gas heating systems—using natural gas and relatively clean-burning No. 2 oil—as an answer to air pollution.

Gas men also have another reason for favoring No. 2 oil: It is essential to the automatic operation of a dual-fuel system. Only the highest-grade oil can be depended on to start up immediately after standing idle for weeks or months. No. 6 oil, which is like tar or sludge, is out of the question because it requires preheating before it can be used. And No. 4 oil, a blend of No. 2 and No. 6, is not dependable enough because of its inconsistent...
quality and lower degree of efficiency.

Builders shopping for a dual-fuel system have a choice of two kinds of heating plants. The best-known type is the oil/gas boiler—a single large boiler fired by one burner that operates on either fuel automatically. But a more obvious approach is to team up conventional oil and gas boilers, each fired by its own burner. In both setups an outdoor thermostat shuts off the gas lines at 20° and turns on the oil. When the temperature rises again to 25°, the thermostat stops the oil and turns on the gas supply.

Both types of systems cost roughly the same. According to an off-the-cuff estimate by Federal Boiler Co. of Midland Park, N.J., the price for either plantsized for a 16-unit garden apartment—is about $2,600 not including freight and labor.

COMBINATION BOILER, made especially for dual-fuel heating systems, is fired by a single burner that transfers to either gas or light oil at the demand of an outdoor thermostat. New York City apartment builders Alex and Douglas Paulsen use two of these units to supply heat and hot water to 150 apartments. Their utility—Brooklyn Union Gas Co.—gives them a "temperature-controlled" gas rate of 55¢ per cfm.

Dual-fuel equipment is subject to the gas-utilities' specifications and is serviced solely by their mechanics. Oil equipment plays a minor role in dual-fuel systems. In New York City, for example, it runs for a total of about 11 days a year.
The system:

- Steel framing and roofing structure, including trusses.
- Heating-cooling system and air-circulating ductwork.
- Ceiling-lighting grids and sound-controlling ceiling panels.

Typical results:

- Bank, Portsmouth, Va. (Fariss Pictures)
- High school, Birmingham, Mich. (Lens-Art)
- Office building, Marion, Ind. (Bill Bertram)
Components that work together make light construction simple

Homebuilders interested in non-residential markets can build almost any one-story building with a new pre-engineered component system. In-place cost is $15 to $22 per sq. ft., exclusive of land and development costs and architectural fees.

Although the system is highly standardized, each building can have its own exterior style, thus eliminating the look-alike curse of many earlier systems.

The building package—four compatible systems: structure, lighting, partitions, heating and cooling—was developed jointly by California school officials and 40 major manufacturers to meet a need for better and less expensive secondary schools (box, below).

Four advantages of the system should be attractive to light-construction builders:

1. Each component is engineered to work compatibly with the others. All participating manufacturers worked together, so no one system causes problems for another during installation. The entire package is based on the same 3’x3’ module. The system is not sold as a single package, however; each manufacturer bids separately on its individual components.

   "It's really nothing more than an adult Erector set," says contractor Louis Silbert, of Kensil-Hedeman, Long Island engineers and general contractors. Although his 20 years of experience does not include homebuilding, Silbert is convinced that any experienced homebuilder could use the component package.

2. A wide variety of single-story buildings can be erected with the same parts. Originally developed for schools, the system has now been used in over 100 different buildings, including office buildings, banks, churches, factories, research centers and municipal buildings. Structures have been as small as 1,000 sq. ft. (a Clearwater, Fla., office building) and as large as 310,000 sq. ft. (Lockheed-Georgia factory in Marietta, Ga.).

3. Construction time can be cut as much as one-third. This means an equivalent saving in construction-loan and other fixed overhead costs.

   No time is saved in the design process, since using the modular concept to its best advantage takes just as much design time as conventional planning. But once construction starts, the simplicity of assembly inevitably results in an earlier completion date.

   Architect Louis Battoglia, of the Fishkill, N.Y., firm of Fudge, Underbill & Battoglia, is currently finishing his third school with the system. He says: "Once planning is done, there are important time savings in construction."

