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House & Home

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Cover/Design by Cheh Nam Low

Do housing allowances work? Answers from first tests are yes, no and maybe

The government is trying out its latest proposal for housing the poor—direct cash payments to the tenant—on a small scale before jumping in with both feet. The results from its experiments are, for the moment, inconclusive: far from the rousing success the Administration hoped for, but not quite the thumping failure critics feared.

Perhaps the biggest test completed to date has been in Kansas City, where 222 families received rent subsidies from HUD over three years. They were chosen by lottery from a pool of eligible families living in a model cities neighborhood there.

Poor families. The administrators wanted poor people and they got them: Of the first 94 families, half had no one working, and average monthly income for the entire group was only \$244 per family. Later a higher-income group was added to the study for comparison: average monthly income, \$452.

Each family got a monthly check that, they were told, was to be applied to the rent. The grants were calculated to make up the difference between 25% of each family's income and the going market for housing suitable for it. In practice the average payment per family ran to about \$106 per month.

Better shelter. The results were decidedly mixed. "As a whole the programs probably met the main goal, which was to put people into better housing," said Robert Bechtel, director of research for the Environmental Research and Development Foundation, which is evaluating the program for HUD.

Within a few months of entering the program, nearly all participants did move into new quarters (generally choosing houses in preference to apartments). And the vast majority of those still in the program said they were satisfied.

Not everybody stayed, by any means. One third, or 75 of the 222 families, dropped out.

(A similar 138-family experiment in Wilmington had a lower dropout rate, but the test was too small to be conclusive.)

Personal problems. Bechtel ticked off a list of problems that took people out of the program: illness, divorce, landlord-tenant disputes, failure to pay rent, lack

of transportation preventing easy access to city services, large unanticipated expenses.

"Among very poor people you have all of these kinds of problems," Bechtel said, "so if you don't have a lot of counseling you are automatically going to have a lot of dropouts."

Karl J. Arterbury, director of the agency administering the Kansas City program, concurred: "The people have had a continual need for help in money management," he said, particularly because they live so close to the margin of subsistence.

This factor led to another criticism of the program: Families have treated the stipend as welfare and used it for payments other than rent. ("It was naive to expect them to do otherwise," snorted Bechtel.)

Housing quality. While many of the people moved into better housing than they had before, they didn't necessarily move into what administrators and critics considered standard housing. In Kansas City, at least in the areas where the participants sought housing, there apparently wasn't enough of it that met city codes. Bechtel said this scarcity subverted one expressed goal—moving people into standard housing—and posed administrative difficulties the program never quite surmounted.

(In Wilmington the administrator accepted substandard housing as long as it met certain key criteria.)

Other failures. Another goal of the Kansas City program, racial integration, went unmet.

Most families clung to the black inner city or moved into changing neighborhoods. Their choices suggested that housing allowances on a wide scale would lead to extension of the ghetto, not integration.

An organizational problem contributed difficulty in Kansas City. The program was run by a new agency, the Housing Development Corporation and Information Center, which had to organize and formulate its own procedures before being able to operate a program like this one efficiently. Wilmington's housing authority ran the show more efficiently.

Non-savings. The Kansas City program failed to support Housing Secretary James Lynn's



Sharp contrast is shown by pictures of homes involved in Kansas City's experiment. In general, poor families moved from the type of house at left to the type at right.

thesis that allowances offer potentially large savings over subsidized construction.

Lynn had estimated, in a September speech, that direct assistance might eventually cost \$8 billion to \$11 billion nationwide, while subsidized construction of housing for the same number of people would cost the government more than three times that amount.

Costs. The Kansas City costs fell into the same range as those for various other government programs. The expense was \$1,951.89 per family per year—\$1,266.84 in direct housing costs to the government, \$551.73 for administration and \$133.32 in tenant contributions.

Housing in the Seventies, a review of most aspects of housing, reports that the FHA's section 236 interest-subsidy program for rentals cost an average \$956 in subsidies. When the piggy-back mechanism of rent supplements was applied, HUD said, the average cost rose to \$1,975 per unit per year. Since the 236 program served primarily moderate-income families, the Kansas City effort for the very poor still looks pretty good—but Lynn's two-thirds saving is not apparent.

The evaluations of the Kansas City project compared it to other programs as well. Leased housing on scattered sites, aimed at sheltering the elderly in units approximately half the size of the family housing, cost \$987.84 per unit per year—\$541.44 direct government costs, \$133.44 for administration and \$312.96 in tenant contributions.

