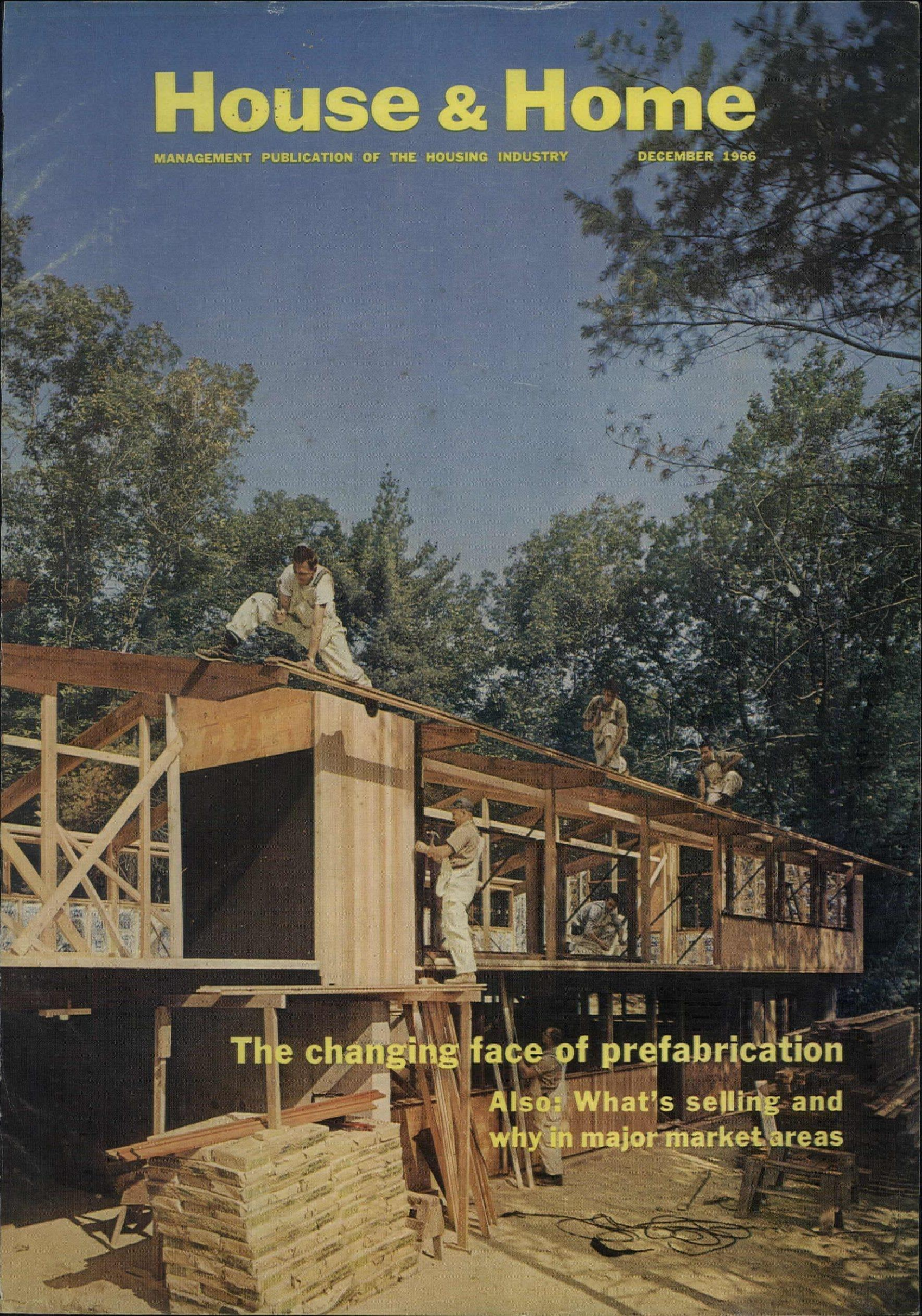


House & Home

MANAGEMENT PUBLICATION OF THE HOUSING INDUSTRY

DECEMBER 1966



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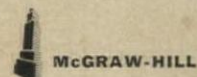
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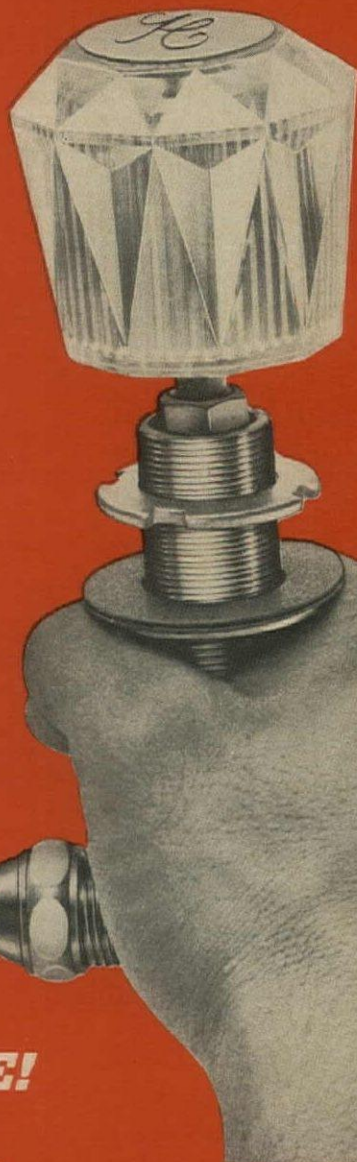
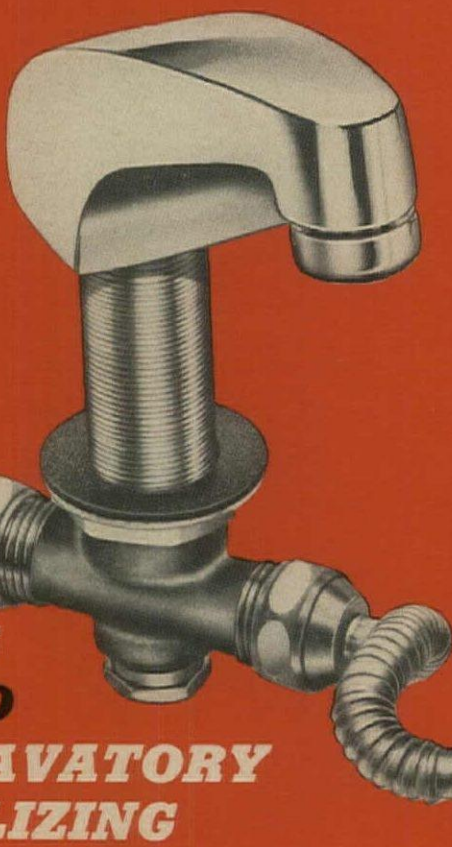
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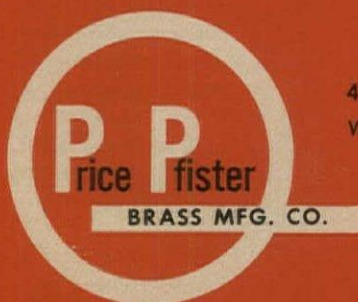


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Election '66: tighter purse strings ahead for subsidies

The surge of Republican strength in the November Congressional elections spells trouble for housing subsidy programs into which the Johnson Administration had carefully breathed life the past two years.

The GOP gained 47 seats in the House, where the crucial votes on housing legislation have taken place. The gain more than made up the 38-seat Republican loss in the Goldwater debacle of 1964. Although Democrats retain a 61-seat majority in the House, the balance of power now shifts to a renewed Republican-Southern Democrat coalition which frustrated many previous Administration plans.

Non-spenders. One certainty is that new spending proposals will be almost impossible in the new House, and some recent subsidy programs, such as rent supplements and demonstration cities, may have trouble coming up with enough money to make any kind of a showing.

In 1966 Republicans sought to pare these items, claiming they added to the inflationary fires. They almost won their points, too:

Rent-supplement appropriations, never popular even in a House with two Democrats for every one Republican, won two approvals in 1966 by the narrowest margins of any issue—eight votes in March and four votes in May. Sixty-five Democrats sided with the GOP in the first test, 69 in the second.

Demonstration cities legislation cleared the House on two separate occasions by 37 votes and 16 votes, and 32 of the men who contributed to the 37-vote margin will not return in January. Republicans had aimed especially at stripping authority to spend \$900 million for model cities and came within 31 votes of winning. But Congress did not appropriate the actual dollars to cover the authorizations, and the expanded Republican contingent guarantees a tough fight for the money.

The Administration is already digging in. "This is not a partisan issue," Housing Secretary Robert Weaver asserted at HUD's first birthday celebration two days after the election. "The program is now part of the law of the land and usually when a program is the law, it is funded."

Goldwaterites? The election indicates that the backoff from liberalism which ironically sprang to life in the wake of the Goldwater defeat has reached Congress. But it also is clear that the new GOP representatives and senators are not knee-jerk disciples of Goldwater policies.

For instance, the most widely-known new GOP senators are all moderate to liberal on social legislation: Charles Percy of Illinois who was cool to Goldwater in 1964, former Gov. Mark Hatfield of Oregon, and Edward W. Brooke of Massachusetts, first Negro elected to the Senate in 95 years.

On the other hand, the few Alabama Republicans who sought office under a Goldwater label all lost. In the rest of the country those who had supported Goldwater in 1964 didn't brag about it during their 1966 campaigns.

This indicates that if the Johnson Administration can convince the new Republicans that the money for social objectives in the housing area would be well spent, passage would be possible.

Old and new faces. Sen. John Sparkman, the Alabama Democrat who has headed the housing subcommittee for years, emerges from the election as one of the strongest men in the Senate and hence an even more potent force in shaping future housing legislation.

With the defeat of Sen. Willis Robertson of Virginia, Sparkman now has his choice of three powerful Senate committees: banking and currency, joint economic, or small business. He is likely to pick the first two while retaining chairmanship of the housing subcommittee.

Larry Winn Jr. of Overland Park, Kan. won his election race (NEWS, Oct.) to become the third homebuilder in Congress. Joel T. Broyhill Jr. won his eight term from a northern Virginia district with a record number of votes, and James Scheuer, the former New York City redeveloper, a second term. Scheuer is a Democrat, the others Republicans.

Backlash '66: a "go slow" but no "stop" sign for bias laws

Don't push hard either way.

That's the clear message politicians are reading into the November elections. The white backlash against anti-bias laws aimed at housing was not as strong as touted but neither was the demand for open housing.

As a result any drive against housing bias may take entirely different forms in 1967. Informed observers believe that President Johnson will again ask Congress to enact an open housing bill next year, but that the measure will receive much less lobbying muscle from either the Administration or civil rights groups. Congress' reaction is bound to be different, too. In 1966, a watered-down bill banning race bias in new apartments and homes passed the House by a 222-to-190 vote, but 41 of the 222 who supported the bill will not return to Congress. The vote on open housing did not play a large part in defeat or victory for the bill's supporters. The narrow victory margins of Rep. Roman Pucinski and some fellow Democrats from Chicago neighborhoods where riots occurred last summer were the most noticeable impact.

Sophistication. In fact, outside the deep South voters clearly demonstrated enough sophistication to reject gut appeals to race prejudice. The prime example was

Gil Crockett—Courtesy of Washington Star



BACKLASH AT WORK IN MARYLAND

defeat of Maryland paving contractor George Mahoney and his "Your home is your castle" slogan. (NEWS, Nov.). Mahoney's single argument caved in under a bombardment of votes. Likewise the frank racial appeal of Justice Jim Johnson in Arkansas was repudiated by election of the state's first Republican governor, Winthrop Rockefeller.

And in California, a belated appeal to defeat three Supreme Court justices who had upheld the Rumford anti-bias law

failed. Assemblyman Bryon Rumford, Negro author of the law, failed by 805 votes to win a state Senate seat.

But in Florida Republican Claude R. Kirk Jr. picked up the Mahoney appeal and upset Democrat Robert King High. And an undertone of unrest about open housing laws proved a factor of unknown strength in the victories of Ronald Reagan for California governor and Charles Percy for a Senate seat in Illinois. Other results:

Lower assessments for farmland were passed in California and Texas.

Public housing funds were defeated for the third time in three years in New York State. A measure would have let cities issue bonds based on the full value of property instead of the assessed value.

A housing code failed in Phoenix for the second time in three years by a 67,327 to 57,148 count. The issue has become a *cause celebre* in renewal and housing circles. The defeat continues Phoenix's status as one of the few major U. S. cities without federally financed renewal. Mayor Milton Graham, despite support from the Chamber of Commerce and the Real Estate Board, couldn't convince citizens their homes wouldn't be invaded by housing inspectors. A Baptist minister, the Rev. Aubrey Moore, led the fight and pleaded with voters to "defend our rights."

Mortgages in '67—Housing must go on a treasure hunt

One clear warning for homebuilding has just come from the mortgage banking industry:

Find yourself some new sources for funds. Your old friends are short of cash.

Vice President Richard W. Baker Jr., in charge of New York Life's real estate and mortgage-loan department, described the funds shortage this way in a speech to the Mortgage Bankers Assn.'s convention in Philadelphia:

"There is going to be a real shortage of money next year. Its main effect will be on the residential market."

But the picture may not be so bleak if homebuilding can tap a source of money that it has virtually ignored—the \$133-billion pool of capital in the nation's pension funds (News, July *et seq.*). And this year's money shortage re-emphasizes the need for selling the funds on the advantages of buying mortgages.

Declining savings. The bar graph on this page shows how severe that money shortage has already become for three of the four traditional mortgage-fund sources. Of the fourth, insurance companies, Research Director James J. O'Leary of the Life Insurance Assn. says:

"Cash flow for long-term investment has been considerably reduced (from the \$18 billion in 1965) due largely to an increase in policy loans and a lower volume of mortgage repayments."

Deputy Manager Thomas R. Atkinson of the American Bankers Assn. says the net flow of new money into mortgaging will total only \$22 to \$24 billion in 1967, off from \$26 billion in 1966 and \$29 billion in each of the previous three years.

Retreat of the S&Ls. The facts confronting the nation's 6,320 savings and loan associations are also discouraging.

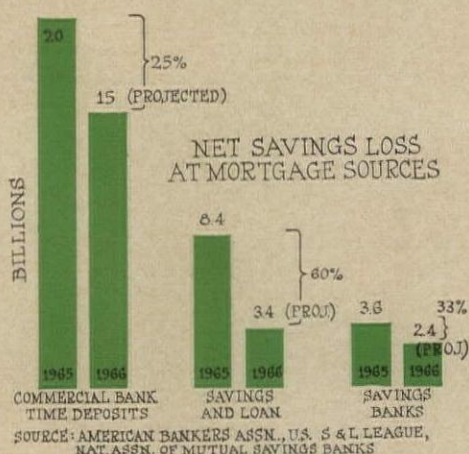
By far the largest mortgage lenders, the S&Ls hold 44% of all mortgage debt on one-to-four-family, nonfarm homes. When they cut back, building suffers widely and quickly.

From World War II to '64 the S&Ls had only two years when savings inflow fell: by \$12 million in 1948 and \$235 million in 1957 (*line graph*). Even during the money squeeze of 1960, the S&Ls gained deposits. But net inflow fell \$475 million in 1965, then \$2 billion in 1965 and \$5 billion this year.

The net inflow of \$3.4 billion in 1966 is the lowest since 1952. The S&Ls are lending only \$18 billion this year, off 25% from 1965. More important, the net credit extended to the mortgage market—that is, new loans made minus mortgage repayments—will be only \$4.5 billion compared with \$8.9 billion in 1965.

And experts now doubt whether savings gains will be much better in 1967, particularly under federal controls limiting S&L passbook dividends to 4¾% in an economy where 6% is available to investors on several government instruments.

'Trickle-down sophistication.' A change in philosophy seems to have over-



taken the small saver, who is fast getting wise to the ways of the major money markets. Several experts now wonder whether he will put his money back into savings accounts at either banks or S&Ls for some years to come. Why shouldn't he continue to put money into the stock market or into government issues for a higher return? The Treasury has already been reported ready to pay 5% on a new savings certificate despite frantic opposition from S&Ls.

"A new trickle-down sophistication may be a major factor in preventing normal mortgage suppliers from having as much money as they have had," concedes President Robert M. Morgan of the Boston 5¢ Savings Bank.

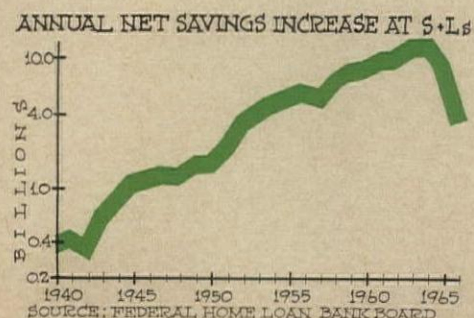
But even if the errant saver does find the road back, the S&Ls probably will not put much more than this year's \$18 billion back into mortgages in 1967.

"To be brutally realistic, the industry must first begin to rebuild its liquidity position," says Vice President William J. Kerwin of the National League of Insured Savings Institutions. "This may take one or more years."*

The lesson is clear: S&Ls may not be back in home lending in anything approaching full force until 1968.

The treasure trove. If the dangers are evident, so is one solution. It was suggested last summer when California's homebuilders organized a statewide drive to persuade construction-trade pension funds to buy mortgages (NEWS, July).

* The Home Loan Bank Board's temporary reduction of the S&Ls' liquidity requirement to 6% expired Nov. 1, and associations must again maintain 7% of their \$130 billion assets in liquid form.



Public and private pension funds' assets reached \$133.5 billion last Jan. 1, surpassing the entire S&L industry. Private pension funds, as opposed to the state and local funds whose investments are often restricted by law, exceeded \$98 billion. More than \$71 billion of that was in uninsured funds administered by bank trust departments. The private-fund total will grow to \$225 billion by 1980, and \$150 to \$175 billion of that money will be in uninsured plans.

But these uninsured plans have scarcely more than 5% of their assets in mortgages, although FHA-VA loans guaranteed by the U.S. government offer yields nearly 100 basis points higher than Treasury bonds of 1987-92 and often higher than the common stocks that comprise 55% of the funds' portfolio.

For each 1% of assets the uninsured funds can be persuaded to shift to mortgaging, housing can count \$710 million.

Government action. Sighting this bonanza the Department of Housing and Urban Development, monumentally aloof from the mortgage crisis for most of the year, has now bestirred itself. Speaking at the MBA convention, Secretary Robert C. Weaver asked the mortgage bankers to help HUD launch a study of new ways to "create an adequate pool of funds to meet housing needs." He said he had hired a bright young man, Vice President John G. Heimann of the New York investment banking firm of Smith, Barney & Co., to direct the inquiry. Among Weaver's ideas:

- Introduce a new type of mortgage, a security that could be sold in small denominations in competition with bonds.

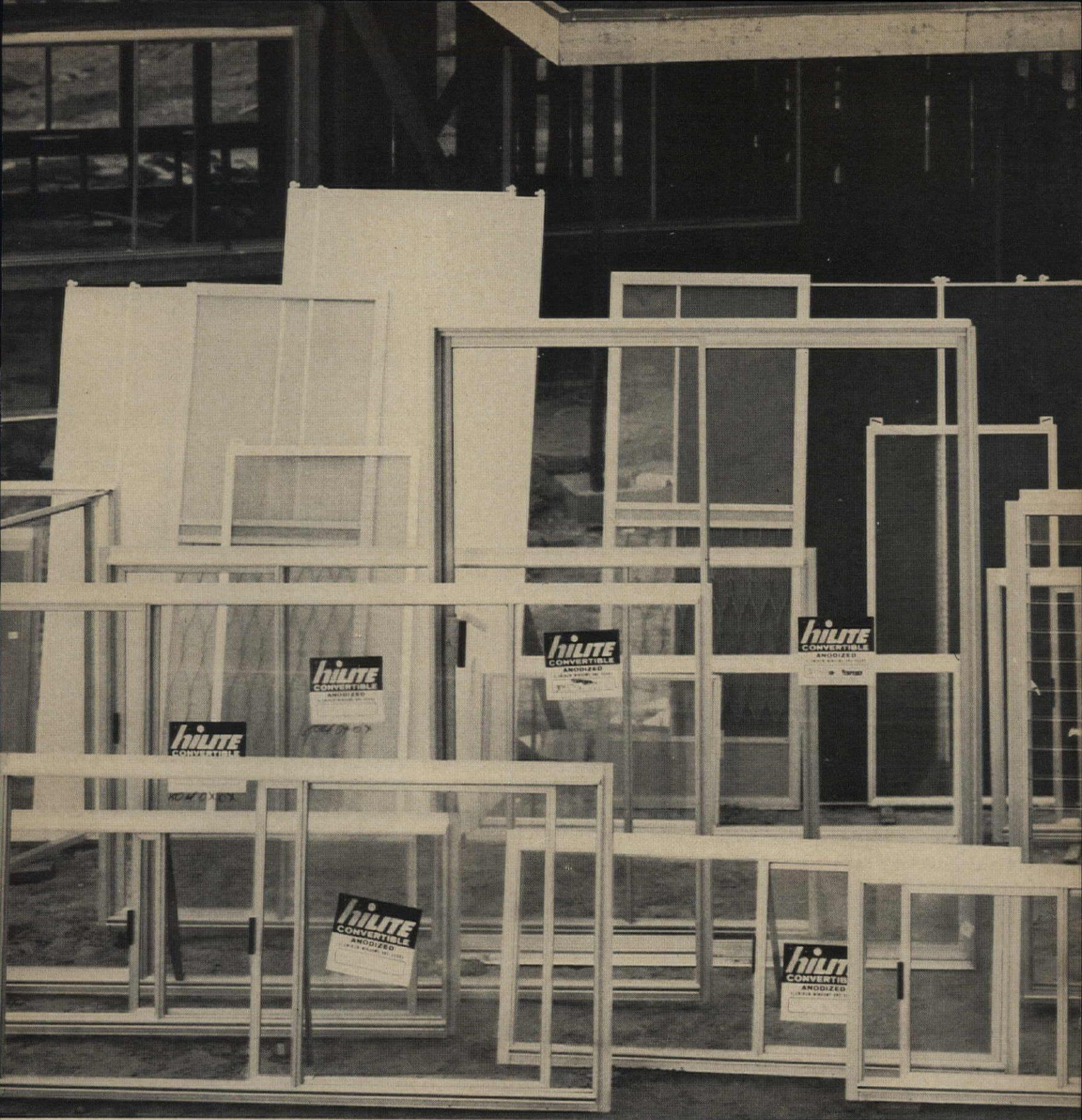
- Set up a nationwide auction market for government-insured mortgages.

How to do it. There have been plenty of blueprints for an approach to the pension funds. Banker Tom Atkinson's speech to the mortgage men was typical—almost a textbook of housing's old mistakes with traditional fund sources and its future opportunity with new money suppliers.

"The idea of 'doing something' to prevent depositors' shifting from deposit-type institutions to higher-yielding market instruments is akin to commanding the tide to stop," said Atkinson of the government's new rate controls. "While clock-backing and tide-stopping may take the curse off a drifting policy, they are not tenable permanent solutions. Only when total monetary conditions ease is there going to be a sizable flow of funds to thrift institutions.

"Looking at 1967, whether mortgaging is able to support a sufficient level of starts in a decade that will almost certainly experience tighter money depends on the industry's ingenuity in meeting, and not preventing, competition.

"Instead of attempting to isolate markets for particular types of funds and rolling back institutions to some 'normal' period, the industry will have to find new sources of funds and new ways to attract old sources."



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Mortgage rates take a breather in their run for the money

Discounts charged to builders on FHA-VA new-house loans have reached a plateau for the first time since the great rate escalation set in last December.

Experts in seven key mortgage centers report some slight downward adjustments in brutally steep discounts on FHA's new Sec. 203b 6% loan, and these quotations include the sensitive barometer cities of Houston and Dallas. In five other centers, including Los Angeles and San Francisco, discounts have ceased rising. And small increases persist in only six cities.

Conventional-loan interest rates appear to have peaked, at least temporarily.

Average yields demanded by Eastern investors in the national secondary market ran steady at 6.50 to 6.60% into mid-November, although some light downward pressure seemed to be developing. It was the second straight month that yields had failed to climb (NEWS, Nov.).

The moderation in mortgage rates was in part a reaction to the Sept. 1 turnaround in general interest rates.

Good news. Two other developments dominated the news at the Mortgage Bankers Assn. convention in Philadelphia, and both provide short-term encouragement for builders and lenders.

1. The Federal National Mortgage Assn. raised the ceiling on used-home mortgages that it purchases from \$17,500 to \$20,000. FNMA thus hoped to reactivate the stalled used-home market and also ease the way for homeowners to trade up to new houses. Used homes account for 80% of residential sales.

2. The California State Employees Retirement System committed \$66 million to buy home loans in the first half of 1967 at the FNMA price of 94. The \$11-million-a-month purchase holds equal to last year's buying rate, and the price provides some support for the 93-94 generally demanded by California mortgage bankers in the private secondary market. This in turn militates against any immediate increase in the current 6-to-7-point discount.

Warnings. There is scarcely any other good news for builders. Chief Economist Saul Klamman of the National Association of Mutual Savings Banks painted a dimly seen silver lining for the mortgage bankers' convention, emphasizing that mortgage money would be more readily available in the next six months because of a decline in housing starts and the resulting drop in builders' demands for loans. Klamman's thesis was only moderately comforting to mortgage men, and for builders it was like telling a dog he would not go hungry if he ate his own tail.

Klamman was the most hopeful of four economists at the mortgage convention, and even he predicted starts in 1967 would fall well under the 1.2 million projected for 1966. Deputy Manager Thomas R. Atkinson of the American Bankers Assn. forecast only a million starts next year and warned that there would be only \$22 to \$24 billion for mortgaging compared with

\$26 billion in 1966 and the \$29 billion in each of the three previous years.

Bad news. Vice President James J. O'Leary of the Life Insurance Association of America reported that life companies were cutting back sharply on the rate of new mortgage commitments. "Some have ceased making any new commitments to permit time to work off existing backlogs," he said.

Savings inflows at mortgage-oriented institutions were still discouraging (see graph, p. 6), and Economist H. Robert Bartell Jr. of the U. S. S&L League emphasized that savings and loan associations would lend no more than \$20 billion on mortgages in 1966, even if savings flows recover. They lent \$23.8 billion in 1965 and expect to have loaned \$18 billion this year.

The question remained: Where is the money coming from, particularly for construction loans?

"Four of the nation's major commercial banks estimate construction loans will resume no sooner than June 1967," said Vice President King Upton of Boston's First National Bank. And one of New York's major commercial banks disclosed it had turned down \$450 million in construction-loan applications in the first nine months of 1966.

Virtually no economist foresaw any real downturn in mortgage rates. "We may

have hit bottom, but we are not on the way up," said the Boston 5¢ Savings Bank's Robert M. Morgan, describing mortgage prices.

It was left for an expert long absent from New York's mortgaging war to sum up the Philadelphia convention with detachment worthy of a spectator. Said Charles G. Haynsworth, who left the mortgage-buying desk at New York's Greenwich Savings Banks a year ago to become vice president of the Maryland National in placid Baltimore:

"You have topped out on yield and bottomed out on money supply, but there is no improvement visible at either end."

Another California S&L is rescued by the merger route

The brotherhood concept that seems to extend throughout the California savings and loan industry has just brought the \$33-million Gardena s&l in under the sheltering arms of Union Federal s&l of Los Angeles (assets: \$88 million).

The merger is the first instance of a direct purchase of a state-chartered, stockholder s&l by a federally chartered mutual.

Gardena had scheduled items—foreclosed realty and slow loans—of nearly 23% on March 31. The average for the state's 205 state-chartered s&ls was 5.65% on that date, 5.60% on June 30.

HOME BUILDER'S MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending November 11.

City	FNMA Secdry. Mkt. by FHA-VA Up to \$17,500 Used or New		FHA Sec. 203b Discount paid by builder Min.-Down ^a 30-year Immed. ^w			FHA 207 Apts. Firm	Conventional Loan Rates			Construction Loan Rates
	6s	5 3/4	5 3/4s	6s	Trend	5 1/4s	Comm. banks, Ins. Cos. 75%	Savings banks, S&Ls 80%	Savings S&Ls Over 80%	Interest+fees All lenders
Atlanta	6	8	7 1/2-9	5 1/2-7	Steady	a	6 3/4-7 3/4	6 3/4-7 3/4	6 3/4-7 1/4	7-7 1/2 +1-1 1/2
Boston	5	7	4	2	Steady	a	6 1/4-7	6 1/4-7	a	6 3/4 +1b
Chicago	5 1/2	7 1/2	8-9	6-7	Up 1	5-5 1/2	6 1/2-7	6 3/4-7	6 3/4-7	6 3/4-7 +1 1/2-2
Cleveland	5 1/2	7 1/2	7-9	5-7	Up 1	a	6 1/2-6 3/4	6 3/4-7 +	6 3/4-7 +	7-7 1/2 +1-2
Dallas	6	8	9-10	7-8	Down 2	a	6 3/4-7 1/4	6 3/4-7 1/4	7-7 1/2	7 1/2 +1
Denver	6	8	8-9	6-7	Down 1	a	6 3/4	6 3/4-7	7-Up	7 +1-2
Detroit	5 1/2	7 1/2	7-9	5-7	Down 1	a	6 1/2	6 3/4-7	7	6 3/4-7 +1
Honolulu	6	8	9-10	6-8	Down 1	a	7-7 1/2	7 1/4-7 3/4	a	7-8 +1-3
Houston	6	8	7-9	6 1/2-7	Down 1 1/4	a	6 1/2-7	7-7 1/2	7-7 1/2b	7 +2
Los Angeles	6	8	8-9	6-7	Steady	a	6 1/2-7	6 3/4-7 1/2	b	6 1/2-7 +1 1/2-3
Miami	6	8	8-10	6-8	Steady	a	6 3/4-7	6 3/4-7	6 3/4-7	6 3/4-7 +2 1/2-4
Newark	5	7	a	6-7	Up 1	8	6 +1	6 +1	b	7 +3
New York	5	7	a	3-4	Up 1	10	6 +2-3	6 +2-3	6 +2-3	6 3/4-7 +1-2
Okla. City	6	8	8-10	6-8	Up 1	a	6 1/2-6 3/4	6 1/2-6 3/4	6 3/4-2b	6 1/2-7 +2
Philadelphia	5	7	a	6-7	Down 1/2	a	6b	6-7	6-7	7 +2b
San Fran.	6	8	a	6-7	Steady	a	6 3/4-7 +1	7-7 1/2 +1	7 1/2	7 +1 1/2-3
St. Louis	6	8	7-9	5-7	Up 1	a	6 1/2-6 3/4	6 3/4-7	a	6 1/2-7 +1-2
Wash., D.C.	5 1/2	7 1/2	8-9	6-7	Down 1/2	a	6 +4-6b	6 +4-6b	6 +4-6b	6 1/2-7 +2-3

* Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.
 • Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.
 • Quotations refer to houses of typical average local quality.
 • 3% down on first \$15,000; 10% of next \$5,000; 25% of balance.

Footnotes: a—no activity. b—limited activity. c—Net yield to investor of 6% mortgage plus extra fees. w—for comparable VA loans also. x—FNMA pays 1/2 point more for loans with 10%. y—discounts quoted are net after seller pays 1/2% marketing fee and 1/2% adjustment for stock purchase. Seller must pay 1% of mortgage for stock calculated in \$130 units, of which \$30 is contribution to FNMA capital and \$100 is for a share trading at about \$62.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank;

Chicago, Robert H. Pease, pres., Draper & Kramer Inc., and Robert H. Wilson, pres., Percy Wilson Mortgage & Finance Corp.; Cleveland, David E. O'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene, pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, pres., Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres., Bank of Hawaii; Houston, Everett Mattson, vice pres., T. J. Bettes Co.; Los Angeles, Christian M. Gebhardt, vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Newark, William W. Curran, vice pres., Franklin Capital Corp.; New York, John Halperin, J. Halperin & Co.; Oklahoma City, B. B. Bass, pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., First Pennsylvania Banking & Trust Co.; St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen, vice pres., Bankers Mortgage Co. of California; Washington, James C. Latta, sr. vice pres., Associated Mortgage Cos. Inc.

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38% say 'UP'

'There does appear to be some conventional money available for first-rate, high-income homebuyers, and I am aiming a subdivision toward this group'—Florida

'Some easing of tight money at mid-year'—Minnesota

'Supply will be short due to smaller builders restricting starts'—California

'We are hopeful that our product and sales technique are improved'—Florida

'We expect a much better market'—Texas

How 106 builders view 1967

12% say 'NO CHANGE'

'We suspect that 'tight money' is going to stymie what might have been a significant increase, due in part to buyers being frightened of the money market'—Massachusetts

50% say 'DOWN'

'Lack of consumer confidence is a much greater problem than tight money'—Virginia

'I have no money for 1967'—Kentucky

'Consumer uncertainty about economic conditions and consumer reaction to increased prices'—Michigan

'Lack of confidence in the economy and foreign policy and cost of financing resale house'—California

'Almost complete lack of buyer interest—'spooked' is a good way to say it'—California

'The prevailing attitude among the public that now is not a good time to buy. . . . Perhaps 90% of us are building for the same market caused mainly by the price and zoning difficulties of land.'—Maryland

'Manpower shortage'—Pennsylvania

'Costs are getting out of line. We are being priced out of the market.'—Michigan

Builders' off-the-record outlook: peril and potential

Both the statistics and the quotations above come from 106 homebuilders who responded to a HOUSE & HOME invitation to discuss privately their 1967 production plans.

The replies were so at variance with the almost-universal bearishness being cranked out by many industry forecasters that H&H asked—and received permission—to print a sampling of the replies.

Surprisingly, tight money is ranked only as one negative factor by builders expecting to reduce production. Almost as many cite the fact that tight money talk in newspapers and general circulation magazines, along with a declining stock market and forecasts of a 1967 business recession, has eroded consumer confidence.

The optimists are stressing a better product and more sophisticated sales

methods, and many are tying in with NAHB's "Buy now" advertising campaign.

NAHB's fall survey of its 450-member Builders' Economic Council found members planning to cut back their own starts by 10% in 1967, the first lower production prediction reported in several years. The BEC expects overall starts to fall 17% in 1967 to about 1 million units, with apartments making the biggest decline.

Demonstration cities act: more housing than meets the eye

In the frantic fight to get President Johnson's controversial "demonstration cities" act through Congress, just about every housing proposal alive was tacked onto the bill to improve its chances.

Many of these special-interest clauses became law. Some change the rules for homebuilders; others affect the cities' capital spending plans—which in turn can aid homebuilders.

New towns. Most significant is "new towns," a legislative proposal that has been pending for several years. Actually, the so-called "new communities" section does little more than increase dollar amounts from \$10 to \$25 million for the existing FHA Title 10 insurance for land development loans.

The new \$25 million-limit program, which must be renewed in 1972, was fought by lobbyists for the cities.

But to give powerful mayors the chance to politick, the site of any new town must be approved by the governor, or the locality if it has self-government.

The politically explosive issue about providing an adequate economic [i.e., racial] mix of housing in new towns was watered down to require only that "adequate housing [must] be provided for those who would be employed in the community

or the surrounding area." And new towns now must have "maximum accessibility to any major central city in the area."

Fanny Mae changes. Two amendments of benefit to builders were made in FNMA operations, largely thanks to the lobbying of lawyers hired by Ross Cortese, whose Leisure Worlds from New Jersey to California make him the biggest U.S. builder of Sec. 213 coop housing.

One change lets Fanny Mae make construction advances up to 95% of committed loan value for Sec. 213, Sec. 220, and Sec. 221d3 units. The administration is cool to putting this into effect but builders are expected to press for quick activation.

The other change knocks out of Fanny Mae's law the requirement that its standby commitments must be offered at prices "substantially below" the market. Housing experts on Capitol Hill presume Fanny Mae will increase its standby fees to keep from being engulfed with commitments.

Mid-income aid. Several minor changes in the sub-market Sec. 221d3 program could make builder-sponsored projects more feasible. In the past, the d3 units had to be aimed at families or single elderly people. Now the elderly requirement has been lifted so that sponsors can rent up to 10% of the units to non-elderly

single persons.

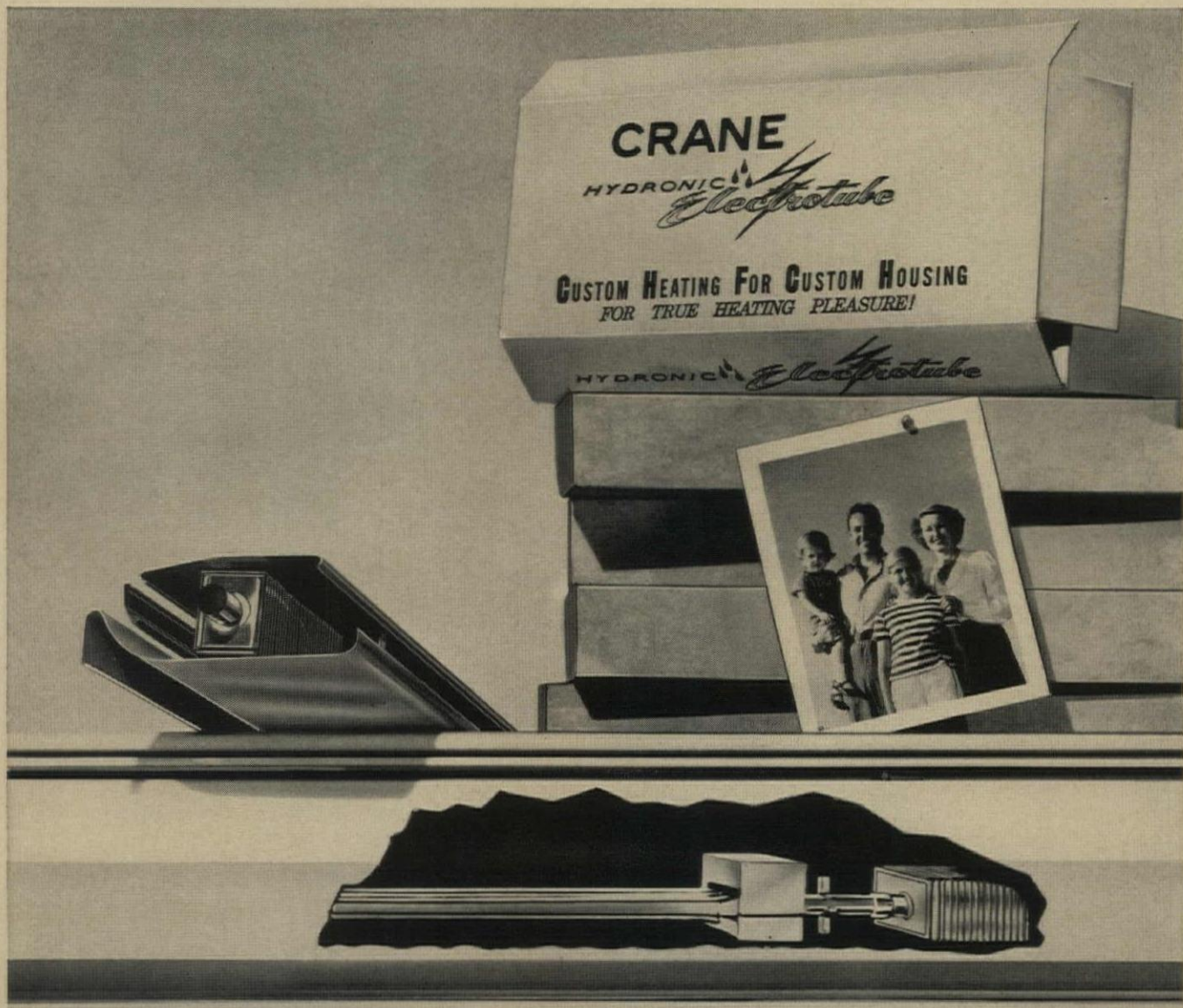
A new program was approved to let non-profit sponsors rehabilitate more than five units with d3 sub-market loans and then sell the units to low-income families with 3% mortgages. This new program, not suggested by the Administration, will get a slow start because of questions over what happens when the buyer wants to resell the renovated unit. Also, it's the only multi-family FHA program not covered by Davis-Bacon minimum wage provisions.

Sec. 221d3 projects may now incorporate commercial facilities for more than just project residents, a provision first extended to Sec. 220 renewal projects last year. However, builder-sponsored d3s must waive dividends on the equity used for such enlargement.

Urban renewal. Rep. William Widnall (R., N.J.) pushed into law a provision requiring most renewal projects to contain "a substantial number of units" for low- and moderate-income families. The Administration now must decide by regulation exactly how this will be done.

Still another provision allows HUD to probe methods and materials of building to see how "advances in technology" can be applied. But this new program isn't likely to get much money.

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A total of 25 million homes will be heated electrically during the next fifteen years, the Federal Power Commission forecasts.

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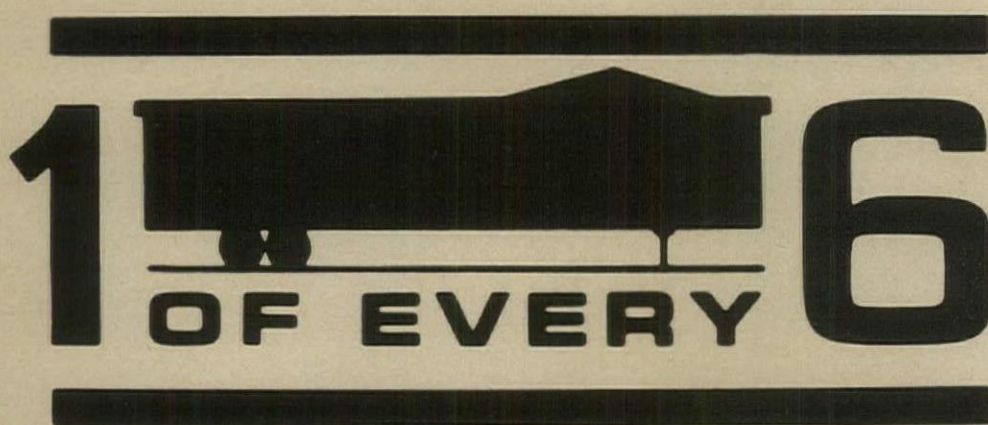
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Soaring sales outdate new mobile-home emblem: Would you believe . . . 1 of every 5 . . . Or even 4?

The brand-new emblem above looms larger than ever in homebuilding's rear-view mirror.

It is the symbol of the most dynamic sector of the housing industry, a part whose sales keep rising, tight money or no. The numbers mean, in the words of the Mobile Homes Manufacturers' Assn., that "one of every six single-family, nonfarm housing starts in 1965 was a mobile home."

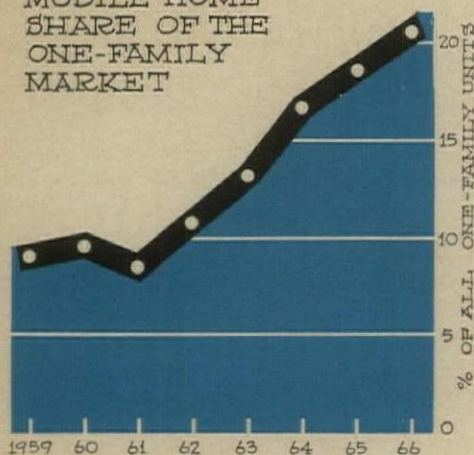
But even before the emblem was unveiled last month, mobile-home sales had risen enough to guarantee that the last number will soon be changed—from six to five. Mobile home shipments through September are running 2% ahead of last year. Customer purchases of all units including travel trailers are up 5%.

Startling record. As the politicians say, let's look at the record since 1959:

YEAR	ONE-FAMILY HOUSES	MOBILE HOMES	TOTAL
(Figures in thousands)			
1959.....	1,212	121	1,333
1960.....	972	104	1,076
1961.....	946	90	1,036
1962.....	967	118	1,085
1963.....	993	151	1,144
1964.....	944	191	1,135
1965.....	940	216	1,156
1966 (est.)..	850	225	1,075

The right hand column shows that annual sales of single-family dwelling units

MOBILE HOME SHARE OF THE ONE-FAMILY MARKET



SALES SURGE of the 1960s has given mobile homes one-fifth of single-family market.

have been virtually static since 1960. But conventionally built houses have sagged while mobile homes have taken a bigger share of the market. This year, for example, mobile homes will pick up 20.4% of total one-family sales, compared to only 8.7% in 1961.

But despite this record, the mobile-home manufacturers do not see themselves in real competition with the conventional-house builder. They have done elaborate market studies which show that their real competitor is the apartment builder. And they are well aware of facts H&H Economist George Christie pinpointed last month: In the years just ahead, the number of young marrieds will surge ahead two and one-half times faster than the U.S. population as a whole. Says the MHMA:

"About two-thirds of the mobile-home residents considered an apartment building as an alternative form of housing before moving into their first mobile home."

The mobile-home makers are also aiming at the retiree market, which, they say, will double by 1970.

Builder weaknesses. In the MHMA view, conventional-house builders are beset by two handicaps: labor, whose output per man hour is below the national average, and building codes, which often stymie technological innovation. Says MHMA. "There are tremendous opportunities for this industry to take advantage of these competitive weaknesses."

One approach, notes MHMA, is the factory-erected, sectionalized house, which has grown as a kissin' cousin of the mobile-home industry (see p. 86).