4. Both interior and exterior design are flexible. Since the overhead structure is supported on modularly spaced columns, there are no load-bearing exterior walls to restrict window and wall relationship. Inside the building, beams can be spaced as much as 110’ apart with 5’-deep trusses. The resulting deep bays can be sectioned with unlimited partition arrangements, and all walls, except those around plumbing facilities, are either movable, demountable or folding.

An incentive of $30 million in contracts spurred manufacturers to develop these compatible systems

This golden bait was held out by the officials of 13 California school districts. They joined forces in 1961 to form School Construction Systems Development (scsd), under the auspices of a $500,000 Ford Foundation grant. Scsd's promise of 22 school construction contracts totalling $30 million made it economically possible for the manufacturers to gamble the necessary time and money on the development of new systems.

In 1965, after four years of research, the systems were well enough developed to win the promised contracts.

The original research team consisted of the following manufacturers: heating and cooling, Lennox Industries, Marshalltown, Iowa; interior partitions, E. F. Hauserman Co., Cleveland, and Hough Mfg. Co., Janesville, Wis.; framing and ceiling-lighting, Inland Steel Products Co., Milwaukee. (This last firm has since abandoned the system.)

Other companies have now stepped in to compete with the original developers. Among them: Butler Mfg. Co., Kansas City, Mo.; Rheem/Dudley, Paramount, Calif., and Macomber Inc., Canton, Ohio, (who all build framing systems). Heating and cooling components are now made by ITT Nesbitt, Philadelphia. And Armstrong Cork Co., Lancaster, Pa., and Luminous Ceilings Inc., Chicago, are now making lighting-ceiling systems.
Framing: It clips together like a giant Erector set

The prefabricated framing components (blue in drawing at right) are joined with either button-in-the-slot joints or bolts. And all framing is built with just three basic elements:

1. Columns, which have fixed base connections to resist lateral loads.
2. Primary beams, supported by the steel columns.
3. Warren-configuration trusses and roof deck, shipped as a folded package. Trusses are spaced 5' apart.

The resulting structure provides lateral support points on 5' centers in both directions for anchoring interior partitions and for supporting the ceiling-lighting grids. The support points allow rapid rearrangement of interior spaces anytime after installation.

In addition, the constant depth of the truss and its regularly positioned webs provide clear passage for utilities and heating ducts within the structural roof sandwich. Bay sizes can range from 10'x30' to 30'x110', and vary in increments of 5' within this range. Pricing of the structural system makes 30'x60' the most economical size. Cantilever sections of 5' and 10' are possible in either direction.

Ceiling-lighting grid: one component with three functions

Suspended from the framing structure on predetermined points, the component (yellow in drawing at right) provides light, diffuses heat and deadens sound.

All three elements—lighting coffers, acoustical panels and air-diffusing raceways—can be easily relocated whenever space allocation is changed, or when lighting, acoustic or heating-and-cooling requirements must be revised.

Basic lighting is provided by a two-lamp fluorescent fixture that can be mounted in various positions within the ceiling coffers.

The shape and perforations of the lighting coffers help control sound in two ways: The side panels slope inward to a noise-absorbing horizontal panel, and thousands of tiny holes also channel noise away. The perforations also serve as a forced-air outlet for part of the air flow.

Between lighting coffers, the 5' module is filled with 5'x5' flat panels of 26-gauge steel with a high-reflectance, matte-white finish. Where a fire rating is needed, the backs of panels and coffers are covered with mineral-wool batts.
Heating and cooling: a multi-zone unit with 16 flexible arms

A scale model (bottom, right) shows the heating and cooling component (green in drawing at top right) as if viewed from above. The model's transparent top shows how the ducts branch off the central rooftop unit.

Each heating and cooling unit serves 3,600-4,500 sq. ft., and additional units can be added for equivalent increments in building size.

Rigid ducts transport the warmed or cooled air to a series of central points, from which flexible, hose-like ducts relay it to the strip diffusers located in the ceiling system. The diffusers can be relocated within the ceiling grid. The flexible tubular arms move in any direction and can be made longer or shorter for exact positioning. Both fixed and movable ducts are located in the unobstructed space between the ceiling and the roof.