So what is the message of the Kansas City program?

Arterbury said it is: "Go slow with direct housing allowances, (DHA) but keep trying them."

Bechtel summed up:

"You need many tools to deal with housing, and DHA should be one of them."

Bechtel saw DHA as the "upper level" of a comprehensive public housing program that should include other approaches, one of which should be new subsidized construction.

More tests. The Administration is already seeking congressional authority for more extensive and permanent DHA efforts, starting with the elderly. But HUD is not through with its experiments. The agency is also testing the concept far more thoroughly in a newer \$168 million-a-year series of trials. Programs are moving into operation in 12 cities, and Bechtel said these "bona fide experiments with control groups" would involve 15,000 to 20,000 people.

These larger experiments will examine three key facets of the DHA idea.

- What will happen to the housing supply and rents in an area where, say, 4,000 to 8,000 people suddenly have cash?

- How will people receiving the money actually use it?

- Who should administer the programs in local areas—welfare agencies, community development agencies or housing authorities?

One lesson. The government seems to have learned one lesson from its subsidized construction debacles of the 1960s—programs a federal housing study called "expensive" and "wasteful," and others labelled "disasters."

"You've got to give the government credit," argued Bechtel. "(This time) they're trying to determine whether the thing will work before they put it into operation."

—JANE SHAW
McGraw-Hill News, Chicago

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HUD defends subsidy shutdown with new book—*Housing in the Seventies*

Those who waited for an explanation of the Nixon Administration's turnaround on housing policy are now getting it—in full.

It is called *Housing in the Seventies*, and it is, perhaps naturally for a government publication with such a future-oriented title, a fairly thorough study of the past. It analyzes and dissects housing policies and the housing industry from the 1930s to the present.

Part 1 of this document is also a comprehensive guide to the Administration's thinking about federal support for housing. People who want to understand that thinking would do well to invest in a copy. (Part 1 is being distributed to Congress in draft. The Government Printing Office will soon have it ready in book form.)

Eight segments. Part 1 has eight chapters of widely unequal value; three are highly instructive for a student of the Administration's housing policy, one has some worth and the rest may best be called background. It is useful to know in advance which is which unless the reader has a great deal of time on his hands—our copy of Part 1 ran 451 pages.

Enter Uncle Sam. The first chapter is one of the worthwhile sections. It recounts the long, involved history of the federal government's steadily widening involvement in the housing industry, proceeding from the depression-era beginnings to the present.

This involvement, as the study points out, was surprisingly haphazard considering that it was directed by presumably intelligent and knowledgeable men. The overriding goal was always to increase the number of houses being built—apparently a straightforward and easily understood objective—but there were an enormous number of ideas about how to get there. There also developed an array of tangential goals, and the housing programs were reshaped to further these at the same time.

Cure-all thinking. Federal housing endeavors were supposed, separately or all at once, to increase housing production, further economic growth, further community growth, raise wages in construction and help the poor.

These efforts were also ex-

pected to integrate city and suburb, advance civil rights and improve the quality of the environment, meanwhile protecting the consumer and furthering the free enterprise system.

And the government was to do all this without disturbing the federal budget or public opinion.

The program maze. These goals were supposed to be reached by an apparatus that became, over the years, a bewildering array of laws, programs and agencies that often duplicated or conflicted with one another. Federal mortgage insurance, for example, which needs but one overall program for single-family housing and one for multifamily housing, has 46 unsubsidized and 20 subsidized programs.

Moreover, the report asserts, the laws governing these and all the other housing programs fill hundreds of pages in the statute books. They are complex and confusing to the point of driving otherwise interested builders, lenders and sponsors away from government building efforts.

Lost billions. The second chapter details the many other federal regulations and policies that affect housing indirectly—principally federal tax law.

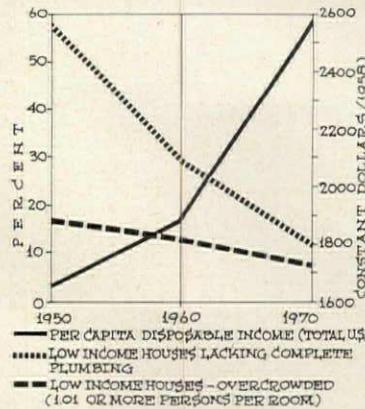
The amount of money involved in tax breaks related to housing is startling. The authors estimate that homeowner deductions cost the government some \$6.2 billion in lost taxes in 1972, and that other foregone taxes cost \$3 billion to \$4 billion.