The sectionalized house must be re-appraised as part of the mobile-home industry's total marketing strategy, MHMA tells its members. And, the association says, "If our industry elects to ignore the manufactured [sectionalized] home, we suspect other people will pick up the ball and run with it."

Over 800 dealers and mobile home park operators recently organized a separate division and, following homebuilders, are stressing better land planning and adherence to new standards of the U.S. Public Health Service in new parks. They hope the changes attract better financing.

Housing start rate falls to 20-year low in October

Housing activity slowed to an annual rate of 848,000 units in October, off 40% from a year ago and the lowest reading on this volatile indicator since November 1946. NAHB economists expect even worse year-to-year comparisons in November and December, months of high activity in 1965. Some indication the decline may be bottoming comes from a fall of only 2% in the rate of building permits.

Formula to tap 1985 market: regional zoning, subsidies

The New York State Homebuilders Assn. has just urged state officials to do a sharp about-face in government housing policies if private builders are to house the 5.8 million new residents expected by 1985.

The builder committee, headed by Larry Simons of Staten Island, concluded that "an unbreakable mold of outmoded planning and development techniques" was forcing builders to leave lower-priced markets and urged the state to:

1. Broaden regional control of planning and zoning because "there is an almost complete lack of professional solutions to problems of high-velocity growth."
2. Establish individual subsidies for rents (similar to the federal rent-supplement program), and set up state agencies to insure and buy low-cost home loans.

Robert Lautman



Vice President Humphrey elects a co-op apartment

The vice president has sold his suburban Washington house and bought a two-bedroom apartment in Harbour Square, a new co-op complex (above) in Washington's Southwest renewal area.

Humphrey's move was expected. Congress considered building an official vice presidential residence this year but deferred plans to hold down inflationary spending. Since taking office in 1964, Humphrey has chafed at the 45-minute drive from his suburban home to the Capitol. The move slices his travel time to five minutes.

The Humphrey apartment contains a 40-ft. living and dining area and a library with fireplace. Price: about \$75,000.



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The zoning game: can anybody here play it fairly?

When President Johnson gets around to naming members of his Temporary National Committee on Codes, Zoning and Development Standards, he would do well to include a copy of Richard Babcock's *"The Zoning Game"* with each appointment.

Babcock, a lawyer and a veteran of Chicago's zoning wars, has turned out a delightful and provocative book that is must reading for every homebuilder, developer, real estate man and mortgage lender who has the slightest bit of interest in the nation's urban revolution.

Babcock sees the game thus:

"Stripped of all planning jargon, zoning administration is exposed as a process under which multitudes of isolated social and political units engage in highly emotional altercations over the use of land, most of which are settled by crude tribal adaptations of medieval trial by fire, and a few of which are concluded by confused *ad hoc* injunctions of bewildered courts."

The players. Aided by a Ford Foundation grant, Babcock toured the U.S. and England to find out how the zoning game is really played today. He returned from his travels with these pungent observations about the players:

Lay members of zoning bodies "are still making decisions without the slightest concern for the outside world."

The community "always suspects the residential developer of a secret desire to cater to the 'mass market,' defined as all social levels below that of the person using the term."

The homebuilder "cannot understand why his efforts to provide a supply for a new and obvious demand should be subject to such widespread and emotional criticism. . . . The builder agrees with the critics of his older models because what was done 20 years ago will not sell today."

The housebuyers of the 1950s are suspicious of these new ideas and as a practical matter cannot switch their brand."

The developer "now finds himself aligned with professionals whom he formerly regarded as nuts (and who looked upon him as some form of vermin), and he adds a down-to-earth quality to the attack on the absolute presumption of municipal sovereignty in land-use planning."

The planner "would much prefer not to be bothered with zoning."

The lawyer "compounds his own perplexity by his inability or unwillingness to understand the planner's value judgments."

Higher courts "genuinely dislike zoning litigation."

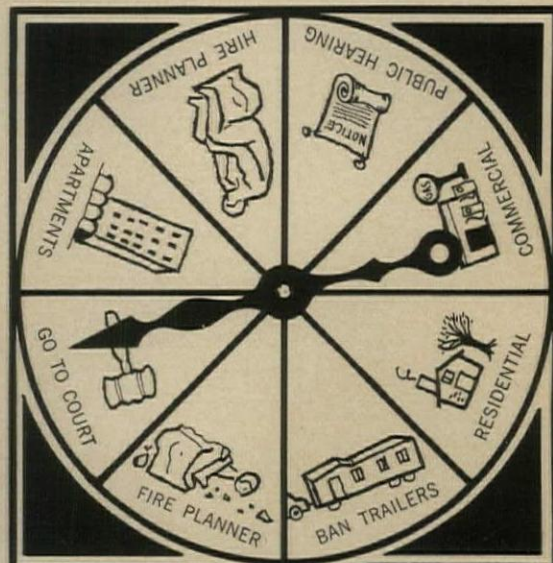
New rules. With such quotable quotes and such eye-catching promotion as the book jacket (*see cut*), the clear logic of Babcock's suggestions has trouble getting through the sparkle. Even such a capable critic as Wolf Von Eckardt seems bedazzled, for he writes that "Babcock all but dismisses the core of the problem: the

* Published by University of Wisconsin Press, Madison, Wis., 185 pp., \$6.

Koehne Studio



LAWYER-AUTHOR Richard Babcock and eye-catching illustration for his book, *The Zoning Game*.



need for a comprehensive master plan on which rational land use can be based."

In fact, Babcock takes about half the book to point out that a major part of zoning's harm results from a proliferation of municipal master plans—all trying to further the "general welfare." Babcock comments:

"The municipal plan may be just as arbitrary and irresponsible as the municipal zoning ordinance if that plan reflects no more than the municipality's arbitrary desires. . . . The trouble with the planning theory is that . . . it enshrines the municipality at a moment in our history when every social and economic consideration demands that past emphasis on the municipality as the repository of the 'general

welfare' be rejected."

Ironically, Babcock says this point has never been tested in court. To solve it he suggests that states and regional authorities review zoning decisions when questions of area-wide import are involved, such as transportation and air pollution. He is bored with talk of metropolitan government, and predicts this future for players of *The Zoning Game*:

"The suburban resident will eventually lose out in his struggle, if not by the illogic of his legal and social position, then by the seduction of federal funds that extract a metropolitan price. The builder will find himself on every side with an inexplicable array of friends and enemies, depending on the needs of the market place."

More new towns enter housing's frosty market

Despite a nationwide housing slowdown, three American companies have begun construction of new towns encompassing 28,000 acres. Their eventual population: 250,000.

After taking on well-paid staffs and heavy financing, the developers can't afford to wait for optimal market conditions. But the three developers point out that transient market conditions are not so critical when weighed against a new town's 15-year life. (A fourth company, General Electric, has compromised by delaying its new town—but only until the spring.)

Here are the three newest new towns:

- A Victor Gruen master plan for Litchfield Park, a 13,000-acre project south of Phoenix, was unveiled last month by the Goodyear Tire and Rubber Company. True to the Gruen philosophy, partner Edgardo Contini's plan cuts the desert-like land into 12 villages ringed by sand-belts.

- Versatile Bernard B. Weissbourd of Chicago—nuclear chemist, attorney, and

developer—has started an urban project on leased land called Nuns' Island, 10 minutes from Montreal. There will be no home ownership; residents will rent in middle-income high-rises or townhouses. Despite population projections of 50,000, a third of Nuns' 1,000 acres will be open space. Suburban Verdun annexed the island and is cooperating with Weissbourd to bring utilities to the former Catholic retreat. The first houses will be finished in late spring.

- Ground was broken without fanfare in July at Developer James Rouse's Columbia, a 14,000 acre project between Baltimore and Washington (H&H, June '66). Completed already: two man-made lakes covering 55 acres, a 288-foot high dam, and a horse center. Soon construction will begin on twelve projects, including high-rise and garden-type apartments. As Rouse aims for a summer opening, his worst-kept secret is that Ryan Homes of Pittsburgh (and points east) is negotiating to become Columbia's major housebuilder.



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Are U.S. rehabilitation programs working backwards?

Traditionally, landlords have insisted that the quickest way to wipe out slums is to make them more profitable. And, traditionally, the proposition has seemed so absurdly self-interested that housing officials have scornfully ignored it.

But now comes a new voice in defense of higher profits for tenement landlords. And what makes the argument worth listening to for the first time is that it comes not from the legions of the pariahs—the landlords themselves—but from an authority on urban housing problems.

Says Roger Starr: The critics "seem unwilling to understand why rehabilitation programs are so difficult to plan. Just take the profits out of the slums, they say. A better slogan might be: put profits into slums for decent owners so that they will have the means and the incentive to fix them up and keep them fixed."

Starr is the executive director of the Citizens' Housing and Planning Council of New York and one of the most formidable and astute critics of metropolitan housing policies. His lever for upsetting several basic assumptions of federal and municipal housing policies is a newly published book, *The Living End: the city and its critics*.*

Well-meaning landlords. If Starr is right, then major aspects of federal anti-slum policies are wrong and housing officials should recognize that:

1. A national program of financial aid is indispensable to help well-meaning landlords of rundown housing.
2. Strict housing codes, enforced without regard to the particular situation, are sometimes worse than the disease they were designed to cure.
3. Some sections of a city may always remain slums. Reason: Starr distinguishes between the "economic poor" and the "disorganized poor." The former have some job skills, ambition, and the discipline to rise to middle-class affluence. But the latter, because of patterns of family disorganization, will always remain misfits and will always create new slums.

Starr's acerbic and iconoclastic writing has already outraged at least one important critic—Wolf Von Eckardt—who, in a review of Starr's book, vented his own displeasure and largely overlooked the substance of Starr's proposals. But even Von Eckardt reluctantly agrees on the need for restoring the profit incentive to cure the disease of the slums.

Myopic myth-makers. One reason that urban critics like Von Eckardt have been so defensively scornful is that their own ox has been gored: Searching deeply for causes, Starr blames not planners and housing men for obfuscating the problems of slum housing, but urban critics and journalists.

The simple, galling burden of *The Living End* is that—despite obeisance to fine principle—man lives for profit: Regulate the profit motive and you regulate both



AUTHOR STARR
Astrologers and economists

the man and the problem. Since only the government can provide the profit motive in the case of slum housing, cooperation between government and business is indispensable.

Yet, Starr contends, the journalists—carrying with them the urban critics—have never been able to get over the archaic notion that the use of public powers for private gain is anything but a form of collusion, favoritism, and dishonesty. (He likens one housing reporter's writing to "a call to violent revolution penned by an astrologer.")

The suggestion that a single cause—dishonesty, as the writers define it—is responsible for problems of low-cost housing confirms the easy notion that a single culprit can be found and pilloried. But at the same time, says Starr, this idea has "confused housing, one of the city's most troublesome problems, in a flood of moral oversimplification." It has obscured a pragmatic, *economic* solution by wrongly shifting the problem to the happy hands of aesthetes, abstract egalitarians, and social workers.

And foremost among the myths that journalists have propagated, says Starr, is the myth of the profitable slum.

An "assumption basic to almost all journalistic exploration of the slums is that they are highly profitable to somebody, and that if this person can only be found and forced to reinvest his swollen profits in his starving buildings," decent housing for the poor can be provided.

'Slumlord' Starr. "To this assumption," says Starr, "is added the implication that municipal government corruptly protects the profits of the slum owner by not enforcing the laws controlling the conditions in such buildings."

Starr's authority for calling these assumptions wrong is his own experience, exclusive among urban critics, as a "slumlord." He was a member of a now-defunct foundation organized to buy and repair slum buildings. The group—called the Conservation, Rehabilitation and Renewal Foundation—was financed by a \$250,000

grant from Laurance S. Rockefeller. It purchased two buildings in New York City and deeded them to the Citizen's Housing and Planning Council. And Starr, as the executive director of the council, saw the project through.

Now he says: "My own experience . . . leads me to think that legal operation is financially impossible."

Starr now believes that such policies as strict code enforcement and rent-escrow programs simply drive the honorable, large-scale real estate operators out of the slums, leaving only small investors and exploitive cartels who ignore the rules.

His reasoning:

- Most low-rent tenement houses fail to meet code requirements to begin with. Exploitive syndicates simply milk them; the means of bringing them up to standard are beyond the reach of the small owner.
- Rent rolls are small; a single unbudgeted major repair can change an annual profit into a loss.
- Rent arrears are common because workers living in slum housing are most likely to be laid off first and rehired last.
- Monthly costs of mortgage service are high, because interest rates are steep and amortization periods short.
- Rate of return on investment is poor.
- High cash margins limit the profit-expanding leverage of the mortgage.

Realities and renovators. How then, can government administrators get the honest large-scale investors back into the business of slum rehabilitation, help the small owners improve their properties, and simultaneously drive out the major and minor charlatans?

Starr's solutions:

1. Place less emphasis on rehabilitation by nonprofit foundations and church groups. Without the profit incentive, these groups will overlook rental arrears at the expense of maintenance budgets and will eventually run down the projects.
2. Introduce a system of low-low cost, long-term loans to help the honorable landlord refurbish his buildings.
3. Liberalize code enforcement for the landlord undertaking rehabilitation.
4. Restrict federal rent supplements to tenants of rehabilitated buildings, since rents will have to be raised to pay renovation costs, and since most tenants could not bear increased rents.
5. Compel every landlord to sign an agreement to repay and live up to the conditions of the loan. If the owner defaults in any way, his property should be expropriated. In this indirect way, exploitive owners, large and small, would be driven out of business.
6. Set up a federal program to break the cycle of disorganized families by placing their children in an "intimate and humane" institution. Starr admits such a plan might be political suicide now, but says the alternative is resignation to the fact that some parts of the city will always remain a slum.

* Coward-McCann, New York City, \$5.95.


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And York offers builders many more features, including factory-charged systems, quick-connect couplings that speed installation. York's vertical air discharge on the heat exhaust section protects the building, won't damage lawn or shrubbery.

For more facts, contact your nearby York Dealer. Or write York Corporation, subsidiary of Borg-Warner Corporation, York, Pennsylvania. In Canada, contact National-Shipley Ltd., Rexdale Boulevard, Rexdale, Ontario.



Ashley Oaks Apartments, Atlanta, Georgia. This 228-unit garden type apartment is comfort conditioned by individual York Flex-O-Metic® air conditioners, combined with Borg-Warner electric furnaces. Owner and General Contractor, C and A Land Company; Architect, Van Fraser, A.I.A.; Mechanical Contractor, General Heating and Air Conditioning Company; Plumbing Contractor, General Mechanical Corporation.

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Housing on skids? Kaufman & Broad ups earnings 300%

Despite a generally distressed housing market, this national producer of \$10,000-to-\$20,000 dwellings has just announced record earnings of \$1.2 million, or \$2.01 a share, on peak sales of \$31 million for the nine months ended Aug. 31.

That compares with earnings of \$405,702 on sales of \$18.5 million in the same 1965 period.

The company said its sales were steady in Detroit, strong in Chicago, and active in the otherwise soft California market. It termed its Phoenix operation weak but said it expected to break even on a volume of \$2-million.

Bright outlook. For the 12 months ending Nov. 30, which will pass into housing history as the tightest money period in 40 years, K&B expects to top \$37 million in sales. That will compare with \$27.3 million in fiscal 1965. Earnings will probably reach \$2.50 share as against \$1.09.

President Eli Broad, operating from headquarters in Los Angeles, foresees no shortage of funds for the next six months. He does not rely on savings and loan associations for construction money but gets the outside capital he needs from commercial banks. From 88% to 90% of his sales are made on FHA-insured or VA-guaranteed loans, and mortgage companies do most of the financing.

The company avoids an accounting practice common to many builders: It does not account for sales or earnings on dwellings until it gets its money and the owner

takes full title to the house and lot.

Back on the up staircase. This year's performance represents a spectacular turnaround for K&B, one of housing's fastest growing companies since its organization in 1957. A sales decline set in during 1964, and 1965 was just a hard-luck year. Bad

weather halted construction in the Midwest for months, and the heaviest rains in 60 years made building impossible for three weeks in California. Detroit ran into a labor shortages, and strikes retarded building in Phoenix.

But amid all the troubles listed in President Broad's annual report of 1965, there appeared one note that explained much of the success that would come in 1966:

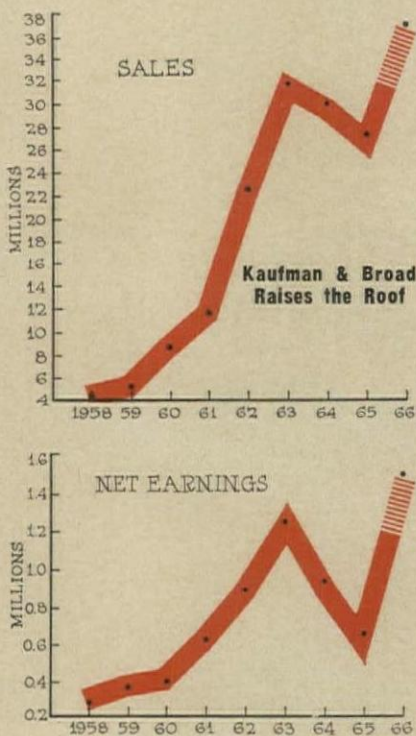
"The company's working capital, supplemented by established unsecured commercial bank loan arrangements, is considered adequate for planned operations. The company does not anticipate the need for any additional major financing at this time."

Housing stock index posts first advance since April

Kaufman & Broad's common stock, which gained 1%, to 11%, on favorable earnings news last month (see story above), led HOUSE & HOME's index of 72 housing issues in its first gain in eight months.

Savings and loan shares advanced generally despite poor earnings. Averages:

	Sept. 6	Oct. 7	Nov. 4
Building	4.60	4.37	4.56
Prefabrication	1.75	1.71	1.63
S&Ls	5.67	5.59	5.71
Mortgage banking	8.60	8.58	8.76
Land development	5.13	4.99	5.04
Average	5.25	5.20	5.29



Florida's Gulf American buys 55,000-acre ranch in Arizona

The nation's biggest land developer, riding on record earnings for fiscal '66, has pulled off one of its most successful purchases.

Miami-based Gulf American gets the old Baca Float Ranch, prime valley land astride two waterways 20 miles south of Tucson, for \$3.5 million. Seller: the Baca Float Corp.

Appropriately, GA will develop the property under the name Rio Rico—Rich River. The company has plenty of what it calls "investment acreage"—i.e., lots for sale—and a Tucson real estate broker has already been commissioned to open five statewide offices to handle that end of things. Chairman Leonard Rosen of GA says he will buy three Convairs to fly in 300 visitors a day.

Gulf American earned \$22 million on sales of \$144 million at its Florida developments in the year ended Aug. 30, up from \$13 million on \$111 million in 1965.

Deltona purchase. Another major Florida developer, the Mackle brothers' Deltona Corp., is buying 22,000 acres about 45 miles north of Tampa. The site is a quarter-mile from a tourist attraction called Weeki-Watchee Springs.

President Frank E. Mackle Jr. says Deltona is master-planning a residential community.

HOUSING'S STOCK PRICES

COMPANY	Nov. 4 Bid/Close	Chng. Prev. Mon.	COMPANY	Nov. 4 Bid/Close	Chng. Prev. Mon.
BUILDING			MORTGAGE BANKING		
• Adler-Built Inc.	3/8	.....	Advance.....	5 5/8	- 1/8
• Capital Bld. Ind.	41¢	.....	• Amer. Mort. Ins.	6 3/4	.....
Cons. Bldg. (Can.).....	1	.....	Associated Mtg.	5 1/4	- 1/4
• Dev. Corp. Amer.	1/2	- 1/8	Charter	17 1/2	.....
Edwards Inds.	1 1/4	.....	Colwell	5 3/4	.....
Eichler Homes ^b	1.10	+ 5¢	Cont. Mtg. Inv. ^c	25	+ 1 1/2
• First Hartford Rity ..	4 3/4	- 1	• Cont. Mtg. Ins.	4	+ 1 1/4
First Nat. Rity. ^b	3/4	.....	• FNMA	65	+ 2 1/2
• Frouge	3 1/4	- 5/8	First Mtg. Inv.	13	- 3/8
General Bldrs. ^b	1 3/4	.....	• Kissell Mtg. ^b	2 1/2	.....
Kaufman & Bd. ^b	11 1/2	+ 1 1/2	Lomas & Net. Fin. ^p ..	2 1/2	- 1/8
Levitt ^b	11 1/2	.....	MGIC ^b	16 3/8	+ 3/8
Lou Lesser Ent. ^b	2d	- 1/4	• Mortg. Assoc.	27 1/2	+ 1/8
Lusk	3¢	- 2¢	• FNMA	65	+ 2 1/2
• Nationwide Homes...	1 3/4	+ 1/4	First Mtg. Inv.	13	- 3/8
Pres. Real. A. ^b	10	+ 3/4	• Kissell Mtg. ^b	2 1/2	.....
• Sproul Homes	5/8	- 3/8	Lomas & Net. Fin. ^p ..	2 1/2	- 1/8
U.S. Home & Dev.	5/8	.....	MGIC ^b	16 3/8	+ 3/8
Jim Walter ^c	15 1/2	+ 7/8	• Mortg. Assoc.	27 1/2	+ 1/8
Del. E. Webb ^c	2 3/8	- 1/8	• Palomar Mtg.	17 1/2	- 1/2
			• Southeast Mtg. Inv.	4 1/4	- 1/8
			United Imp. & Inv. ^b ..	3 1/2	+ 3/8
PREFABRICATION			LAND DEVELOPMENT		
Admiral Homes	3/8	+ 1/4	All-State Prop.	14¢	+ 2¢
Albee Homes	9/8	+ 1/8	• American Land	8/8	.....
• Continental Homes ..	2 1/4	.....	Am. Rity. & Pet. ^b	3 1/2	.....
Inland Homes ^b	3d	+ 1/8	Arvida	5 3/4	+ 3/8
Modern Homes	2	.....	Atlantic Imp.	16	- 2
Natl. Homes A. ^b	2 1/2	- 1/8	Canaveral Intl. ^b	3 1/2	+ 3/8
• Scholz Homes.....	17/8	- 1/4	Christiana O. ^b	2 3/8	.....
Steel Crest Homes.....	1 3/8	- 1/4	Coral Ridge Prop.	4 3/4	+ 3/8
Swift Industries	1 1/2	- 1/4	Cousins Props.	12 3/4	.....
			Crawford	1 3/4	- 3/4
S&Ls					
American Fin.	12	.....		
Calif. Fin. ^c	2 3/4	.....		
Empire Fin.	4 3/4	+ 3/4			
Equitable S&L	10 3/4	- 3/4			
Far West Fin. ^c	4 7/8	- 3/4			
Fin. Fed. ^c	9 3/8	- 1			
First Char. Fin. ^c	11 1/4	+ 1 1/2			
First Fin. West.....	3 3/8	+ 3/8			
First Lincoln Fin.	4 3/4	+ 3/8			
First Surety	2 3/4	+ 1/4			
First West Fin. ^c	1 7/8	- 1/8			
Gibraltar Fin. ^c	9	+ 1 1/4			
Great West. Fin. ^c	6 3/8	+ 1/4			
Hawthorne Fin.	5 3/4	+ 1/4			

SHORT-TERM BUSINESS LOAN RATES

Percent interest and (net change) in year

LOAN SIZE	New York City	7 other Northern & Eastern cities	11 Southern & Western cities
\$1-10	6.60 (+ .95)	6.62 (+ .74)	6.84 (+ .82)
\$10-100	6.57 (+1.20)	6.75 (+1.13)	6.65 (+ .92)
\$100-200	6.39 (+1.26)	6.60 (+1.29)	6.51 (+1.06)
\$200 and over	6.05 (+1.41)	6.31 (+1.44)	6.26(+1.23)

Sources: Federal Reserve Board, September 1966.

BUSINESS IN THE MAKING

HOUSE & HOME presents locations, sponsors, architects and estimated costs of representative new projects costing over \$500,000 as gathered by ENGINEERING NEWS-RECORD and F. W. Dodge Co., division of McGraw-Hill Inc. to alert builders, lenders and contractors to new business.

CALIFORNIA—CHATHSWORTH: 105 houses, \$2.3 million. Builder: HWH Corp., Macco Realty, Newport Beach. Plans: Earl G. Kaltenbach. CORONA: 45 houses, \$675,000. Builder: American Housing Guild, San Di-go. Plans: Candrea & Joyce, Los Angeles. CYPRESS: Housing, \$1.5 million. Builder: Larwin, Beverly Hills. EL CAJON: 60 houses, \$810,000. Builder: San Diego Western Corp., San Diego. Plans: Gordon R. Graves & J. V. Thompson & Assoc., San Diego. ESCONCITO: 31 houses, \$558,000. Builder: Davard Construction. FOUNTAIN VALLEY: 56 houses, \$1 million. Builder: H. B. Co., Costa Mesa. Plans: Richard Leitner & Assoc., Newport Beach; 80 houses, \$1.2 million. Builder: Lagerlof Construction, Costa Mesa. Plans: David Freedman, Beverly Hills; 121 houses, H. B. Co., Costa Mesa; 123 houses, \$2 million. Builder: Luxury Homes, Anaheim. Plans: Nagle & Malone, La Jolla. GARDEN GROVE: 49 houses, \$1 million. Builder: Johnny Johnson, Buena Park. HUNTINGTON BEACH: 35 houses, \$1 million. Builder: Suburbia, Santa Ana. Plans: Kermit Dorius, Corona Del Mar. MONTEREY: 53 houses, \$950,000. Builder: Monterey Savings & Loan Assoc. SAN DIEGO: 49 houses, \$1 million. Builder: Shattuck Construction. Plans: Earl G. Kaltenbach. SIMI: 230 houses, \$2.5 million. Builder: Larwin, Beverly Hills.

DISTRICT OF COLUMBIA—WASHINGTON: Housing, \$2 million. Builder: John Hechinger. Plans: Warren Calwill, New York City: Apartments and row houses, \$2 million. Builder: Thomas Harkins, Silver Spring, Md. Plans: Collins & Kronstadt, Leahy, Hogan, Collins, Silver Spring: Townhouses, \$800,000. Sponsor: B. M. Linde & Charles Connor. Plans: Wells Bailey & Assoc.; Apartment, \$800,000. Sponsor: Robert T. Foley Construction. Plans: Robert Calhoun Smith: Apartment complex, \$15 million. Sponsor: Mid-City Developers c/o Pard Team, architect, Georgetown: Apartment, \$2.5 million. Sponsor: D.C. Realty & Development. Plans: Morris Lapidus Assoc., New York.

GEORGIA—ATLANTA: Apartment project, \$3.7 million. Sponsor: Harty Kilgore: Apartment, \$3 million. Sponsor: Townsend & Ghegan. Plans: Knox & Griffin. DECATUR: Children's Home, \$500,000. Sponsor: National Benevolence Assoc. of Christian Churches, St. Louis, Mo. Plans: S. Walton Peabody. MACON: Apartment complex and swimming pool, \$1 million. Sponsor: Fickling & Walker Development. Plans: Dennis & Olive: Apartment, offices, and parking facilities, \$1 million. Sponsor: Realty Mortgage Fund. Plans: W. Thomas Little.

ILLINOIS—AURORA: Apartment, \$1 million. Sponsor: Volkshof. Plans: Livingston & Assoc. CHICAGO: Apartments, \$800,000. Sponsor: A & M Builders, Lincoln. Plans: Jerome Soltan: Apartment, \$3.5 million. Sponsor: c/o Raggi & Schoenbrod, architect: Apartment, \$500,000. Sponsor: Banco Construction, Skokie. Plans: Jerome Soltan: Apartment and row houses, \$1.5 million. Sponsor: City of Chicago Missionary Society. Plans: Gordon & Levin & Assoc.: Condominium apartment, row houses, houses, and swimming pool, \$5 million. Sponsor: Village Assoc. Plans: Fridstein, & Fitch. CICERO: Apartment, \$650,000. Sponsor: Metropolitan Construction. Plans: Tuchscheidt & Assoc., Chicago. JOLIET: Row houses, \$3 million. Builder: Kaufman & Broad Homes, Hinsdale. LISLE: Apartments, \$3 million. Sponsor: Ray Fisher. Plans: Aubrey Greenberg, Chicago. MUNDELEIN: Apartment, \$700,000. Sponsor: G.S.P. Corp., Milwaukee. Plans: Glen H. Scholz, Milwaukee. QUINCY: Dormitory, \$1 million. Sponsor: Quincy College. Plans: Gaul & Voosen, Chicago. ROCKFORD: Apartment, \$1.4 million. Sponsor: Nanz Realty, Waukesha, Wis. Plans: Py & Vavra, Milwaukee: Apartment, \$2.5

million. Sponsor: Nanz Realty, Waukesha, Wis. Plans: Py & Vavra, Milwaukee.

KANSAS—EMPORIA: Apartment, \$850,000. Sponsor: The James Bynana Co., Merriam. KANSAS CITY: Apartment complex, \$1.7 million. Sponsor: Silver City Apartments, Shawnee Mission. Plans: Kiene & Bradley, Topeka: Apartment, \$1 million. Sponsor: Marvin Warner. Plans: Geis, Hunter Assoc., Kansas City, Mo. LAWRENCE: Apartment, \$500,000. Sponsor: Christopher Investment Co. Plans: Peters, Harrison Assoc. TOPEKA: Apartments, \$2.3 million. Sponsor: Highland Park Apartments, Shawnee Mission. Plans: Kiene & Bradley; Apartments, \$2.5 million. Sponsor: Kansas Quality Homes. Plans: Robert E. Newall, Kansas City, Mo. WICHITA: Apartment house for senior citizens, \$600,000. Sponsor: Wichita Senior Citizens Housing c/o Charles F. McAfee & Assoc.

LOUISIANA—BATON ROUGE: Apartment complex, \$800,000. Sponsor: A. C. Lewis Jr. and L. W. Eaton Jr. GRETNA: Apartments, \$700,000. Sponsor: Bratten Construction, Metairie. Plans: William F. Wortham, Houston. NEW ORLEANS: Apartments, \$1 million. Sponsor: George W. McHugh: Apartment, \$600,000. Sponsor: c/o Richard Mouldous, Metairie: Apartments, \$25 million. Sponsor: Kingsrun Investment. PINEVILLE: Low-rent housing project, \$500,000. Sponsor: Catholic Diocese of Alexandria, Alexandria. Plans: Dekeyser, Alexandria. SHREVEPORT: Apartment, \$1 million. Sponsor: T. & H. Builders. Plans: R. S. Caldwell, New Orleans.

MARYLAND—ANNAPOLIS: Garden apartments, \$4 million. Sponsor: Development & Construction Co., Baltimore. Plans: Barkley Pierce Assoc., Falls Church, Va.: Apartments, \$4 million. Sponsor: Gai Blum Construction, Silver Spring. Plans: H. Byron, Gates, Kensington, BALTIMORE: Moderate rental apartments, \$1 million. Sponsor: Bruce Manor, Washington, D.C. Plans: Ronald Senseman, Washington. BROOKLYN: Garden apartments, \$520,000. Sponsor: Roosevelt Construction, Baltimore. Plans: Theodore Davis, Baltimore. CATONSVILLE: 200 houses, \$500,000. Builder: Joseph Meyerhoff, Baltimore. COLUMBIA: Apartments, \$2.5 million. Sponsor: Columbia Development Corp. c/o Community Research & Development, Baltimore: Medium-rise and garden apartments, \$2 million. Sponsor: Columbia Development Corp. c/o Community Research & Development Corp., Baltimore. POTOMAC: 26 houses, \$1 million. Builder: Edmund Bennett & Assoc., Bethesda. Plans: Keys, Lethridge & Condon, Washington. ROCKVILLE: Townhouses, \$2 million. Sponsor: Kettler Bros., Washington. Plans: Daniel Hansen, Silver Spring: 365 houses, \$14 million. Builder: Yeonas Bros., W. Vienna, Va.: Apartments, \$1 million. Sponsor: Artery Enterprises, Kensington. Plans: Cohen, Haft & Assoc. SILVER SPRING: Garden apartments, \$2 million. Sponsor: Carl M. Freeman, Silver Spring. Plans: Albert Girard Mumma, Georgetown, Washington. TOWSONS 120 houses, \$1.2 million. Builder: Kay Construction. Plans: Theodore Davis, Baltimore. UPPER MARLBORO: Townhouses, \$2 million. Builder: T. D. Burgess, Marlow Knights. Plans: Zubkus, Zematis & Assoc.

MICHIGAN—ANN ARBOR: Apartment, \$500,000. Sponsor: c/o Edward Smith, architect: Retirement home, \$4 million. Sponsor: John-Gard Inc., Richmond, Ind.; Apartments, \$4.6 million. Sponsor: Jabbour B'dg. DETROIT: Apartments, \$500,000. Sponsor: Stollman Investment. Plans: Fred Brauning & Assoc.; Apartments, \$6 million. Sponsor: c/o John Graham, architect, Livonia. FLINT: Apartments, \$3.5 million. Sponsor: Sharp Construction. PONTIAC: Apartment, \$1 million. Sponsor: Belaire Home Builders, Detroit. Plans: Tobocman & Lawrence, Detroit. ST. CLAIR: Apartments, \$500,000. Sponsor: Albert Courvreur, Grosse Pointe Woods. WESTLAND: Apartment, \$15 million. Sponsor: c/o John Graham, architect, Livonia. Ypsilanti: Apartment, \$3 million. Sponsor: Conser Construction, Ann Arbor. Plans: James Livingston & Assoc., Ann Arbor.



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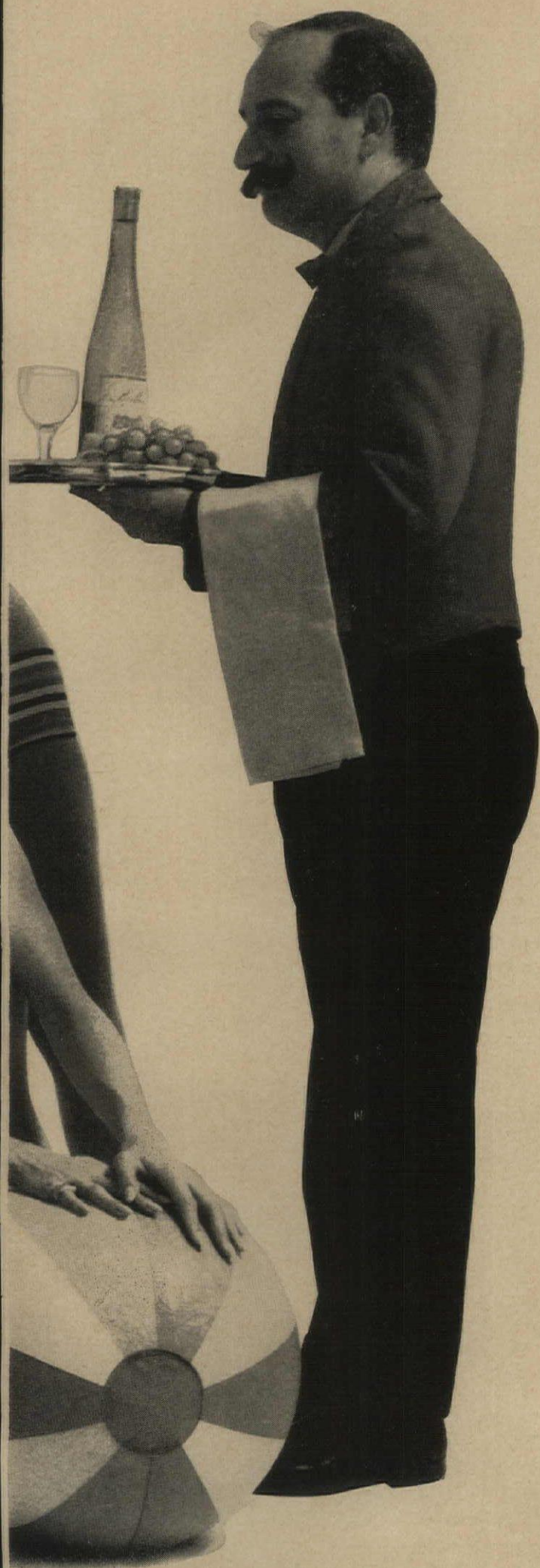
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Leaders start on p. 42

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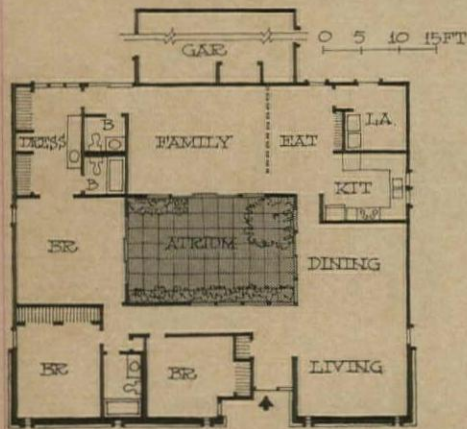
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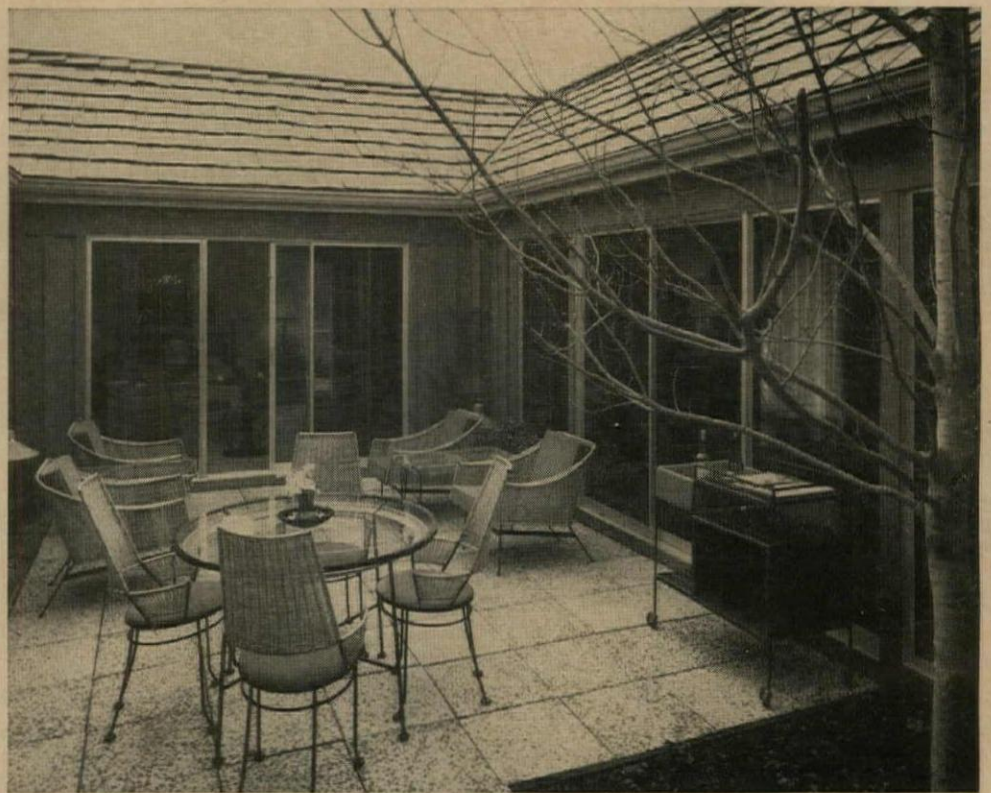
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WHAT THE LEADERS ARE BUILDING



MIDWESTERN MODEL has 1,988 sq. ft. of indoor living plus 300-sq.-ft. atrium, viewed above from dining room. Price: \$32,900 in St. Louis.



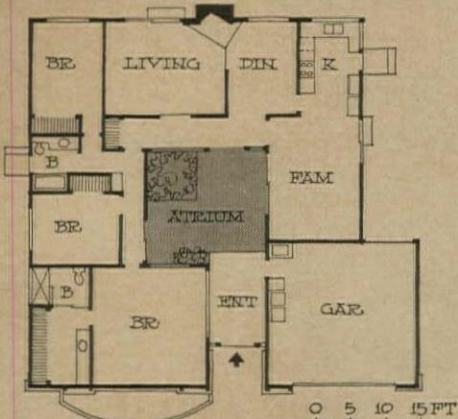
Here are two approaches to the atrium plan—and both appeal to buyers

Any idea that today's homebuyer won't accept an offbeat floor plan is dispelled by the two atrium houses shown here. Each is selling as well as conventionally planned houses in the same subdivision, according to the builders.

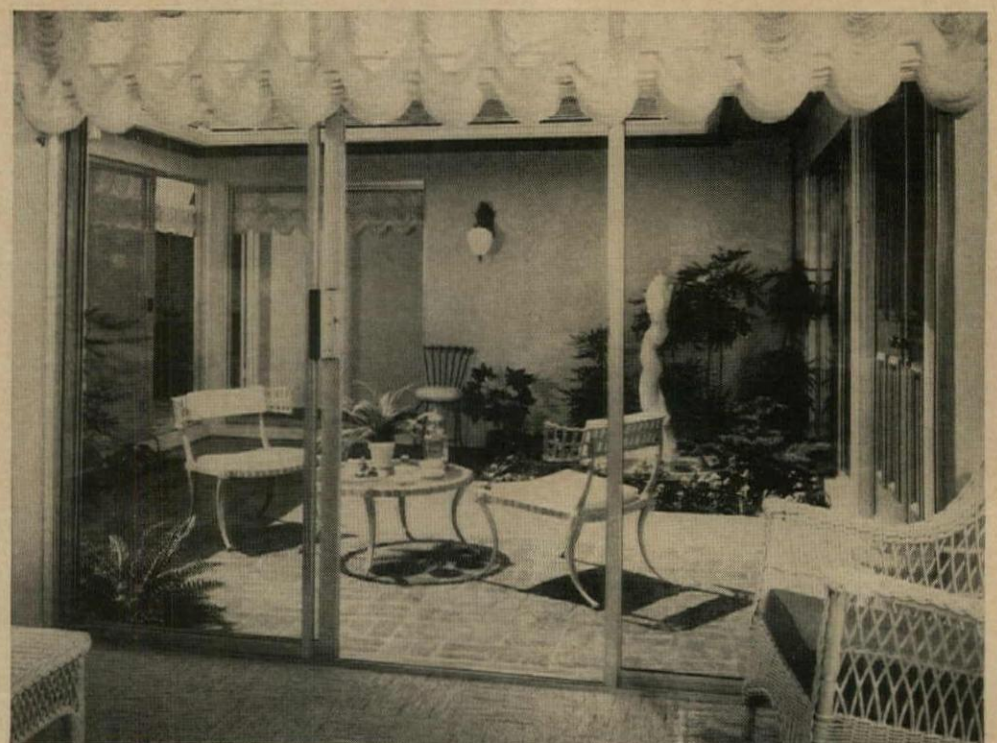
But even though both atriums provide

outdoor privacy and bring extra daylight into the houses, they are hardly similar. In Fischer & Frichtel's St. Louis model (*above*), the atrium is primarily an extension (physical in warm weather, visual in cold weather) of the indoor living areas. By contrast, the atrium in Robert H.

Grant & Co.'s Huntington Beach model (*below*) also serves as a large entry courtyard and as an outdoor hallway between the bedrooms and family room. Double paneled doors at the rear of the courtyard open into an entry gallery and the formal living and dining area.



WEST-COAST MODEL has 1,790-sq.-ft. indoor area plus 360-sq.-ft. atrium, seen here from family room. Price: \$32,950 in Huntington Beach, Calif.



"We're not going to louse up our reputation for 50 bucks."



'Competition in Chicago is so tough a good reputation can make the difference in making or losing a sale,' says Fred Allen (left).

"So we worked hard at building a good reputation. We chose the best locations we could find for our condominiums, designed them carefully and used the best of everything."

"And we're not about to risk our good name by installing a cheap dishwasher. We use KitchenAid."

"Sure, KitchenAid costs more," Jack

Stone says, "but it's worth it. Our customers know the KitchenAid name. They know KitchenAid quality. When they see a KitchenAid dishwasher, it's another sign that we build in quality."

"I was a custom builder—homes in the \$40,000 to \$80,000 class—before Fred and I became partners 4 years ago," Jack adds, "and I never used anything but KitchenAid dishwashers."