Separate controls make it possible for each of the eight zones to maintain any desired room temperature. Dampers, located at the end of each of the 16 arms, give additional control of air flow.

The rooftop system is light enough to be lifted into place by a crane or a heavy helicopter.

Interior partitions: three flexible ways of arranging space

Three different types of partitions (red in drawing at right) are used in the interior wall system: demountable, by-passing and accordion. All are compatible and easily relocated.

The demountable version consists of steel-faced panels of ³/₈" gypsum board set between hollow steel studs. Panel thickness is ³", and each panel is attached to the ceiling by a runner.

Bypassing partitions are made up of 30"-wide panels that move singly or in groups of up to four. Any group of panels may be positioned at any point along the wall length, and can be locked in place as partial room dividers without opening the entire partition.

Accordion partitions are a standard folding door mounted in a specially designed supporting-frame system. They are hung from, and operate in, an integral top-hung track which is supplied for two ceiling heights, 10' and 12', and five room widths, 20', 25', 30', 35', and 40'. Deflection tolerance between frame and structure is up to 2". No floor guides or thresholds are required.
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Stack-Sack: how to build a house for $5.50 a sq. ft.

Stack-Sack is exactly what the name implies: You fill burlap bags with a dry concrete mixture and stack them up in overlapped courses like long, limp bricks. To bond them together, you insert steel rods between each course, soak the bags with water and let them cure.

"In 28 days," says Dallas inventor-builder Edward T. Dicker, "my sack wall has three times the strength of concrete block. What's more, we're going to apply it to high-rise apartments as well as to single-family houses."

When Dicker talks $5.50 a sq. ft., he means a complete house. His figure includes not only central heating but also air-conditioning. In other words, Stack-Sack could make it feasible to sell a 1,000-sq.-ft. house with land for $7,500. A buyer's monthly payment would be as low as $40, and maintenance would be almost nil.

So it's not surprising that FHA has already okayed the system for experimental-housing loans. And at least two national leaders—Sen. Charles Percy and ex-Sen. Paul Douglas, chairman of the National Commission on Urban Problems—are promoting the system as an important solution to the demand for low-cost housing. They've encouraged Dicker to apply to the Dallas FHA office for a go-ahead to build ten prototype houses that would officially show off the merits of Stack-Sack.

The new wall system is cheap for three reasons. First, it requires no skilled labor except for installing mechanicals. Second, it cuts down drastically on building materials because it requires only concrete for both structure and finish, and it incorporates excellent thermal insulation. Third, it is fast: Dicker says a three-bedroom Stack-Sack house can be built in about ten days on a high volume production basis. The sacks don't have to be accurately leveled until the top course is laid, and then adjustments can be made by simply emptying out some mix.

Besides being cheap, Dicker's system is versatile. He says his ten prototypes will contain several different elevations and floor plans. His roofs, not part of the burlap-sack system, can be constructed in any style to suit local tastes and climates. And the sacks can be fitted to the natural contours of an irregular site because they double as retaining walls.

Dicker has already licensed about a dozen Texas builders to use his patented system. He is overseeing a Stack-Sack housing project in Acapulco, and is about to license builders in Rome, Tokyo and several Latin American countries.

It doesn't cost much to set up for Stack-Sack production. A builder needs 1) a specially designed $1,295 sacking machine that will fill enough sacks—720 an hour—for three houses a day, 2) a concrete mixer, 3) a conveyor and 4) a plaster spray gun to apply the 1-inch-thick coating of cement and sand used as exterior and interior wall finish.

—LORRAINE SMITH
McGraw-Hill World News, Dallas
Six men do the job: Three mix and carry, three lay sacks and spray on finish

1. **DRY CONCRETE MIX** with 3,000 psi rating is fed into a hopper by elevated conveyor.

2. **BURLAP SACKS**—24" long, 6" in diameter—are filled on site. They weigh about 50 lbs.