Federal welfare assistance that eventually went to pay housing costs amounted to another \$2.6 billion in 1972. Direct federal subsidies through the housing program cost \$2.5 billion that year.

Chapter 3 is a survey of the financial markets that affect the housing industry—one of the four background chapters.

Subsidy programs. Chapter 4 is the crucial segment of the book. (For an extract from Chapter 4, see page 16.)

This is where the report sets out the rationale behind the wholesale suspension of the government's subsidized housing programs. This is also the longest chapter. It occupies roughly a quarter of the entire study.



HUD's argument maintains that the historical rise in personal income, and not subsidized building, caused this drop in U.S. standard housing.

The case against subsidized housing has been given an involved development.

This was, after all, no small target. Subsidized housing is a multibillion-dollar business with lots of powerful friends in and out of Congress and with some almost universally lauded aims. Motherhood gets its lumps during these days of the population explosion and apple pie is fattening, but housing the poor? It takes a hard man to blow the whistle on that, and he had best be equipped with a lot of evidence.

Waste. The authors ascribe inequity, inefficiency and waste to the subsidy programs, and they strongly emphasize these particularities.

First, the report stresses that the subsidies were inequitable because only a small fraction of the poor were actually aided by the programs and because the moderately poor got more out of it than did the very poor.

But more than that, it concerns itself with comparing costs to benefits. To do this is at once essential and a very shaky proposition. Costs are measurable, but how to quantify often intangible benefits?

Value tests. The HUD experts undertook to set up criteria for measuring benefits, however. They compared the total cost of government subsidized housing to what the same housing would cost if put up without government aid, and they found the total costs for government projects were higher. Direct construction costs were often equivalent, however. The experts compared total cost to the market value of the housing and found an even greater discrep-

ancy. This suggests that subsidized housing would have lost money as unsubsidized private housing—hardly a surprise.

Then HUD compared that market value with the value it calculated that recipients of the new housing placed on it. Again, it came up with a loss figure.

Finally, HUD combined those measures to arrive at an estimated loss of value from taxpayer to recipient that ranged from 21% to 84% of the government's funding.

Weak link. This measuring effort is likely to draw a lot of flak from critics. HUD's method works to prove that the people who benefited from subsidized housing would have preferred to be paid outright cash grants amounting to considerably less than their housing cost the government. HUD derives this conclusion in large part from a study of the recipients' actual spending patterns before and after moving into the new housing.

But HUD admits that the statistical techniques it used to do this would inherently produce an apparent loss of value in any case.

Thus it does not take a gift of prophecy to foresee that opponents of the subsidy cutoff are going to cry foul. The supporting data, when they are released, will have to bear out this recipients' valuation technique.

The states. Chapter 5 reviews state and local housing programs.

Chapter 6 is a study of the great improvement in the nation's housing stock since 1950, which it links to the gains in personal income also registered during the past 20 years.

Chapters 7 and 8, background again, review the structure of the housing industry and of homeowners' costs, respectively.

More to come. Part 2 will present technical and background material that went into this effort.

Despite its title, *Housing in the Seventies* speaks mostly of past failures and is largely silent about what policy the federal government ought to follow in the 1970s. That may be understandable. Aside from proffering the still-experimental housing allowance idea, so is the Administration.

—HAROLD SENEKER

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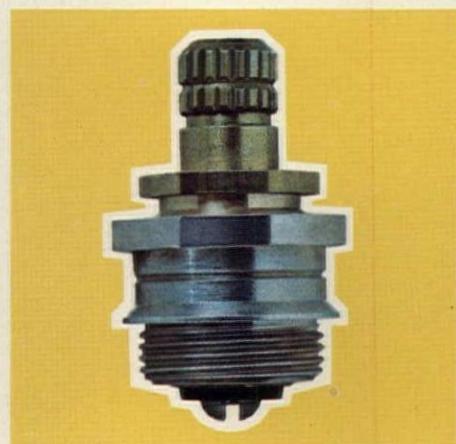
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'The costs are greater than the benefits, including benefits to society'

This excerpt from *Housing in the Seventies* summarizes HUD's findings on the controversial housing subsidy programs.

Almost 2.8 million dwelling units have been provided since 1937 through government-subsidized housing programs for low- and moderate-income families . . .

The following is a summary of [subsidized housing's] impacts.