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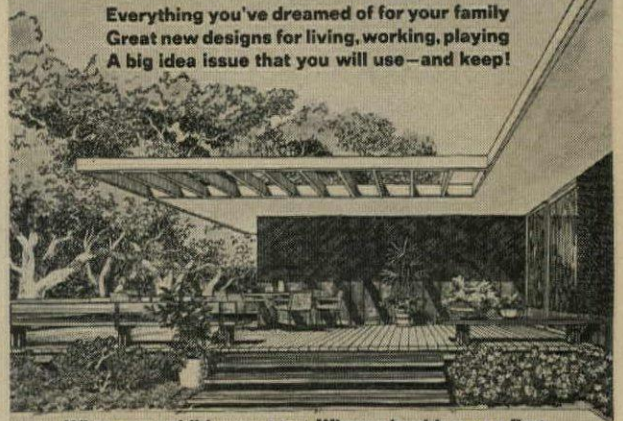
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Better Homes and Gardens is the best avenue for reaching husbands and wives who plan to build or remodel their homes. These readers—nearly 19 million of them—turn to BH&G for practical suggestions such as new home plans, ideas about home financing, useful home improvement ideas such as putting up a shelf or installing an automatic dishwasher . . . or painting, wall-papering or adding a room. During 1967, BH&G will devote major space to home improvements in ten different issues. If you

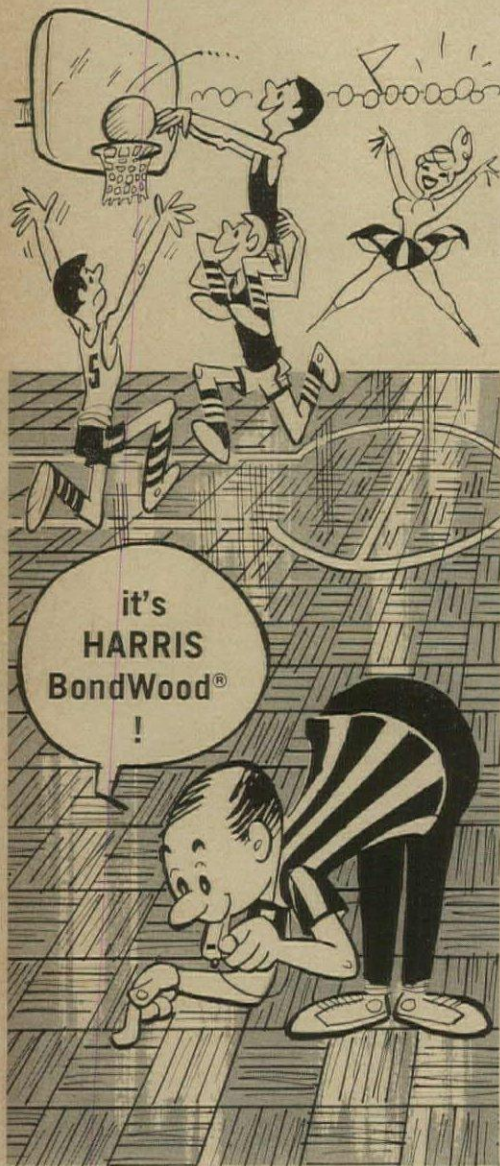
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LETTERS

The better sell

H&H: We were especially impressed with your October editorial ["If retailers can sell color TV sets at 36% interest, why can't we sell more houses at 7% interest?"]. We feel that the philosophy of the real-estate industry is almost as much to blame for the current crisis as the money situation.

JAMES C. VANDERMILLER,
assistant branch manager
Mortgage Investments Co.
Colorado Springs

The investment sell

H&H: Every so often we encounter a prospect who rationalizes himself out of buying a home by arriving at some astronomical total price for the house after adding up all the payments he will make over a period of 25 or 30 years. Usually he comes up with a figure that's about twice the purchase price of the house. Almost always his erroneous arithmetic includes taxes and insurance, which, of course, are not a part of the purchase price except in his reasoning.

Often this person is upset by simple interest rates of 6%, 7%, or even 8%. In reality, even 8% simple interest is a bargain compared to what he is paying on his car, furniture, or TV set. On these chattels he is paying *discount* interest which amounts to 12% to 20% simple interest. Strung out year after year, these principal and interest payments will aggregate many times the original price. What's more, eventually all these chattel purchases generally wind up on the junk heap in far less than 25 or 30 years.

Over a 25-year period, a home is a great investment. Not only does it tend to increase in value in our inflating economy, but it may have actually cost *nothing* when the individual sells it. And in millions of cases, the original buyer will even make a profit when he finally decides to sell.

The average American homebuyer today takes out a mortgage of nearly \$20,000 on a \$25,000 house. At 7% interest, he will pay \$42,408 principal and interest in 25 years. Income-tax deductions of \$22,408 (for the interest) will give him an effective rebate of \$6,722. Together with his downpayment, the \$25,000 house will actually have cost him \$40,686. By using the most conservative estimates of increasing real estate values, he can figure that the house will be worth no less than \$40,000 after 25 years.

Now let's assume the same individual buys the average number of new or used cars during this same period. This would be 8 new cars or 12 to 14 used ones for a total of \$23,000 (considering trade-in values). This does not take into consideration that new-car costs increase each year, but is based on present costs. Altogether, with interest at the lowest possible discount rate, the total cost is \$44,000. And after 25 years Mr. Average American Buyer winds up with a car worth \$1,600.

JOE WILSON
Happiness Homes
Clute, Tex.

A newsman's view

H&H: HOUSE & HOME is still the best business publication in the shelter field. I would make one suggestion, and it applies to almost every magazine, whether consumer or professional: Somehow make it possible for us to find the editorial content and to distinguish it visually from the advertising.

This, I think, is especially important in a magazine such as yours that has a completely independent editorial policy. I'm sure the majority of your readers, though sophisticated, are not expert enough to fathom the makeup.

GLENN C. FOWLER, real estate editor
The New York Times
New York City

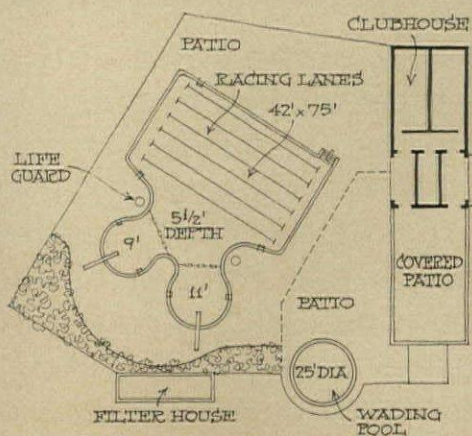
Community swim clubs

H&H: My compliments on your attractive article about community recreation centers and swimming pools [Sept.]. In planning the Edenwood Swim Club [shown right], we faced the usual problem: the design freedom of the free-form pool versus the popularity of the competitive (25-meter) pool, and I believe we have come up with one of the most attractive and unique designs ever created. The pool has six racing lanes, separate 3-meter and 1-meter diving wells, a king-size slide area, and a separate kiddie pool.

A covered patio [see plan] has worked out very satisfactorily as an area for bridge games, dancing, and other community functions.

The club was planned to accommodate 400 families. We expect it will be the first of several at Edenwood, which will ultimately have more than 2,000 lots. Edenwood houses are in the medium-price bracket—from \$20,000 to \$35,000.

W. C. HAWLEY, secretary-treasurer
Edenwood Developers
Cayce, S. C.



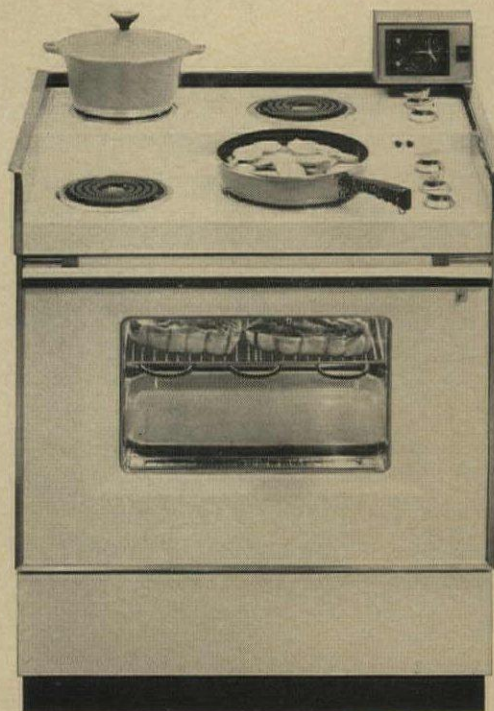
Only Westinghouse gives you the No Turn Speed-Broil® Range: broils both sides at once.

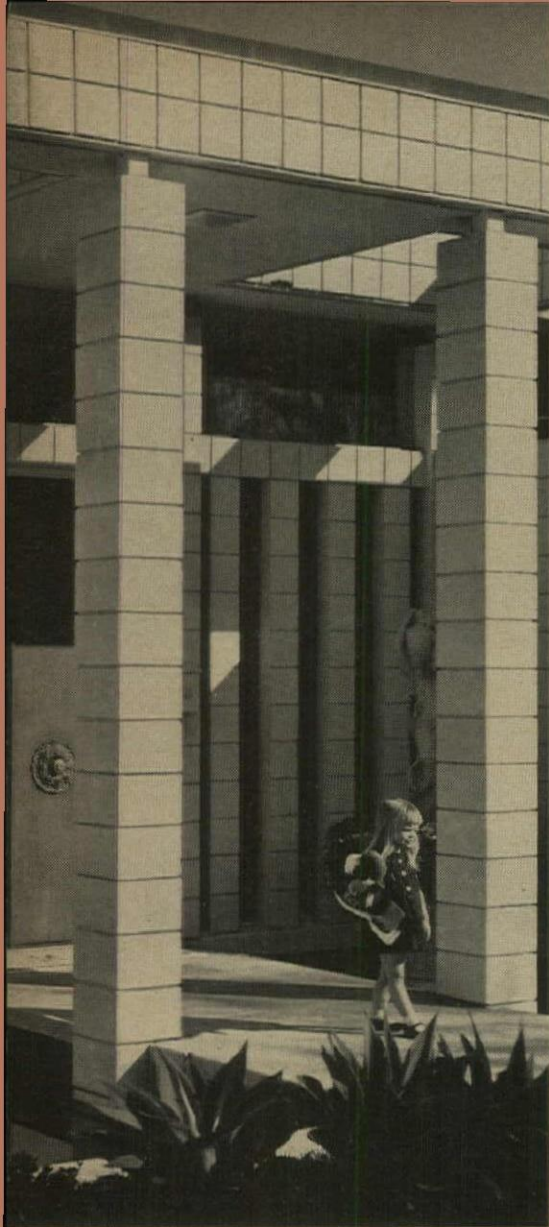
For faster steaks and sales.

The exclusive Westinghouse No Turn Speed-Broil Range makes broiling faster and easier. Makes your sales easier, too. Why? It's got an advantage you can show...that your prospective customers can see.

And where do they see it? In the kitchen. Where most of your sales are clinched. So it makes sense to spend a few more dollars in the kitchen. And you can always save a bit on construction costs to do it. Exclusives like the No Turn Speed-Broil really make your kitchens stand out. And your sales.

You can be sure if it's Westinghouse





The Q BLOCK® Program stacks everything in your favor

WHEN you're working with quality, things just naturally fall into place. Take the new Q BLOCK program for example. It wasn't long after block producers across the country adopted this national quality control program that building professionals were also eyeing its advantages.

These new standards, set forth by the block industry itself, give architects and builders the opportunity to design and build with maximum assurance of product quality. They have demonstrated their acceptance by *specifying* concrete block produced under the Q BLOCK quality control program—as it reflects all the high standards

that modern research and technical development can provide, backed up by regular product testing to guarantee that these standards are consistently maintained.

Concrete block, made to Q BLOCK specifications, is concrete block at its best. And better concrete block will always mean wider opportunities and more confidence for the modern user of building products.

Members of the National Q BLOCK program are identified by this registered mark. Look for it wherever you specify or use concrete block.



National Concrete Masonry Association • 2009 14th Street, North • Arlington, Virginia 22201

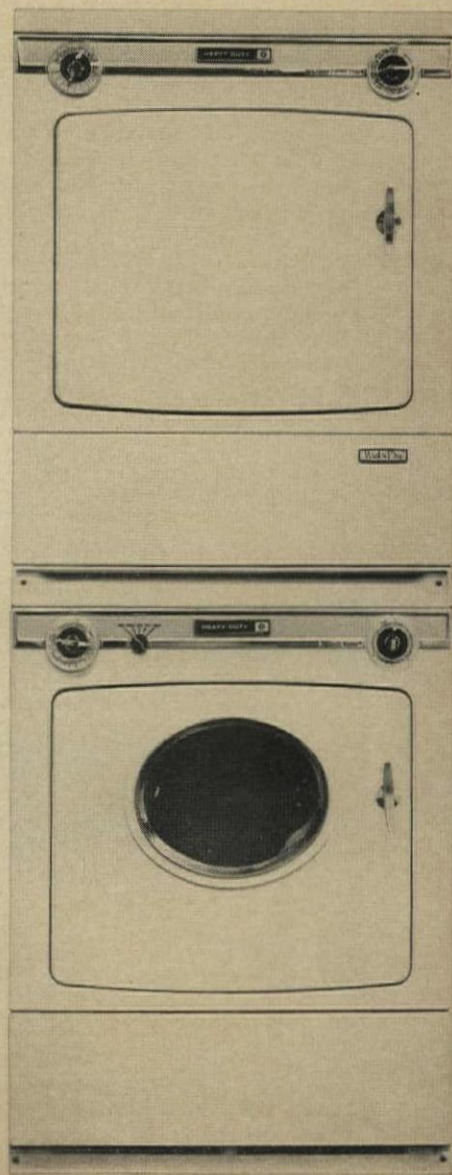
Only Westinghouse gives you a washer and dryer in the space of the washer alone.

The Laundry Twins.

You can put the Laundry Twins most anywhere. In a linen closet, bathroom, or kitchen, for instance. Or set side-by-side under countertops. Or even built right into a vanity table. They'll show up well, no matter where you put them. And they'll help you sell. Because they have advantages your prospective customers can see... features you can show.

Exclusives like the Laundry Twins make your homes a real standout. And you can always save a bit on construction costs to put them in. We call it Westinghouse 'showmanship.'

You can be sure if it's Westinghouse





**NEW "STRUCTURE PACKAGE"
GIVES TENANTS
QUIET PRIVACY AND SECURITY
IN HIGH RISE APARTMENTS**

If you've had any thoughts about building a high rise or medium rise apartment, you'll want to know more about this package.

It is a combination of design, construction and tenant benefits that accrue from the use of new structural units. These include a new lightweight steel frame, a new combination concrete and steel frame, and new approaches to wall-bearing construction, along with new Flexicore precast concrete decks.

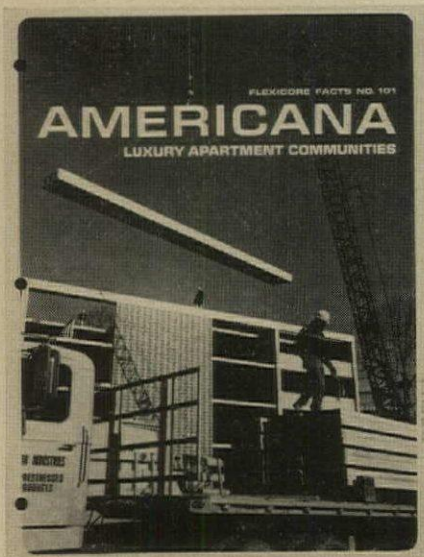
With any combination of these systems you get a first class structure, yet the cost is low because the decks are prefabricated and go up fast. You can get a one to three month earlier occupancy and this means money in the bank to you.

But best of all you will have happy tenants who keep your place filled. Why happy? Well, they will have floor-to-floor quiet, and a feeling of substantial security. Their insurance will be low and so will be yours.

All in all your building is one that will continue to bring in a substantial return for years and years to come.

I'm sure you would like a 12-page report on an outstanding Baltimore development using this type of construction. Just write for Americana Report, and show it to your architect. The Flexicore Co., Inc., P.O. Box 825, Dayton, Ohio 45401

Robert E. Smith
Vice-President and Manager



Write for Americana Report.

**YOU ARE CORDIALLY INVITED
TO ENTER THE TWELFTH ANNUAL
HOMES FOR BETTER LIVING
NATIONAL AWARDS FOR ARCHITECTS,
BUILDERS AND HOMEOWNERS**

Sponsored by The American Institute of Architects in cooperation with HOUSE & HOME and *American Home*. All the honor award winners and a selection of other winners will be published in HOUSE & HOME. A selection of the winning entries will be published by *American Home*. All the winning entries will be displayed at the AIA convention in New York and at the Octagon in Washington, D.C.

Houses and apartments must be designed by a registered architect and built and completed since January 1, 1964 in any of the 50 states. Outstanding architects, housing industry leaders, and the editors of HOUSE & HOME and *American Home* will judge the entries. Awards will be made on the basis of outstanding contributions to better living through residential design, site planning, and construction. Winners will be displayed at the AIA convention May 14-18, 1967. Awards will be made in three categories: CUSTOM HOUSES designed specifically for an individual owner, in three classes according to size: a) Under 1,600 sq. ft. of living space. b) 1,600 sq. ft. 2,800 sq. ft. c) Over 2,800 sq. ft. MERCHANT-BUILT HOUSES designed for a merchant builder and sold speculatively, in three classes according to sales price, including land. d) Under \$25,000 e) \$25,000 to \$40,000 f) Over \$40,000, and one-of-a-kind prototypes. GARDEN APARTMENTS AND TOWNHOUSES built for rent or sale. Apartments shall not be over three stories in height from grade, must comprise four or more living units, and may be single buildings or one of a group: g) Single apartment buildings. h) Multi-building apartment groups. i) Town houses (single or in blocks).

Pertinent information shall be submitted on the registration blank below by February 5, 1967, accompanied by a payment of \$10 for each house or apartment entered. Any number may be entered. A separate registration blank must be submitted for each. Upon receipt of registration blank and fee, each entrant will be sent for each house or apartment entered, an 8½" x 11" binder and full instructions for preparation. It must be completed and postmarked no later than March 5, 1967. It is imperative that the appropriate category be designated on your original registration slip so that you receive the correct color binder for your entry.

This registration slip and entry fee must be submitted by February 5, 1967. Make checks payable to: Homes for Better Living and mail to: Homes for Better Living Awards, HOUSE & HOME, McGraw-Hill Building, New York City, N. Y. 10036.

Enclosed is check money order in the amount of \$10 covering the entry below.

category: CUSTOM BUILT HOUSE MERCHANT-BUILT HOUSE GARDEN APARTMENT/TOWNHOUSE

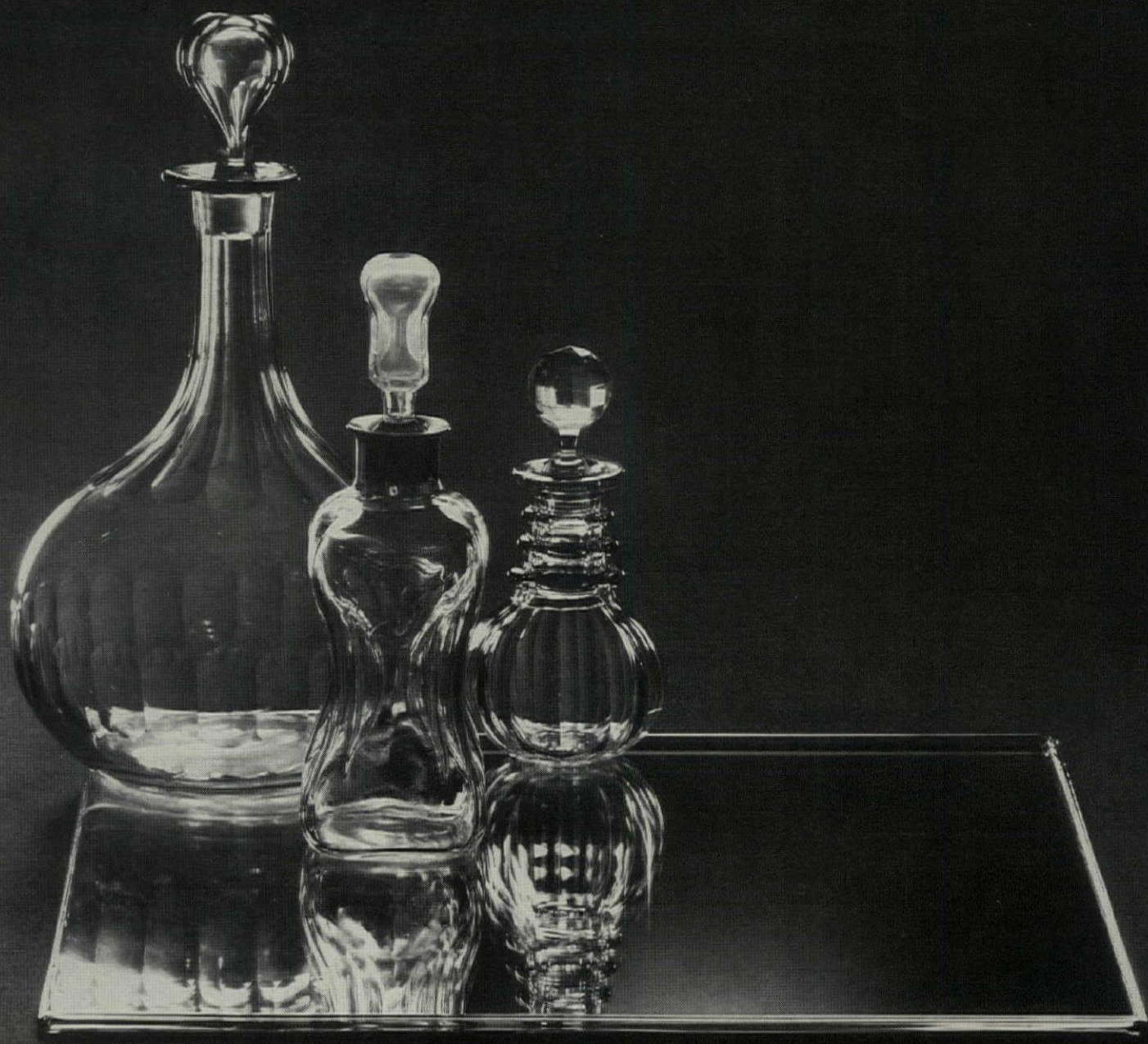
location _____

architect _____ address _____

builder _____ address _____

owner _____ address _____

submitted by _____ address _____



Even old bottles don't leak.

That's why we make insulating glass like a bottle.

Bottles don't leak because they're made of glass.

Thermopane® insulating glass (with the GlasSeal® edge) is, in effect, a bottle.

A skinny, flat one.

It's made of glass fused to glass.

It's filled with dry air.

It's sealed to keep the dry air in

and the dirt and moisture out.

Then we etch the name Thermopane in the corner where you can see it.

This is the only kind of bottle Libbey-Owens-Ford makes. And as an insulating window it makes storm windows old-fashioned.

Thermopane is available in practically every size and style of

window you may need. (Leading wood window manufacturers already offer their standard sash with GlasSeal.)

Get Thermopane with the GlasSeal edge. It gives your homes a bit of an edge, as well.

Libbey-Owens-Ford Glass Co., Toledo, Ohio 43624

Thermopane® by **LOF**
INSULATING GLASS **GLASS**



Only Libbey-Owens-Ford makes Thermopane in the U.S.A.

Circle 75 on Reader Service Card



Now prospects can “see” nature’s freshness indoors

This is the Lennox “Living Air” inlet. It keys one of today’s most successful home promotions.

What makes it so great? Low cost. High promotability.

Prospects can see the feature. It wears a colorful decal that reads, “Your Living Air Inlet.”

And they can feel it. “Living Air”

feels fresher. It smells fresher. It is fresher.

Lennox literally brings Nature’s Freshness indoors.

Lots of builders offer air conditioning these days. But how many also

can fill their homes with “Living Air”?

You can with Lennox. Be the first builder in your area to offer it.

Write for information on this low-cost feature, and the high-impact promotion materials that back it.

Write Lennox Industries Inc., 610 S. 12th Avenue, Marshalltown, Ia.

LENNOX
AIR CONDITIONING • HEATING

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Modern Southern Pine Dimension...

Wanted more than
any other framing because...

No other lumber can match all of these modern values:

Pre-shrunk to *full* American Lumber Standard sizes.

High stress values for maximum spans and loads.

Graded under rigid standards—the most exacting in the lumber industry.

All-purpose grading permits use of standard grades for trussed rafters, cantilevered and continuous beams without special grading.

Greater ability to hold nails and other fastenings.

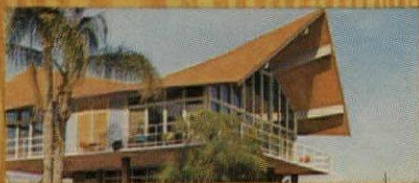
Straightness for easier wall framing... assured by improvements in lumber manufacture.

Unlimited forest supply—well managed, increasingly abundant, vastly improved in quality.

Volume of Southern Pine Dimension moving to major Northern markets has increased by 64 percent during the last four years... impressive evidence of its growing acceptance by satisfied customers.

Specify Southern Pine

From the Member Mills of the Southern Pine Association
P. O. Box 52468, New Orleans, La. 70150



Give homes a “more for the money” look with outdoor features in Decorative Concrete



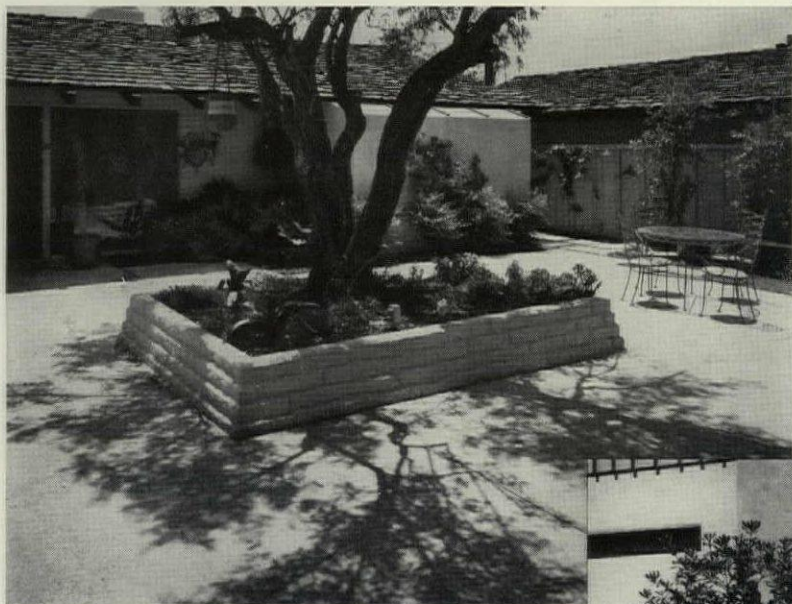
Pebbled-top concrete—driveways that keynote landscaping. Here, the builder achieved striking curb appeal. His driveway also doubles as entry walk and play area. Its color and texture give character to the entire home setting. Mexican

beach pebbles are exposed, treated with a sealer to enhance color and sheen. Dividers form irregular modules, bring driveway into scale. Decorative concrete puts your money where it shows—sets your homes apart from competition.

Today's new, modern ideas in concrete bring builders a truly fresh opportunity to offer extra value that shows . . . value that home buyers look for. Driveways, patios, walks and other features of Decorative Concrete can give a real competitive edge and stimulate sales.

Decorative Concrete works wonders. The outdoor-feature ideas that impress buyers of custom showplaces can readily be adapted by builders of medium-priced and modest homes.

Concrete's versatility makes ideas come easy—with textures, colors, patterns, shapes limited only by your imagination. Get more information: ask your ready mix or concrete masonry suppliers, or contact the PCA office nearest you. *Portland Cement Association, 33 W. Grand Ave., Chicago, Ill. 60610. (An organization of cement manufacturers to improve and extend the uses of portland cement and concrete.)*



New-style concrete masonry—simple way to give patios extra charm. The builder offered not just a patio but a “people pleaser.” Decorative concrete made it easy to be different. The central planter is of painted concrete slump block. This contrasts with the simple box pattern of the patio itself, achieved with redwood headers which also act as control joints. Flatwork surfacing is lightly textured. Decorative treatments with concrete can be adapted to fit any building budget.

Stairway of rocks—steps to a reputation for originality. The “front steps,” leading all the way to the main sidewalk, are given dramatic prominence with a surface patterned with embedded flat-faced rocks in a range of natural colors. Adding the decorative touch to concrete costs-out reasonably—especially when you consider that bold ideas like this win valuable buyer attention and approval.



Free-form patio—concrete shapes up to elegance. A little special form work is worth the effort when the result is the gracefully flowing lines seen in this patio. It's done in natural white concrete, with simple surface scoring. Contours can follow the terrain, or preplanned planting arrangements. Actually, concrete is the one exterior material that meets basic decorating needs—form, color and texture. And this is what gives it such limitless potential.



Let-in corner bracing?



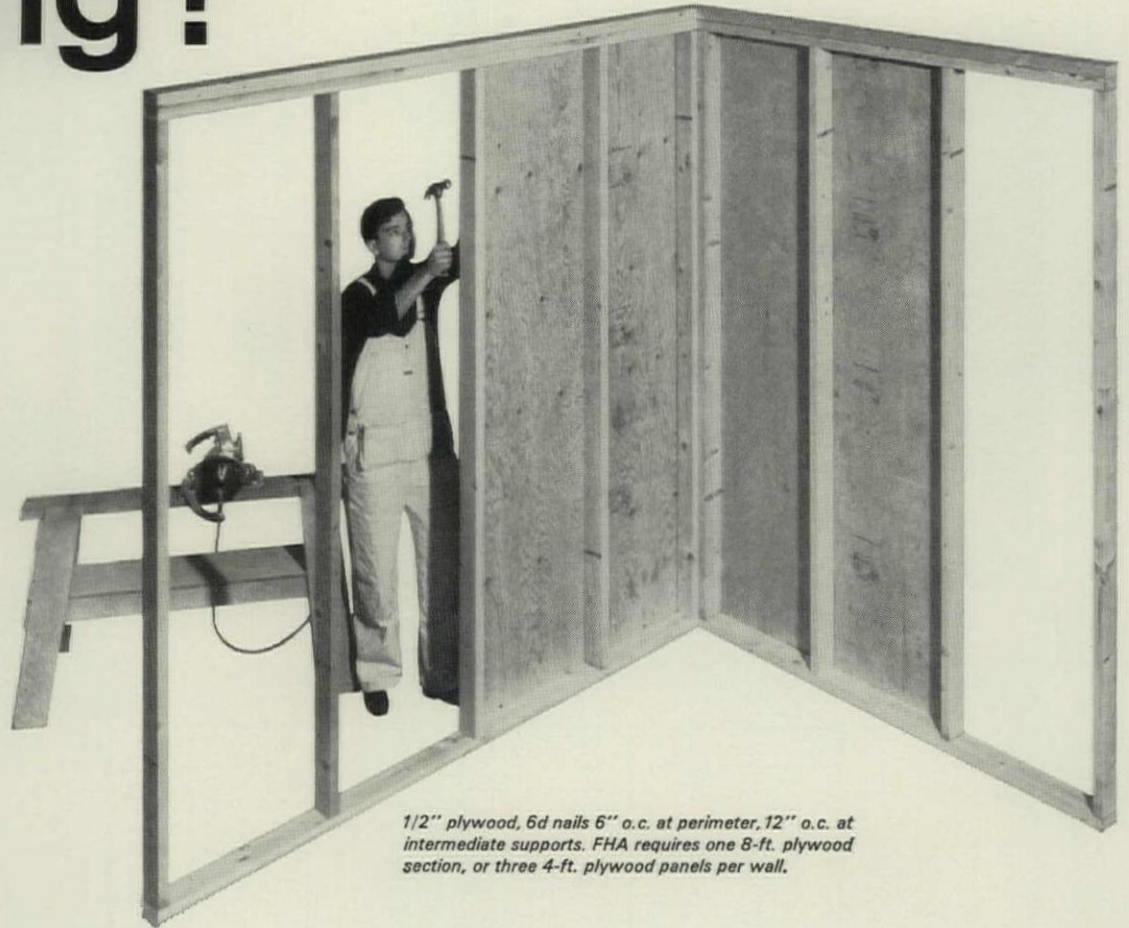
1/2" fiberboard with let-in bracing, 1-1/2" roofing nails 4" o.c. at perimeter, 8" o.c. at intermediate supports.

...heavy fiberboard?



25/32" fiberboard, 1-3/4" roofing nails 3" o.c. at perimeter, 6" o.c. at intermediate supports.

...or plywood corner bracing?



1/2" plywood, 6d nails 6" o.c. at perimeter, 12" o.c. at intermediate supports. FHA requires one 8-ft. plywood section, or three 4-ft. plywood panels per wall.

Which costs least?

Which is easiest to install?

Which is strongest?

If you now use sheathing that requires let-in corner bracing, you can probably save money with plywood corner bracing instead. It goes in place faster, saves labor.

If you're getting away from let-in bracing with 25/32-in. fiberboard, you'll get a stiffer, stronger wall, with half the nailing cost, by reducing to 1/2-in. fiberboard and plywood corner bracing. (Or, for the *very* strongest wall, use plywood all the way around. For example: 1/2-in. plywood provides up to 60 per cent greater bracing strength than 25/32-in. fiberboard.)

Either way, labor costs are less. You avoid double nailing, you can reduce studs to 24 in. o.c., and you still have adequate insulation value with batt or blanket insulation.

Take a minute to figure in-place costs—based on prices in your area. Send coupon for facts to help in the figuring. Or if you like, get in touch with us in Tacoma, or at one of our regional offices: Atlanta, Chicago, Dallas, Detroit, Los Angeles, Minneapolis, New York, San Francisco, Washington, D.C.

AMERICAN PLYWOOD ASSOCIATION

American Plywood Association
Tacoma, Washington 98401, Dept. H



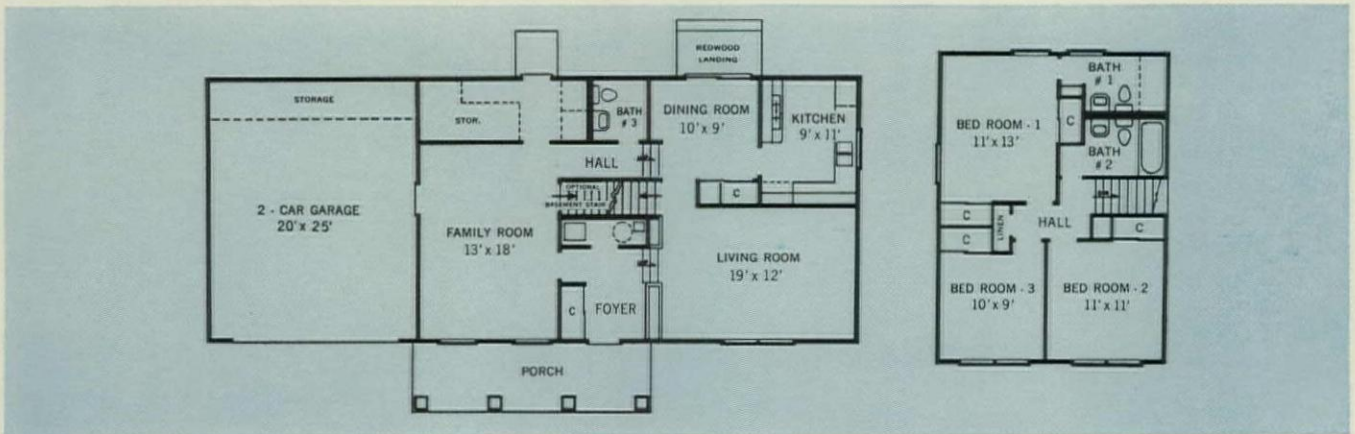
Please send free fact sheet on plywood corner bracing, and Construction Guide on plywood wall sheathing systems.

Name _____

Address _____

City _____ State _____ Zip _____

(USA only)



The Kingsberry "Franklin." Builder: Demetree Builders, Inc. Location: Kingsridge Subdivision, Decatur, Ga.

Care to know the price in your area?

Take a look at VALUE! This is Kingsberry's hot-selling "Franklin" model, a 1701 square foot Colonial skillfully designed for impressive curb appeal and amazing build-out cost. For example, the "Franklin" sells in Atlanta, Georgia for \$22,000 (including a \$3,500 lot) with a substantial profit for the builder.

This fast mover is just one of over 100 models in the Kingsberry "individualized" line. Your buyers get wide variety of exterior choices, options and interior

appointments. You get professional marketing help, Kingsberry's liberal co-op advertising allowance, competitive construction financing . . . and faster sales.

Find out more about Kingsberry VALUE today. For a starter, send in the coupon below and we'll have our local Kingsberry representative give you an approximate sales price on the "Franklin" model shown above for your area. In your location, it may be *more* than \$22,000 . . . and it may be *less*.

MAIL THE COUPON BELOW TODAY



Kingsberry serves leading builders in 29 mid-Atlantic, Midwestern and Southeastern states.

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Mr. Robert C. Smith, General Sales Manager / Kingsberry Homes / Dept. HH-6, 5096 Peachtree Road / Chamblee, Georgia
 Please have your local Kingsberry representative call on me with price information on the "Franklin" for my area and details about Kingsberry. I have _____ lots ready to build on. In 1965 I built _____ houses in the \$ _____ price range.

I am interested in construction financing.

Your Name _____ Firm _____

Address _____ Phone _____

City _____ State _____ Zip Code # _____

EDITORIAL

The moment of truth

You just might be interested in who is doing all the great marketing we keep talking about on this page

Occasionally, friends of ours in the housing industry call us up and vent a little irritation in our left ear like this: "Okay wise guy, you keep harping on the theme that tight money is not anywhere near as big a problem as the way we market, which, you imply, is hurting our business more than tight money is. Maybe you would be so good as to tell us who's selling houses and how come, if he doesn't own the Chase Manhattan."

We always manage to interject the mild demurrer that there is no question about the shortage of mortgage money and that interest rates are higher than a cat's back. Thus calmed down, our friend listens with great attention. So we thought one of the better services we could do the industry would be to tell who is selling houses, how come, and why all this is so important to builders who have no commitments now and perhaps no money either. What's important about it is that now is the time to look past our present problems to the long-range problem of building and selling all the houses Americans are going to need in the years immediately ahead. By the end of 1967 we're sure to have a severe housing shortage, with buyers and renters far in excess of housing units for sale or for rent. Doubt that? See our Market Memo, p. 92.

More important, though, than the obvious buildup of a huge demand are the techniques that the most successful builders, marketing managers, and salesmen are using to sell housing against all other bidders for the consumer dollar.

The top sales managers, and not a few motivational researchers, have pinned down five basic motivations to buy or rent. Those motivations, not necessarily in order of importance, are the desires for 1) privacy, 2) convenience, 3) romance, 4) identity, 5) security. Interpretations of all five are the basis of all good marketing programs, and a good marketing program will help dictate the choice of land, type of housing, land plan, model-area layout, model-house decoration and landscaping, brochures and advertisements, sales-area presentation, salesmen's techniques.

We know sales managers report that the usual considerations of most buyers center on the following in order of importance: price, floor plan (to fit the family), schools, taxes, water, sewage, and location (convenience to work as well as neighborhood status). But assume that four builders

selling in the same neighborhood and in the same price range rank equally in all these things. The builder who will outsell the others is the one who knows how to interpret the five basic motivations in a total marketing program. Take a good look at each one of them:

Privacy. "Togetherness" is a great slogan, but "apartness" appeals to more people. The privacy urge of both house buyers and apartment renters is essentially the same in family activities. When you talk soundproofing in an apartment, or the screened patio in a house, you're talking privacy. When you talk extra baths, master bedroom suites, separate activity areas, you're talking privacy, and you're talking your potential buyer's or renter's language.

But privacy today is a lot more than thick walls and heavy drapes across the windows, more than the anonymity of apartment-house doors. Privacy can also be the kind of housing that encourages any kind of human activity your buyer thinks is important to the inner man, whether it's oboe playing, clay sculpture, swinging parties, or even just a quiet nook where he or she can read a book. Create that particular feeling of privacy, and you've sold a house.

For instance, instead of enlarging the master bedroom suite, provide it with an enclosed private patio that allows the owner his own communion with nature. Instead of a huge family room, use part of the space for a small paneled study that's off limits to children.

Convenience. This, of course, is easy access to work, shopping, schools, transportation, and the like. And every good sales presentation will show these assets visually and dramatically. But young buyers, consciously or unconsciously, are also looking for convenience to fun and games. So a good project will offer as many recreational or entertainment facilities as economics will permit. If a family can buy a house or rent an apartment and get the convenient use of a golf course, or swimming pool, or clubhouse, or riding trail, why should they buy or rent where they get none of these? Not because it's cheaper. People want, and can pay for, leisure activities.

Convenience is also freedom from maintenance chores. The young owners of the red Mustang with the ski-rack on top take a pretty dim view of cutting grass, or shoveling snow, or

continued on p. 105

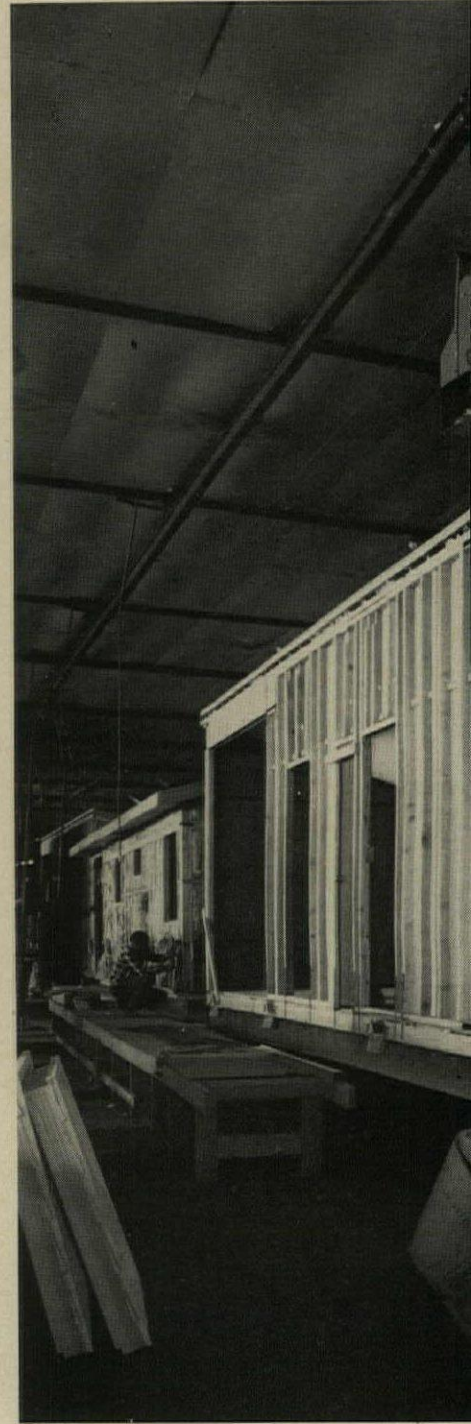
The changing face of prefabrication

Somewhere between this ...and this

House & Home Staff



CONVENTIONAL FRAMING CREW tilts up wall on a custom-house deck.



ASSEMBLY-LINE CREW installs

...the prefab industry is struggling

Vannucci Foto



insulation in a factory-built sectional house.

for faster growth

The struggle is a confused one, and you can't really understand it without a scorecard. The contestants include:

1. *Old-line home manufacturers*, who as late as 1959 accounted for the bulk of prefab starts—about 100,000 units, or 10% of the total housing market. As a group, these companies have fared poorly over the past eight years: Many have merged, closed, or gone bankrupt; others have watched their production shrink; and only a handful have managed a healthy growth.

2. *Lumberyards that have gone into prefabrication*. Thousands of these have sprung up in the past few years, some of them very large operations. Each has bitten off a little piece of the old-line home manufacturers' market.

3. *Sectional-home manufacturers*, most of them mobile-home companies. This relatively new branch of the prefab industry is quietly booming; some 60 companies will produce close to 18,000 units this year—a 20% increase over 1965.

(Watching contentedly from the sidelines is the giant mobile-home industry which, strictly speaking, doesn't build houses but will nevertheless turn out nearly a quarter of a million units for the under \$10,000-market this year.)

No longer is the object of the struggle to sell a packaged house. With the exception of the sectional house, today's prefab package is seldom more than sheathed walls (often with doors and windows installed), partition frames, and trusses. It's a rare package that costs more than 25% of the final house price.

This means that from the point of view of materials, the typical prefabber is now little more than a lumber dealer. And since he has to add to his price the cost of overhead, profit, and shipping, his prices can usually be beaten by a conventional builder with an efficient on-site operation.

So to be successful, a prefabber must offer the builder something more than a package of components. Too often in the past this something was lavish financial and merchandising aid which tended to attract weak builder-dealers, and thus proved disastrous to the prefabbers' profits. Today, the all-important extras are more salable design, more precise engineering, and better service at the site.

To see why prefabbers have had to struggle, and why some of them are slowly but surely gaining ground, turn the page.

The old-line home manufacturers no longer have the big post-war shelter market they grew up on

Phillips Photo Center



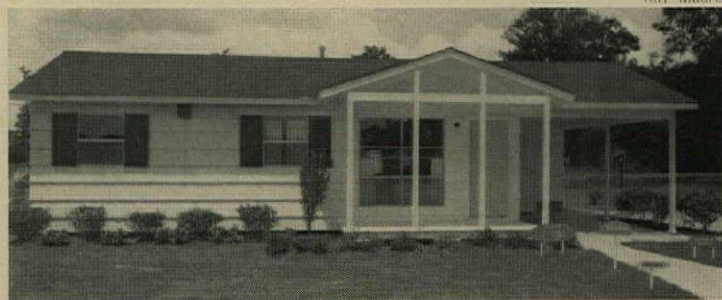
Low-cost tract houses like these used to represent the bulk of the prefab industry's production

For the booming post-war shelter market, these models couldn't be built fast enough. National Homes turned out the one shown above—\$7,500 without land—by the thousands. A builder needed just one sales theme: "It's a lot of space for the money."