3. **REINFORCING RODS**—8" long, 12" o.c.—are driven between courses as sacks are laid.

4. **SOAKING** with a garden sprinkler is gauged visually according to degree of sack slump.

5. **PLUMBING** and wiring conduits are pressed into place between sacks as walls progress.

6. **CEMENT FINISH** is sprayed on in two stages, starting when walls are half raised.

7. **WALL TEXTURE** can be varied from smooth to rugged according to degree of hand tooling.

**COMPLETED HOUSE** has an adobe appearance, but design is unlimited. Windows and doors can be of metal or wood; the roof—secured by bolts in top course of sacks—can be any style.
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is here...

and here...

and here...

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OPEN-GRAINED . . .

OR HAND-ADZED

THEY CUT EASILY . . .

THEY GLUE ON . . .

AND THEIR LIGHT WEIGHT MAKES THEM EASY TO HANDLE

Polyurethane beams look like real wood, but go up a lot easier

Hand-hewn beams can be an attractive feature, but every builder who has ever put them in his houses knows the problems: Naturally aged and weathered beams are hard to come by, expensive and often a pain-in-the-neck to install. A beam big enough to look authentic is heavy, and, often, irregular.

The simulated wood beams shown above solve these problems. They look like the real thing, and they are easily installed (photo sequence, above): a 14'-long 2x6 beam weighs about 7 lbs. The beams come in several wood tones and grains. And although they're not cheap, they're almost always cheaper in place than the real thing. Three manufacturers are represented above. Top left: Styles Products, New York City. Circle 275 on Reader Service card. Center: Polyester Specialties, Summit, Ill. Circle 276 on Reader Service card. Right: Lite-Beams, Camden, N.J. Circle 277.

Beveled-edge panels for suspended-ceiling systems are made of 1/8"-thick expanded poly-styrene. The beveled edges drop the panel face 1/4" below grid level, produce deeper shadow lines. Also offered: woodgrained grids. Leigh, Coopersville, Mich. Circle 260 on Reader Service card

Sound-absorbing tiles with a wood-fiber base are 12" square and have tongue-and-groove edges. The tiles feature a random overall fissured pattern that eliminates the lineal effects common in acoustical ceilings. Johns-Manville, New York City. Circle 267 on Reader Service card

Washable ceiling blocks—16" square, 1/4" thick—can be installed over existing ceilings with wallboard adhesive, and have tongue-and-groove edges to simplify fitting. Matching cove moldings are available. Marlite, Dover, Ohio. Circle 263 on Reader Service card

Exposed-grid system eliminates any pass-through element at main tee. Torsional locking (directly above) connects cross tees with sockets on main tee. Tee sections are cold rolled steel. Pre-Stressed Metal Systems, Buffalo, N.Y. Circle 264 on Reader Service card

New products continued on p. 86
**NEW PRODUCTS**

start on p. 85

**Kitchens**

Decorator facings for appliance doors come in a wide range of melamine or woodgrain laminates, let builder match any kitchen decor. Both the refrigerator-freezer (left and center) and the oven (right) use \( \frac{1}{4} \)-"thick facing panels. Installation is simple: Door handles and edge trim are easily removed from refrigerator and only four screws need be removed from oven frame. For information on the refrigerator from Frigidaire, Dayton, Ohio, Circle 210 on Reader Service card. For information on the oven from Chambers, Cleburne, Tex., Circle 211 on Reader Service card.

*Two-speed range hood,* with dual squirrel-cage blowers, exhausts out either top or back. It comes in white, coppertone, stainless steel and major appliance colors. Lengths: 30", 36" and 42". Rangaire, Cleburne, Tex. Circle 212 on Reader Service card.

Washer-dryer combination is offered in four colors—copper, avocado, sapphire and fawn—plus white. The dryer comes in both gas and electric models and features a drop-down door for sorting and folding clothes. Whirlpool, Benton Harbor, Mich. Circle 213 on Reader Service card.

Double-bowl sink in 18-gauge stainless steel features a matching one-piece light fixture and single-handle faucet. The one-piece construction simplifies cleaning. This model is also offered in single- and triple-bowl styles. Just, Franklin Park, Ill. Circle 214 on Reader Service card.