1. The improvement in the housing of recipients ranged from a high of 92% for the section 502 rural homeownership interest-credit program to 35% for the section 235 homeownership program . . .

2. Increased expenditures on non-housing goods and services as a result of the housing subsidies ranged from a high of 14% for recipients of public housing to a minus 9% for recipients of the section 504 homeownership repair program . . .

3. The annual benefit measures the value in unrestricted cash of the extra housing which the subsidy has provided to the recipient. The annual benefit ranged from a high of \$857 for the beneficiaries of the section 235 homeownership program, to \$30 for those receiving a section 502 non-interest credit subsidy.

4. The annual benefit as a percentage of income ranged from a high of 26% to little change.

5. About 60% of the subsidized units were provided to families having annual incomes of less than \$5,000 . . .

6. Minority families were served by the housing programs to a considerably greater degree—as a percentage of total eligible—than other low- and moderate-income families.

7. There is some evidence that government subsidized housing programs increase opportunity for the geographical dispersion of central city inhabitants, particularly minorities, to suburban areas.

8. Almost seven of every ten households in the public housing and rent supplement programs are female-headed.

9. The FmHA has provided access to credit for housing purchases and home repair for many families in rural areas which has improved the housing of low- and moderate-income households significantly.

EXCESS OF SUBSIDY HOUSING COSTS OVER BENEFITS

	Estimated govt. costs	Benefits to recipients	Excess costs
	Millions		
LOW RENT PUBLIC HOUSING	\$1,609	\$885	\$724
SECTION 236	120	60	60
SECTION 236 RENT SUPPLEMENT	44	23	21
RENT SUPPLEMENT	124	60	64
SECTION 235	404	319	85
SECTION 502 NON-INTEREST CREDIT	85	14	71
SECTION 502 INTEREST CREDIT	91	64	27
	<u>\$2,477</u>	<u>\$1,425</u>	<u>\$1,052</u>

Source: Department of Housing and Urban Development: National housing policy review estimated based on data from HUD and Department of Agriculture.

10. The section 235 and section 502 homeownership programs have enabled a number of low- to moderate-income families who desire to own homes to achieve their objective.

Efficiency and costs. The impact of the government-subsidized housing programs is achieved at the cost of serious program inefficiency and inequity.

The costs of the accomplishments are greater than the benefits, including the observable benefits to society. Improvements are possible through administrative changes but substantial inefficiencies and inequities are inherent in the programs. A summary of efficiency and equity problems is presented below:

Production efficiency is the ratio of the market value of the extra housing to the total costs incurred by government. The production efficiency of the subsidized housing programs ranges from a high of .87 for the section 235 homeownership program, to .48 for the section 502 non-interest credit program.

For every \$1 of total development cost for a section 236 project only 83¢ would be spent for an identical project in the private sector. Part of this difference represents the cost of special government requirements, such as construction standards, affirmative action and environmental clearance. Special financial and builder inducements and higher wage rates also play a role.

Other measures. Technical efficiency compares the cost of providing housing in the private

market with the full cost of providing it under a government program. Here, the term cost refers to both construction and operating costs. Technical efficiency ranged from a high of .94 for the section 235 and section 502 programs, to a low of .85 for low rent public housing.

Transfer efficiency measures how much the recipient values the housing assistance provided by the government relative to its market value. A ratio of less than 1 indicates that the recipient would prefer an unrestricted cash grant of an amount smaller than the market value of the housing subsidy. The transfer efficiency ranges from a high of .90 for the section 235 homeownership program to .33 for the section 502 non-interest credit program. The program having the next lowest program efficiency is the rent supplement program with .48. This means that for the rent supplement program about 52¢ of every \$1 spent by government does not increase the occupant's welfare (from the occupant's viewpoint).

Section 235-6 failures. The section 236, rent supplement, and section 235 programs all evidence substantial problems of failure as reflected in mortgage assignments to HUD and foreclosures. The cost of such failures is reflected in the foregoing efficiency measurements.

Approximately 30% of all section 221 (d) (3) market interest rate rent supplement projects, and 20% of all section 236 projects are projected to fail during their first ten years.

Rapid decay of section 235 units in some neighborhoods, or

financial setbacks suffered by owners, often leads to abandonment, defaults and foreclosures. It is currently projected that about 16% of all section 235 units will fail during their first ten years.

The FHA programs, on the other hand, experience comparatively low foreclosure costs... offset by FmHA's relatively high administrative costs.