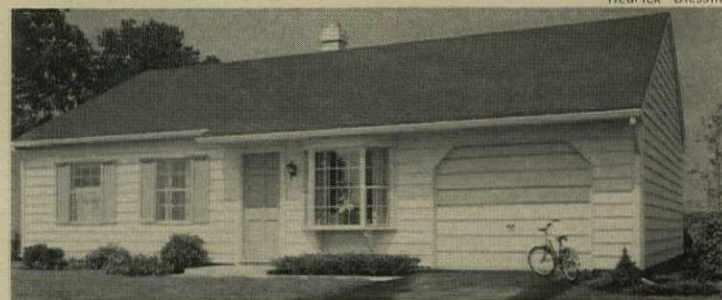
But when the shelter market and cheap land vanished at the end of the '50s, these low-cost tract houses had run their course. Not all the old-line prefabbers gave up on them right away; National Homes reported as late as 1962 that 80% of its production was still in \$15,000-and-under houses. Two years later, however, that share had fallen to 40%, and it has dropped steadily ever since. Many old-line prefabbers refused to face up to the disappearing low-cost tract market; they began disappearing themselves.

The new market demanded things that most of the big prefabbers were in no position to offer. In addition to space, the buyer wanted his house to have glamour and individuality. To survive in this market, prefabbers had to learn how to manufacture custom houses. But this required drastic changes in production and engineering methods. And the changes hurt: They cut the prefabbers' profits, shrunk their markets, and made their assembly lines so inefficient that today they can't begin to compete with the new king of low-cost housing.

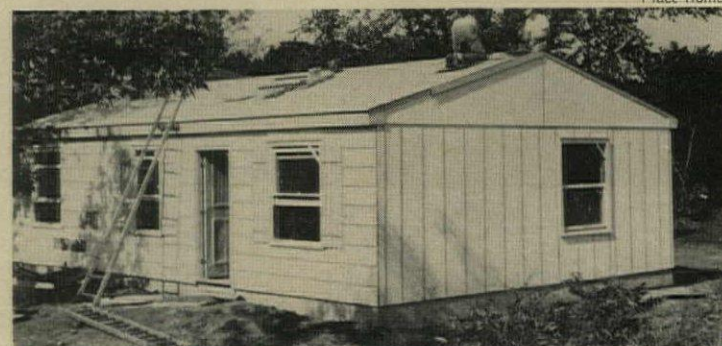
Ray Maurer

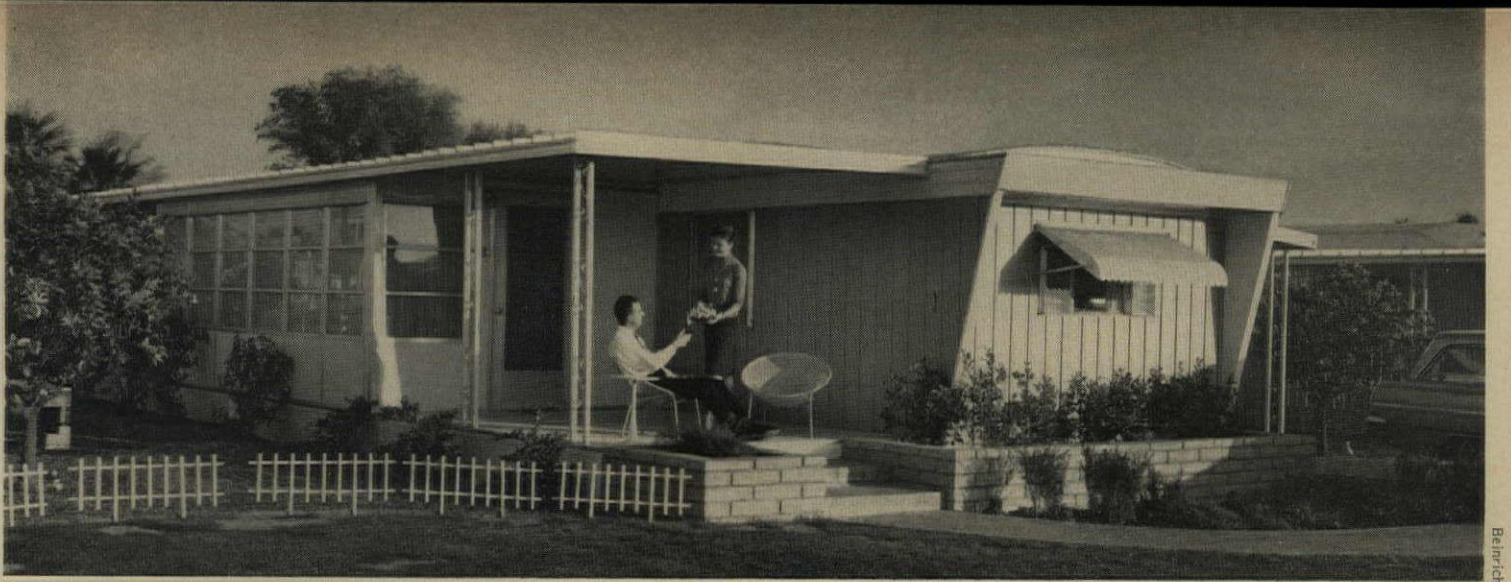


Hedrick Blessing



Place Homes





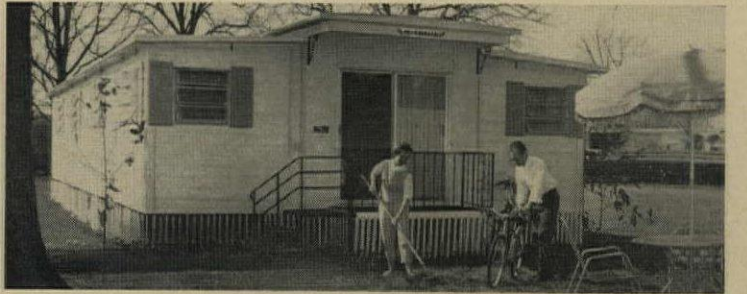
Beirlich

Today the mobile home gets the biggest slice of the low-cost market

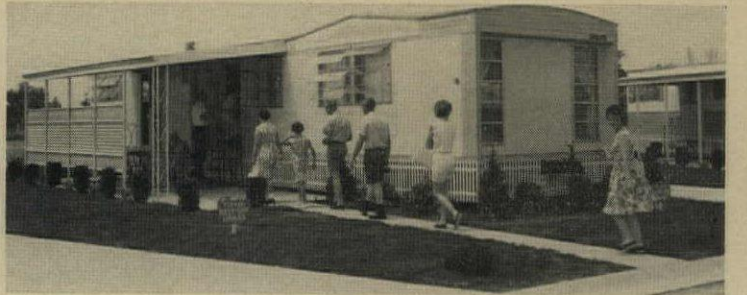
And that slice is almost the whole market. Mobile homes accounted for 76% of all new single-family houses selling for \$12,500 or less in 1965. (The total number of houses sold in that category last year was 285,470, according to a report issued by the Mobile Homes Manufacturers Assn.)

Mobile homes offer the low-income buyer much more than prefab houses ever did. They're lower priced, easier to finance, and easier to trade in, and they come furnished and decorated. Also, if the models of Phoenix Builder John Long are any indication (*photo above*), their design is improving.

But most important, a mobile home is perfectly adapted to the assembly line. It can be produced in less than 30 minutes, and the manufacturer controls 100% of the construction cost.



George J. Becker

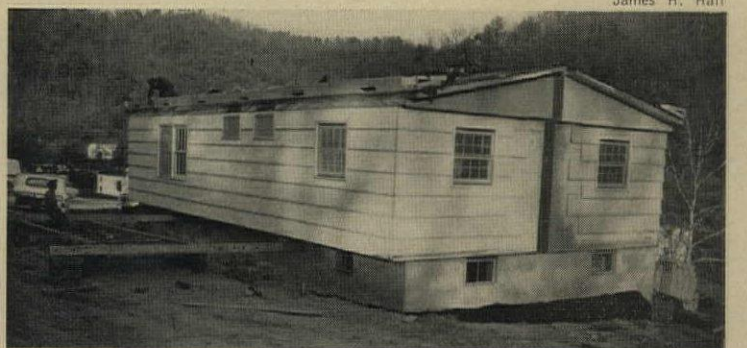


And tomorrow, the sectional house—a mobile-home offspring—will probably take what's left of low-cost housing

The sectional house is what the mobile-home manufacturers are using to capture the remaining 24% of the low-cost market—buyers who don't want a house on wheels. It is a house designed for a permanent foundation, but manufacturers produce it just like a mobile home—in two prefinished halves which are shipped separately and put together at the site.

The sectional house gives mobile-home manufacturers two additional footholds in the low-cost market. It gets them into conventional home areas, and it takes them into a higher price range—\$10,000 to \$17,000 with land—compared with mobile homes' effective selling range of \$4,000 to \$10,000.

Sectional houses are not entirely the domain of mobile-home manufacturers. One successful producer—Continental Homes of Boones Mill, Va.—is a prefabber that also makes components for high-priced custom houses. But the prefabber needs a completely different assembly line for sectional houses, while the mobile-home maker already has the line. Most prefabbers find the sectional house market too limited to warrant a new and separate operation.



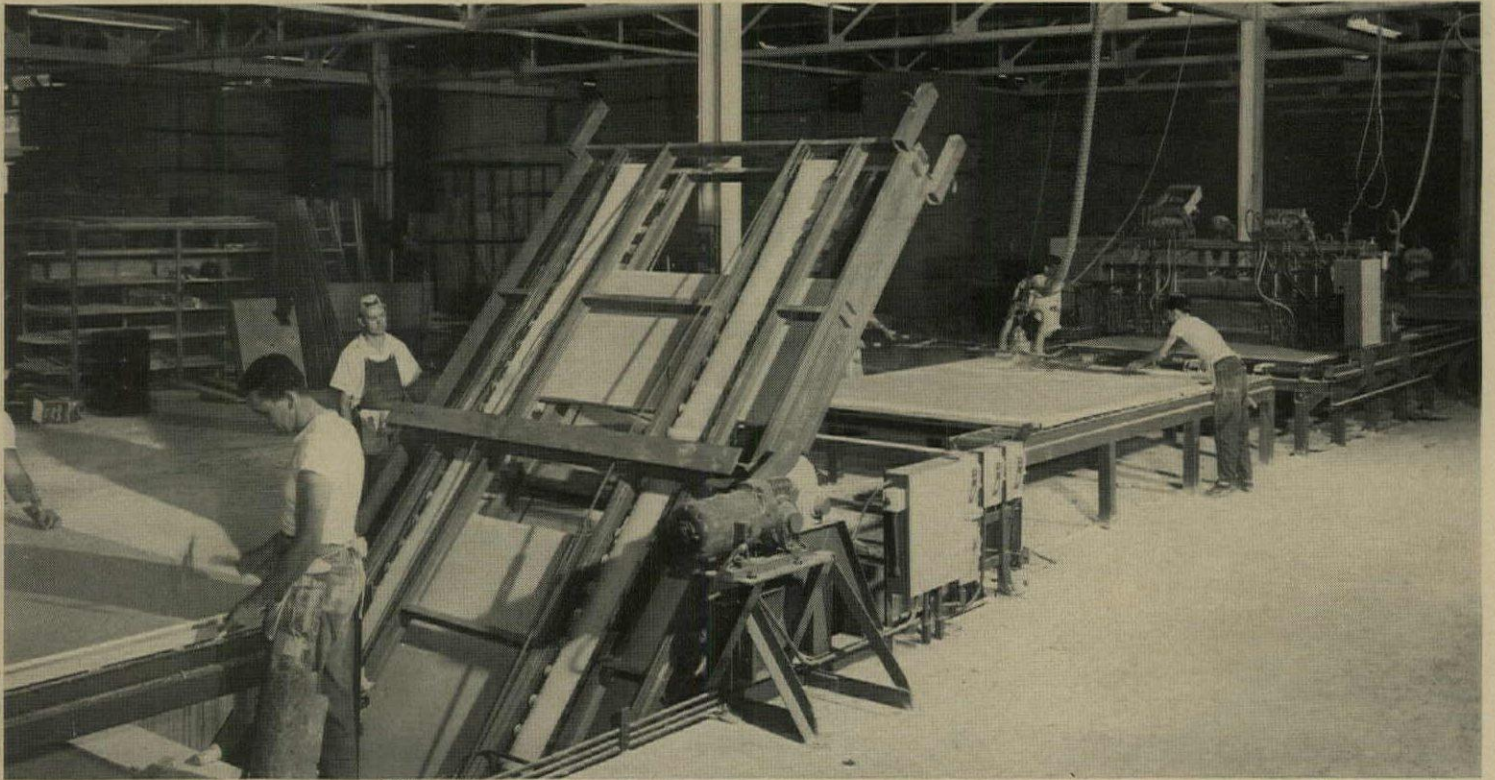
James H. Hall



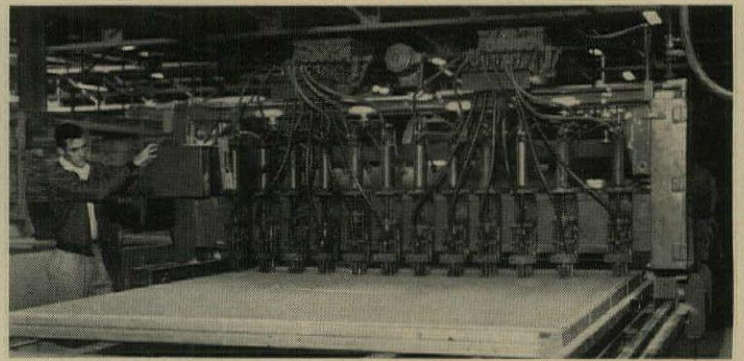
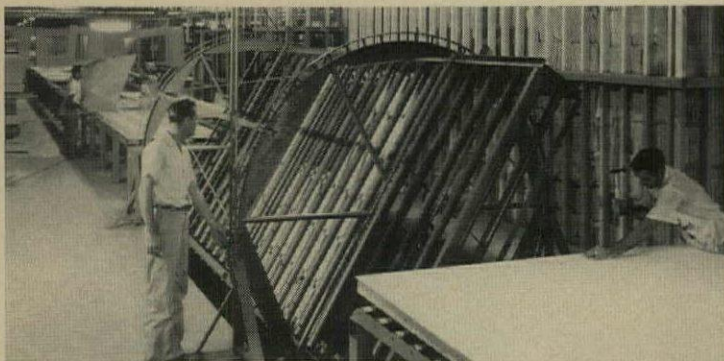
James H. Hall

So old-line prefabbers still geared to low-cost housing are in trouble

Highly mechanized assembly lines—built for the shelter market—are a hindrance in today's higher-priced market



Phillips Photo



Machines like these were made to mass-produce low-cost houses, but they don't pay their way in a market that demands design flexibility

In fact, most prefab machines that were hand-tailored to the shelter market are literally useless today; they were designed to fire out one-story houses with one kind of siding and one kind of window. For example: Two of the expensive machines shown above do nothing but turn wall panels upside down so workmen can apply prefinished drywall to one side and prefinished aluminum to the other.

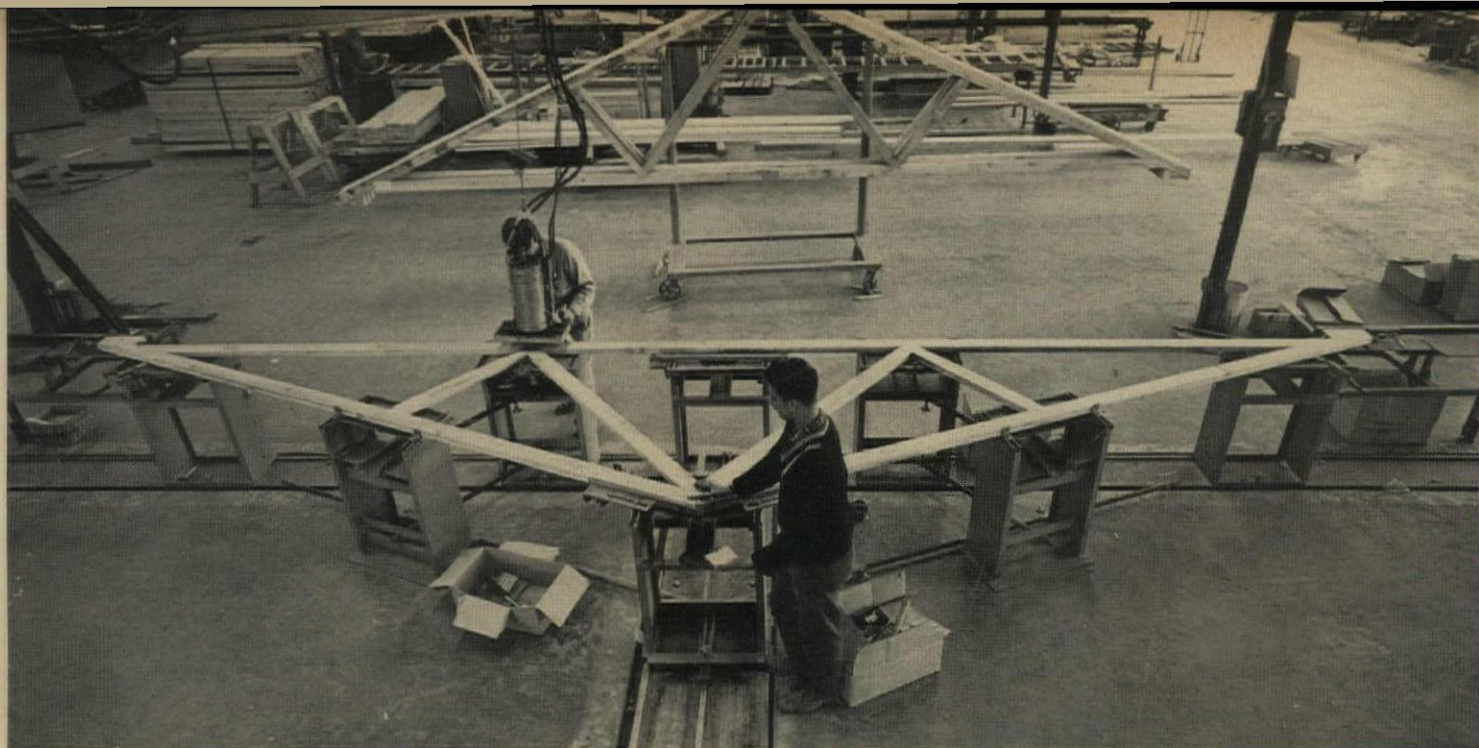
But the majority of today's buyers want all kinds of siding, all kinds of windows, and all kinds of colors, and they want houses so big that drywall has to be eliminated from the prefabricator's package to

keep the shipping weight down.

A highly mechanized assembly line hinders prefabricators in other ways, too. Overhead is so high that if business stops, the prefabricator can't afford to cut back. He must cut prices and make unprofitable deals to keep operating.

Furthermore, tight standardization handicaps designers and engineers by making it difficult for prefabricators to diversify into non-house markets like apartments and commercial construction.

So the big prefabricators have had to reduce their efficiency in order to survive.



Peter Besh

Simpler and less-expensive machinery offers adequate efficiency, plus almost unlimited flexibility

Machines like Hodgson Houses' truss-assembler (above) and conveyor jig (right) represent a compromise between automatic machine-power and men with hand tools. They can prefab almost anything.

But their flexibility is not free. A custom house can cost a prefabber several hundred dollars in engineering. So even with a flexible assembly line, a prefabber still sells standard models to one-shot customers and offers true custom work only to builders who take substantial orders.



Peter Besh

But a high-volume builder's assembly line—with minimum overhead—can beat the cost of any prefab package

And that is why, except in extraordinary marketing situations, high-volume builders don't buy prefab packages. The package appeals only to small builders, particularly those with scattered-lot operations, who don't have the volume to justify equipment, big crews, and supervisors.

Tract builders have practiced all degrees of prefabrication both on-site and off, and with prefab specialists becoming less rather than more efficient, builders' assembly lines make more sense than ever. Some builders have become such proficient prefabbers that they have gone into the house-package business for themselves.

A builder's crew can prefabricate trusses and wall panels so close to the house site that they can be picked off the jig, carried to the site on a crude trailer, and set in place—all in a couple of hours (photos, right). The shop can be as big as the one shown (it is run by Place Homes, South Bend—H&H, Feb. '64) or as small as a truss press on a flatbed trailer.



Andy Place

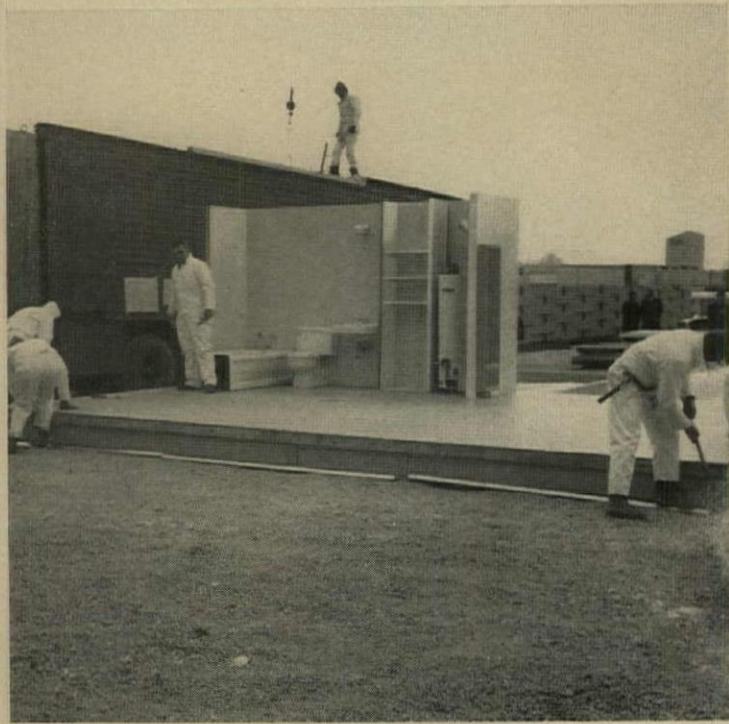


Cloeting DeMaon

Today's assembly lines are simpler because today's package is smaller

Shipping costs limit the size of the package, the degree to which it's finished, and the distance it can go

Chic Bureau Photo



Prefabbers used to think the way to higher profits lay in shipping as complete a package as possible

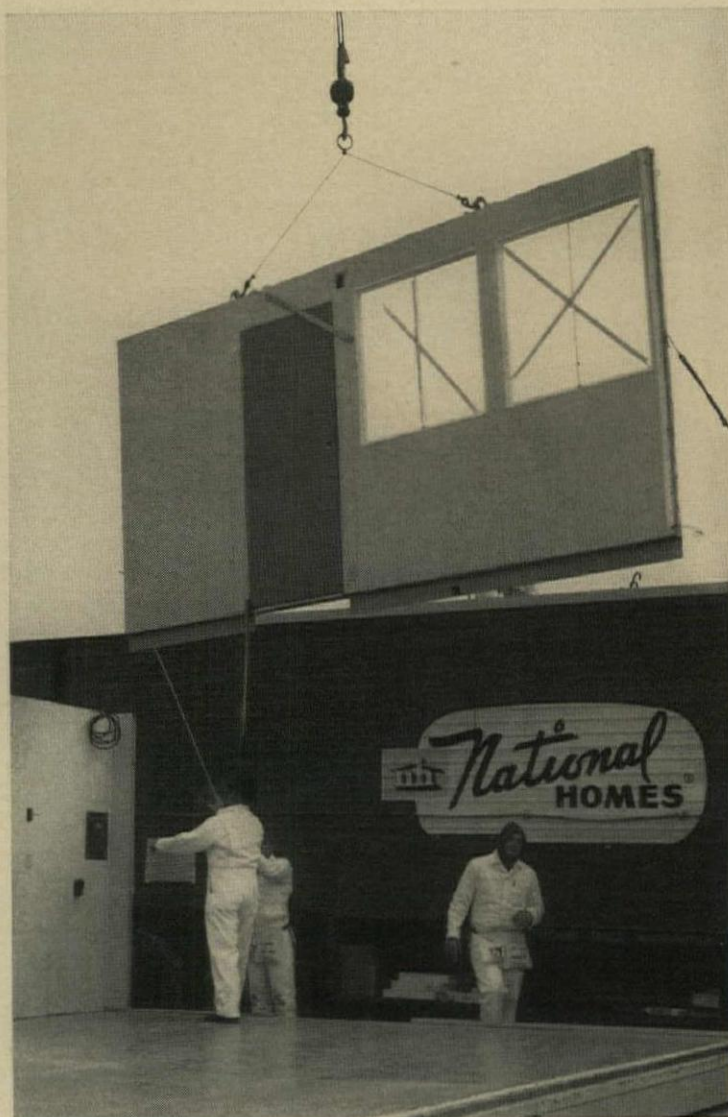
While this is certainly true of the mobile home and the sectional house, it has proved to be poor logic for higher-cost prefab packages.

Old-line prefabbers used to think in terms of the kind of system shown in the three photos on this page: prefinished and prewired wall panels, floors and roofs, and a plumbing core containing bath and kitchen fixtures. This would let the prefabber package—and take a profit out of—everything but the foundation and furnishings.

Even further in that direction was the dream some prefabbers had of automated presses molding a prefinished sandwich wall out of plastic and simply punching out the door and window openings.

But not only did the plastic-wall dream fade, so did the completely closed conventional panel. As buyers began demanding bigger and bigger houses, the weight of the drywall made it too costly to ship.

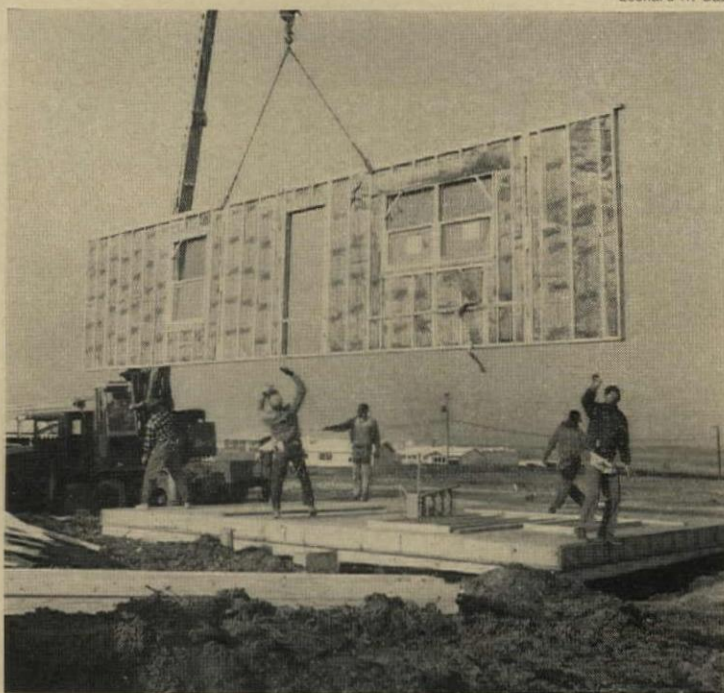
Prefabbers had to resign themselves to shipping open framing. They also stopped trying to ship roof panels, floor panels, mechanicals, and so many other parts of the house that today they often sell even less than a complete house shell. And even the shell itself is getting skimpier.



Phillips Photo Center



Leonard H. Bass

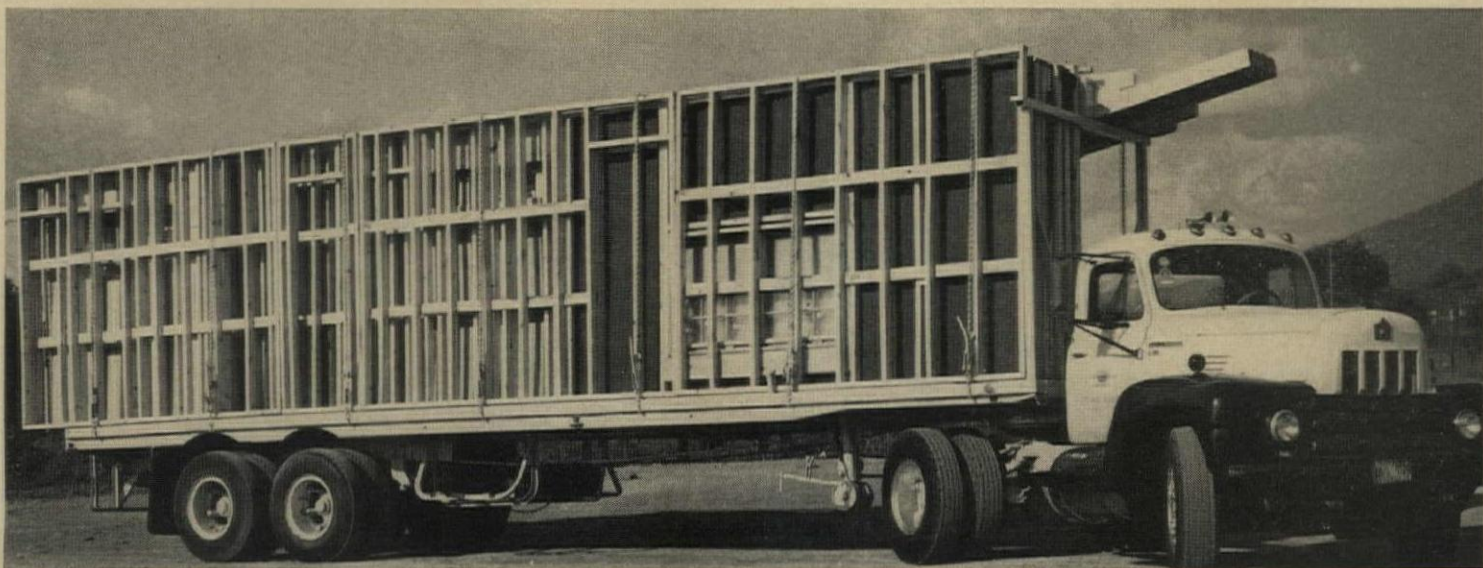


Big components are so expensive to handle that less-finished panels usually make more sense today

Not only have prefabbers given up on applying interior wall finishes, many have given up on applying exterior finishes as well.

A wall with factory-applied siding can present problems. Horizontal-sided panels must be produced in full-house lengths if seams are to be avoided. They require extra shipping space because they must be carried upright to avoid damage. It takes trolleys and cranes to load and unload them (*photo, left*). And they have to be erected directly from the delivery truck, so a crew must be on hand when they arrive.

Except in scattered-lot markets, where pre-sided walls offer a significant advantage to builders, the prefabber's panel today is simply studs, sheathing, and sometimes windows and doors.



And tomorrow a still smaller and less-finished package may prove the most practical of all

The package may be just a truckload of pre-cut and sub-nailed framing parts (*photo, right*). A small builder would put them together on the house deck and tilt them up; a big builder would assemble them in a shop.

Most prefab packages—aside from their trusses and stud-and-skin wall panels—are no more than pre cut lumber right now. In fact, some prefabbers, like Presidential Homes of New Jersey, sometimes ship trusses knocked down to cut handling costs.

If prefabbers ever decide that bare wall panels aren't worth the trouble (they never constitute more than 10% of house cost), a knocked-down pre-cut package would probably be the replacement.



That's why lumberyards have become such a big factor in prefabbing

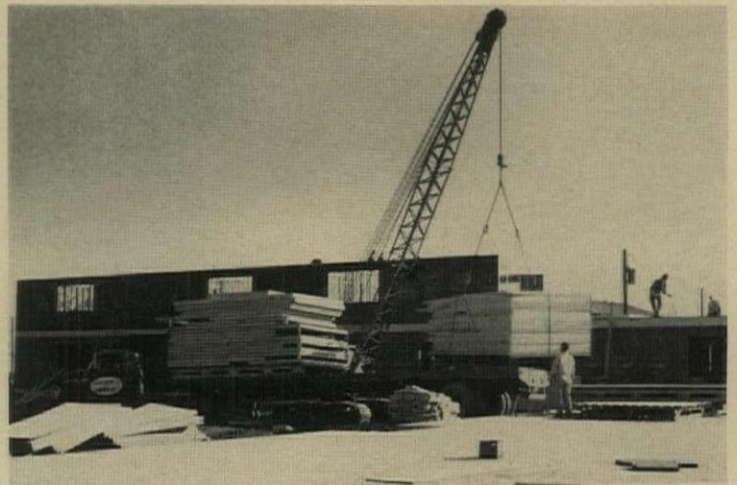
Lumberyards have become successful prefabbers because they can concentrate on one local housing market

Lumberyards can give builders much better delivery service than a big regional prefabber offers

That's the chief reason so many small lumberyard-prefabbers are keeping big prefab specialists out of metropolitan areas, despite the latter's much greater edge in design, engineering, merchandising and financing aids.

Lumberyards can provide better delivery service because their shipping problem is simpler. In metropolitan areas, most of them draw the bulk of their business from a 50-mile radius (some prefab specialists ship their packages more than 300 miles). So instead of squeezing a house package onto one or two trucks and forcing the builder to take everything at once, a lumberyard-prefabber can ship the package on four or more trucks, delivering each portion of the package when the builder calls for it. If a load is short or a panel won't fit, the lumberyard can make an emergency delivery in a few hours instead of days.

For a volume apartment builder, a lumberyard can be virtually a shop-in-the-field. For instance, Davidson's Lumber Co. of Indianapolis builds the apartment components shown on this page, and also provides crane trucks to deliver trusses to the top of a three-story building (*below*). Delivery cycles are so short that trailers loaded with wall panels are left at apartment sites to be unloaded as construction progresses (*upper right*), then picked up empty by the tractor that delivers the next load. And delivery schedules may be revised hourly.





Small lumberyard-prefabbers can give builders 100% custom design

Unlike the big specialist, a small prefab shop isn't forced into standardization to cope with high overhead. Its equipment is simple, its crews are small, and its management needs are minimal because its volume is limited.

This kind of supplier can offer shop-in-the-field convenience for a high-volume custom builder. Example: Hoffner Rosner Corp. of Chicago, which is building 300 to 400 houses in three tracts ranging from \$22,000 to \$52,000 (*above and right*), turned to prefabrication a few months ago to speed production. Instead of considering a prefab specialist, the builder persuaded a truss supplier and a lumberyard to invest in panel-making equipment. Says president Robert Rosner: "We want the builder to run the show, not the prefabber."

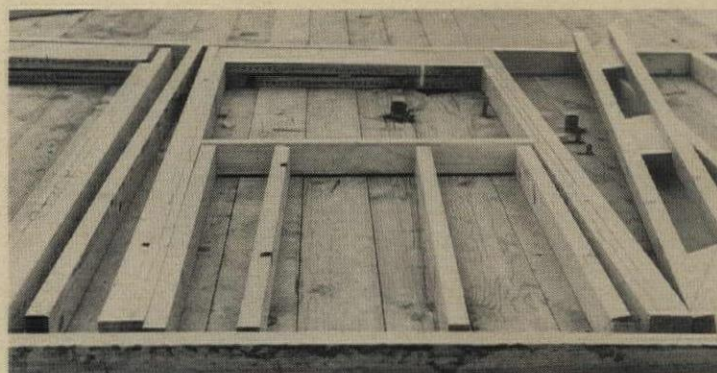


Precut packages may well be the best prefab method of all for lumberyards because they eliminate overhead

The lumber supplier who buys the kind of sub-components now becoming available from some West Coast suppliers needs only storage sheds to make up a house package. Yard men simply assemble a truck-load of interchangeable parts. And the load can be winched off at the site, simplifying delivery.

Subcomponents are more than just pre-cut lumber. For example, Wood Components Co. of Eugene, Ore., supplies pre-nailed headers, jack studs, and corner and partition posts as well as pre-cut studs and truss members. Plates are pre-marked at the yard to simplify on-site assembly. The only standardization required is a set stud length and a general limit on the variety of rough window openings.

This sort of package appeals particularly to larger builders in metropolitan areas (Levitt & Sons and Ryan Homes, for example). By reducing nailing as well as cutting, it lets crews build at the site faster than they could conventionally and cheaper than they could by buying panels from a prefabber.



But some old-line prefabbers have answers to this competition

Scholz Homes is growing because it offers a wide range of glamorous designs that have tremendous sales appeal



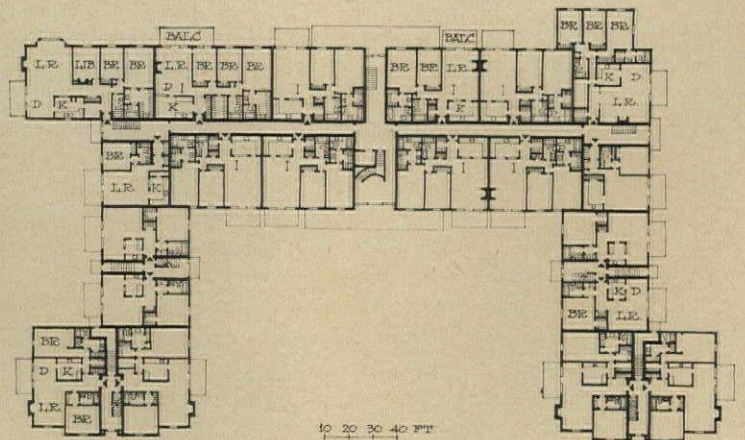
GLAMOROUS EXTERIORS, always a trademark of Scholz houses (*above*), are applied just as effectively to Scholz apartment designs (*right*). About 25% of the company's sales volume is in apartment and townhouse packages. This two-story project is in Toledo.

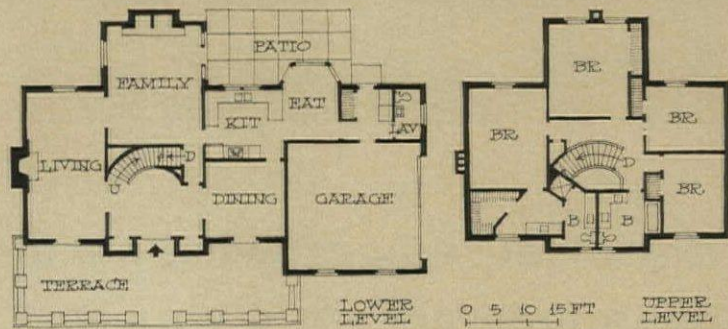
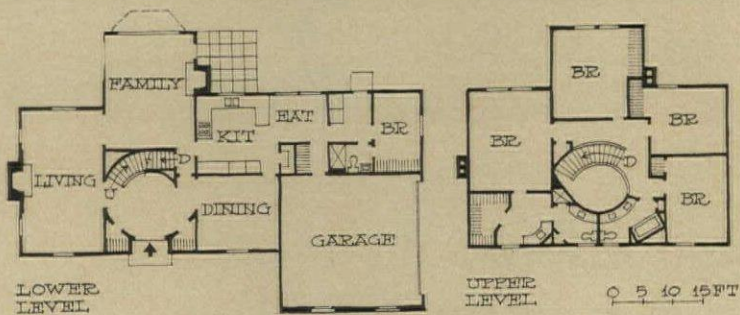
And that, rather than production speed or cost savings, is the main reason builders have been buying Scholz packages in increasing numbers for 15 years. Scholz offers just an average degree of prefabrication, and its production facilities seem almost primitive.

Yet Scholz attracts builders who are as far as 900 miles from its Toledo, Ohio, plant, shipping to them economically by using piggyback transportation—truck-trailers on railroad flatcars—for 70% of its packages. And its sales growth continues strong even in tight-money times: \$6-million for the first six months of 1966 compared with \$4.5-million for the first six months of 1965.

Scholz concentrates on upper-middle-income buyers, giving them dramatic entryways, circular foyers, sweeping stairways, and classic facades. Its average package retails for \$36,000 to \$40,000 without land (*photos and plans opposite*), so its share of house cost averages more than \$9,000.

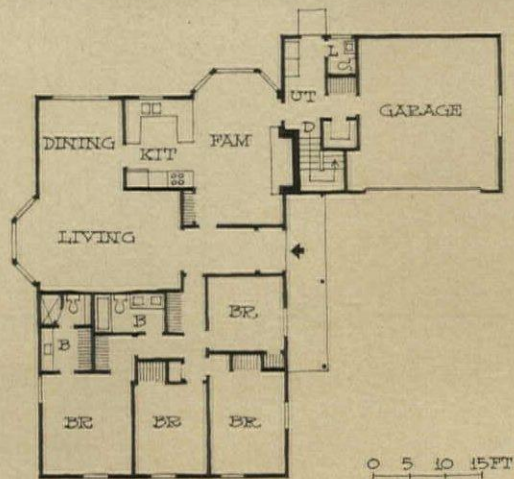
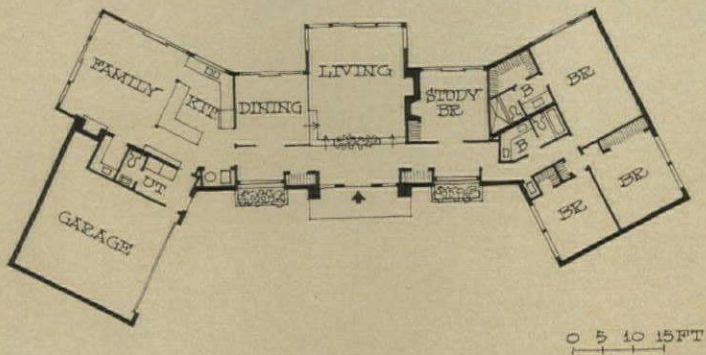
Scholz has tried other marketing approaches, but with disastrous results. Several years ago it offered a sectional house in three as well as two parts, and acquired a half-dozen branch plants. But it has returned to its forte: stand-out design and the rigid quality control of a single plant.





EARLY AMERICAN DESIGN retails for \$44,000 to \$48,000 without land. But Scholz offers four plan sizes, permitting a price as low as \$32,000.

CHATEAU DESIGN incorporates a variation of the Early American plan shown at the left. Retail price, minus land, ranges from \$46,000 to \$50,000.



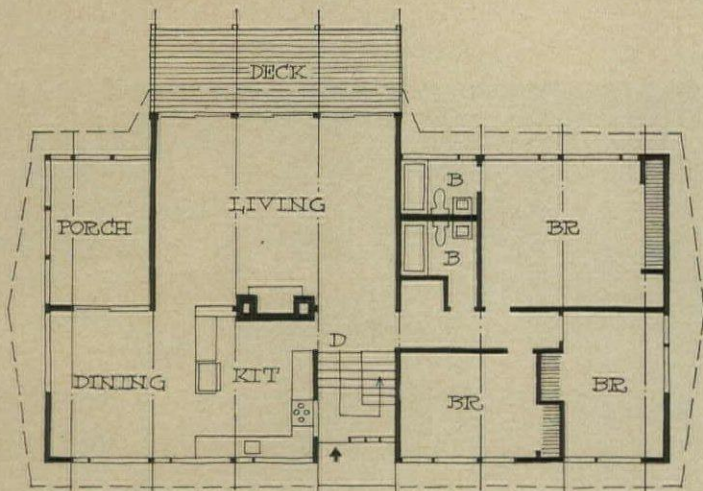
CONTEMPORARY DESIGN, called the Mark '65, has all the Scholz earmarks, from dramatic entry to angular plan. Retail price: \$47,000-\$55,000.

MODERN DESIGN, called the New Englander, comes in five plan sizes retailing for \$23,000 to \$40,000. Scholz L-shaped floor plans are popular.

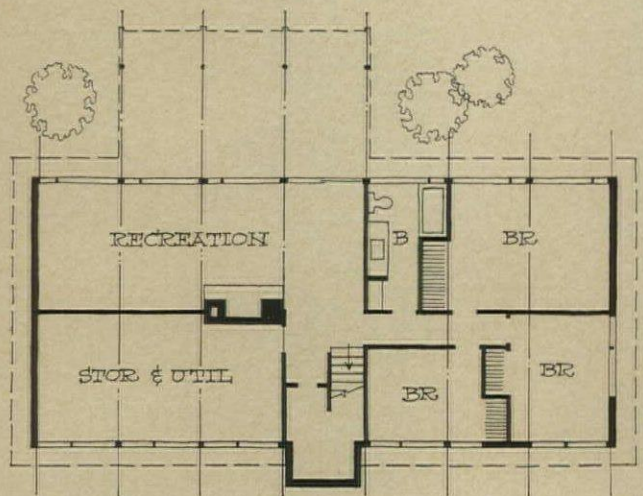
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Deck House is growing because it offers a distinct contemporary style plus custom design service



UPPER LEVEL

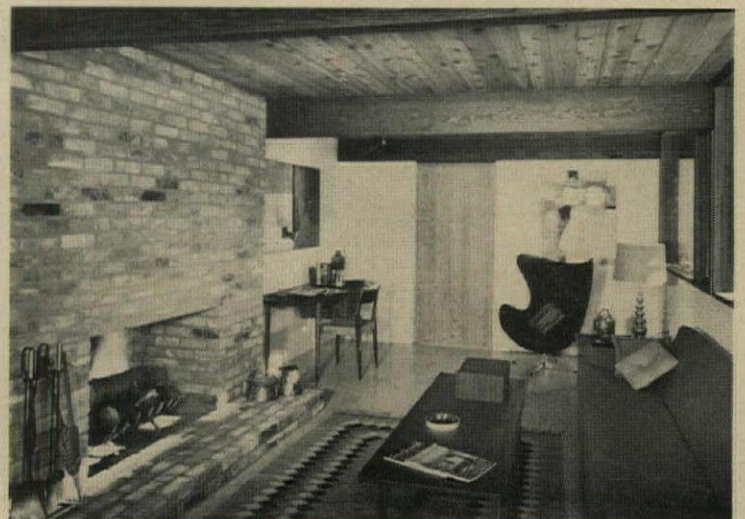


LOWER LEVEL

0 5 10 15 FT

Here is strong evidence that design is more important than the degree of prefabrication. The Deck House package consists of little more than wallpanels, pre-cut beams, uncut T&G planking, some millwork, studs, and roofing (*photos, right*); it costs about \$12,000. Yet the company is shipping houses from its plant in Acton, Mass., to as far away as Wisconsin and the Carolinas. Last year's volume was 120 houses (average price: \$35,000); this year, despite tight money, it will be about 160.