Built-in wall oven cleans itself electrically and incorporates a self-contained venting system to eliminate the need for duct work. The oven is 24" wide and is available in a choice of appliance colors, plus white. Hotpoint, Lafayette, Ind. Circle 215 on Reader Service card.

Removable liner panels in the upper oven on this range lift out so they can be cleaned in the self-cleaning lower oven. The range is 30" wide and comes in coppertone, avocado, white and golden harvest. General Electric, Louisville. Circle 216 on Reader Service card.

New products continued on p. 94

Circle 55 on Reader Service card
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Decorate as you ventilate with the new Leigh Decorator fan. It features a sculptured white grille, highlighted with antique gold. In a motif repeated in today's most modern bathrooms, powder rooms, kitchens. Thin-wall, ceiling, wall models for every ventilation need. U-L approved. Ask your supplier.

Cut expensive labor costs with Leigh pre-finished, steel, adjustable shelves and rods
With Leigh shelving there is no sawing, no fitting, no sanding, no finishing. Easily installed in less than 10 minutes—for a substantial saving in labor costs. Made of steel, the shelves are warp-proof, too. Pre-finished in desert white, baked enamel and protected by a silicone scuff coat. Bright plated rods have inverted "U" shape to accept optional nylon glides. Shelf-and-rod sets, shelves only, wide shelves for linen closets. Also can be mounted off-wall.

Pre-finished white ventilators save you money
It's costly to paint untreated ventilators on the job. What's worse, the results may not be lasting. You save time and end paint problems when you install Leigh pre-finished white, aluminum ventilators: trimvent (illustrated above), miniature vents, under- eaves vents, attic vents. Ask your supplier. Or write for Leigh Catalog 800-L.

Low priced range hood has quality features
The Leigh 7000 series duct-free hood has two aluminum mesh filters. One, precoated with hexachlorophene traps odors— the other traps grease. Both refreshable by owner. Motor is unconditionally guaranteed for one year. U.L. approved. Tough, lustrous finish—finest in the industry. Colors—coppertone, shaded coppertone, white, avocado. In the four popular sizes.
**NEW PRODUCTS**  
*a start on p. 85*

## Interiors

**Acrylite plastic panels** come in a wide variety of colors and can be sawed into intricate shapes and framed with wood for use as room dividers. Panels are 48"x72" or 48"x96", standard thickness: ¼". American Cyanamid, Wakefield, Mass. Circle 220 on Reader Service card

**Walnut-grained shelving** comes precut, and is Melamine-coated for a stain and fire-resistant surface. The shelves have a hollow core that prevents warping and are installed (photo above) with manufacturer's standards and brackets. Knape & Vogt, Grand Rapids, Mich. Circle 221 on Reader Service card

**Handprinted mural** is one of a series produced on cloth-backed vinyl. It can be easily cleaned and readily stripped for redecorating. Shown above: a Spanish garden, seen through stone arches. James See-man, Garden City Park, N.Y. Circle 222 on Reader Service card

**Woodgrained hardboard** is offered in 4'x7', 8' or 9' panels that simulate the grain of white oak. The panels' surface is protected by a baked-on plastic finish that wipes clean easily. Abitibi, Detroit. Circle 223 on Reader Service card

**Vinyl wallcovering** is backed with fabric and is offered in 54"-wide rolls. The heavily textured pattern shown above is one of more than 60 offered by the manufacturer, and comes in a choice of 19 colors. L. E. Carpenter, New York City. Circle 224 on Reader Service card

**Striated hardboard** comes in ¼"-thick, random-grooved 4'x8' panels. The hardboard's deeply textured surface is factory-finished in a medium grey color with ¼" grooves and fissures colored in a darker grey. Masonite, Chicago. Circle 225 on Reader Service card

**Edge-glued panels** of kiln-dried knotty pine are offered in widths from 14" to 30", and in lengths up to 16'. The panels are smooth sanded on both sides to eliminate on-the-job sanding and filling. Georgia-Pacific, Portland, Ore. Circle 226 on Reader Service card

*New products continued on p. 98*
We finally found a way to cut corners.