Market displacement. Evidence indicates that most subsidized housing starts replace private housing starts.

Subsidized housing has not provided significant indirect benefits by opening up better unsubsidized housing at the same or less cost than tenants were previously charged. In studies of the "housing filtration" process performed for this report, families moving into subsidized units usually moved into *better* quality housing, but also paid higher rents than they had paid previously.

Budget impact. The subsidy programs have relatively small budget impact in the year funds are committed for housing units. However, the programs commit the federal government to a relatively high level of run-out costs over a program's life—up to 40 years in some instances. These include both direct government payments and some indirect costs to government such as foregone taxes.

Those not served. Combined, the subsidy programs have to date provided a slightly greater probability of serving low-income than higher-income families . . . At the same time, over 16 million households with annual incomes of less than \$5,000—about 94% of the total households in this income category—receive no assistance whatsoever.

The great majority of households at each income level is not served. Moreover, a household's geographical area of residence significantly affects its chances of obtaining subsidized housing. This kind of inequity would be reduced by the production of more subsidized units.

The total government cost of the subsidized housing programs (about \$2.5 billion in calendar year 1972) was about \$1.1 billion greater in 1972 than benefits received by recipients.



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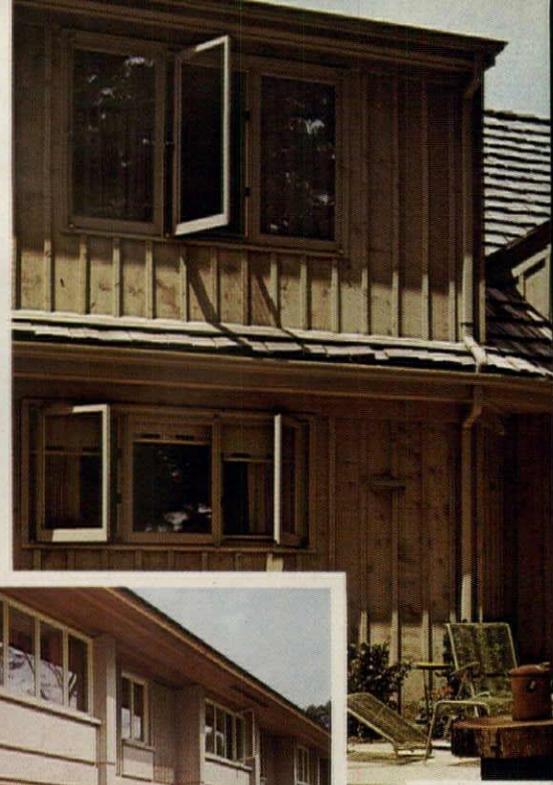
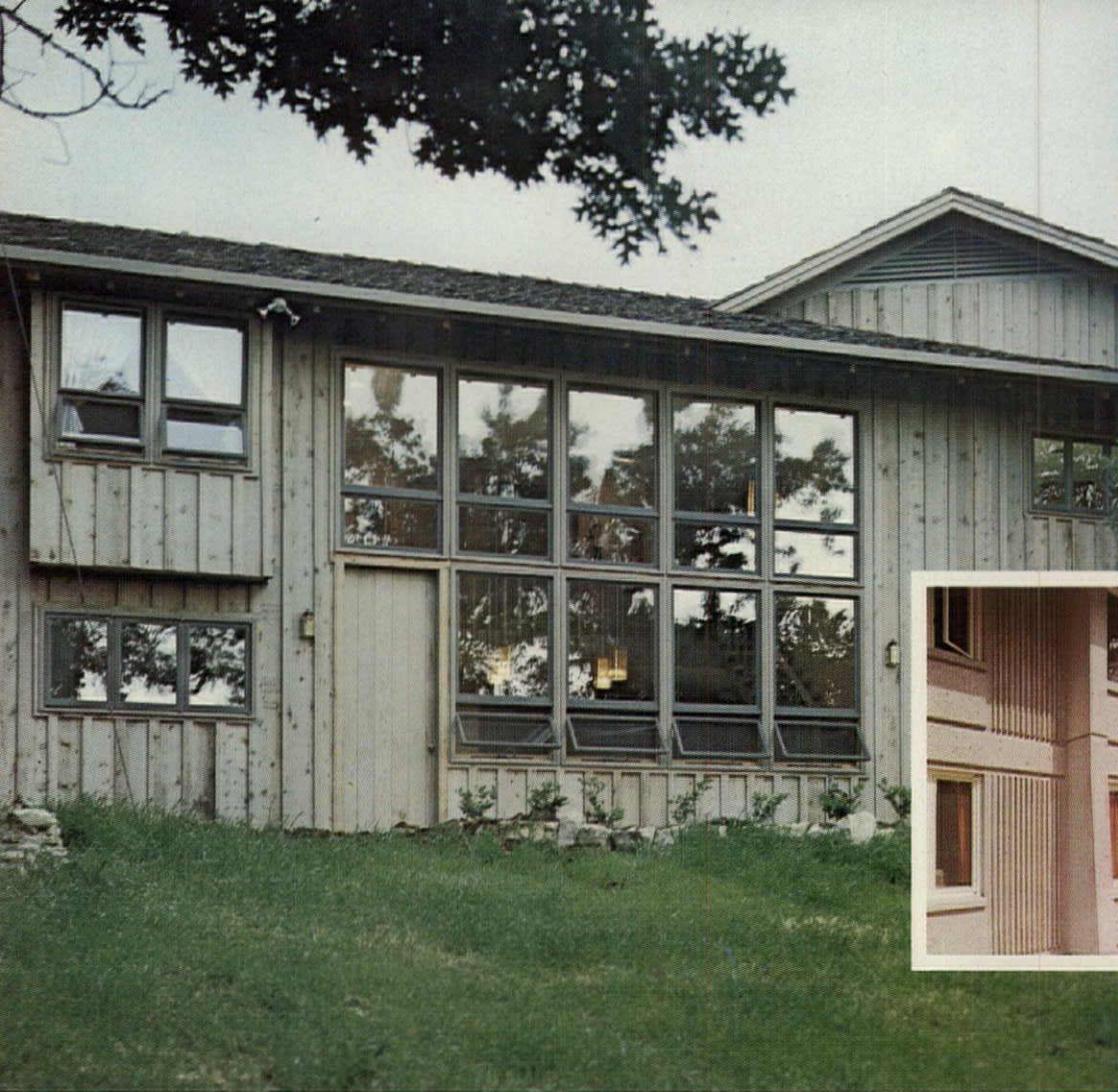