Deck House has standard models, but most buyers make custom interior changes. A company architect works out a plan and a budget with the buyer, then moves temporarily to the area and acts as a general contractor while the house is built. One house usually produces other local contracts, and when a carpentry sub proves he can produce the level of quality Deck House demands, he becomes the company's contractor for the region.

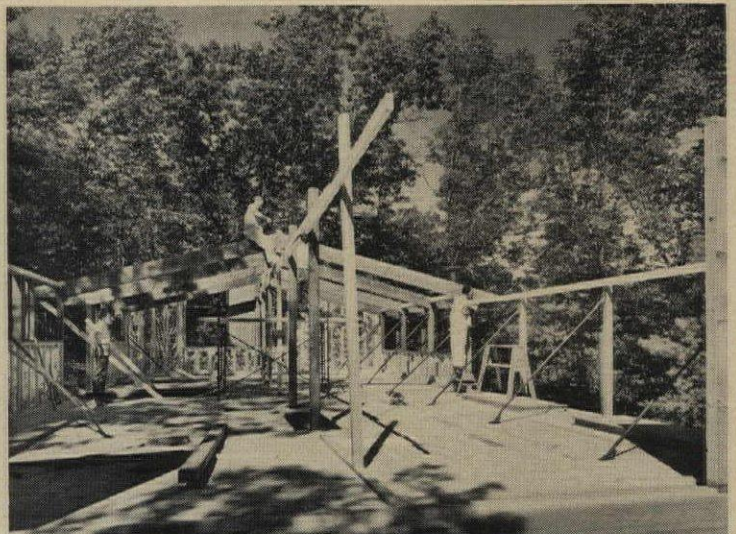




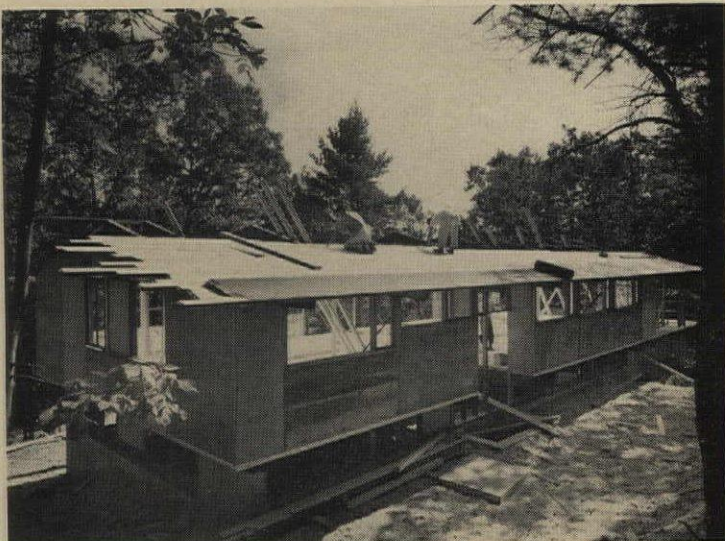
The Deck House package has so few components it's practically a load of lumber



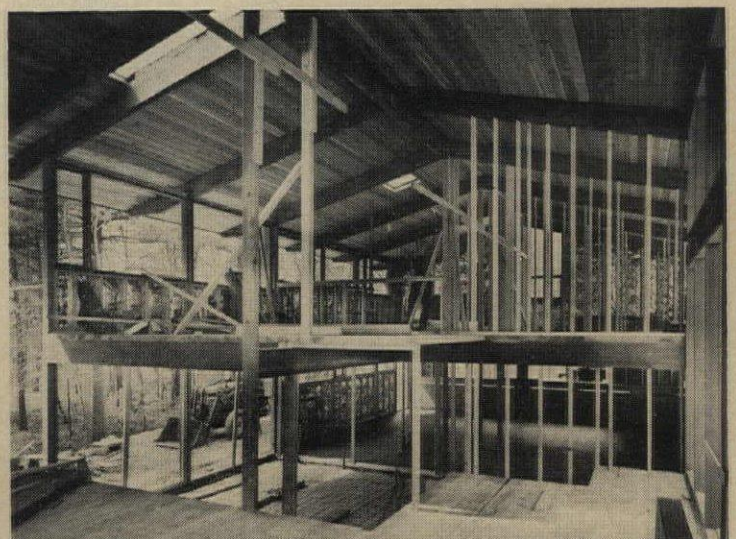
PRECUT ROOF BEAMS are set up on post-and-beam ridge. Wall panels are built in the shop so that quality of window millwork can be maintained.



SECOND-LEVEL DECK is 3x6 T&G over pre-cut beams set 8' o.c. Decking is strong enough to cantilever out 2' front and rear without bracing.

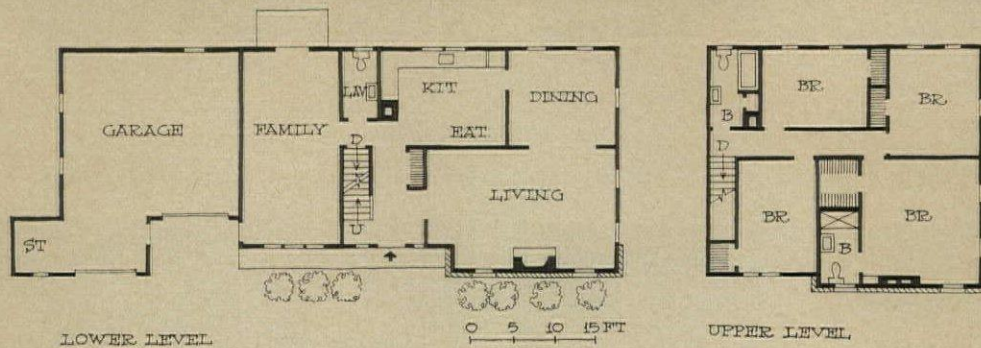


T&G ROOF DECK is laid over beams. On jobs far from plant, decking is shipped to site from the lumber manufacturer's nearest regional warehouse.



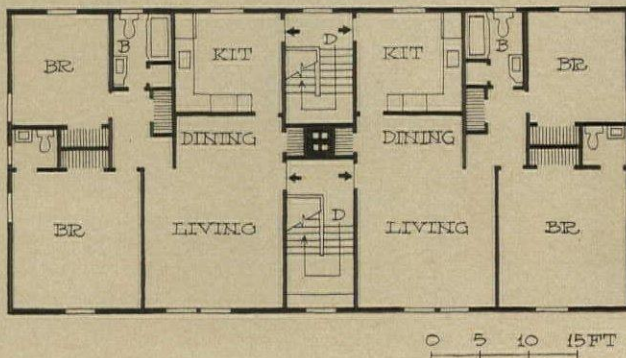
COMPLETED SHELL is ready for partition walls. Only limit on interior layout is the position of ridge posts, which are spaced 8' o.c.

continued



Presidential is growing because it offers good bread-and-butter design plus thorough engineering

WIH's Tiny Tot Studio



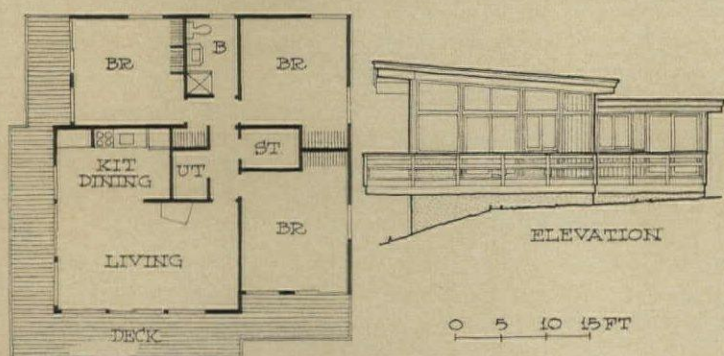
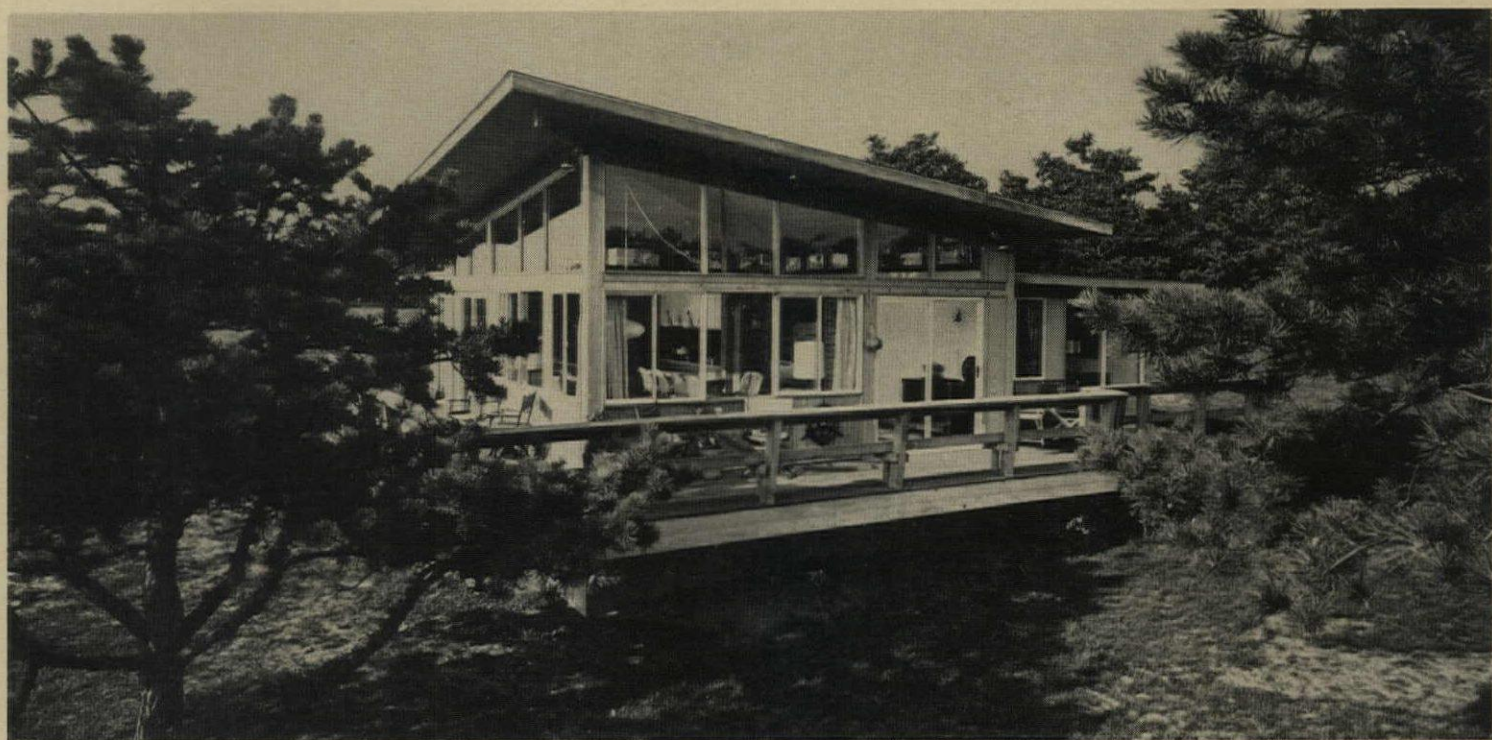
And because of its 10- to 15-man engineering department, Presidential Homes' many standard designs, like the one above, can be as flexible as the prefabber wants to make them. In fact 80% of Presidential's packages are either revised or custom plans.

Most of Presidential's packages are just bare house shells (no siding) worth \$2,000 to \$5,000. The company offers no financing aid, no easy credit, no cooperative merchandising programs—and even encourages builders to buy materials from local sources when it makes economic sense.

Yet Presidential is competing successfully with local prefabricators in towns 300 miles from its single plant in Pemberton, N.J. And its volume has grown 25% in each of the last three years, to 1,300 units in 1965. Some 500 of these were apartments (*left*), a market Presidential developed in only three years, thanks to its engineering strength.

Says executive Joseph Grasso: "Our engineering is what separates us from the lumberyard."

Stanmar is growing because it specializes in exciting design for the second-home market



Craig

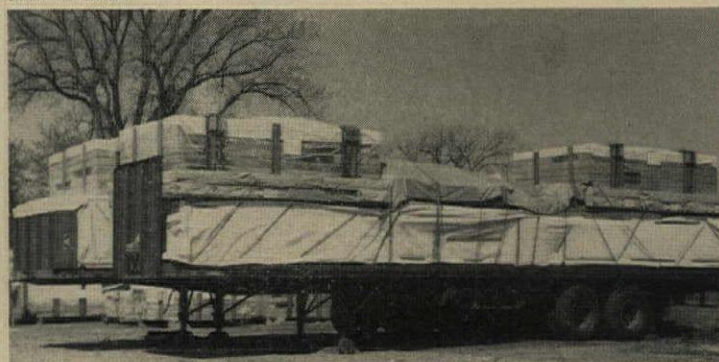


Because its design is so popular, Stanmar Inc. ships its packages to market as much as 700 miles away from its Sudbury, Mass., plant. One-third of its production goes into New England, one-third down the Atlantic Coast to the Carolinas, and the remaining third to inland Middle Atlantic states and as far west as St. Louis. Piggyback rail shipping (see p. 80) accounts for 15% of the longest hauls.

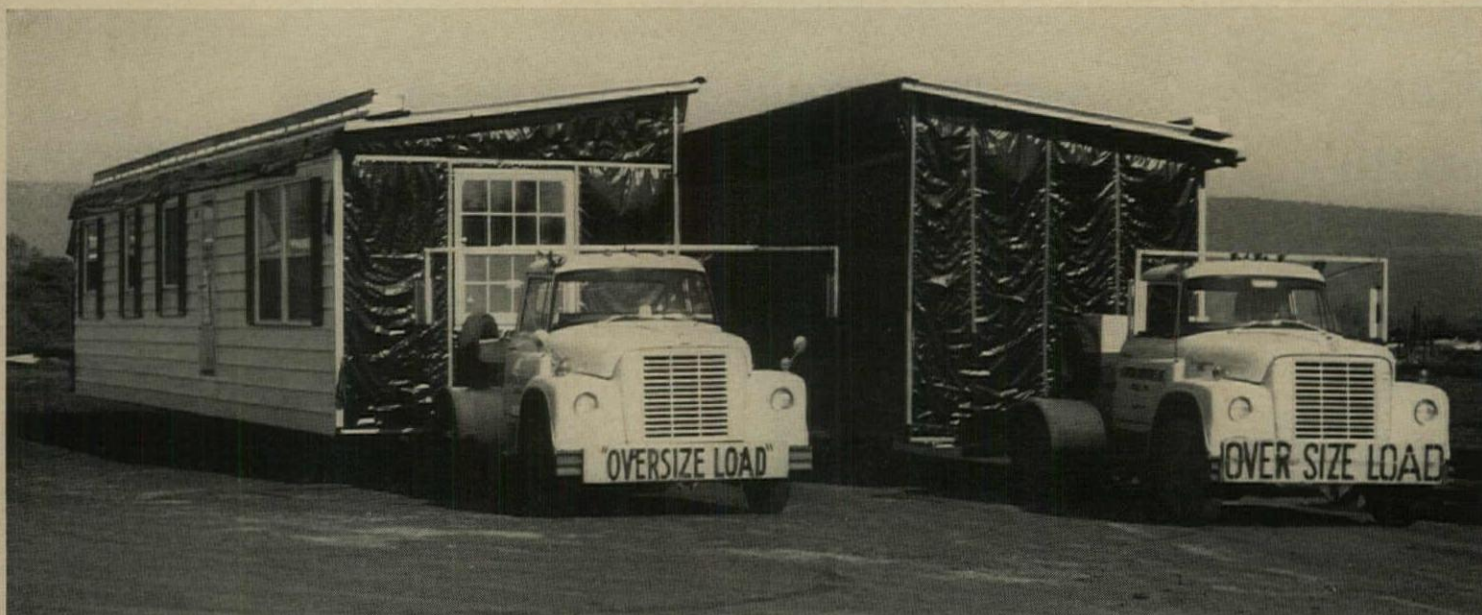
Because Stanmar's package is so special, the average package cost is \$6,500—close to half of completed house cost. Stanmar's high-style second homes (*above and left*) have massive glass walls, soaring roof lines, and big outdoor decks. Two-thirds of them are winterized for use in ski areas and as year-round retirement homes.

Stanmar prefabs as much of the package as possible because most of its houses are built on remote, scattered sites. But most of its designs are post-and-beam, so prefabbing is limited to the walls.

John D. Hilton



continued



Sectional houses look like the prefabber's best approach to what's left of the lower-cost detached-house market

Even though most of them are made by mobile-home companies, the prefabber's traditional enemies, sectional houses are now very much a part of the prefab industry.

Sectionals didn't always look so promising. The early ones were little more than mobile homes on block walls. They had unattractive roof lines and finishes, and had to be handled by cranes.

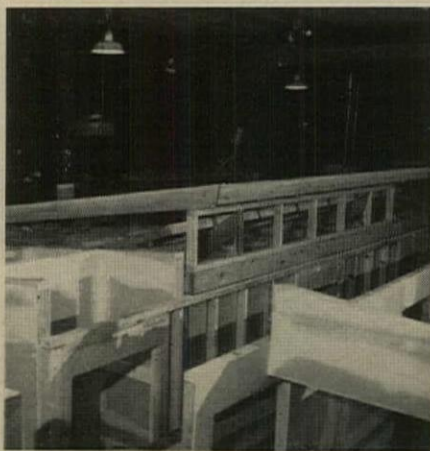
Today, however, sectionals can be as attractive as the one on the facing page, sold by Capital Industries of Avis, Pa. The interior is finished with gypsum-board; bathrooms are ceramic-tiled; and the package includes all decorating, appliances, and a hot-water heating system. Typical price tag, including land and

septic tank: under \$17,000 for a 24'x57' house with four bedrooms.

Sectional-house manufacturers have upgraded their structural materials to meet FHA standards and have found ways to reduce design and shipping limitations (*see below*). They still face local code problems, but now that sectionals look like houses instead of trailers, the problems are less severe.

All these improvements are making sectional houses more attractive to homebuilders. Not only is the product better, its potential profits are higher. Capital reports that builders in its marketing area—Pennsylvania, Maryland, New York, and New England—are making \$1,500 to \$2,000 on its sectionals.

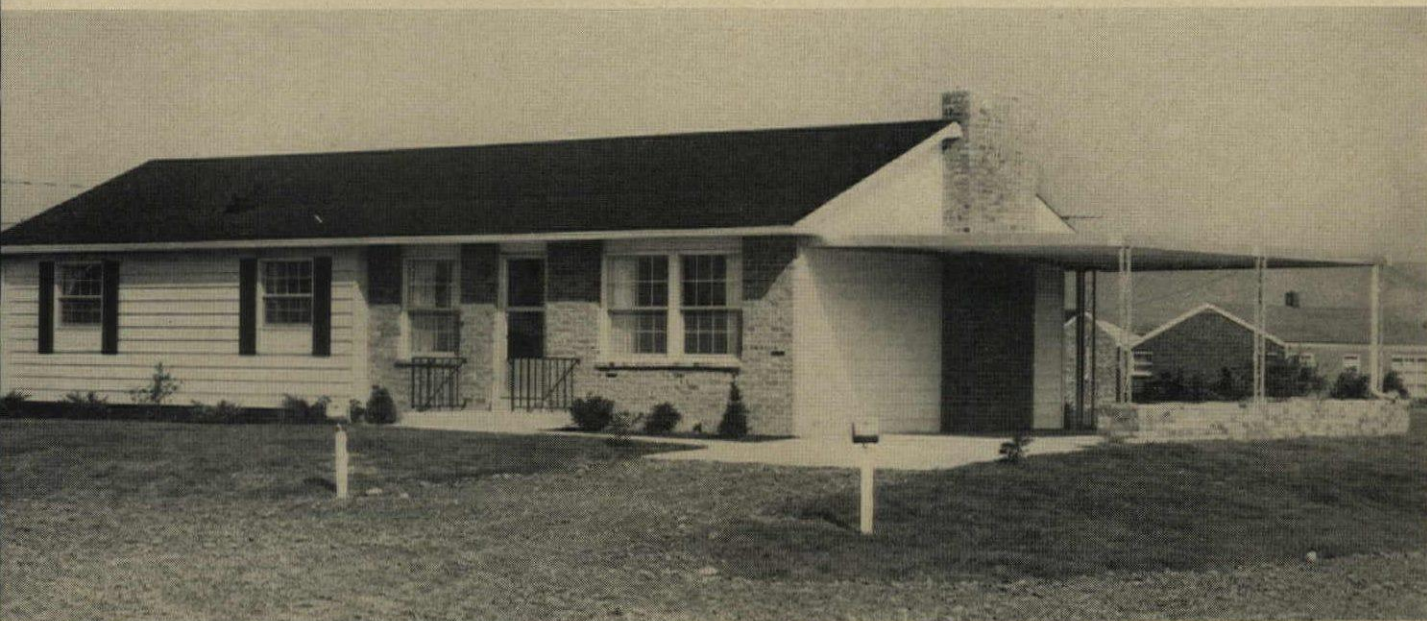
Better engineering gives sectional-house buyers a bigger choice of exterior design . . .



Low roof pitch has always been one of the toughest design problems for sectional houses. It was forced on manufacturers by state highway regulations that limit truck-load heights to 13'6".

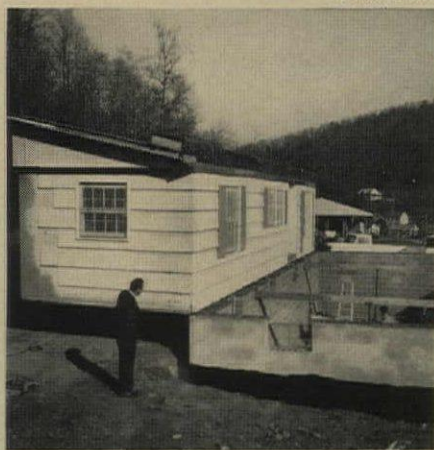
But at least one manufacturer now has a way to beat that restriction, and it's so simple that any sectional maker can easily follow suit. The manufacturer, Capital Industries, simply pins rafters to ceiling joists so that the roof of each house section can be jacked up when the sections are combined at the site. The builder inserts prefabricated kneewall sections (*far left*) which are shipped flat (*left*).

The system lets Capital offer a 4/12 pitch, and may eventually permit 9/12.



and simplifies the handling of the two halves at the job site

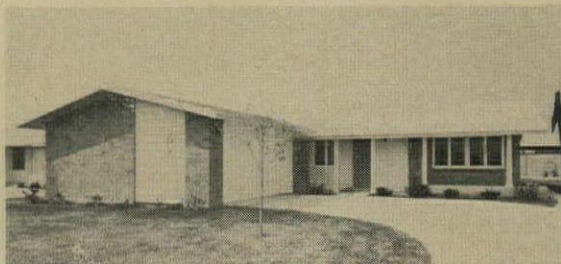
James H. Hall



Simpler handling methods have proved an important breakthrough for sectional houses. Early models were handled by heavy cranes—costly, hard to schedule.

Today manufacturers use systems like the one developed by Continental Homes (*photos, left*), which eliminate the crane, and still get the house together fast.

Continental lays steel channel beams into slots in the foundation and rolls house sections across them. A section is towed up to the beam ends (*far left*) and jacked clear of its trailer. Then beams and rollers are placed under it. The section is dropped on the rollers, pushed onto the foundation, then jacked up and down again to remove the hardware (*left*).



What ever became of

the big noise about the Quiet Home?

Few merchandising ideas ever looked more promising than did the Quiet Home in 1963. A leading southwestern builder—Fox & Jacobs of Dallas—built a major promotion around the assumption that buyers would pay more for a house in which the inevitable noise of living was cut to a minimum. Two subsequent NAHB Parades of Homes used the Quiet Home as their central theme. And manufacturers and associations backed the promotions with both money and talent.

Yet today all the noise about the Quiet Home has dropped to a whisper. What happened? Is the Quiet Home dead and buried?

With the clarity of hindsight, most of the parties concerned with the early Quiet-Home promotions now agree that while the idea was sound, its execution was unrealistic. So they have taken a deep breath and—much more quietly—started to put the Quiet-Home concept into a form that will make equal sense to both buyers and builders.

To understand why the original Quiet-Home promotions failed, and why the new promotions hold much more promise of success, start on the next page.

The first builders to promote the Quiet Home were disillusioned with the results

Three builders who pulled all stops in their promotional efforts in 1962-3 now say it just wasn't worth it. Reason: The public wouldn't pay the extra cost.

St. Petersburg Builder Charles Cheezem tried merchandising an optional \$850 sound-conditioning package. Planned for houses in the \$16,000-to-\$20,000 price range, the package included staggered-stud wall construction with woven insulation (\$205), a ceiling of non-hardening acoustical plaster (\$100), fiberglass-insulated bathroom walls (\$10), a sound-proofed disposer (\$27), and carpeting (\$500).

Cheezem's houses also included these standard sound-conditioning features at no extra cost: a sound-conditioned dishwasher, fiberglass ductwork, siphon-jet toilets, and a fiberglass partition between the house and garage walls.

Cheezem displayed a sound-conditioned house in a 1963 Parade of Homes and promoted it in his advertising. Specially trained salesmen demonstrated sound-conditioning features room by room and took prospects into a partly built house to show hidden sound-conditioning features.

But although the houses sold, the sound-conditioning extras didn't—even after Cheezem scaled them down to about \$300.

Says Cheezem today: "Fiberglass ducts, quiet disposers, and better plumbing fixtures are now standard in our houses. But they don't add much to the cost. If you put an extra \$250 or \$300 into a house and get no increase in sales, you obviously spend your money on something else."

The Dallas firm of Fox & Jacobs spent "many thousands" promoting sound conditioning but sold only four Quiet Houses. The late I.P. (Ike) Jacobs was the first builder in the country to build an experimental sound-conditioned house in 1962 (H&H, Nov. '62, June '63); from this experience, he made up a sound-conditioning package costing roughly \$500 for houses

in the \$13,000-to-\$35,000 price range.

The package included acoustical ceiling tile in the kitchen, the master bath, and one bedroom; weather-stripped acoustical doors in the master bedroom and second bath; and insulated, double-stud walls in bedrooms and baths.

Less-costly sound-conditioning items were an oversized, slow-turning furnace circulation fan; sound-absorbent lining in the return-air plenum; a separate air-return system for acoustically sealed rooms; low-noise-level grilles; sound-absorbent lining in the furnace room; acoustical glass fiber around the furnace fan; an attic exhaust unit for venting bathrooms; a quiet garbage disposer with double trapping; a quiet dishwasher; a quiet kitchen vent hood; no-slam gasketing on passage doors; and sound-absorbing material in the washer-dryer area.

Jacobs and his partner, David Fox, went all out in their merchandising. They sent 14 salesmen to a psychologist to explore motivations for buying sound-conditioning and to develop a sales approach that would find the best buyer response. They created dramatic sound-conditioning displays (H&H, Jan. '64). They advertised heavily that "sound conditioning will someday be as much of a necessity as air conditioning." And finally, to overcome the problem of extra cost, they tried to merchandise it as standard construction.

But despite great public interest, few people bought houses with the full sound-conditioning package. Says Fox: "We gave it a real college try, promoted it hot and heavy. But the extra cost made the houses non-competitive in the market. People think their \$500 can be better spent elsewhere. We still use quiet disposers, quiet dishwashers, fiberglass ducts, and door gaskets—the things that people recognize the dollar value of. But we're no longer promoting sound conditioning separately; we're selling it as part of a better total package."

Omaha Builder N.P. Dodge had no success in merchandising a \$1,000-to-\$1,200 sound-conditioning package tailored for homes in the \$18,500-to-\$24,000 price range. The bulk of the package was made up of 1) acoustical tile on kitchen, bath and bedroom-hall ceilings, and 2) 1/2" sound-board and back-board on the garage and furnace-room ceilings and on one or more walls in the bedrooms, living room, kitchen, utility room and hallways.

Other items and their extra costs:

In the heating system—large blower and trunk lines (\$70); canvas-duct connectors (\$12); individual cold-air returns in bedrooms (\$35), trunk-line insulation (\$45).

In the plumbing system—quiet disposer with double trap (\$65.25); cast-iron sink (\$18); 17 air-cushion chambers (\$17); two quiet toilets (\$5), and cushioned piping brackets (\$15).

In the kitchen—roof-mounted exhaust fan with grille and hood (\$40).

Dodge's merchandising program was sophisticated. He set up sales meetings to explore 1) why sound conditioning is the most needed new concept in housing, 2) what salesmen should know about the new technology of sound conditioning, and 3) how to demonstrate that technology in easily understood terms. When salesmen demonstrated with cutaway displays of sound-conditioned floor construction, they emphasized its effects rather than how it was built. Finally, Dodge promoted the Quiet Home in his advertising with the message that "noise almost disappears."

Results: Dodge sold one totally sound-conditioned home and two or three with a few optional features.

Says Dodge today: "We were very disappointed with the public's reaction. This thing has no sex appeal whatsoever. People are interested in price; the average buyer—of homes, say, in the \$30,000 range—has only a nominal interest in quality."

Later Quiet Home promotions had more muscle but also failed to generate sales

NAHB stepped into the promotion of sound conditioning in 1965 on the premise that it could help generate more new-house sales. Subsequent Quiet Home Parades did draw heavy traffic, but the sales results were again disappointing.

Two pilot Parades were beefed up by the participation of Owens-Corning, U.S. Steel, and the Insulation Board Institute. Owens-Corning and U.S. Steel joined forces to promote the Monocoustic ceiling—fiberglass panels laid in steel channels. IBI represented 14 manufacturers of acoustic tile and sound-deadening board, including National Gypsum and U.S. Gypsum.

These manufacturers brought in lots of promotional money.

At the first Parade, in San Antonio, public response seemed favorable, but sound conditioning fell dead when the promotion ended. Twenty Quiet-Home models were displayed, all in the \$18,000-to-\$22,000 price range. The extent of sound conditioning varied from home to home, but in most instances it conformed to the standards set by Cheezem, Dodge, and Fox & Jacobs. The extra cost ran from \$400 to \$600 (although the manufacturers estimated that a complete sound conditioning job should cost about \$1,200).

More than 200,000 people paid 50¢ each to see the show, despite almost constant rain and a brief visit by a tornado. The most successful feature was a two-room demonstrator model: One room was sound proofed, and one wasn't; and the obvious difference in noise levels impressed visitors.

People were so impressed with the Quiet-Home show that in hundreds of personal interviews 81% said they would be willing to pay up to \$500 extra for a new home with sound conditioning features.

But now, 18 months later, only one builder is promoting sound conditioning, and on a very modest scale at that.

continued

NAHB's director of marketing, John C. Pollock, says the cost of whole-house sound conditioning was too high. In the \$18,000-to-\$22,000 price range, an added cost of \$500 was a major and discouraging extra expense to buyers, no matter what the consumer surveys said.

The second *Quiet Home Parade*, held in Birmingham, also generated excitement but no sales. It followed the San Antonio pattern, with nearly identical results. Seventeen models, priced from \$15,000 to almost \$30,000, were sound conditioned according to NAHB guide-lines. In at least

one, built by Vondal S. Gravlee (chairman of the National Housing Center Board of Trustees), the cost of an adequate sound conditioning job came to \$1,483.96.

Publicity was voluminous. A "Quiet Home Week" was announced in Birmingham, and some 30,000 prospects trooped through a two-room demonstrator identical to the one at the San Antonio show. And again, a survey of 500 families indicated that 73% of them would "definitely" or "probably" buy a Quiet Home if the features cost about \$500 extra.

At first the Parade chairman, Floyd B.

Berman of the Floyd Development Co., was enthusiastic about the results. He felt the three chief benefits of the Quiet-Home promotion were increased traffic, great amounts of free publicity, and considerable enthusiasm for sound conditioning.

But a year later Berman had this to say: "The industry was unprepared, the market was uneducated. Some sound-conditioned houses were sold, but there was no follow-up. The program wasn't a success. As far as I'm concerned, sound conditioning has gone down the drain in Birmingham."

Builders say the Quiet Home's market failure is only partly due to its extra cost

They point out that the consumer surveys in San Antonio and Birmingham were meaningful and that buyers would readily have spent \$500 extra for a Quiet Home—if manufacturers had followed through with better support. Specifically, builders list these criticisms:

1. *Manufacturers have provided no clear definition of just what a Quiet Home is and how much it should cost.* Both builders and buyers are confused; neither knows whether, say, \$500 is enough, too little, or too much for a sound-conditioning package. As a result, they'd rather forget the whole thing.

"There are many problems in establishing feasible standards," says Builder Leon Weiner, NAHB first vice president. "What is quiet to one is not quiet to another. And various agencies have complicated the situation by establishing unrealistic standards."

So there is still no agreement on costs. For example, although Builder Gravlee figured the cost of whole-house sound conditioning at \$1,400, IBI's executive officer, Charles M. Gray, estimated it to be "4% to 5% of house cost—\$800 to \$1,000 for a \$20,000 house." Owens-Corning sets the figure at about \$1,500. NAHB's Pollock says it could run anywhere from \$100 to \$3,000. And San Antonio Builder Jim Uptmore says that through a combination of design and substitute materials, he can effectively sound-condition a one-story house for as little as \$50 extra and a two-story for \$150. (Uptmore was chairman of the San Antonio Quiet Home show.)

2. *Manufacturers have made no attempt to scale the cost and size of the sound-conditioning package to what the market will bear.* The lesson of the Quiet-Home promotions is that an added cost of roughly \$1,000 might be tolerable in a \$40,000 house, but it will price a \$15,000-to-\$22,000 house right out of the market. Builders feel that manufacturers who push for more costly packages are interested only in promoting their own products and not in helping to sell houses.

3. *Manufacturers have failed to follow up the Quiet-Home shows with a national promotion program.* "You have to promote on a year-round basis; you can't just announce sound conditioning and then drop the subject," says Builder Berman. He suggests a joint promotional effort by manufacturers and builders to convince both builders and consumers that sound conditioning is desirable. And Pollock has been recommending a theme concept, with manufacturers tying their national advertising efforts to new-house sales and builders promoting the same theme locally. The national advertising would show the product's use in a Quiet Home, while local advertising would feature the home itself.

4. *Manufacturers have neglected the necessary coordination with builders.* "There was a great lack of communication between the sound-conditioning industry, its distributors, and dealers, on the one hand, and builders on the other," says Berman. "I was very surprised. I thought they'd be knocking our doors down, and instead we had to call them."

Berman cites three basic reasons for the lack of communication: little manufacturer enthusiasm; rarely reachable and poorly trained local sales representatives; and too long a time lag between the national announcement of products and their local availability.

In reply, manufacturers say the criticisms are premature. They point out that the concept of sound conditioning is still very new and that it takes a while to create a smooth merchandising program and build up demand. They point with some pride to the considerable interest that has been aroused by sound-conditioning promotions in just the past two years.

Builder Dodge backs them up: "We still don't have a well-informed housebuyer. The sound-conditioning promotions are necessary and essential, although they are primarily educational and don't generate many sales immediately. Sooner or later the best sound-conditioning features will find their way into better homes."

Quiet-Home promotions have influenced builders to make major changes in the installation of air-conditioning equipment.

"All the builders became aware of noisy air conditioning," says San Antonio Parade Chairman Uptmore. "By isolating the machinery and using acoustics, we've cut noise levels by 80%. If we don't do anything more, we're happy."

Uptmore has, in fact, been sound-conditioning his cooling system for five years. He isolates the unit in the garage and insulates it with soundboard; he builds the return-air system into the slab; he uses fiberglass distribution ducts; and he puts all openings in the return-air system at least 10' from the cooling unit.

"This combination of planning and materials virtually eliminates all noise," says Uptmore.

But the overriding question is how much sound conditioning a Quiet Home really needs. "There is some question," one manufacturer admits, "about whether people mind the noises of their own home; it's not the same as apartment living."

NAHB's Weiner wonders how far sound conditioning should be carried in a house. "A home with strident and unnecessary noises is not the most desirable one. But all noise is not equally bad. It's basically an ecological problem—the study of man and the environment he lives best in."

And Builder Uptmore points out that a house can be adequately sound conditioned primarily through good design:

"You can design a house poorly and spend \$1,000 to sound-condition it properly. We start sound-conditioning with design; then the rest of the job is less expensive."

Uptmore's design techniques include keeping sleeping areas well separated from noise centers, never putting baths next to activity centers, and eliminating back-to-back electrical boxes and registers.

He also uses such low-cost sound-conditioning ideas as these:

1. Second-story floors have ½" soundboard and a 30-lb. felt blanket in addition

to the subfloor. The system, says Uptmore, has an s.t.c. rating nearly as good as the officially recommended one.

2. Some partitions (chiefly around bathrooms, between bedrooms, and between bedrooms and family rooms) have insulating batts between their studs and resilient stripping beneath the drywall on one side.

"The wall is only a half-inch thicker than a conventional partition," says Uptmore, "but the sound-reduction efficiency is doubled."

3. Areas around dishwashers and washing machines are lined with fiber-glass, and each machine is set on a 98¢ rubber mat.

4. Wall surfaces are sprayed with an in-

expensive acoustic aggregate to seal pores and holes.

Uptmore has sold 12 sound-conditioned homes, ranging in price from \$32,500 to \$85,000, since mid-1965.

Both manufacturers and builders have begun to recognize the limitations of cost and the important role of design. So . . .

Today's more realistic promotion has been narrowed down to the Quiet Room

There are two indications of this shift in the marketing of sound conditioning:

1. *Owens-Corning, the leading manufacturer in Quiet-Home promotion, has switched to the Quiet-Room concept.* "In the Parades of Quiet Homes," says an Owens-Corning spokesman, "people were hesitant to pay an additional \$1,500 for whole-house sound conditioning. So we decided to drop back; the Quiet Room can be built for \$200 or less, and we feel it can be a good promotional feature for builders." The Owens-Corning design of such a room calls for staggered-stud construction and insulation of the three interior walls, a Monocoustic ceiling, and gasketed doors with weatherstripping.

2. *NAHB promotions have changed from whole-house to zonal and one-room sound-conditioning.* IBI has worked closely with NAHB in its promotions, and an IBI official affirms the shift: "We still promote the concept of whole-house sound conditioning, but because of costs, there is now more emphasis on specialized areas of the house."

This year, NAHB's "Quiet Home" slogan was quietly dropped and replaced by "Quiet Living"—a subtle but significant change. Twelve home parades were held around the country in 1966, and the average extra price of sound conditioning was toned down to between \$250 and \$350. While some of the promotions failed for

lack of organization, most were successful within their limited scope. For example, Robert P. Flath, executive officer of the Homebuilders Association of Greater Columbus, Ohio, reported:

"We had the largest public response in years. Twenty-four builders put up houses ranging in price from \$31,500 to \$47,000. They weren't enthusiastic about whole-house sound conditioning, but there was no resistance to \$350 extra per house."

NAHB and IBI have also begun spicing up the sales appeal of sound conditioning by introducing specialized rooms in which sound conditioning rides piggyback. Instead of selling sound conditioning by itself, the promoters are now offering it as part of a larger concept of living.

Specifically, several rooms have been designed for specialized functions—a study and learning center, a teen room, a preschooler room, a party room, a home gym, and an arts and crafts room.

The promoters hope these rooms will be distinctive-enough emblems of newness and status to entice prospects. And only when prospects show interest in a room will they be told of the indispensability of sound conditioning to its successful function. (Builder Uptmore is already promoting one of these specialized rooms in San Antonio.)

So far there have been two major Quiet-Room promotions:

1. *The Tulsa Parade of Homes, held in November, featured the IBI-NAHB version of the quiet-specialized room.* Seventeen builders participated, with houses priced from \$21,000 to \$40,000. Eight builders installed one or more specialized rooms; one went all the way with a \$2,000 fully-conditioned demonstration package, provided by U. S. Gypsum. For the most part, however, according to HBA President Don Harrington, builders kept sound-conditioning costs down around \$200.

NAHB has always said that sound conditioning should begin with good design, but it emphasized this with extra care at the Tulsa show. With NAHB backing, IBI and American Standard contributed a building coordinator who spent an hour or two with each builder to help him design-in good sound conditioning.

2. *The Ryan Projection '70 home, introduced in 12 northeastern cities in September (H&H, Oct.), features Owens-Corning's version of the Quiet Room.* The house sells for upwards of \$40,000 without land. It features two areas with Monocoustic ceilings—the family room and breakfast area—and a fully sound-conditioned family bathroom with staggered-stud wall construction and fiberglass insulation. Although it's too early to gauge the public reaction, Owens-Corning says 15 to 20 other builders are displaying Quiet Rooms or will shortly do so.

Will the Quiet Room catch on? It stands a good chance—and here's why

Both the NAHB-IBI and the Owens-Corning versions of the Quiet Room are a realistic attempt to scale sound conditioning to what buyers will pay. Lower price tags on the new packages give a house with some sound conditioning a competitive advantage over houses without it and, the manufacturers hope, will unlock the demand created by recent promotions.

Furthermore, say the manufacturers, the next time Quiet-Room purchasers buy a new house, they'll be apt to ask for a larger sound-conditioning package. Says an IBI spokesman: "It's a case of starting with the specialized room and gradually moving up to the Quiet Home."

And here are two other encouraging signs:

1. *There is promise of more promotional follow-through by manufacturers.* "We've still got a big job of publicity to do," says IBI's Gordon Lawler. "Public acceptance of sound conditioning is a matter of education and money."

No manufacturer has yet stepped forth with an offer to tie in his advertising with the Quiet Living theme. But in 1967 IBI alone will spend \$70,000 to promote residential sound conditioning, plus \$30,000 on technical research.

2. *Communication and coordination between builders and manufacturers is improving.* "We know some of our salesmen have been doing a bad job," says Lawler. "But we're now taking steps to correct that. We've learned a lot in the past two

years. We're going to prime our men to help the builders in every way possible."

Builders, too, have learned that sound conditioning alone will never sell a house. Early promotional efforts stressed sound conditioning to the exclusion of all other features; now builders realize it can only be one factor in a merchandising plan.

Says Builder Dodge: "The public isn't interested in a piecemeal approach. They'll buy sound conditioning in a better house, but they won't buy the house because of the sound conditioning."

Says Builder Uptmore: "In ten years, sound conditioning will be as important in new homes as air conditioning is today. But it has to be sold only as a part of a totally better package."

MARKET MEMO

To: All House & Home readers,

From: Senior Editors Ken Campbell and Jim Gallagher
Assistant Editors Mike Baybak and Frank Lalli,
and 45 McGraw-Hill local reporters

Subject: Today's housing market in 49 cities

Sources: 600 builders, mortgage lenders, real estate
men, and other industry leaders

Date: November 1, 1966

"It was the best of times, it was the worst of times."

Few quotations sum up so well the state of the housing industry at the end of 1966. In almost every city, unsold houses and unrented apartments are disappearing like last summer's tan; new families are being formed at the highest rate in years; employment is high and wages even higher; housing promotions like Parades of Homes and Grand Openings are attracting thousands of interested families; transferees—living in motels or out of suitcases—are begging for immediate delivery of a house.

Yet in the face of all of these bullish indicators, actual housing production is down sharply in the second half of the year after a record-breaking first half; money ranges from difficult to almost unavailable; a constant stream of publicity—local and national—about "tight money" has given the public the false impression that mortgages are not to be had at any price; in many areas, building labor is scarce, not very productive, and very belligerent.

All in all, homebuilding is in the position of a storekeeper with thousands of customers who need his wares and can pay for them, but who finds that the city has torn up the street in front of his door, his employees are on strike, and he is getting excuses instead of deliveries from his suppliers. The right word for the situation is frustrating.

Our most important discovery: All signs point to a severe housing shortage, both for sale and for rent, before the end of 1967. "Shortage" is a strong word—it brings back memories of 1947, when buyers stood in lines to give down payments—but it is the only word for what's coming. In San Diego, where there has been a backlog of unsold houses and unrented apartments for more than five years, Stanley Scott, executive VP of the HBA, now says, "A seller's market is already here." Jackson, Miss. has had "no significant number of vacant houses or apartments because speculative building has been cut to almost nothing." Builder Larry Weinberg in Los Angeles is predicting a housing shortage early in 1967 even in that overbuilt area, and he is echoed by Bill Lyons, of Luxury Homes: "Housing starts are off so dramatically that I predict a shortage of new packages by late spring, though some of the old ones will linger on."