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Eljer has a concrete solution for sidestepping slab piercing.

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The Sarasota bath features a raised outlet, 3 1/2 inches from the floor, permits waste line to be installed through the wall.

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Both Sarasota and Orlando are available now through your Eljer plumbing contractor. For information about more Eljer on-the-job time- and money-savers, call your contractor or write Eljer Plumbingware Division, Wallace-Murray Corporation, Dept. HH7, P.O. Box 836, Pittsburgh, Pa. 15230.
Now that the Federal Housing Administration has announced the acceptance of PVC for DWV and water service lines, what does it mean to you?

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Circle 59 on Reader Service card

New products continued on p. 100

Exteriors

Post-and-beam carport—For apartment complexes and houses—includes steel or aluminum roll-form decking, aluminum fascia and siding pans (not shown). Color choice lets builder coordinate carport and living units. MACO, Clawson, Mich. Circle 241 on Reader Service card

Aluminum weathervane is 3' high and has 32"-long arrow. Decorative ornaments that point out the direction of the wind are finished to simulate gold and include a sailboat (above), bull, horse or rooster. Stephenson & Co., Cleveland. Circle 242 on Reader Service card

Plank-effect siding with 1/2" x 3/8" grooves comes in 4'-wide panels in lengths of 7', 8', 9', 10' and 16' (long edges are ship-lapped). The siding is factory-primered with two coats of off-white oil alkyd. U.S. Plywood, Tampa, Fla. Circle 243 on Reader Service card

Grass guard—a galvanized spring-steel curbing—simplifies lawn maintenance by eliminating overgrowth close to fencing. Guard costs less than concrete curbing, says manufacturer, and won't crack or shift. All Products, Mineral Wells, Tex. Circle 240 on Reader Service card
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Vermiculite brick veneer incorporates asbestos and binding compounds. The ¾"-thick veneer is applied with adhesive, and is so light that the walls to which it is applied require no foundations. In red and gold. Z-Brick, Seattle. Circle 280 on Reader Service card

Hand-print design on vinyl-coated wallcovering is available in black or gold flocking on a white background, but may be custom-ordered in any color combination. It can be easily stripped for redecorating. United Wall-paper, Chicago. Circle 281 on Reader Service card

Vivid floral pattern on vinyl-coated fabric is offered in three color combinations: blue, green and gold; red, pink, and green; yellow, orange and pink. The pretrimmed wallcovering is 27" wide. Columbus Coated Fabrics, Columbus, Ohio. Circle 282 on Reader Service card

Tile-scored paneling—4'x8' with 1"x3" scores—has a low-gloss surface and a salt-and-pepper pattern. The panels are water- and soil-resistant, and come in three colors: desert sand, granite and crystal. Abitibi, Detroit. Circle 283 on Reader Service card

New products continued on p. 102
Whirlpool Corporation now offers a unique new service which helps you steer clear of financial troubles. It estimates, far in advance, how much cash it will take, week by week, to carry out your plans for building and selling homes.

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Floors

Textured ceramic tiles with curved edges are marked by surface irregularities common in clay products. Tiles are 11 1/2"x11 1/2" and come in walnut, olive and white. Weight: 5.2 lbs a sq. ft. International Pipe & Ceramics, Los Angeles. Circle 233 on Reader Service card

Georgetown-brick pattern is embossed on cushioned-vinyl flooring. Widths are 6', 9' and 12'. Four colors are offered: burnished red, warm beige, avocado and antique white, all with contrasting-color 'mortar'. Congo-leum-Nairn, Kearny, N.J. Circle 232 on Reader Service card

Pebble-patterned vinyl tiles, 12" square, 1/8" thick, come in three shades of white, plus beige and black. Color tones vary from pebble to pebble, and tiles feature a sand-colored grout. Amtico Flooring, Trenton, N.J. Circle 231 on Reader Service card