The coming housing deficit is not confined to a few boom towns, but seems universal. Some examples: Des Moines' A.E. Rothchild: "We will be short of houses in April and May because starts are down. I think every builder should start a few more houses this fall"; Philadelphia: "Demand is pent up—almost a war situation"; Memphis' HBA executive officer J.B. Bell: "Memphis is virtually certain to face a serious shortage of new housing by the end of this year"; Oklahoma City HBA: "The vacancy rate is the lowest in a long time. There is only a 30 to 45 day supply available today"; Phoenix: "The town is running out of houses—and filling up with people. Something has to give."

Small cities, too, will be feeling the pinch. In Lansing, Mich., Bruce Blackall,

of the local HBA, mourns, "There will not be enough housing to meet our 1967 demand. We have no surplus." Similar predictions come from Cincinnati, Houston, Portland, Ore., Milwaukee, and Denver.

One market relatively unaffected by the vagaries of mortgage rates is the higher priced house. Lenders give preference to upper-income, high-down-payment executive and professional buyers, and these families are not discouraged from buying housing they want because of a 1% or 1½% increase in interest rates ("it's deductible, anyway"). One drawback: the 1966 stockmarket slump left many of these families with vanished paper profits or not-so-valuable stock options, and this sometimes makes them postpone their decisions.

Oklahoma City builder Ralph Green says, "Business is bad in secondary areas, but good in prime locations. People are still buying quality and location." In Chicago, Kennedy Development Co. opened their new Charlemagne subdivision near Deerfield and in three months sold 18 houses in the \$44,000-\$80,000 price range. In three subdivisions in prime suburbs, Kennedy expects to sell over 200 houses this year. The company tries to have about five speculative houses on hand for the "must have immediate possession" buyer, and their landscaped, furnished, lighted model area has as much excitement and stage setting as the best of California's low priced built-for-sale subdivisions.

Custom Builder Gordon Elwell, Buffalo, N.Y., says, "Things will be up in 1967. We never seem to run out of customers". The customers he never seems to run out of are well able to put down 33-1/3% on his up-to-\$35,000 houses, even though he lost a few who only had 20%-25%. In Cleveland, Past HBA President Sparky DiBenedetto has just put together (from 15 different land owners) a 162-lot subdivision in exclusive Bay Village. Houses will be from \$50,000 up, and Early American in design.

Builders in Jackson, Miss. are in general agreement that "most homes being sold are on firm pre-sale contracts, and range from \$20,000 to \$30,000 and upwards." In Columbus, Ohio, Executive Officer Bob Flath says new houses now average \$22,500, with the prime demand closer to \$30,000. "Only higher income groups can qualify for mortgage loans now," he says. In nearby Cincinnati, Builder George Zuckman notes, "the only market that seems to be going is \$25,000 and up". In Indianapolis, builders report that "financing of higher priced houses has not been hurt. People building such houses pay more for money, but they're getting it." And in one of the nation's authentic boom cities, Seattle, Boeing's director of industrial relations says, "There is no problem for the highly-skilled professional who wants a house. Even in the face of the mortgage money shortage, they are able to buy".

The rental market is especially strong. In cities which were overbuilt to the tune of 20% and higher vacancy rates there may still be a few marginal buildings not doing well, but most multi-family projects in good locations are approaching full occupancy. More than half the markets surveyed emphasized the strength of demand for rentals, and not one claimed serious citywide vacancies.

In Ft. Worth, where an FHA vacancy survey shows a 7% rate, builders and lenders agree that all newer projects are 100% rented and have waiting lists. Sales Manager Dave Ritz notes, "Only the shoddy apartments are hurting." In the upper midwest, cities like Detroit, Milwaukee and Cleveland have almost too few vacant apartments to bother counting, especially in suburban locations. Los Angeles' once frightening percentage is dropping a full percentage point each month.

Middle-sized cities, too, are feeling an unfamiliar demand for rental units. In Jackson, Miss., Realtor W. Merle Mann says, "A few months ago, the normal vacancy rate ranged from 12% to 15%. Now it is 3% to 5%, and there is a tremendous demand for apartments." Mortgage Lender M.F. Haight, in Oklahoma City, says, "People here are more apartment-minded, and we are becoming more of an apartment

MARKET MEMO

house town". The vacancy rate in Sacramento dropped from a bankrupting 20% in 1965 to 8% this fall; Indianapolis saw a 41% rise in apartment building the first nine months of this year; and in Lansing, Mich., Edward G. Hacker, Sr., who manages 1,000 apartment units, showed a .005% vacancy rate in his Sept. 17 report. Part of the strength of the multi-family market is coming from the reluctance of lenders to provide the big-chunk financing for new projects. In city after city, apartment building is slowing to a halt, even in the face of an overpowering demand. With a vacancy rate of 3%, Buffalo, N.Y., lenders are still reluctant to finance apartments (they consider them "speculative"). Executive Officer Jack Donovan says, "We could use another 1,000 apartments in Buffalo right now. I'm surprised that outside money hasn't come in to supply them." Western Savings Bank has almost entirely stopped multi-family loans, preferring to save the limited available funds in order to help single family homebuilders.

Even when money is available for apartments, the new stiff terms have builders agonizing over the decision to build or not build. One Detroit builder, who owns a prime suburban location zoned for apartments and sees almost limitless demand for the luxury units he plans there, told of the financing he had been offered:

"Last year, the rate would have been 5½%, this year it's 7%. Last year, I could have gotten \$20,000 per unit, today they offer \$16,000. The term has been cut by five years, and they have added a stand-by fee of ¼% per quarter which is bound to total between 1% and 1½% before I can get the project built. The funny thing is, I may be nuts not to take it."

Cleveland Builder Andrew Rosenfeld and his son, Ronnie, own or operate 6,000 rental apartments, either by themselves or in syndicate. They have practically no vacancies, but are hesitating about starting new buildings. Says Ronnie: "An increase in interest of 1% means an increase in rentals of 7% or 8%. Lenders can't ask a higher interest and more equity at the same time without builders having some serious second thoughts. If these rates are permanent, there is little danger in going ahead, but we don't want to have 7% mortgages and have to compete with older units financed at 6% and maybe newer ones at say, 6½%." In Memphis, HBA Executive Officer Bell notes: "Apartment construction has almost stopped. Usury laws permit lenders to charge up to 7¼% on long term loans over \$50,000. What's more, they're discounting loans two points. It's too much."

Apartments and townhouses are moving out of the cities into the suburbs, because suburbs today are the nation's prime growth areas.

Reasons:

- 1) The fastest-growing employers are the service industries, many of which prefer suburban locations not open to heavy industry.
- 2) Land costs are lower, permitting more-economic rent levels.
- 3) Zoning and planning boards are coming to realize that multi-family projects are an economic asset, not a liability.
- 4) A generation raised in suburbia still has a strong attachment to grass and trees in a garden apartment setting, instead of the center city high rise.

Wallace Boothby, a Birmingham, Ala. specialist in apartment rentals, told us: "Birmingham was late in getting into the apartment house boom and hasn't caught up yet. Some high-rise apartments have been built but the trend now is to the garden type, complete with swimming pool." And 750 miles north, in the Detroit suburb of Oak Park, Edward Rose & Sons rented out the 200 units of their new Chateau Riviera development as fast as they could complete them. Sheldon Rose told us that they are building apartments in Peoria, Wichita, Indianapolis and Dayton, as well. In another Detroit suburb, Farmington, B.L. Smokler is still going great guns with Farmington Village, an FHA Sec 213 co-operative of townhouses. Buyers like the combination of suburban location and community maintenance, and

have bought 155 of the 250 scheduled units since the late spring opening. Market item: The most expensive units (\$1,500 down and \$172 per month) were by far the most popular, and they are going to have to program more of these two and three-bedroom, 1½-bath apartments into succeeding sections.

Townhouses are being seen in areas where they have never before been built. Bell & Valdez brought the first ones to Seattle in their Rolling Hills development, and Quality Pacific Homes is starting a 267-unit development just east of the city. Three townhouse and apartment complexes have gone up in the outskirts of Minneapolis-St. Paul: Wayzata Wood, Interlachen Hills, and Georgetown Park. (By the way, if there is a town in the nation that doesn't have a "Georgetown," I have yet to see it. The name is by far the most popular single project designation.)

Without minimizing the effects of tight money, the psychological impact on potential buyers has been as devastating as the actual money shortage. Builders complain that many families who should be out house-hunting think that mortgages are completely unavailable. So they aren't even looking.

But interest rates went up so fast and so often in 1966 that there is much real resistance. Builder Frank D. Evans says that his Portland, Ore. model house traffic has dropped 50% this year, and is only 10% of what it was a decade ago.

Wisconsin HBA President Frank Randal of Racine says, "When I get a buyer today he is still thinking of last year's price, and he walks away shocked at the price I quote. After a few months of looking he returns and tells me he couldn't do better and will take my house. Then I have to tell him that costs have gone up again, and I have to raise my price again. At this, he really gets mad, and he winds up not buying."

But to get back to the psychological spooking that is making things worse than they are; builders attribute it to several sources, particularly

- 1) Newspaper stories that play up horror stories about tight money, and
- 2) the difficulties many families have in readjusting to higher money prices, despite their acceptance of price increases in consumer goods.

Some reactions: Subdivision Developer Floyd Berman, in Birmingham, Ala.; "People have money, but there is too much talk about tight money. The real villain is the publicity given today's conditions." And Market Researcher Edwin A. Coleman (of Houston's Independent Research Associates) says, "Both Houston papers spent months talking about how hard it was to get a loan. They bad-mouthed it until people thought they couldn't buy if they wanted to."

In San Jose, Calif., the local HBA executive officer, Ernest Ornellas, was also bitter about news coverage: "I've seen buyers who had the money back down because of articles in the press. The demand is there, but the public's confidence is shaky. We have to overcome this pessimism." And Los Angeles Builder Jerry Snyder adds: "I believe that negative thinking, talking, and writing about the subject has enlarged the problem." Des Moines Builder Harold Teater complains, "The newspapers have scared the good buyers." And in Charlotte, N.C., HBA President Ralph Howey reports, "We've had people who look at our houses tell us they knew they couldn't buy, and we've been able to show them that they could. They seemed to think that no one was making loans any more."

Builders are throwing money and advertising into campaigns to give homebuyers the real facts about money in their local markets. They are putting strong emphasis on the investment value of a home, and how rising construction costs will offset any possible plateauing of interest rates.

One of the first—and biggest—programs was started by the Los Angeles home-builders, with a \$25,000 program of "A new home is your best buy today." Mayor Sam Yorty backed the builders' efforts with a "Buy-a-home month" proclamation, and Title Insurance & Trust Co. put on a city-wide effort of their own, saying,

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"Don't pay the price of waiting for the right price." Minneapolis builders joined with realtors, utilities and materials suppliers to raise and spend \$30,000 in newspaper and radio appeals that say "It's a good day for buying a home." And Milwaukee builder campaigns remind buyers that a 1% increase on an \$18,000 loan costs them only \$10.98 per month.

Albuquerque ads point out that price increases are coming, and that buyers will never get as much for their money as right now. And in Norfolk, Va. where the market has been made extra soft because of Naval personnel transfers to Viet Nam, builders' ads stress the value of a house as a hedge against inflation. Charlotte, N.C. builders are doing the same. Denver builders are running a newspaper, radio-TV, bumper-sticker "Buy a home now" campaign, and have spent \$10,000 of their own money to get it started. Says Lauren Cahill, HBA executive director: "We must educate buyers that new interest rates are here to stay, but that a house is still their best investment."

Wherever builders and associations put on exciting promotional events, crowds and interest are high, even though closings are harder to make.

Kansas City may be the outstanding example. Under Executive Officer Leo Mullin, the annual Parade of Homes offered the public 145 model houses to look at in the six-county K.C. area, and the crowds that turned out weekdays and weekends forced an extra week's extension of the closing date. Said Mullin: "The Parade did a lot to restore the interest that had weakened during the summer's tight-money publicity." In Albuquerque, the homebuilders built an experimental house that brought out 22,000 families and was then sold at auction. Said one builder: "It hit at a bad time, but with better timing it would have been a real market stimulant." And in the well-promoted Mission Viejo development south of Los Angeles, Builders Ben Deane and Donald Bren brought out catering trucks to feed buyers who turned up a day before the opening to pick out their lot and model. Even in 1966, the excitement reminds you of 1947. And another new town—Westlake Village—up near the Ventura County border, brought out 10,000 persons the first two weekends it was opened; \$4 million worth of houses were sold.

Pittsburgh's Ryan Homes has had a reputation for strong promotion, and claims that its Project 70 model houses brought out 35,000 people in four states (and sold four of the new homes, priced about \$45,000). Denver's Wood Bros. has a "preview," then a "grand opening" a week or so later, gets double mileage out of new models. And a competitor, W.H. "Bill" Francis, is coming out with a whole new line of model houses with a lushly landscaped model-house area. "We can sell if we get buyers out, and we're going to get them out."

One-site Parades of Homes are getting more thought, thanks to outstanding examples like Cincinnati, Houston, and Birmingham. Even big cities like Chicago are planning similar efforts. Despite problems of coordination and selling in an area away from builders' own subdivisions, the public interest that is created by a dozen or more new houses in one location sends ripples of excitement throughout an entire metropolitan area.

But builders aren't doing enough in new design, new plans, new materials and new products to make the new house excitingly different from the old house.

If there is one thread running through the editors' and correspondents' reports, it is disappointment in not finding enough new ideas. Even in Cincinnati's terrific Homerama promotion, 12 of 13 houses were French Provincial or Colonial—safe but familiar. From San Juan: "No innovations in plan, style or materials that can be called runaway successes." From Little Rock: "Houses seem to use the same materials and features, ad infinitum." From Hawaii: "No innovations of style, plans or materials." From Pittsburgh: "Innovations are nil here." From Lansing, Mich.: "Builders are in a rut. This (tight money) may force them into new styles and

MARKET MEMO

materials to attract their customers".

There are exceptions, of course. In Kansas City, Carson Cowherd (land developer) has asked his builders to replace all bedroom ceiling fixtures with recessed "top-hat" lighting that illuminates the closets and the room in front of them, and also to panel the garage with wood-grain sheetrock to give the look of a finished room. In the same city, Alex Bascom now has washbasins and countertops made from the same marble-pattern plastic.

Generally, we missed seeing the many new plastic laminate colors and patterns, the newest in floorings, wood panelings and lighting fixtures—all of the products and materials we knew were being marketed. Said one editor: "The best way for a builder to spend a few hours each week would be with magazines, catalogues, brochures, visits to showrooms, and just plain seeing salesmen."

This year promises to be one of high mortality for the "hip-pocket" builder. But well-managed companies should weather the crisis well, and come out prepared to take advantage of the boom that has to be coming.

When construction loans went to 7% plus 2 points, Buffalo Builder Richard Kraus decided to set and keep a 45-day building schedule that would permit him to forgo borrowing. Since most of his buyers can make high-down payments, he uses this money, plus quick completions, to save the cost of interim financing (and incidentally, to improve his entire operation). Boston's John Guluzian, executive vice president of the Home Savings Bank, notes: "We've all learned some hard lessons from this. Builders must know their costs better and watch them closer. They can't go on living from building loan to building loan." And Builder Mort Weiner adds, "Builders who are successful now were successful before, and the ones who are failing now, were failing in good times, too."

A boom-and-gloom prediction was made by Richard Owen, executive vice president for Robert H. Grant & Co., in Anaheim, Calif.: "For builders still in business, 1967 will be great. Those of us left with the right product at the right location will enjoy better sales than in 1965 and 1966." And says Houston's Ed Coleman: "Many builders who went out of business were hobby type builders. Many have been in trouble for a long time with marginal operations, and when this hit them, it was another story. The guy who can continue to build and pick up a little land will be on one of the greatest gravy trains that ever rolled."

Because conventional building is hamstrung by today's conditions, many builders are diversifying into other building fields that promise easier immediate conditions and long-term opportunity.

Even though new-house sales for Detroit's Thompson-Brown Co. dropped from 360 in 1965 to a nine-months figure of 220 this year, Sales Manager Robert Carey is adding to his sales and management staff. What are they selling? A brand-new "office subdivision," 40 acres located off an expressway in the far northwest Detroit suburbs. They will build some office space for rentals, will sell other land for companies to build their own offices on, and are thinking of a condominium office building. First client: A major insurance company bought 12 of the 40 acres and is putting up a regional office. Big advantages: 1) the limited streets and improvements needed will give Thompson-Brown 33 salable acres out of 40, and 2) the community loves the tax return of offices which need no schools and few services. Zoning was easy.

Builders have always been known for being light on their business feet, and 1966 is proving it. In every city, they are skipping from opportunity to opportunity like Liza crossing the ice. Out in Los Angeles, public works agencies report a substantial boost in the number of contractors bidding their smaller jobs—and getting them. Example: a garden-apartment specialist who recently was awarded a school contract.

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Office buildings on suburban main streets look good to Detroit builder Mark T. Jacobson, who is just finishing his second complex on busy Southfield Road. He builds them exactly like garden apartments, and his office module is set by the length of his wood joists. Says he: "With mortgage money this tight, I like the low costs of conventional construction." Lawyers, doctors and other professionals are the target for Cleveland Builder Sparky DiBenedetto. He has six small office buildings in the western suburbs, and counts on their depreciation allowances to give him the cash flow he needs for his land-development operation.

In Milwaukee, builders have bought up well-located hotels which have fallen on evil times (50% or less occupancy) and turned them to upper-income apartments which rent for from \$150-\$450 per month. Biggest tenant attractions: lots of space in the remodeled units, and the full list of hotel services they get (maid service, beauty shop, tailor, food, bar, etc.). Other Milwaukee builders are looking to home modernization until homebuilding gets stronger.

Chicago's Bruce Blietz is also catering to the office space market in fashionable Evanston. He offers a turn-key rental to commercial tenants which gives them a custom office complete with drapes, carpeting, paneling, light fixtures, etc., at a flat pre-determined rental. Big advantage to the tenant: no loss of executive time to make the hundreds of decisions that go with moving into a new office. Said one: "This has saved us a solid month of top-echelon time."

For builders looking for a ray of sunshine, a trend to stabilized land prices seems to be resulting from this year's drop in housing production.

"Maybe it's just supply and demand taking over," says Cleveland's Ronnie Rosenfeld, "but I think that land is becoming slightly more available at better prices." And in St. Louis, Builder Fred Kemp warily notes, "Land has leveled off at about \$4,000-\$5,000 per acre. If it weren't for the downturn this year, land prices would have continued their upward spiral."

In New Orleans, land developers who went all out during 1965's optimism, now find themselves with slow-moving land developments (but with the same crushing carrying charges), and builders can take their choice from among many eager sellers. And in Milwaukee, Gurnee Cape, chairman of the land value study committee of the Society of Real Estate Appraisers, estimates that raw land prices in the metropolitan area went up 8% in 1965, but not at all this year. However, increasing development requirements still bring today's finished lot up above last year's price.

In Detroit, Builder Ted Jacobson says he sees no real sign of land prices dropping. "If you find such a situation, I think you will find that it's just a case of a particular land owner in a personal financial bind."

Builder-Realtor Arthur Lewin thinks that Buffalo land prices will come down during 1967 because existing lots were not taken up this fall at the expected rate, and he predicts that the saving may be passed on to homebuyers. Boston's Jerry Levin feels somewhat the same way about his area: "Good land in this area is scarce, and we might be able to buy some nice pieces next spring—some of it partially developed—at cheap prices. There might be some mortalities among developers."

But housing costs—labor and materials—are up at least 10% this year, and it looks like they're going up again next year.

Why?

- 1) Most labor contracts have annual wage reopeners or negotiated annual increases. 1967 is no exception.
- 2) Higher manufacturing costs will be reflected in higher building material costs.
- 3) Buyers are asking more in amenities in the housing they buy: bigger rooms and more of them, more luxuries, more recreation facilities.

Detroit's Bob Carey says that costs have risen almost 25% in the past two years,

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and he sees no sign of the trend slackening. "The house we sold for \$30,000 will now be close to \$37,500. The trouble is that it's impossible to disguise the fact that it is essentially the same house, just more expensive. More house the buyer will pay for, but not just more cost."

Apartment Builder Harvey K. Huie, Jr. estimates that the cost of skilled labor has risen 20% in Dallas during the last 18 months, and that material costs have risen 10%. "Of course I've raised my rents to keep pace, but my profit is down." In St. Louis, Fred Kemp estimates that his \$26,000 house has gone up \$1,200 during the past year. In Wisconsin, a survey of ten builders showed that their costs had increased from 7% to 15%, with most of the gains coming this year. Milwaukee builders have had three price rises this year, reflecting new gains in labor contracts with automatic wage increases.

Even single items can hurt. In Atlanta, Builder Alfred M. Carlsen (10-20 houses per year) complained that plumbing costs (mostly scarce copper) were up 27%, and his total costs were up 13%.

Where the local economy is booming, building labor is scarce and expensive and not very productive. Erratic housing employment has driven many workmen out of our industry, and those who do stay don't encourage their sons to follow in their footsteps.

No city is booming more than Chicago, with new factories going up daily throughout the metropolitan area. Competition for labor is fierce, and it has been reflected in building costs. Lynn Krause, sales manager for Builder Robert Alexander, says, "It takes us an extra week to finish a house compared to two years ago. If you yell at a man for dogging it he'll quit on the spot, knowing he can get another job by morning." And Bruce Blietz notes that not one of his three carpenter supers has brought a son into the trade. Says Bruce: "These men have had steady employment and always earned good wages, but the next generation wants to go into factories and offices."

In New Orleans, two successive weeks brought 55 and 66 columns of Help Wanted (Male) ads, many of them from out of town firms. Says Builder Olen Freese: "When they leave town, they rarely come back." Denver Builder Thomas Nevin says, "One subcontractor crew of 11 men quit en masse to take jobs at the new IBM plant in Boulder, where they will be assured of continuous employment." HBA executive officer Sidney Davidoff fears that the current slow-down will cost housing many of its skilled craftsmen. "This means higher start-up costs when we get moving again."

Through his tears, a Pittsburgh homebuilder told us of losing 12 bricklayers during one lunch hour. A union man walked up, said, "Who wants to work seven days a week, with plenty of overtime?" The men asked when they could start, and he replied, "How about after you finish your lunch?" At 1 p.m., they were all gone.

Des Moines' Bob Erickson notes: "Labor is tight and it is tough to get good men. Carpenters are going into overtime job situations, and may never return as carpenters." Subcontractors in Ft. Worth are being especially hard hit, according to Builder Dave Ritz, noting that both skilled and unskilled men have gone into factories."

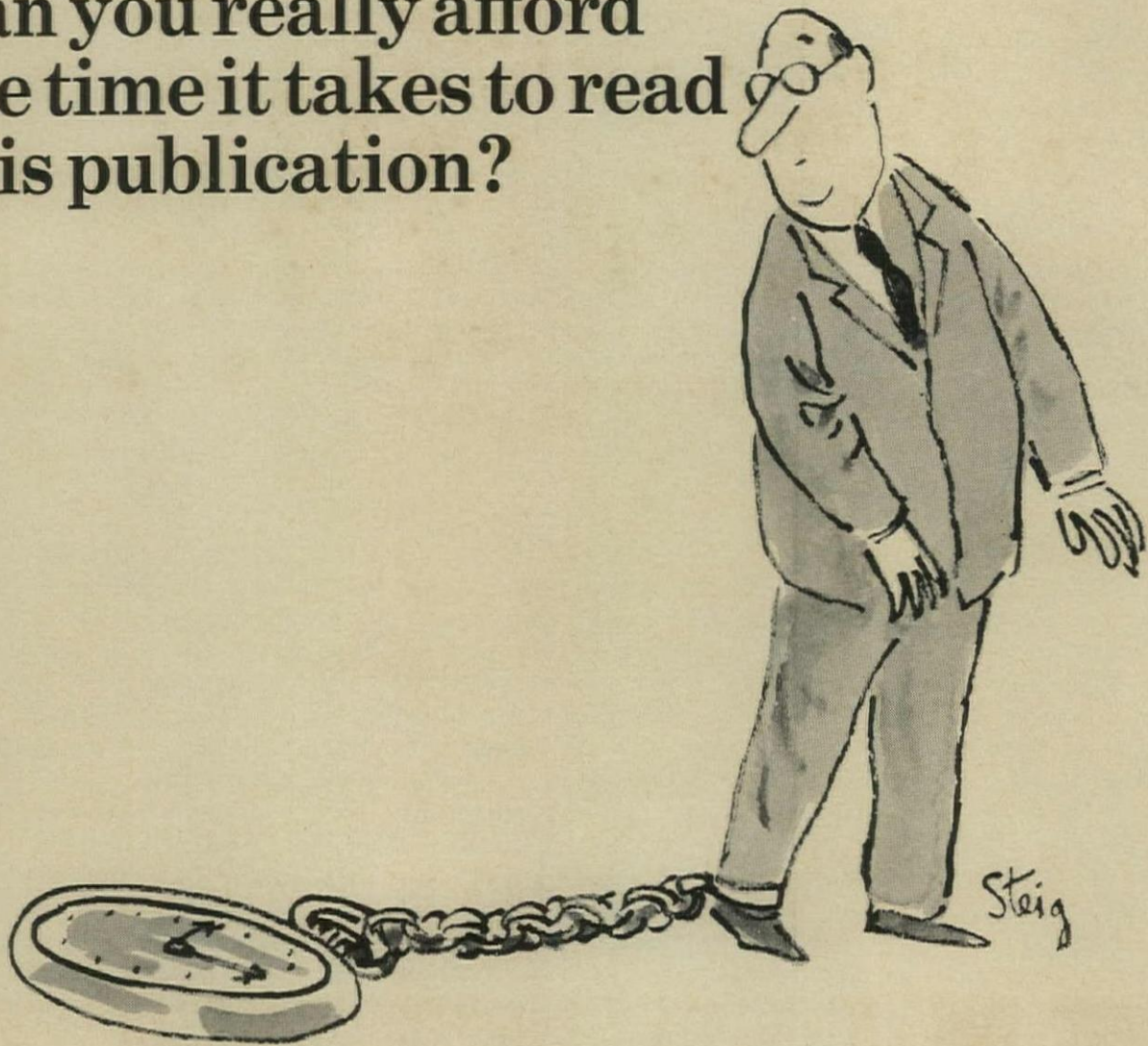
That's the market story at the end of the year. It took a lot of digging, but we think it gives a clear picture of how and where housing stands.

For all our editors and reporters,

Jim Gallagher
Jim Gallagher
Senior Editor

To Company Presidents:

**Can you really afford
the time it takes to read
this publication?**



You really can't afford not to, can you?

We don't know where you're reading this publication: In your office; in your home; in a hotel room; or in transit. But we do know that wherever you are, every minute of your time is valuable. And every minute you spend with us has to pay off.

That's why we work so hard, not to waste your time but to save your time, by giving you every important piece of news and information you need — as fast as it happens, exactly as it happened, and what's likely to happen as a result.

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House & Home

MANAGEMENT PUBLICATION OF THE HOUSING INDUSTRY

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washing windows. And, by the way, their feeling is strongly shared by the middle-aged or older couple, who have found that there are a lot better things to do in life than chores. One of the strongest appeals of the townhouse and the apartment has been the assurance that somebody else will do the work, and the cost of doing it will be included in the monthly charges.

Romance. A great many feelings on the part of the consumer are wrapped up in this motivation. Sex, sure. But also glamour, opulence, sensual satisfaction, youth, "go-go", all the appeals that other industries use to sell soap, cigarettes, girdles, and diamond rings. Let's face it, privacy is not the only reason why today's homebuyer loves the opulent master bedroom suite with its own bath and dressing area, its space for easy chairs, and its lock on the inside. The husband and wife won't be able to lock out the family and the world for a week or two, but they can dream about it.

You've seen the almost sensual way people run their hands over wood paneling, rich fabrics, deep pile carpeting, and heavy hardware. Take door knobs—one of the few things in a house that prospects may touch: Be sure they're solid, rich and opulent. Or bathrooms: Don't use the old 5'x7' floor plan; make an effort at better layout; and then use good fixtures and good trim. The master bath, at least, should look like what your prospect would expect to see only in an expensive custom house.

Floor, wall, and counter materials offer an unlimited choice of exciting colors and patterns, and the builder who goes along with the "any color as long as it's off-white" is throwing away one of his strongest appeals. All in all, too many model houses today have no pizzaz. Take a hard, objective look at what you are offering your buyers. If it doesn't excite you, it won't excite them. You cannot bid for any part of the consumer's dollar today with merchandise that doesn't have pizzaz.

Identity. To the single-family house buyer, his home is an expression of himself. Most people want to be different, but not too different. They don't want to be "way out", but they do want individuality. This desire is behind the trend to customizing houses, to make any change that the buyer wants and will pay for. Even Bill Levitt, who practically invented mass production of the standard house, today advertises "15 different homes, at 18 different prices, in four different communities".

People may flock through a good modern model with a flat roof, but they will buy traditionals, and some contemporaries, that have design touches that seem to put their own signature of identity right there for the rest of the world to see. They will pick designs that have substance, that seem to say to the neighbors, "Here is a family with roots." Identity is also a matter of neighborhood, the right place to live. If you are building where there is no established neighborhood, you must create one, along with the impression that it will have status and individuality. Finally, identity is involvement—involving the prospect with the choice of what goes into

his house or apartment—colors, textures, extras, floor-plan changes, and the like.

Security. This, like romance, can mean a number of things to different people, but in an insecure age, many families place high emphasis on anything that promises to lessen their fears and their doubts.

It may be family security, the feeling that the community is physically safe, that the school system will adequately prepare their children for life's demands (and stringent college-entrance requirements), that there will be good playmates, good schoolmates, and finally, good sons-in-law and daughters-in-law when that time comes.

It may be social security. Prospects want a home where they can settle down for a lifetime, even though experience tells us that the average family won't live in any one place longer than five to seven years. They want communities whose very name says "stability", "security", "success".

It may be financial security. In today's time of higher mortgage costs, dozens of builders' associations and hundreds of individual builders are emphasizing the economic advantages of home ownership, even at current prices. Normal price appreciation, tax advantages, and ease of resale are powerful appeals to today's financially sophisticated buyers.

There they are, the five most important motivations people have for buying the things they buy. Although you know what grabs a consumer when he is thinking of buying or renting, knowing what grabs him is only half the battle; using that knowledge is the other half.

Now we come down to the moment of truth, the person-to-person, belly-to-belly selling that is the only way that anything gets transferred from seller to buyer. You, and the men who work in your model houses and sales offices, have to know these motivations, have to recognize the hundreds of variations of the five basic themes, have to know how to demonstrate how your housing will satisfy each potential buyer's most important needs and wants.

In boom times, nobody can find a minute to learn how to sell effectively and thoroughly, and you'll never convince your salesmen that they don't know everything there is to know. They're too busy taking orders. Right now—when people aren't flocking to buy houses—is the time to prepare your sales force for the decade ahead.

And finally, remember that you will never sell the consumer by asking him what he wants because he either doesn't know, or doesn't know how to tell you, or can't afford it. You have to be the innovator—out of your knowledge of his needs and motivations. You have to create better housing and better neighborhoods. You have to lead the consumer to the marketplace—not the opposite.

No major industry ever established itself by following its customers. Each succeeded by leading the market, creating desire for its product, telling the public what they should have, should want, and why. Every good marketing program should do the same thing.

—RICHARD W. O'NEILL

New Jersey builder Richard Goodwin develops



Richard C. Goodwin, President, Goodwin Homes, Inc.

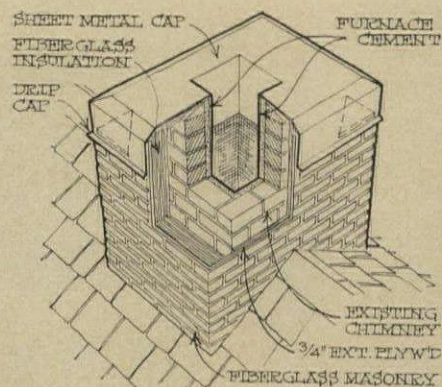
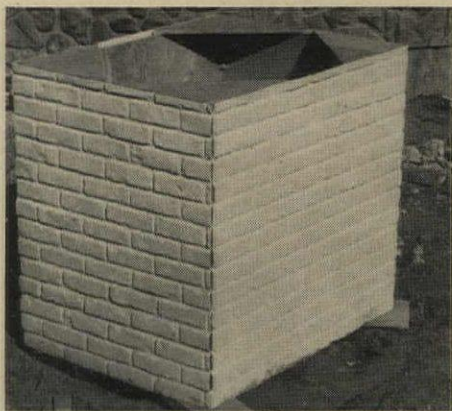
Upgrading is an important factor as a new home community grows. As long as Alcoa can keep giving us the kind of improved flexibility that we're looking for, they'll continue to be an important part of our package.



To Richard Goodwin, president of Goodwin Homes, Inc., business is more than a matter of books and records. "It takes energy, a competitive drive and an ability to roll with the punches."

And it is exactly that sort of enthusiastic spirit that pervades the entire Goodwin organization, from its founder and chairman of the board, Harry J. Goodwin, through the executive and sales force to its important suppliers like Alcoa Building Products, Inc.





PREFABRICATED CHIMNEY-TOP made of plywood and fiberglass brick fits over old masonry chimney and doubles its size. Metal cap completes job.

Fiberglass wrap-around lets remodeler enlarge an old chimney-top

It's a low-cost way to keep an exposed chimney-top in proportion to a newly enlarged house. It avoids the unfeasible alternative of adding new masonry at the roof line. And it permits the application of any masonry pattern to an old chimney.

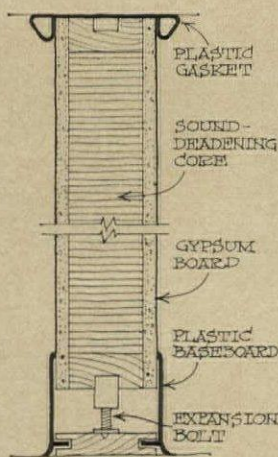
The wrap-around—as used by Builder Gene Michaud of Hartford, Conn.—con-

sists of a plywood shell covered with fiberglass masonry. Michaud prefabricated it, cut the bottom edges to conform to the roof pitch, and set it over the old chimney-top (photo above). This doubled the apparent size of the chimney.

To conform to colonial house style, Michaud topped off the shell with a black

metal cap bonded to the walls of the chimney flue (drawing). For fire protection, the shell is insulated from the existing brick by a liner of fiberglass batt.

Michaud used a fiberglass masonry simulating white colonial brick, but could just as easily have used a stone pattern. The fiberglass is bonded to the plywood.



MOVABLE PARTITIONS are locked in place by plastic strip at top and expansion bolts at bottom.

Movable walls simplify apartment planning

Not only can a tenant select any room layout he wants, but he can change it any time after moving in. This is how apartment builder Ohlsson & Skarne of Stockholm, Sweden, makes it possible to house tenants of many different income levels in one four-story building.

Every interior partition can be moved except one—the kitchen-bathroom plumbing wall. The only other limits on where the partitions can be placed are window locations and the entry door. All closets are free-standing storage units, and interior loadbearing walls were eliminated by the use of columns.

Partitions are so easy to move that husbands and wives often do the work them-

selves. No special tools are needed.

The partitions consist of a 2"-thick straw material—for thermal and acoustical insulation—laminated between gypsumboard (drawing). They are constructed about 2" shorter than ceiling height to leave room for a plastic molding seal on top of the wall (photos, above) and a wood plate plus expansion bolts at the bottom. The bolts are used to jack up the wall and tighten it against the plastic. A wiring channel at the bottom of the wall is concealed by plastic baseboard, which snaps into a groove in the wood plate.

All the partitions are set on top of a monolithic plastic floor covering, which is laid before any walls are brought in.

New latex enamel permits all-water-base paint system

Instead of using two kinds of interior paint—water-based latex for walls and oil or alkyd enamel for wood trim—a painter may now use one. By adopting 100% acrylic latex enamel, he can apply the advantages of water-based paint—soap-and-water cleanup and fast drying—to trim as well as walls.

The new semi-gloss enamel is not the first water-based enamel to be offered to painters. But it is the first one with no problems. Earlier latex enamels dried so rapidly and had such poor leveling ability that they produced brush and lap marks.

Acrylic latex enamel, developed by Rohm and Haas Co. of Philadelphia and manufactured by some 25 paint companies, compares favorably with oil and alkyd enamels and even surpasses them on some counts, as the table below indicates.

How white semi-gloss paints compare

	100% Acrylic Semi-Gloss	Solvent Alkyd Semi-Gloss	Old Latex Semi-Gloss
Water clean-up	Yes	No	Yes
Open-time ¹	15 min.	15-20 min.	5
Flow and leveling ²	4	5	0
Sagging	Very slight	Fair amount	None
Hiding	Fair	Fair plus	Poor
Resistance to yellowing	Good	Fair	Good
Tack-free time ³	4 to 5 hr.	3 to 5 hr.	20-30 min.
Recoat time ³	4 to 5 hr.	7 to 16 hr.	1 hr.
Fire hazard	No	Yes	No
Stain removal	Good	Good	Fair

¹ Length of time a coat of paint remains amenable to brushing
² 0 = poor, 10 = perfect
³ 77°F, 50% RH, low air circulation

New products start on p. 115



Corpus Christi, Tex.: 1400 sq. ft. Ranch.



Portsmouth, R.I.: 1900 sq. ft. Colonial.



Dubuque, Iowa: 1325 sq. ft. Ranch.



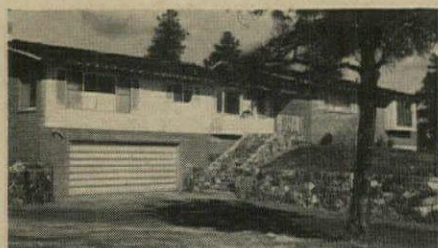
Port Huron, Mich.: 1400 sq. ft. Cape Cod.



Baxter Springs, Kans.: 1326 sq. ft. Ranch.



Mequon, Wis.: 1400 sq. ft. Ranch.



Prescott, Ariz.: 2000 sq. ft. Ranch.



Wichita, Kans.: 1720 sq. ft. Ranch.



Maryville, Mo.: 3850 sq. ft. Ranch.



Forestdale, R.I.: 1553 sq. ft. Cape Cod.



Johnstown, Pa.: 3033 sq. ft. Contemporary.



Anderson, Ind.: 3000 sq. ft. Ranch.

Now in every part of the country are selling faster with modern

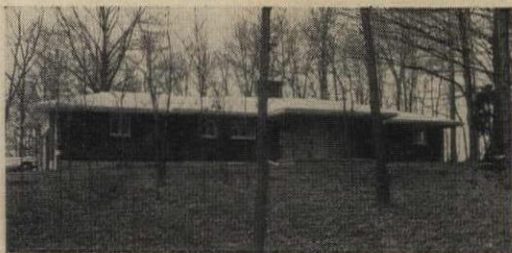
Across the nation, new electrically heated homes are going up at the rate of over 800 a day. And that means they're *selling* just as fast.

For example, the builder of a new Texas subdivision featuring electric heat moved all thirty-eight homes (like the one shown at upper left) within one month. And in a new Southern California development of 104 electrically heated homes (upper right), fifty-five were sold in the four months before construction was completed

—many before the ground was even broken.

Whatever size, style or price home (or apartment) you build, you add a major selling feature with recognized sales appeal when you install modern flameless electric heat. And you'll speed construction in the bargain.

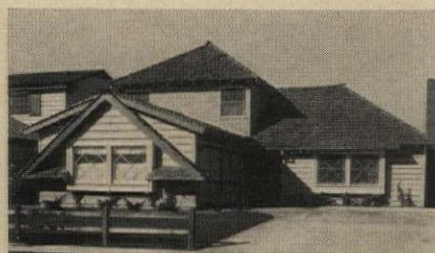
Find out now how you too can profit more by taking advantage of the growing demand for electric heat. Sometime soon, talk it over with your electric utility company.



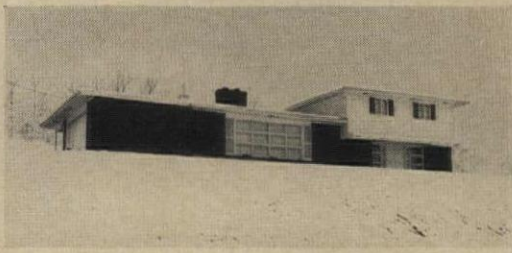
Warren County, Ohio: 1600 sq. ft. Ranch.



Tappan, N.Y.: 1320 sq. ft. Bi-Level.



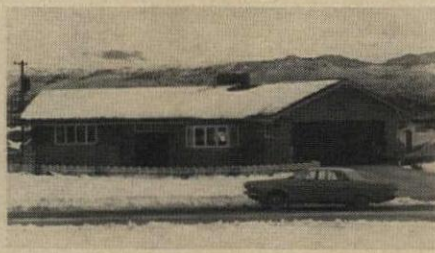
Redondo Beach, Cal.: 1750 sq. ft. Provincial.



Connellsville, Pa.: 3062 sq. ft. Split-Level.



Kingston, Pa.: 1219 sq. ft. Ranch.



Denver, Colo.: 3000 sq. ft. Bi-Level.



Lexington, Ky.: 3020 sq. ft. Colonial.



Cumberland, Md.: 2000 sq. ft. Colonial.



Woodbridge, Conn.: 3000 sq. ft. Ranch.



Marion, Ohio: 3200 sq. ft. Ranch.



Zion, Ill.: 2426 sq. ft. Ranch.



Birmingham, Ala.: 2300 sq. ft. Reproduction.

... houses of every size and style flameless electric home heating

Only flameless electric home heating offers you so many different types of equipment to choose from!

<p>Baseboard units take up little space, permit room-by-room temperature control. Two types are available: radiant or convective.</p>	<p>Radiant ceiling heat uses small wires concealed within ceilings, ceilingboard or wallpaper. Each room has individual temperature control.</p>	<p>Heat pump heats home in winter, cools it in summer. One thermostat setting maintains any desired year-round temperature.</p>	<p>Wall panel heaters, with heating coils behind decorative grilles, provide radiant heat with natural or fan-forced convection.</p>	<p>Central systems are available for either hot water or warm air heating in which flameless electric units supply the heat.</p>

LIVE BETTER ELECTRICALLY

Edison Electric Institute, 750 Third Avenue, New York, N.Y. 10017



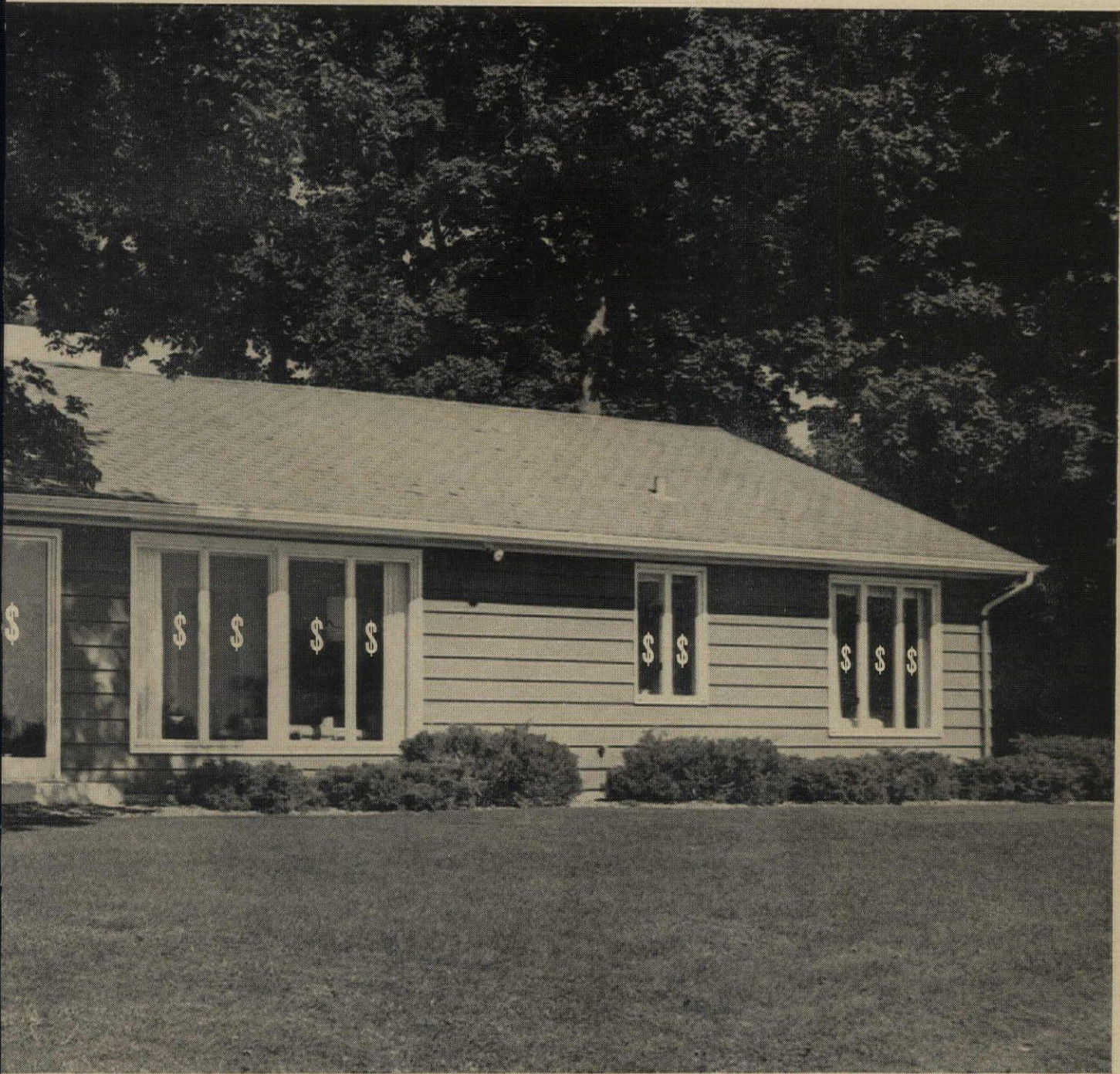


Are you getting full profit

People want window insulation—they know it's necessary. That's why it's easy to sell PPG TWINDOW® Insulating Glass—and make extra profit with no added labor costs.

Point out to your customer that his only chance to get insulating glass is when the house is being built. And that the cost of insulating glass can be included in the mortgage, with only a few dollars down. Otherwise, he'll probably spend \$200 to \$400 out of pocket to insulate the windows later.

Tell your customer about the added convenience that only insulating glass provides—no putting up, no taking down or



from the windows you install?

storing; only two surfaces to wash. Plus lower heating bills, reduced fogging and frosting, no down drafts.

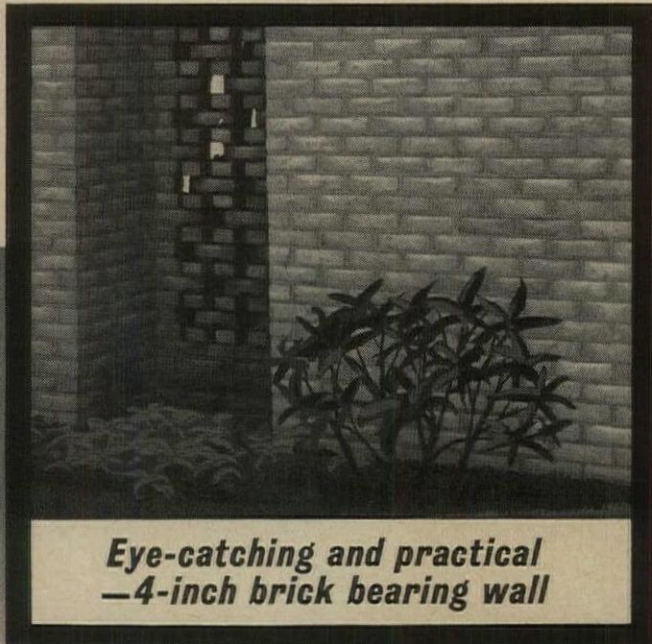
The big difference is *you'll* pocket extra profit. And your customer will get lasting satisfaction.

PPG makes the glass that makes the difference.

Pittsburgh Plate Glass Company, One Gateway Center, Pittsburgh, Pennsylvania 15222.

See us at space 865, National Association of Home Builders Show—December 5-8—McCormick Place, Chicago, Illinois.





**Eye-catching and practical
—4-inch brick bearing wall**



NAHB's Research House VI near Washington, D.C., is a compendium of the latest and best ideas for making homes better, and *more salable*. Its most prominent exterior and interior material is brick.

The front elevation of the Research House is dominated by unusual, four-inch-thick loadbearing brick wall enclosing the carport. It gives approach to house distinction and elegance.

Designed as series of "U" shapes, wall provides utility, economy, and great visual interest. Wall supports roof; interiors of "U's" furnish handy storage space inside carport. Portions of wall are pierced-brick screens whose openings and projecting header courses create dramatic beauty and interest. A single wythe of brick was used in this extremely simple wall which needs no interior or exterior finish: Economy, in both materials and construction, is the result.

Other unusual brick usages: Reinforced Brick Masonry (RBM) retaining wall across front of house on lower level.

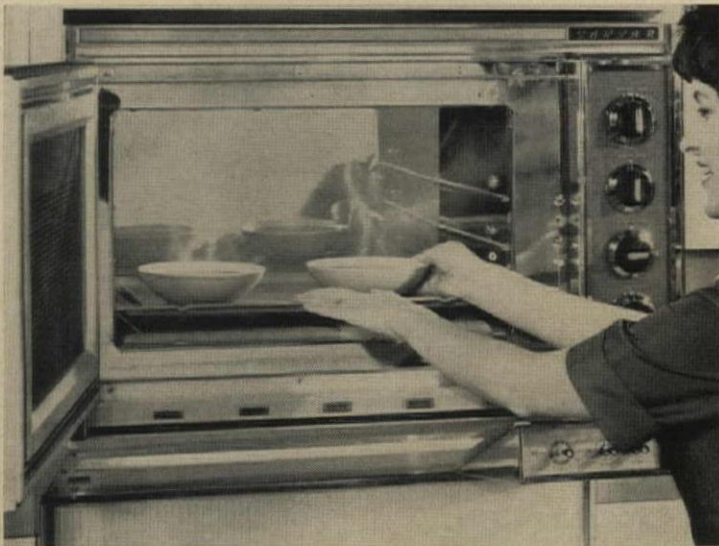
Wall is exposed on interior; above fireplace in living room a decorative pattern is created by projecting brick four inches from wall and then alternately projecting and recessing header and stretcher courses one inch. Brick wall flows out from both sides of fireplace, unifying living room, atrium, den, and patio. A 20-inch-wide brick bench is cantilevered from wall.

These are unusual brick usages, yet they are easy to plan, simple to execute, and inexpensive to build. Any home builder can use brick in the same ways, or adapt these ideas to his own needs. Write for drawings of these details in NAHB Research House VI.

scpi Structural Clay Products Institute
1520 18th St., N.W., Washington, D.C.

NEW PRODUCTS

For more information, circle indicated number on Reader Service card p. 131



TAPPAN'S MICROWAVE OVEN, like other microwave units, is cool to the touch even though food, prepared in serving dishes, is steaming hot.



GE'S MICROWAVE OVEN has revolving food shelf to assure uniform cooking. Latest model, with self cleaning, will have solid porcelain door.

These ovens can bake a potato in only eight minutes

They can also bake a two-layer cake in six minutes, roast a 12-lb. turkey in 75 minutes, and defrost a 3-lb. frozen roast in five minutes.

Reason: Instead of cooking with conventional radiant heat, they cook with high-frequency radio waves which heat only the food itself. The microwaves pass through materials like glass, plastic, and even paper but are reflected by metal, so oven manufacturers recommend the use of non-metallic utensils for best results.

Microwave cooking also offers these advantages:

1. It's cool—throws off no heat because oven interiors and utensils are no more than lukewarm to the touch.
2. It's clean. Food spatter can be wiped off in a few seconds because it isn't baked onto the oven surfaces.
3. It's safe—not only because there are

no hot surfaces but also because cooking stops automatically when the oven door is opened.

A new idea for kitchens? Hardly. Microwave ovens have been on the market since the mid-1950s. But largely because of their high price—as much as \$1,495 for some units—their use was limited to a handful of expensive custom houses.

Now there are signs that the electronic ovens may become a sales asset in built-for-sale models.

Item: Two manufacturers—Tappan and General Electric—are marketing the more modestly priced units shown here. Tappan offers a built-in microwave oven for \$795, and also offers a freestanding unit—combining a microwave oven, conventional oven, and cooktop—for \$998. GE offers a comparable freestanding unit, plus self-cleaning, for \$895.

Both manufacturers have overcome a drawback of some earlier electronic ovens—their failure to brown food while cooking it. Tappan's solution is a patented browning element. GE solved the problem by installing its microwave unit in a standard electric oven.

Item: A Cleveland-area builder—Manny Barenholtz—is offering Tappan's \$998 freestanding unit in houses ranging from \$25,000 to \$34,000. Of 60 buyers since March, 55 have taken the microwave oven.

Item: Ryan Homes, the Pittsburgh-based, multi-city builder, included GE's microwave unit in its Projection '70 model, which opened in 12 cities in October (H&H, Oct.).

For more information from Tappan, circle 255 on Reader Service card.

For more information from GE, circle 256 on Reader Service card.



TAPPAN'S COMBINATION UNIT has eye-level microwave oven and lower-level oven for conventional cooking. It sells for \$998.



GE'S COMBINATION UNIT has upper conventional oven and lower oven for microwave and/or conventional cooking. Price (with self cleaning): \$895.

New products continued on p. 116

NEW PRODUCTS

start on p. 115

Baths



Wall-to-wall carpet of nylon tweed bonded to 3/16" sponge-rubber backing is cemented directly to floor with a waterproof adhesive. Moisture barrier between pile and backing prevents wet carpet from buckling. Viking, New York. *Circle 210 on Reader Service card*



One-piece shower stall in fiberglass incorporates integral corner seat. Unit is 60" wide, with 75"-high walls, and strong flanging edges that simplify installation. Available in choice of pastels or white. Universal Rundle, New Castle, Pa. *Circle 211 on Reader Service card*



Self-rimming lavatory in vitreous china incorporates two color tones: A contrast color on the lavatory's outer rim blends with a pastel color in the bowl area. Available combinations: brown with tan or olive with pale green. Eljer, Pittsburgh. *Circle 260 on Reader Service card*



Oval lavatory that features gold-tone pattern measures 19"x16". A smaller model measures 17"x14". Matching lavatory faucet is finished in satin gold. Other styles and finishes are available in both sizes. Gerber, Chicago.

Circle 212 on Reader Service card

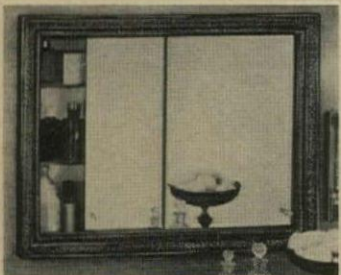


Wide-spread fittings of corrugated tubing can be bent to fit any sink drilling from 8" to 15" centers to eliminate measuring and cutting. Fittings come with choice of chrome or diamond-cut lucite handles. Price Pfister, Pacoima, Calif.

Circle 213 on Reader Service card



Valance rod conceals unsightly curtain hooks and allows shower curtain to hang in full folds for neater appearance. Rods—a potential sales feature—are available in either gold or silver anodized colors. Kinkhead, Chicago. *Circle 214 on Reader Service card*



Sliding door cabinet has antique picture frame (also offered with hinged door models). Frame is kiln-dried hardwood in antique charcoal with silver highlights. Overall dimensions: 29" wide, 19 3/8" high, 5 1/4" deep. Miami-Carey, Cincinnati.

Circle 215 on Reader Service card



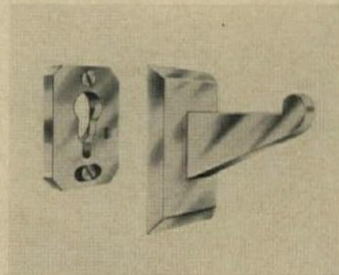
Push-pull faucet in solid brass with chromium finish has color-keyed, temperature-control insert in acrylic dial. The dial indicator turns left to full red for hottest water and right to full blue for coldest. Speakman, Wilmington, Del.

Circle 216 on Reader Service card



Elegant jewel trim for lavatory faucets, shower valves, and tub/shower sets is offered in three styles: cameo, in a smoke-gray setting; sculptured rose in rhodium finish; and hand-painted floral design on white ceramic. Moen, Elyria, Ohio.

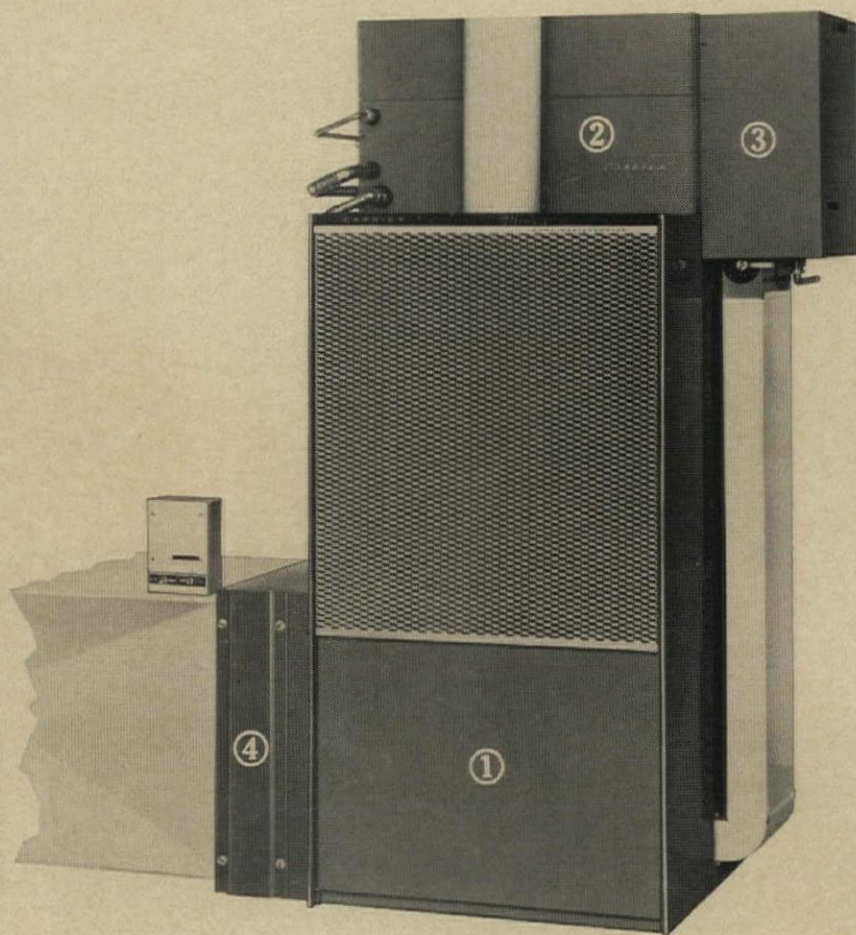
Circle 217 on Reader Service card



Concealed fastening system offered with triple chrome-plated brass accessories provides protection against vandalism on job site. Fittings require no special screws or tools, yet have no visible signs of attachment. G. M. Ketcham, Glendale, N.Y.

Circle 218 on Reader Service card

New products continued on p. 120



Carrier total air conditioning package
1. Furnace 2. Cooling coil 3. Humidifier 4. Electronic Air Cleaner

No house today is totally up to date without total air conditioning!

A strong statement? Consider this:

Many people today want more than heating and cooling in their homes.

They also want humidification and air cleaning. If not at the time they buy, later.

We've taken this into consideration and designed a total air conditioning package.

Four Carrier components that work together efficiently. Using all four, you can offer prospects a superior total system. Or with fewer than four, a superior partial system.

The heart of the package? A Carrier

Weathermaker® Furnace with the reserve capacity in air power to handle the other components. Let's look at them individually:

1. TO HEAT THE AIR—your choice of a full line of dependable, economical, quiet and long-lived Carrier Furnaces. Shown here: the top of our line—the new Home Weathermaker with Two-Stage Heating.

2. TO COOL THE AIR—your choice of a complete line of Carrier equipment that cools and dehumidifies. All types and sizes.

3. TO HUMIDIFY THE AIR—Carrier Humidi-

fiers for homes of any size. They have no moving parts, no fans, no motors, no pumps to wear out.

4. TO CLEAN THE AIR—Carrier Electronic Air Cleaners, which remove particles as small as one-millionth of an inch from the air—process all the air several times an hour.

* * *

This combination of products is exclusive with your Carrier Dealer. Call him—he's in the Yellow Pages. Carrier Air Conditioning Company, Syracuse, New York 13201.

Carrier Air Conditioning Company

More people put their confidence in Carrier air conditioning than in any other make

The fullest line in the business

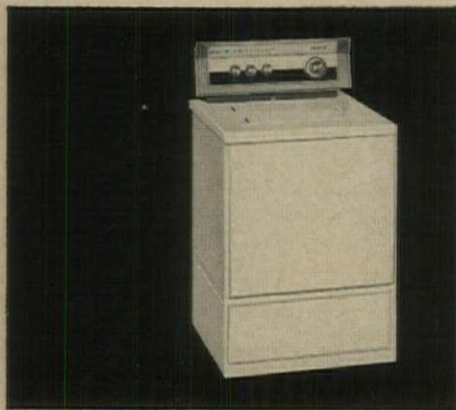
Hotpoint
SINGLE
SOURCE
 Builder Program

Now you can have true freedom of choice... Hotpoint's Single-Source Builder Program offers every kind of builder appliance, plus an almost unlimited selection of models to fit your cost, size and style requirements perfectly. It's the *fullest* line in the business! And it's backed by Hotpoint's 90-Day Replacement Guarantee of Satisfaction, in addition to the standard parts and labor warranties.

Hotpoint

first with the features women want most

Hotpoint—General Electric Company • Chicago, Illinois 60644

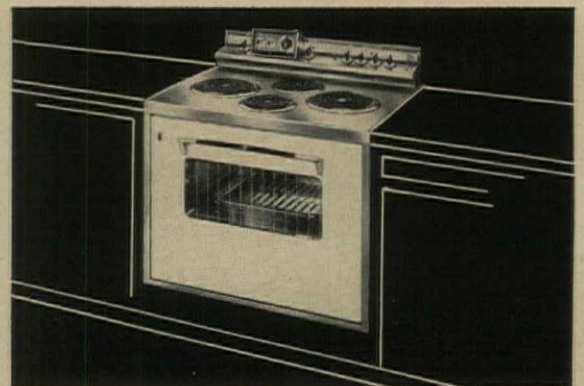


11 Washers

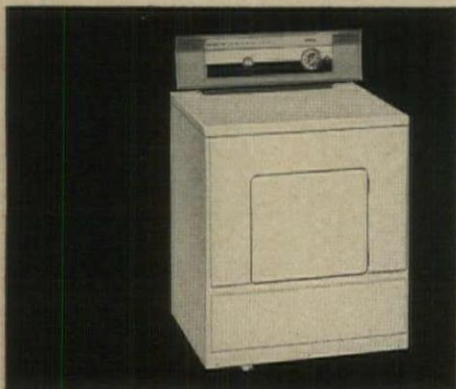


22 Refrigerators

37 Ranges/Ovens/Surface Units



6 Drop-in Ranges



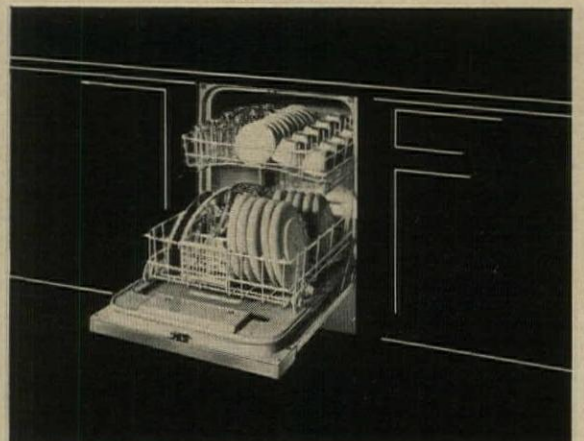
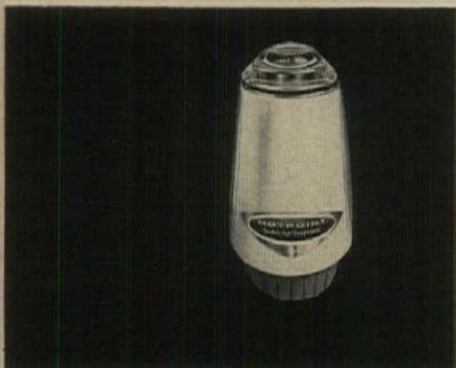
10 Dryers

6 Food Waste Disposers



8 Air Conditioners plus a full line of Electric Heat Products

4 Dishwashers



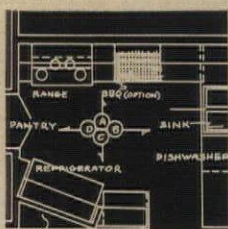
...the best in professional builder services

And Hotpoint helps you keep costs low with a full range of expert technical and building services. Example? A builder was planning to install a U-shaped kitchen in the homes of one of his major subdivisions; he called in Hotpoint early and our Kitchen Planners showed him how a corridor-kitchen plan could be substituted. This eliminated costly corners and more than 100' of countertop, saving the builder more than \$45.00 on each unit.

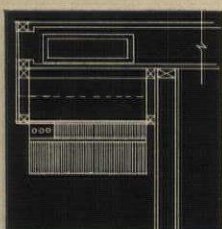
You'll sell better with Hotpoint, too. Because it's a name customers know and

respect. Over a million dollars in dramatic TV and magazine advertising is pre-selling prospects on Hotpoint's outstanding features — like Teflon-coated oven walls, No-frost refrigerators on wheels, and an automatic washer that does hand-washing better than hands.

Your local Hotpoint distributor stocks the full-line. So, call him today to get the full story on our Single-Source Builder Program. He wants your business, and can deliver the products and services to earn it!



Kitchen and Laundry Planning



Air Conditioning Calculation and Layout

Hotpoint		DATE	PROJECT		LOCATION	
No.	Room	Area	Volume	Heating	Cooling	Remarks
1	Living Room	100	2,700	1,000	1,000	
2	Dining Room	80	2,160	800	800	
3	Kitchen	60	1,620	600	600	
4	Bedroom	120	3,240	1,200	1,200	
5	Bathroom	40	1,080	400	400	
6	Hall	20	540	200	200	
7	Stair	10	270	100	100	
8	Garage	300	8,100	3,000	3,000	
TOTAL		730	20,160	7,300	7,300	

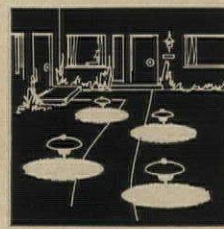
Heating Calculation and Layout



Heating and Cooling Cost Estimates



Interior Lighting



Exterior Lighting

Sales Promotion Assistance



Hotpoint

first with the features women want most

Hotpoint — General Electric Company • Chicago, Illinois 60644

See the Hotpoint Display at the NAHB Convention in Chicago, December 4-8. Booth numbers 834, 836, 935, 936.

NEW PRODUCTS

start on p. 115

Office equipment



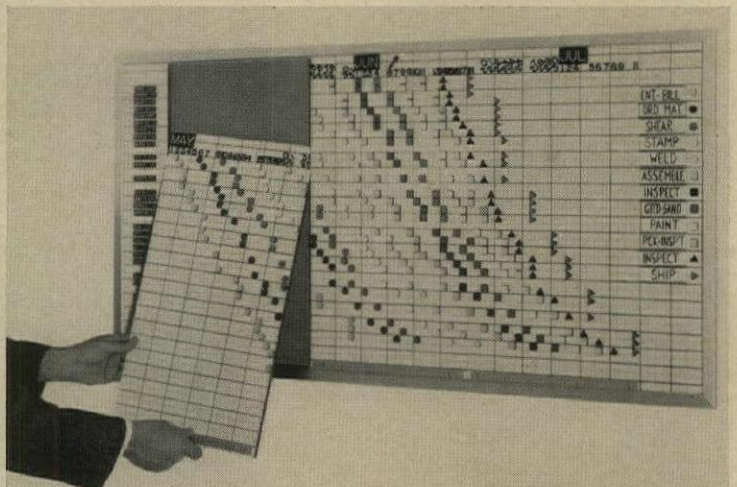
High-speed files—36" wide and 17¼" deep—combine the advantages of lateral filing with full suspension roll-out shelves. Files are available in three-, five-, and six-compartment heights, in several color combinations. Tab, San Francisco. *Circle 201 on Reader Service card*



Adding machine incorporates tape punch to record simultaneously on punched paper tape all or any data that appear on printed adding machine tape. Model is suggested to simplify complicated job-cost accounting. Friden, San Leandro, Calif. *Circle 202 on Reader Service card*



Dry diazo whiteprinter in medium price range makes prints up to 43" wide at speeds synchronized up to 65' per minute. Machine, which can process plastics and films, is wired for 220 volts and requires 50 amperes. General Aniline, New York. *Circle 203 on Reader Service card*



Magnetic control board framed in extruded aluminum has three separate panels that can be removed and interchanged. Board—23"x 48"—is white steel with black grid lines. System includes 90 accessories. Magnagraph, New York. *Circle 204 on Reader Service card*



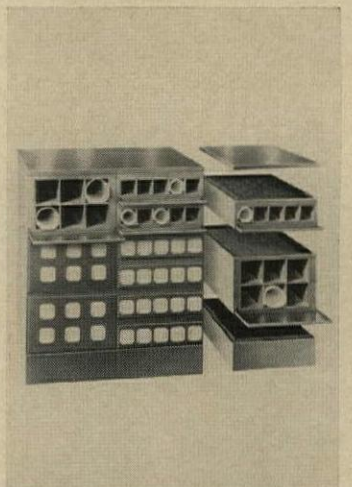
Vertical print files allow each sheet to hang flat with up to 100 sheets clamped in each print hanger. Model can be mounted on any vertical surface and hinged arms fold flat when not in use. Widths from 18" to 42". Lewbill, Scottsdale, Pa. *Circle 205 on Reader Service card*



Filing-cabinet series includes heights of up to five drawers (left) in legal and letter sizes. Cabinets are available in choice of colors, with plastic laminate top. Double-action drawer pulls can be operated with either hand. Steelcase, Grand Rapids. *Circle 206 on Reader Service card*



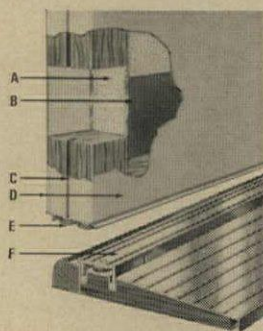
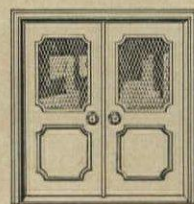
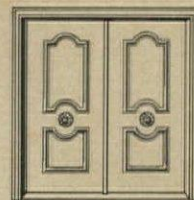
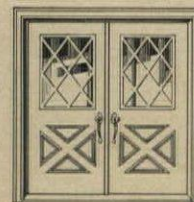
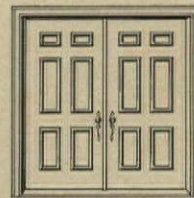
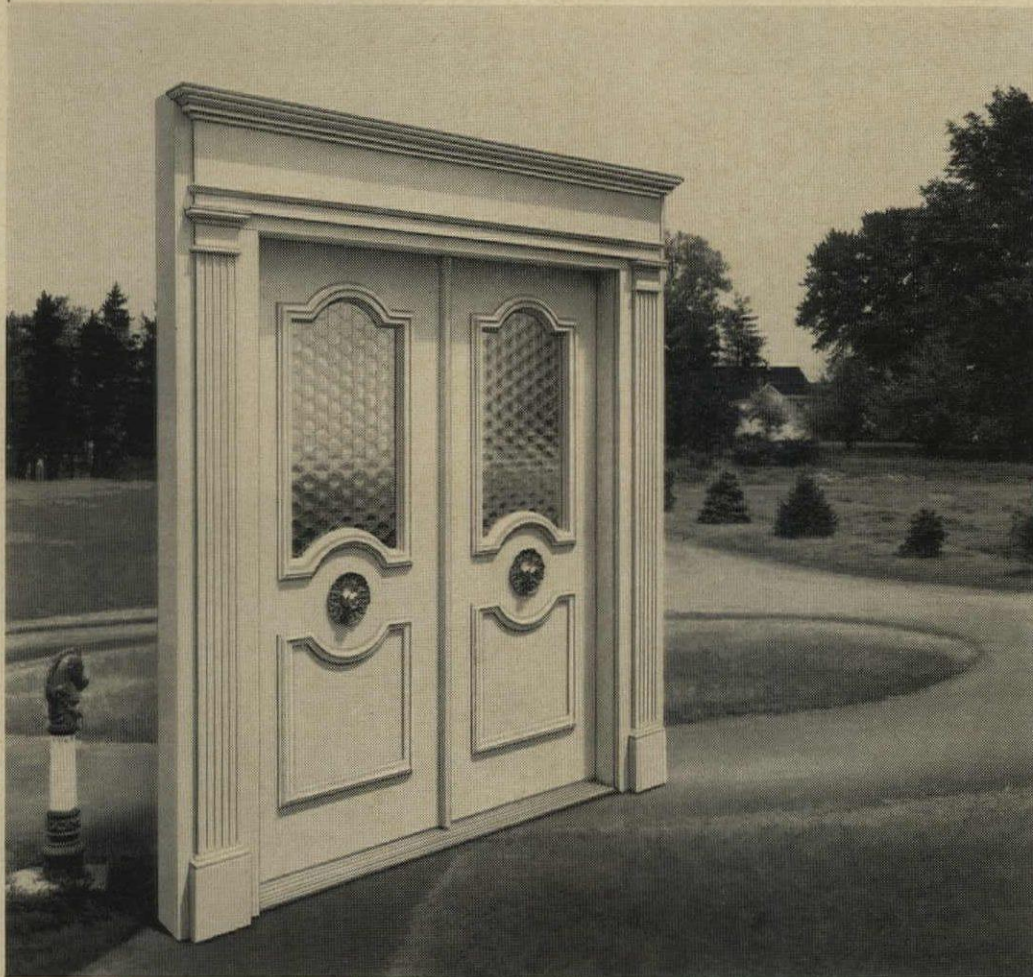
Paper trimmer is available in five portable table models: 14", 21", 27", 31", and 43". Paper clamp insures precision cutting of blueprints, diazo prints, photos, fabric, rubber, thin plywood, and thin soft metals. Michael Lith, New York. *Circle 207 on Reader Service card*



Modular stack roll files incorporate reinforced-aluminum square tubes that will not bind rolled drawings. Units can be combined easily and will stack together with round-tube files which they replace. Plan Hold, Torrance, Calif. *Circle 208 on Reader Service card*

New products continued on p. 122

Solve 4 biggest double-door problems



- A. Rigid Dylite foam core insulates.
- B. Internal "kick" strip
- C. Thermal break—ends condensation
- D. Galvanized steel facings
- E. Seal strip on door—not walked on
- F. Adjustable universal sill

1. Warping. Made of steel, Pease Ever-Strait Doors end costly, bothersome call-backs, because they just don't warp.

2. Drafts. Magnetic weather-stripping like on modern refrigerators gives a positive weather-seal . . . shuts out drafts, snow and cold air.

3. Swelling. No worry about sticking due to temperature and humidity changes. Once Pease Ever-Strait Double-Doors are properly installed they'll always open and close—easily.

4. Storm doors. Pease Ever-Straits give the greatest weather-barrier ever built into a door. Ever-Strait doors have a solid foam insulating core. There's also a thermal break between the two galvanized steel facings, that eliminates condensation and frosting.

Like to know more? See your nearest distributor listed, or write for free brochure and full details.

Pease Ever-Strait Doors®

Dept. H-12, 900 Laurel Ave., Hamilton, Ohio

Patents No. 3,153,817 and 3,238,573. Other patents pending.

PEASE EVER-STRAIT DOOR DISTRIBUTORS

Edward Hines Lumber Company
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Springfield Builders Supply Co., Inc.
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Western Mill & Lumber Co.
Baltimore, Maryland

Alco Structures, Inc.
Easton, Maryland

L. Grossman Sons, Inc.
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Kansas City, Missouri

Sealrite Mfg. Co.
Lincoln, Nebraska

Sklar Door Corporation
Bound Brook, New Jersey

Gerrity Company, Inc.
Albany & Syracuse, N. Y.

Iron City/Whitjax Co.
Lancaster & Rochester, N. Y.

Sam Palevsky Hardware Co., Inc.
Bedford Heights, Ohio

Iron City/Whitjax Co.
Cleveland, Massillon & Lima, O.

Pease Woodwork Co., Inc.
Hamilton, Ohio

Keystone Alum. Window Company
Lancaster, Pennsylvania

Iron City/Whitjax Co.
Pittsburgh & Johnstown, Pa.

Timber Truss, Inc.
Roanoke, Virginia

Marling Lumber Company
Janesville, Wisconsin

CANADA: Whitjax, Ltd.
Montreal North, P. Q.
Toronto, Ontario

NEW PRODUCTS

start on p. 115

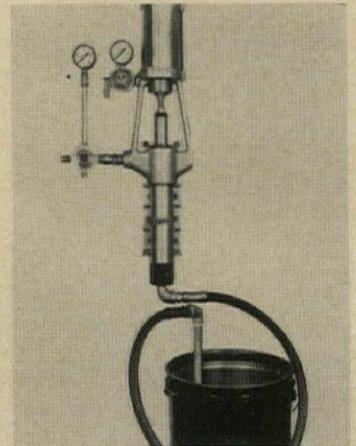
Adhesives, sealants, & paints



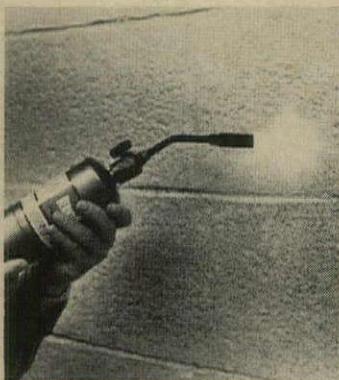
Joint estimator in the form of a slide rule calculates thermal expansion of common building materials and comes up with the optimum joint dimensions required for various sealants. Single units free. Thikol Chemical, Trenton, N.J. *Circle 230 on Reader Service card*



Latex rust-inhibitor permits prime-coating over tight rust and old paint to provide a base for a variety of finishes. Advantages: Rapid drying permits re-coating in one hour, and water-thinned composition presents no fire hazard. Luminall, North Bergen, N.J. *Circle 237 on Reader Service card*

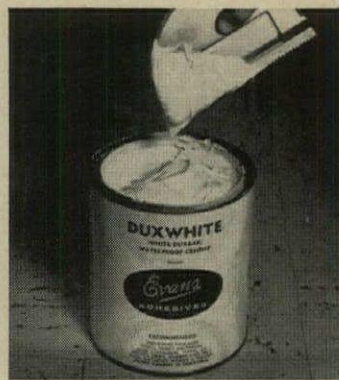


Compact siphon paint pump is lightweight yet can supply up to three gallons per minute. It is designed to handle all conventional lacquer and enamel finishing products and will operate directly from any original container. Spee-Flo, Houston. *Circle 238 on Reader Service card*

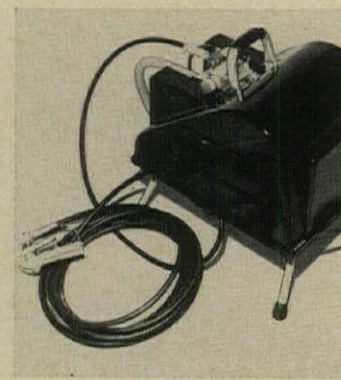


Non-flammable epoxy is designed for exterior or interior use on any surface including wall-board, plaster, wood, metal, ceramic, glass, and concrete. Coating comes in a variety of colors and spatter effects. Preco, Plainview, N.Y.

Circle 239 on Reader Service card



Waterproof white adhesive is recommended for bonding linoleum, vinyl and vinyl asbestos, rubber, cork, and asphalt. Designed to permit maximum translucence, adhesive can be spread with trowel or roller. Evans Adhesive, Columbus, Ohio. *Circle 233 on Reader Service card*

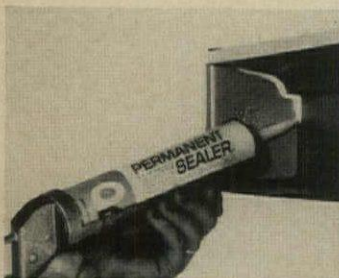


Electric hydraulic sprayer delivers up to 100 fluid ounces per minute in a pressure range from 50 to 2,700 psi. It can be used with a five-gallon pail or a 55-gallon drum. Unit is convertible to gasoline power. Hydrocraft, Cleveland.

Circle 240 on Reader Service card



Waterproof adhesive, in cartridge ejected by a standard caulking gun, is suitable for bonding wall panels to studs, furring strips, and solid backing. One cartridge of the rubber-based adhesive can bond five to six 4'x8' panels. Barclite, Burbank, Calif. *Circle 234 on Reader Service card*



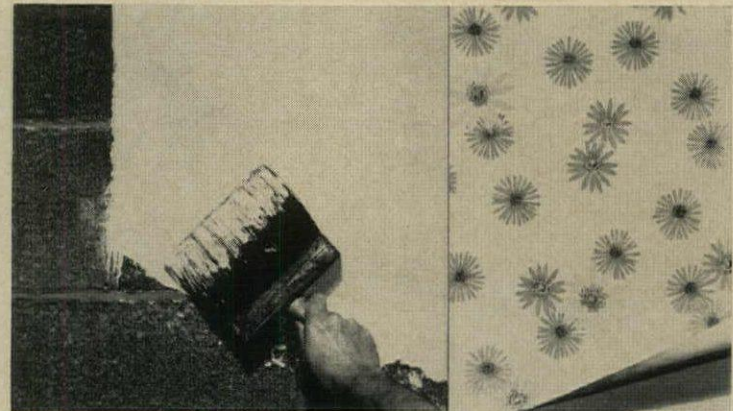
Flexible sealant — designed for seam and crack sealing where waterproofing is required—is suggested for down spouts and rain troughs. It requires no mixing, can be applied under water, and withstands temperature extremes. Ruscoe, Akron.

Circle 231 on Reader Service card



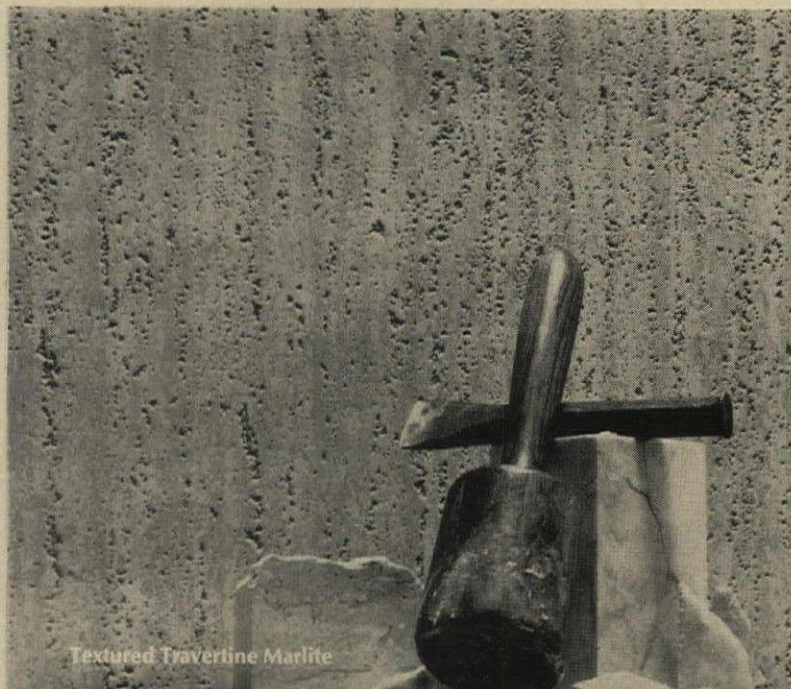
Caulking jelly with bentonite mineral base lubricates construction joints and seals against moisture. It prevents leaks in concrete pipe and fills cracks in expansion joints. Won't freeze in cold or soften under heat. American Colloid, Skokie, Ill.

Circle 232 on Reader Service card

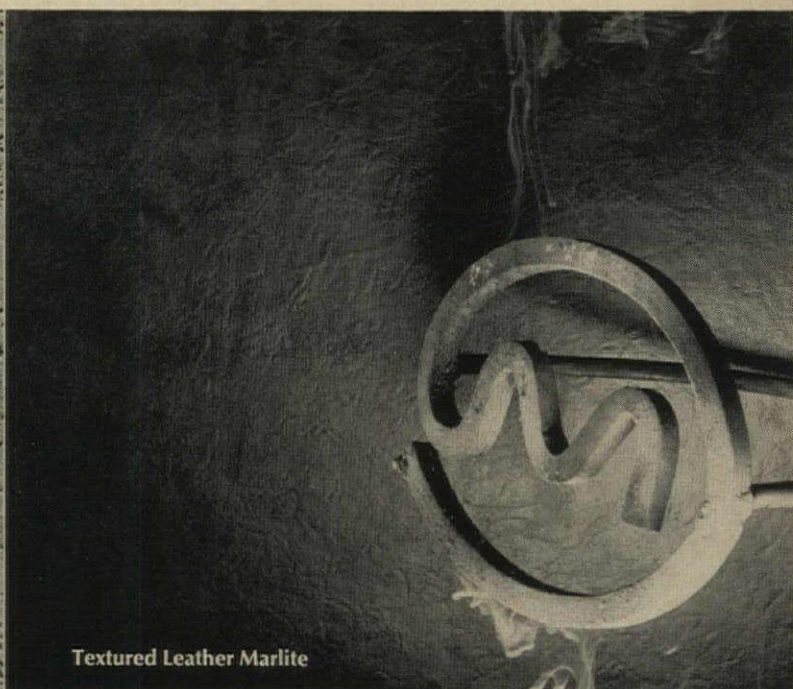


Masonry paste for smoothing float- and sand-finished walls to permit paperhanging or painting can be applied with brush or trowel. It fills in irregularities and dries to a smooth, fiberboard finish. Standard Chemical, Hoboken, N.J. *Circle 236 on Reader Service card*

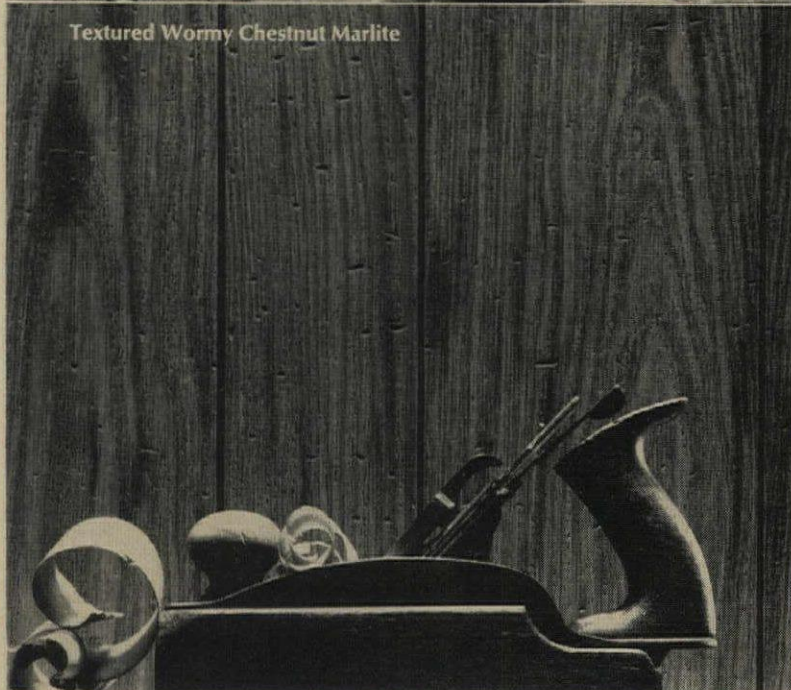
New products continued on p. 124



Textured Travertine Marlite



Textured Leather Marlite



Textured Wormy Chestnut Marlite



Textured Tapestry Marlite

6657

Want soilproof walls with authentic texture?

Marlite has the touch.



One touch tells you that Marlite Textured Paneling is a decorating idea with unlimited possibilities.

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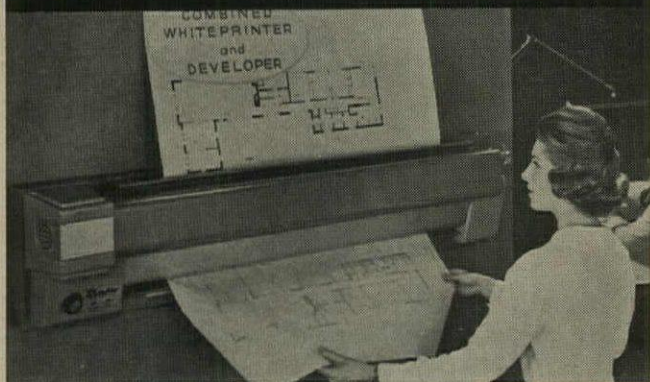
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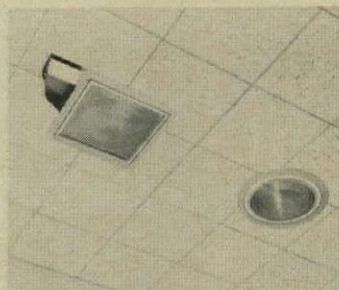
NEW PRODUCTS

start on p. 115

Lighting

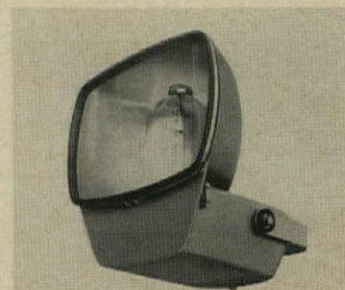


Hand-carved chandelier with six candelabra lamps has fruitwood center column decorated with antique solid brass and brass arms. Fixture is 28" wide, with a 24" body height, and an overall height of 42". Progress, Philadelphia. Circle 242 on Reader Service card



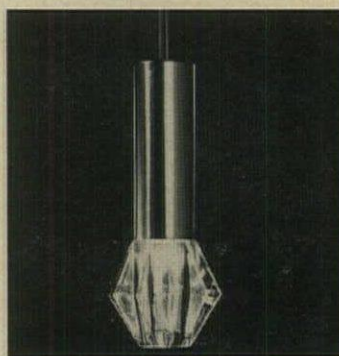
Recessed fixtures designed for lobbies and corridors come with 100-watt mercury vapor or 60-watt incandescent lamp. Choice of four lens patterns in both round and square models, in white, aluminum, and brass. Art Metal, Cleveland.