Vinyl-asbestos tile features a split-stone design in avocado, beige, copper or white. Embossing adds texture to the flooring and helps conceal subfloor irregularities. Tiles are 12" square. Armstrong Cork, Lancaster, Pa. Circle 230 on Reader Service card

New literature starts on p. 106

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<thead>
<tr>
<th>Advertiser Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ador Corp. (Sub. of Rusco Industries, Inc.)</td>
<td>88W2</td>
</tr>
<tr>
<td>Alsons Products Corp.</td>
<td>100</td>
</tr>
<tr>
<td>Azrock Floor Products</td>
<td>2nd Cov.</td>
</tr>
<tr>
<td>B. F. Goodrich Chemical Co.</td>
<td>97</td>
</tr>
<tr>
<td>Blu-Ray, Inc.</td>
<td>100</td>
</tr>
<tr>
<td>Boise Cascade Corp. (Building Products Div.)</td>
<td>13</td>
</tr>
<tr>
<td>Brewmatic</td>
<td>102</td>
</tr>
<tr>
<td>Broan Manufacturing Co.</td>
<td>7</td>
</tr>
<tr>
<td>Bruner Corp.</td>
<td>88M1, N1</td>
</tr>
<tr>
<td>Bryant Manufacturing Company</td>
<td>104, 105</td>
</tr>
<tr>
<td>Cabot, Inc., Samuel</td>
<td>98</td>
</tr>
<tr>
<td>California Redwood Association</td>
<td>21</td>
</tr>
<tr>
<td>Carrier Air Conditioning Co.</td>
<td>95</td>
</tr>
<tr>
<td>Casings, Incorporated</td>
<td>106</td>
</tr>
<tr>
<td>Day &amp; Night Mfg. Co.</td>
<td>79</td>
</tr>
<tr>
<td>Deltaz Company, Inc.</td>
<td>102</td>
</tr>
<tr>
<td>Edison Electric Institute</td>
<td>82, 83</td>
</tr>
<tr>
<td>Eljer Plumbingware Div. (Wallace-Murray Corp.)</td>
<td>96</td>
</tr>
<tr>
<td>Emerson Electric Co. (Builder Products Div.)</td>
<td>4th Cov.</td>
</tr>
<tr>
<td>Float-Away Door Company</td>
<td>43</td>
</tr>
<tr>
<td>Frigidaire Division (General Motors Corp.)</td>
<td>22, 23</td>
</tr>
<tr>
<td>Georgia-Pacific Corp.</td>
<td>29-34</td>
</tr>
<tr>
<td>Holub Industries, Inc.</td>
<td>106</td>
</tr>
<tr>
<td>Homasote Co.</td>
<td>88</td>
</tr>
<tr>
<td>Hunter Division (Robbins &amp; Myers, Inc.)</td>
<td>41</td>
</tr>
<tr>
<td>Kardon Investment Co.</td>
<td>17</td>
</tr>
<tr>
<td>Kemper Brothers, Inc.</td>
<td>26, 27</td>
</tr>
<tr>
<td>Kentile Floors, Inc.</td>
<td>15</td>
</tr>
<tr>
<td>Kitchen Kompact, Inc.</td>
<td>78</td>
</tr>
<tr>
<td>Leigh Products, Inc.</td>
<td>92, 93</td>
</tr>
<tr>
<td>Lennox Industries, Inc.</td>
<td>44</td>
</tr>
<tr>
<td>Marlite Division (Masonite Corporation)</td>
<td>25</td>
</tr>
<tr>
<td>Mosaic Tile Company</td>
<td>4</td>
</tr>
<tr>
<td>National Association of Coin Laundry Equipment Operators</td>
<td>28</td>
</tr>
<tr>
<td>Nautilus Industries</td>
<td>91</td>
</tr>
<tr>
<td>Norris Industries</td>
<td>88W1</td>
</tr>
<tr>
<td>NuTone</td>
<td>1, 2</td>
</tr>
<tr>
<td>Olympic Stain Company</td>
<td>9</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
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<tbody>
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<thead>
<tr>
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</tr>
</thead>
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