Circle 243 on Reader Service card



Rectangular floodlight for building facades comes in 400- and 1000-watt mercury-vapor models with one-piece mounting yoke and two-piece cast aluminum housing. Removable top allows access to lamp and ballast. Landmark, Southaven, Miss.

Circle 244 on Reader Service card



One-lamp pendant is available with two sizes of crystal in a variety of styles. Fixtures can be spread across ceilings, or mounted on matching wall brackets. Metal parts are polished or brass-finished aluminum. Prescolite, San Leandro, Calif.

Circle 245 on Reader Service card



New England lanterns of cast aluminum are available in a variety of post, pier base, bracket, ceiling, and hanging fixture models. Choice of finishes includes ebony, white, hand-rubbed bronze, Swedish iron, and patina. Hadco, New York.

Circle 246 on Reader Service card

New products continued on p. 133



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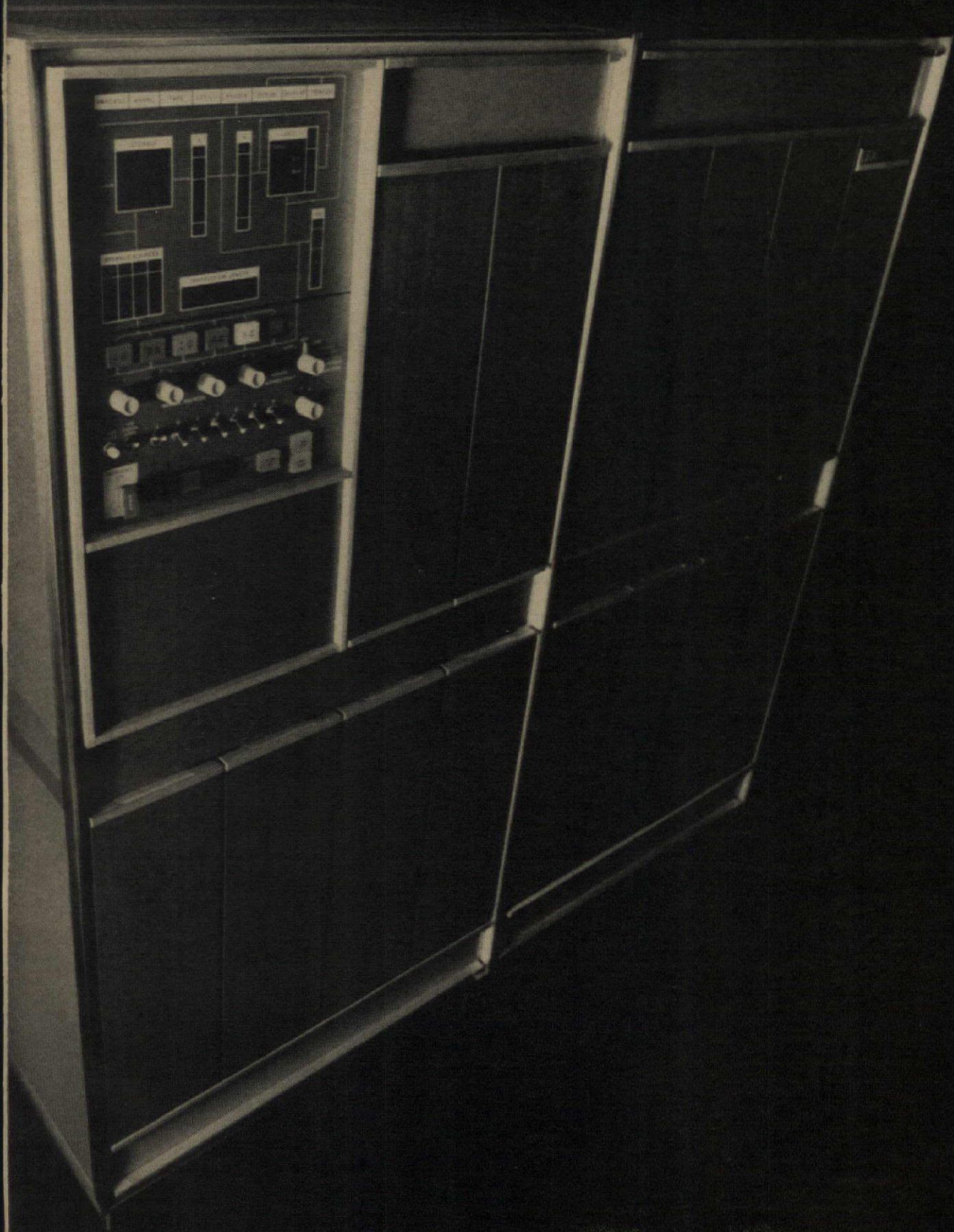
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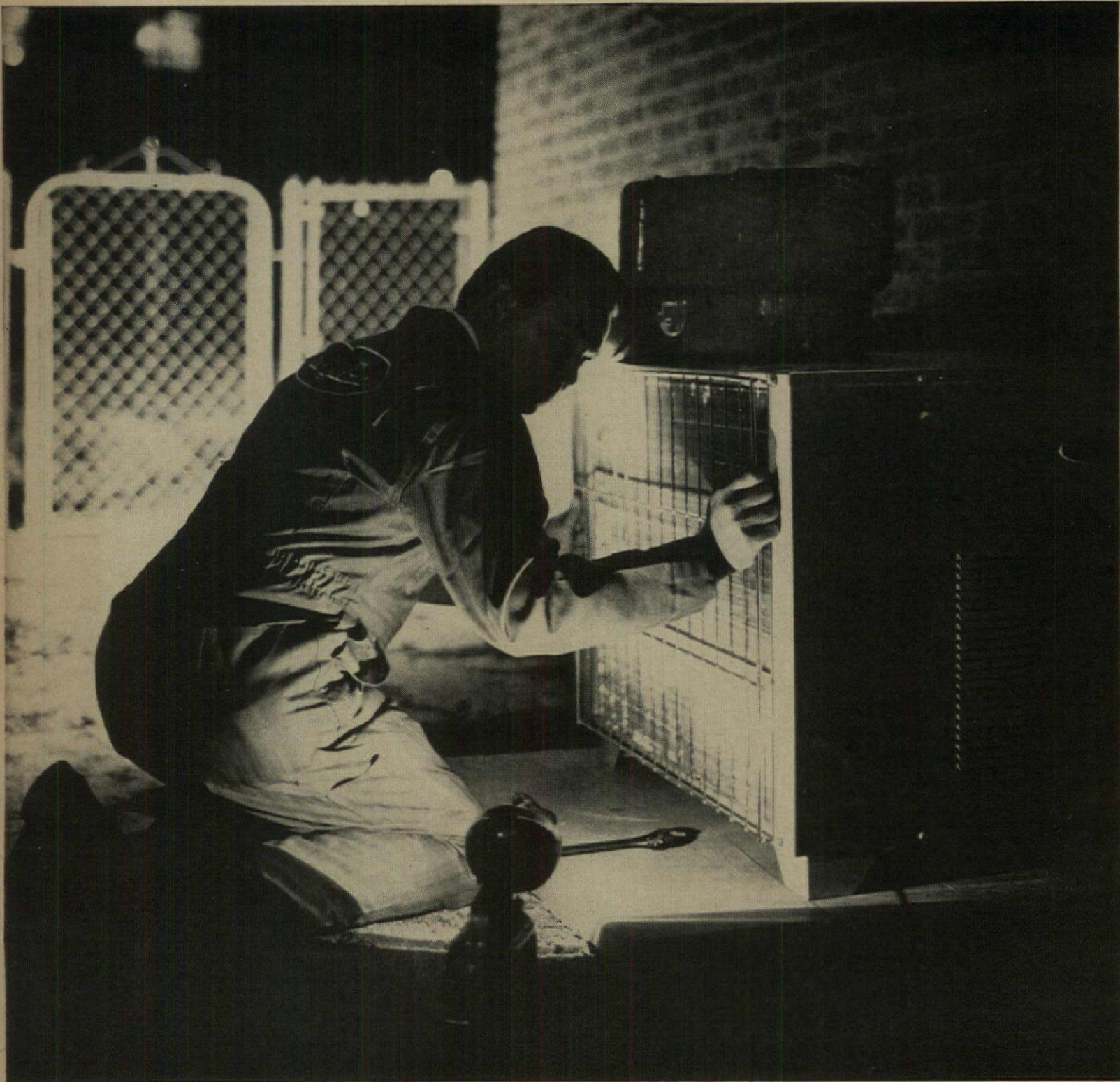
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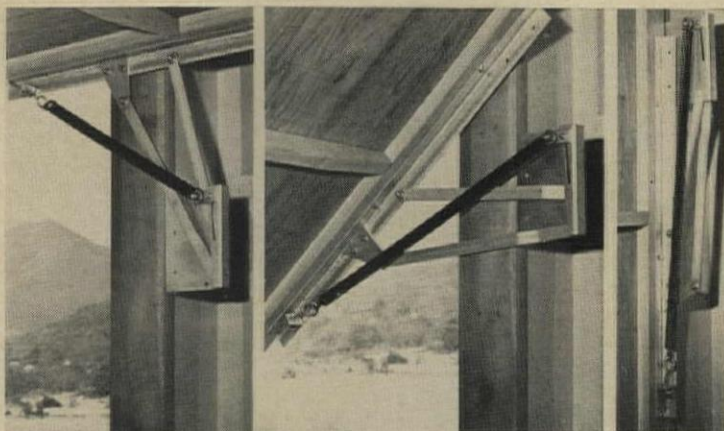
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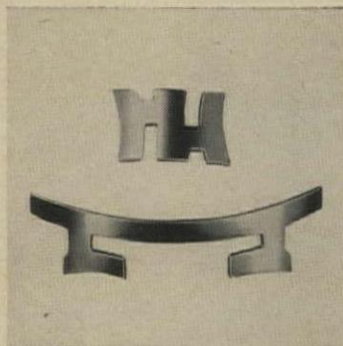
NEW PRODUCTS

start on p. 115

Hardware



Jamb-type overhead garage hardware available pre-loaded to simplify installation is compatible with electric operators. The low-overhead hardware requires only 1½" clearance. Michel & Pfeffer, San Francisco. Circle 248 on Reader Service card



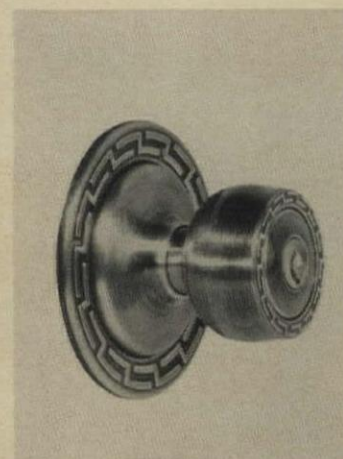
Drawer pull and knob of zinc die-cast construction are finished in bright brass. Pull dimensions: 4½" overall length; 13/16" high, with 3" hole centers. Knob is 1 15/16" long, 1 3/32" wide, and ¾" high. Amerock, Rockford, Ill.

Circle 249 on Reader Service card



Custom line designed to complement Provincial or Early American includes a selection of pulls, knobs, backplates, and knob and plate combinations. Choice of finishes: smoky-black antique, or white-and-gold. Belwith, Los Angeles.

Circle 250 on Reader Service card



Grecian-design lockset features permanently embossed Greek key motif that encircles knob face. Trim rosette, which fits behind the lockset, repeats the pattern. Available in antique-finished brass, bronze, or nickel. Kwikset, Anaheim, Calif.

Circle 251 on Reader Service card



Entrance handles, fashioned in three designs, are available in choice of two finishes: antique brass or antique silver. Each design complements a wide range of architectural styles. Matching interior trim is available. Dexter, Grand Rapids.

Circle 252 on Reader Service card

New products continued on p. 134



The trade's talking about teak!

'Diamond Martinique Pattern' in Indianapolis Home of Mr. & Mrs. G. W. Raffensberger • Winters & Zintel, Inc., Designers

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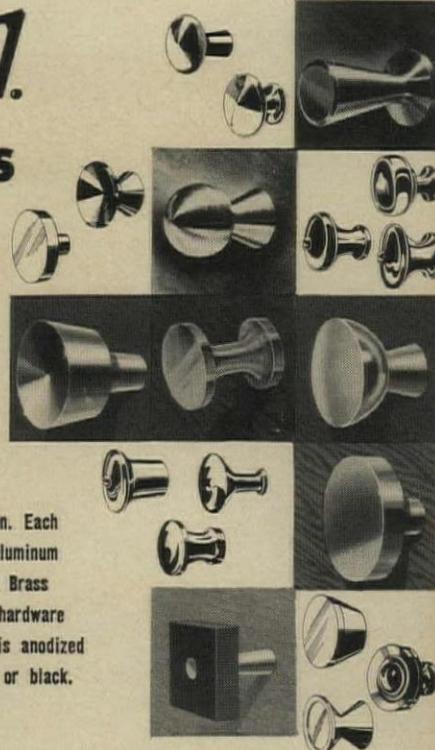
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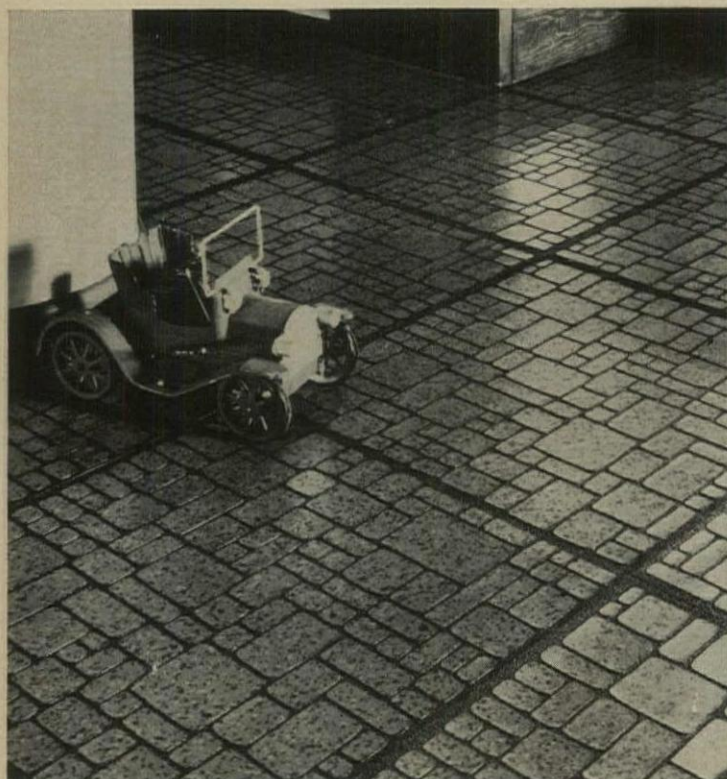


Free 44-page catalog on all EPCO Knobs, Pulls, Magnetic Catches and sliding door hardware available on request. See Sweet's Catalog under Arch. file 19g-En and Light Const. file 7b-En.

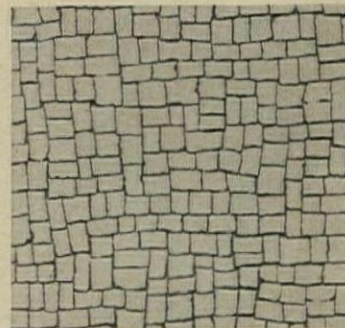
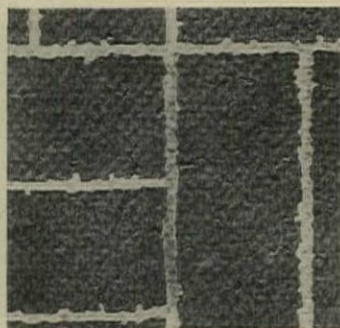
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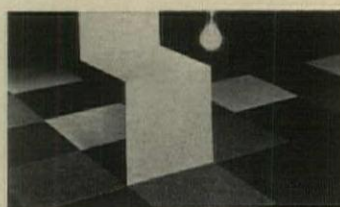
Flooring



Solid vinyl tile—in 12" squares and .050" gauge—features handcrafted mosaic effect in choice of four colors: red, pale beige, off-white, and green. Contrasting grout lines conceal seams. Armstrong, Lancaster, Pa. Circle 221 on Reader Service card



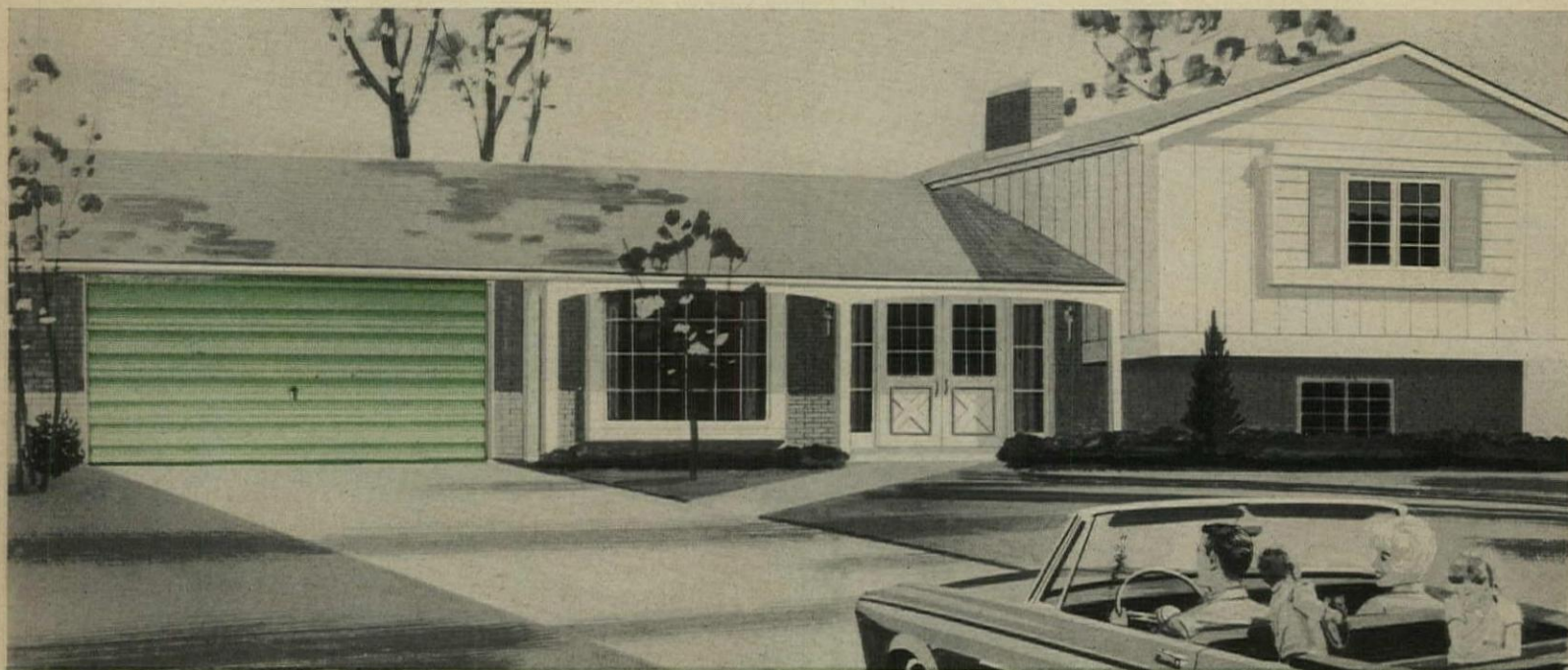
Vinyl-fiber floor covering manufactured in 6'6" widths is composed of a heavy layer of polyvinyl chloride bonded to a resilient fiber base. Flooring is offered in 33 colors and patterns. Above: red brick and "palma". Tapiflex, Millbury, Mass. Circle 222 on Reader Service card



Vinyl asbestos tile incorporates subtle color flecks uniformly distributed throughout the tile's depth. Offered in 12" squares, in sixteen colors. Azrock, San Antonio, Tex. Circle 223 on Reader Service card

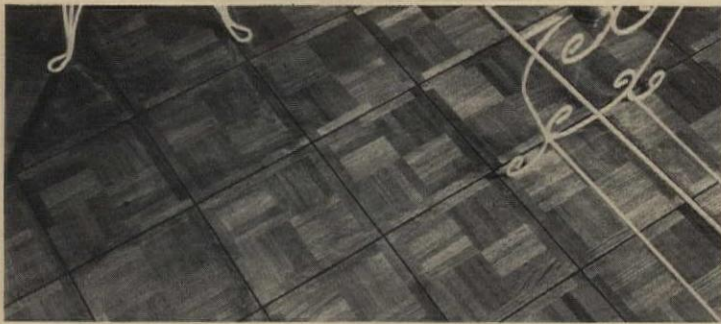


Textured vinyl tile in moderate price range comes in two sizes: 9" and 12" square. Tile features an embossed surface in four colors: blue, coral, green, and white. Goodyear, Akron, Ohio. Circle 224 on Reader Service card

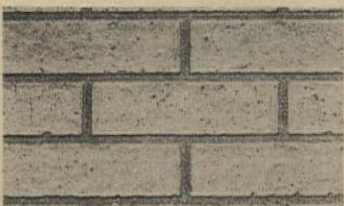


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- 2 **NEW 15-YEAR WARRANTY ON THE MARVEL-LUCENT PANELS**—no finer warranty on any fiber-glass.
- 3 **NEW 2-INCH THICK BOX-SECTION DESIGN** for strength and rigidity in the Marvel-Lucent panels.
- 4 **NEW RIGID EXTRUDED ALUMINUM WRAP-AROUND FRAME**, the only such frame on any residential fiber-glass door. Compare this with any old-fashioned rolled sheet metal frame; the contrast is dramatic. This frame is solid, rugged, rigid, strong, like an industrial door frame.



Solid hardwood flooring for installation over concrete or wood sub-floors comes in panels of individual slats held together by removable face paper. Produced in red oak, hard maple, beech, walnut, cherry, and teak. Harris, Johnson City, Tenn. Circle 225 on Reader Service card



Sheet vinyl simulates antique brick—in choice of natural, white, terra cotta, or pink—set in staggered rows. Grout lines in pattern conceal seams. Amtico, Trenton, N.J. Circle 226 on Reader Service card



Inlaid sheet vinyl with nubby texture incorporates several layers of colored chips in clear vinyl. Perma-shield backing permits installation below grade. In 6' widths. Mannington, Salem, N.J. Circle 227 on Reader Service card



Sheet vinyl flooring in 6' widths features an antique mosaic stone pattern in five weathered tones: tan, beige, green, pale gray, and brick. Flooring has a vinyl-foam interlayer for sound deadening. Ruberoid, New York. Circle 228 on Reader Service card

- 5 **NEW WEATHERPROOF CONSTRUCTION.** Marvel-Lucent panels are set into section frames with ends pressed into one-piece sponge neoprene pads which fill the end of the wrap-around frame and seal out rain, wind, snow, dust and dirt. Ever seen construction like this? You'll see it in Crawford Marvel-Lucent.
- 6 **NEW SHIP-LAP JOINTS BETWEEN SECTIONS** with an air-lock in the middle prevent moisture from seeping to the inside.
- 7 **NEW MOLDED NYLON ROLLERS** for practically soundless operation; not metal rollers in a metal track.
- 8 **NEW DOUBLE LOCKING MECHANISM** that snaps locked at *both* sides when the door is tight against the floor and holds it there to seal out wind,

dirt, weather. The double-locking action holds the door down evenly, clear across its width, yet, opens easily at a pull on the chain.

- 9 **NEW BUYER APPEAL** because the Crawford Marvel-Lucent has more and does more for the home owner than any fiber-glass door has ever done before.
- 10 All these new features in addition to beautiful, glamorous translucency; three sparkling colors and white; light weight for easy operation and the all-important appeal of newness—the newest door that anyone can offer.

More information from your local Crawford Distributor listed in the Yellow Pages under DOORS or get bulletin CD-3981 from Crawford Door Co., 4720-29 High Street, Ecorse, Mich. 48229. A subsidiary of Jim Walter Corporation.



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- 2. SHIPLAP SEAL AT MEETING RAILS to bar moisture seepage.
- 3. HEAVY EXTRUDED ALUMINUM FRAME of alloy 6063-T6.

- 4. DEEP DOUBLE-BOX-BEAM DESIGN gives panels great structural rigidity.
- 5. MOISTURE-PROOF SPONGE NEOPRENE PAD seals panel ends in U-shaped vertical end stiles to shut out rain, snow, dirt.
- 6. PANELS ARE RIVETED TO EACH HORIZONTAL RAIL, to end stiles and to each intermediate stile.
- 7. ROLLERS ARE ADJUSTABLE sideways to assure free running in the track.

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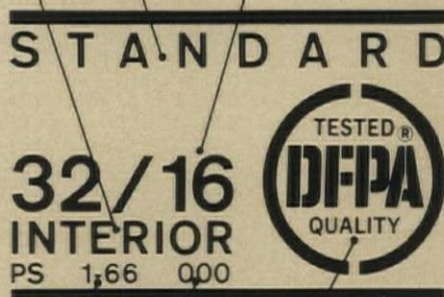
The new system permits easier specification. Grades are simpler. Panel markings are more informative. And, with the new Identification Index, you get greater construction economy, because you can buy or specify the exact thickness for the job — cutting in-place cost. Recommended support spacings are shown right on the stamp. (See example at right.)

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NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card, page 131.

LAMINATED LUMBER. Structural glue-laminated Southern pine is discussed in a technical bulletin containing design data, specifications, and appearance grades. Several types of arches and beams are illustrated. Twelve pages. Southern Pine Assn., New Orleans. *Circle 355 on Reader Service card*

BRASS AND CRYSTAL FIXTURES. Four-color product folder describes and illustrates four chandeliers, two hanging fixtures, and wall sconce in an imported series that features hand-cut crystal prisms and antique gold-finished brass castings. All are shown installed in typical settings. E-Lite, New York. *Circle 356 on Reader Service card*

ANTIQUÉ CERAMIC TILE. Certified for use in both interior and exterior applications, tile features smooth or rough glazed surfaces and a weather-resistant double glaze. Fourteen basic colors are illustrated in a product folder. Hoganas, Riverton, N. J. *Circle 357 on Reader Service card*

FACTORY-FINISHED MOLDINGS. Hardwood moldings—in ten patterns—to match or complement 80 different hardwood and softwood panelings are discussed in a product sheet. Moldings are individually packaged in polyethylene bags. Georgia-Pacific, Portland, Ore. *Circle 358 on Reader Service card*

MASONRY BLOCKS. A new concept in sound control makes use of sound-absorbing, structural masonry blocks. Brochure includes general information, technical data, tables and graphs on sound-absorption coefficients, installation details, and specifications. Proudfoot, Greenwich, Conn. *Circle 365 on Reader Service card*

HARDBOARD PANELING. The grain patterns and color tones of hardwood are reproduced on random V-grooved panels described in a four-color brochure. Photos show paneling in a variety of room settings in six wood tones: teak, rosewood, butternut, walnut, cherry, and birch. Weyerhaeuser, Tacoma. *Circle 366 on Reader Service card*

GROUND SLAB MANUAL. Twenty illustrated pages discuss specific applications of welded-wire fabric to save time and money in the construction of concrete slabs on ground or on intermediate supports. Wire Reinforcement Institute, Washington, D.C. *Circle 367 on Reader Service card*

ZONED HEATING AND COOLING SYSTEMS. A comprehensive booklet compares the function and operating costs of 1) heat pumps, 2) cooling plus electric heat, and 3) cooling only models. Application chapter describes how to plan system capacity, air distribution, and unit location. Twenty-eight pages, with photos and drawings. Single copies are available without charge. General Electric, Louisville, Ky. *Circle 362 on Reader Service card*

TOTAL COMFORT SYSTEM. An illustrated brochure shows the ingredients of a total-comfort system, and presents principles for selecting heating, air conditioning, and ventilating equipment. Lennox, Marshalltown, Iowa. *Circle 363 on Reader Service card*

BATHROOM IDEAS. Twenty-eight-page brochure in full color contains seven outstanding bathrooms—each accompanied by a floor plan—and general tips on bathroom planning. Also illustrated: fixture lines including lavatories, water closets, bathtubs, and brass fittings. Single copies free. Eljer, Pittsburgh. *Circle 364 on Reader Service card*

AIR SEPARATOR. Technical specification bulletin describes an air separator for large hot- and chilled-water systems. Model is guaranteed to

prevent the accumulation of air in heating and cooling units and prevent noises caused by entrapped air in piping. Bell & Gossett, Morton Grove, Ill. *Circle 353 on Reader Service card*

PILE SELECTOR. Circular slide-rule selector eliminates guesswork in determining proper weatherstripping for specific air-infiltration problems. Air-infiltration data is available on all manufacturer's parts. Schlegel, Rochester, N.Y. *Circle 354 on Reader Service card*

COLOR-MATCHED MOLDINGS. Vinyl-clad wood and metal moldings that match manufacturer's woodgrained and marble-like panels are covered in a four-page folder in full-color. Masonite, Chicago. *Circle 350 on Reader Service card*

HARDWOOD LIGHTING FIXTURES. Full-line illustrated catalog provides complete technical descriptions and specifications for hardwood fixtures in walnut, teak, cherry, maple, and oak—all satin oil finished. Also: construction details and diagrams. Litecontrol, Watertown, Mass. *Circle 351 on Reader Service card*

STEEL DOORS AND FRAMES. Thirty-two-page, full-line catalog includes specifications, size and availability charts, suggested applications, and detailed drawings. Also: steel-frame selector guide, frame anchoring system, and sections on transoms and side lights. Amweld, Niles, Ohio. *Circle 352 on Reader Service card*

TOOLS AND EQUIPMENT. Twenty-four page catalog of 19 products includes a new traveling arbor saw and tapered plastic trimmers. Price & Rutzebeck, Hayward, Calif. *Circle 359 on Reader Service card*

DECORATIVE HARDWOOD SCREENS. Characteristics, architectural specifications, and ordering instructions for modular hardwood units in eight see-through and two solid designs are discussed in a four-page full-color brochure. Penberthy, Los Angeles. *Circle 360 on Reader Service card*

VINYL-GROUTED CERAMIC FLOORING. Fully-illustrated information sheet tells how to install tile sheets with dry set mortar, cement mortar, or adhesive. Covered: how to prepare subfloor, prepare and apply bonding material, and cut and place tile sheets. W.S. Ceramic Tile, Canton, Ohio. *Circle 361 on Reader Service card*

PLASTIC PIPE FITTINGS. Full-line catalog shows complete pattern selection and includes sizes, descriptions, and ordering information. Also: four-step method for joining plastic fittings. R.&G. Sloane, Sun Valley, Calif. *Circle 368 on Reader Service card*

OUTDOOR FLOORING. Guide with accompanying photos gives step-by-step directions for installing 12" square tiles on concrete patios, sun-decks, porches, and walkways. Adhesive recommendations are included. Seven pages. Armstrong, Lancaster, Pa. *Circle 369 on Reader Service card*

ROOF DECKS. Eight-page booklet examines two-part roof-deck insulation system which combines vermiculite concrete with polystyrene vent board. Includes specifications and "U" factor tables. Zonolite, Chicago. *Circle 370 on Reader Service card*

AUTOMATIC MARKER. Product design and specification sheet describes marker used in setting studs, rafters, joists, and roof trusses. Marking wheel—mounted on a chassis and rolled along material—is designed to mark at 16" centers. Other settings: 4", 8", 12" and 24". TECO, Washington. *Circle 371 on Reader Service card*

CUSTOM CARPETS. Twenty-nine-page catalog in full color covers hand-crafted, 100%-wool-pile carpets made to order in any size and color pattern. Designs can be modified to meet individual requirements. Sales offices and showrooms are listed. Bigelow-Sanford, New York. *Circle 379 on Reader Service card*

CABINET DOOR CLOSER. Product sheet describes features and applications of door closer that can be installed inside kitchen cabinet out of sight. Closer works on all lipped doors. Grant Pulley & Hardware, West Nyack, N.Y. *Circle 372 on Reader Service card*

STEEL-SECTION GARAGE DOORS. Specifications and advantages of steel-section residential doors are contained in a product sheet that also includes construction details. Three styles are pictured. Morrison Steel, Buffalo, N.Y. *Circle 374 on Reader Service card*

SCULPTURED STONE FACINGS. Complete facings collection—45 patterns in all—is available in both cast concrete and Nova-Stone. Four-page brochure includes photographs of exterior and interior installations—along with complete size, weight, finish, installation, and price details. Arts for Architecture, Garden City, N.Y. *Circle 375 on Reader Service card*

ALL-WEATHER CEMENT. Roofing cement is intended for installing and repairing flashings and counter-flashings on built-up asphalt composition roofs. It bonds equally well to wet or dry surfaces in temperatures as low as -10°F or as high as 110° F. Four-page folder details uses and characteristics. Philip Carey, Cincinnati. *Circle 376 on Reader Service card*

WALL PANELING ADHESIVE. Data sheet tells where to use adhesive—with prefinished or unfinished plywood, tempered or untempered pressed board, fiberboard, chipboard, and corkboard—and how to bond to studs, gypsum board, or masonry. Other uses covered: flooring, corner and cove molding, steps, fiberglass, shingles. B.F. Goodrich, Akron, Ohio. *Circle 377 on Reader Service card*

RANGE HOODS. Ventilating range hoods finished in woodgrained vinyl get the spotlight in a four-color product brochure that includes complete line. Berns Air King, Chicago. *Circle 378 on Reader Service card*

DIRECT EXPANSION COOLING. Guide covers design of cooling systems—for either new or existing homes—that incorporate cool air introduced at high levels along with a baseboard hydronic heating system. For copy send \$1.25 to: The Institute of Boiler and Radiator Manufacturers, 393 Seventh Avenue, New York, N.Y. 10001. Worksheets developed for use with the guide are available at \$.75 for a pad of 50 sheets.

SASH DOORS. Nine standard models—the first of a complete door line made of toxic-treated western pine—are described in a product folder. The doors have glue-doweled joints and are furnished glazed or open. Jessup Door Co., Dowagiac, Mich. *Circle 380 on Reader Service card*

INSULATED ALUMINUM SIDING. Product folder enumerates—with cutaway—advantages of using three-ply honeycomb siding. Finishes: rustic grain and smooth. Hunter Engineering, Evansville, Ind. *Circle 381 on Reader Service card*

FURRING ON MASONRY. Information bulletin tells how to fasten furring strips to concrete and masonry block using a low-velocity, powder-actuated tool. Itemized: proper fasteners, tools, and powder cartridge. Ammo Fastening Systems, Shelton, Conn. *Circle 382 on Reader Service card*

ROOF TRUSSES. The design, fabrication, shipment, and assembly of split-ring roof trusses—2½" and 4" rings—are described in a product folder. Included: two typical truss designs and a listing of other designs available on request. Timber Engineering, Washington, D.C. *Circle 383 on Reader Service card*

TWO-WAY RADIO. Handbook tells how to obtain an examination-free license, select transmitter-receivers, and set up the proper antenna. Twenty pages. Amphenol, Broadview, Ill. *Circle 384 on Reader Service card*

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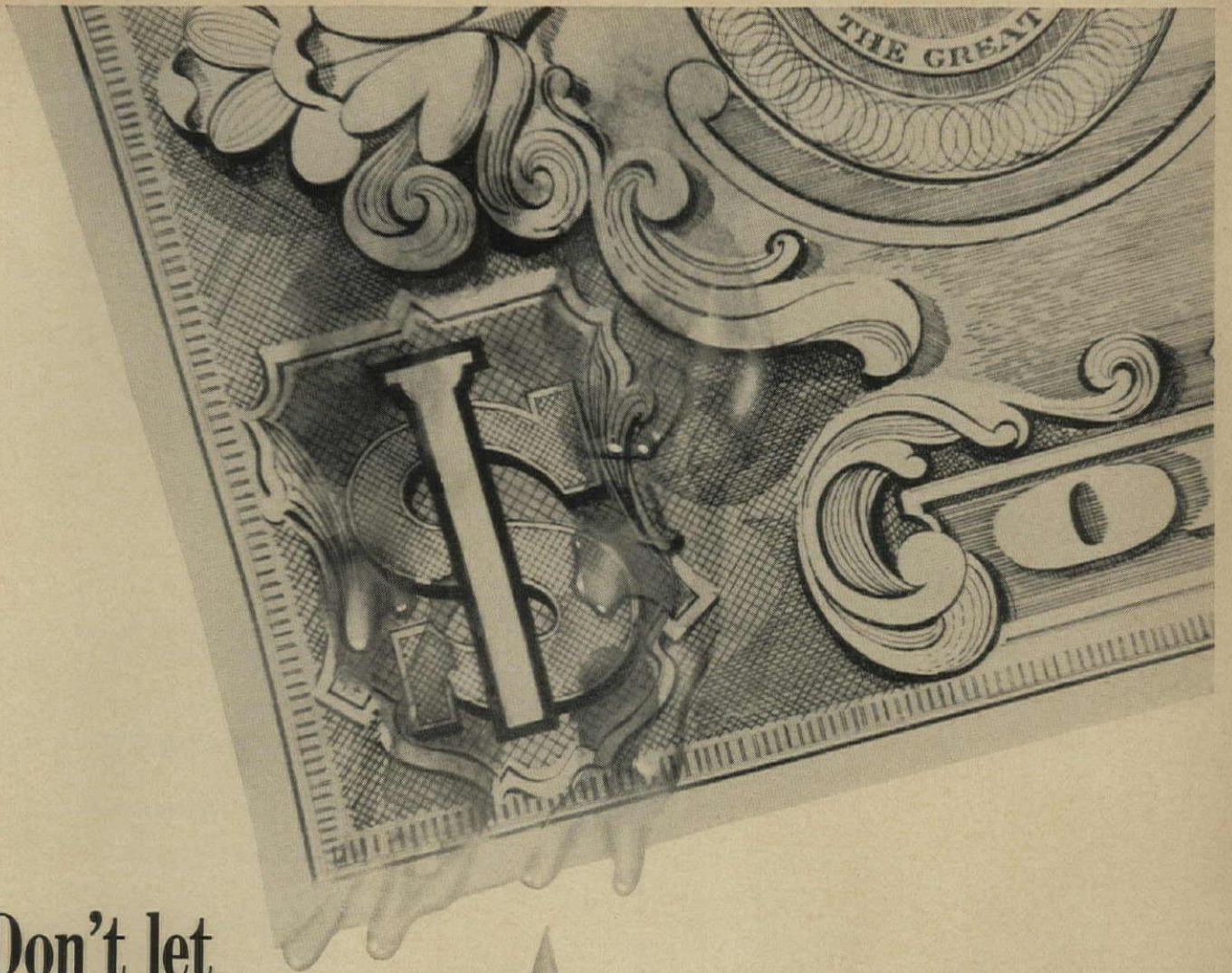
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Model SMD-40 Model SMD-50



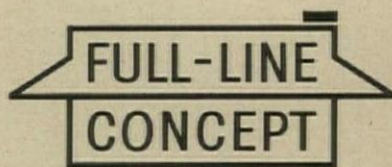
Model SRU-70

New for '67! Four built-in dishwashers . . . the appliance that belongs in every kitchen. All have full-size revolving spray arms to wash dishes really clean, self-cleaning filters. Most have new SUPER WASH cycle. And all are designed for easy installation, with unobstructed work area for rough-in and no difficult connections to be made after the unit is in position. Door panels can be finished to match cabinets, walls or draperies. Or take your choice of brushed chrome, white or edged tones of sapphire blue, avocado, fawn, copper.



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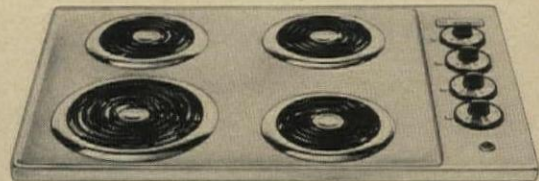
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New for '67! New RCA WHIRLPOOL set-in ranges provide a complete cooking center in a single compact unit that's simplicity itself to install. Just slide the range into position . . . it actually hangs from the countertop so no pedestals or bracing are needed. Six electric set-ins . . . five 30" models and one 24" . . . and three 30" gas set-in ranges to choose from. Common cut out dimensions make 30" gas and electric models fully interchangeable.



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Model RRE840



Model RRG(U)825

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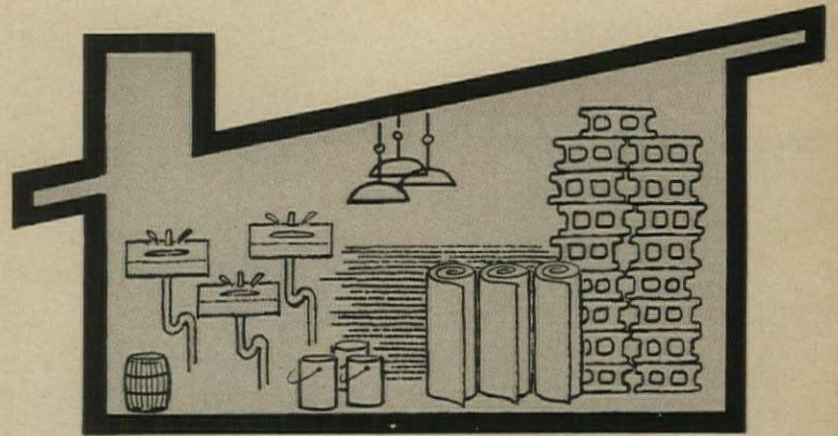
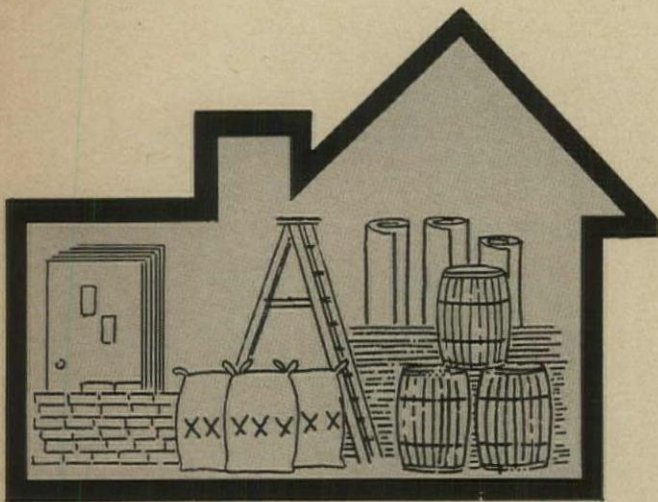
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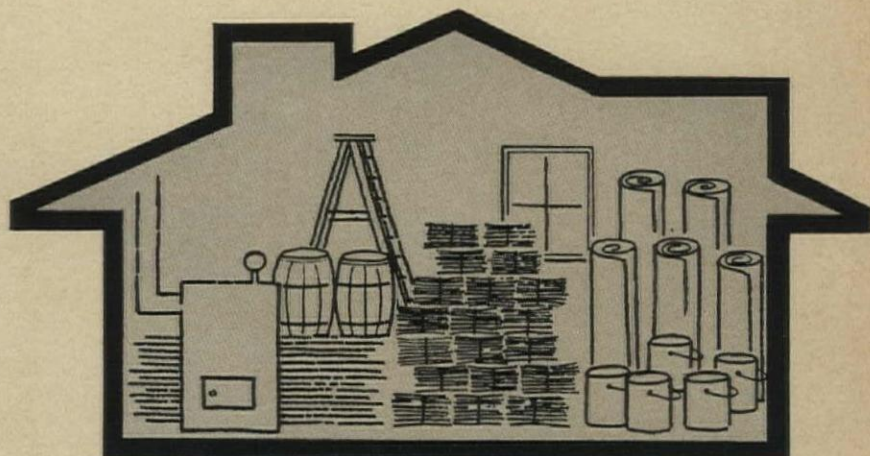
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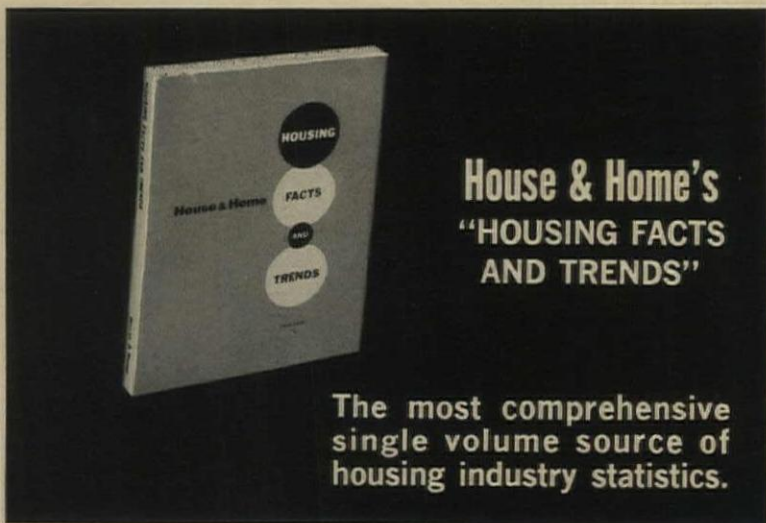


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