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That's the most important thing consumers look for in a window. It was true before anybody was talking about the energy crisis. And it's truer still today. We've spent five years and \$40,000 studying consumers' homebuying plans and preferences. And every time, our research showed that they give the highest priority to a window's insulation capability (and the lowest priority to its initial cost).

Factors Most Important in Window Selection

	1968	1970	1972
Most Important	Insulation	Insulation	Insulation
Next Most Important	Durability	Durability	Durability
Least Important	Initial cost	Initial cost	Initial cost

Wood windows keep the warm in. And that translates into savings.

After a house is fully insulated, you can cut the remaining heat loss by 30%—just by choosing wood windows with insulating glass. And that translates into important heating bill savings for your customers. And regardless of fuel prices, the savings add up year after year.



In a 16-window Chicago test home, the savings ranged from \$88.40 to \$124.25 last winter, depending on the type of fuel.

Home Heating Cost Comparison

Type of Window	Gas	Oil	Electric
Single glass in aluminum sash*	\$289.50	\$348.68	\$406.91
Single glass in wood sash	260.59	313.85	366.29
Insulating glass in aluminum sash*	225.59	271.70	317.08
Insulating glass in wood sash	201.10	242.21	282.66
Annual savings with insulating glass in wood over single glass in aluminum	88.40	106.47	124.25

*Without a specific thermal barrier
 Figures based on insulation manual developed by National Association of Home Builders Research Foundation. 1,400 sq. ft. home, fully insulated, 6600 degree days.

Wood windows are rated best for insulation quality. Just ask a consumer how he rates wood versus metal windows. We did. And our research showed that 54% rate wood windows as excellent insulators, while only 44% say the same about metal windows.

%Rating Insulation Quality Very Good	1968	1970	1972
Wood Windows	47%	50%	54%
Metal Windows	45	41	44

You can sell a lot of homes by helping buyers beat the energy crisis.

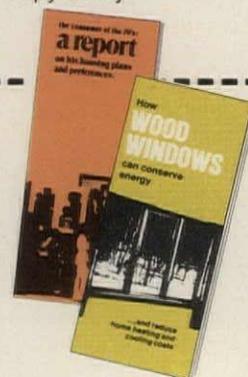
Don't wait for your customers to ask for wood windows. Specify them. And then use that savings in energy consumption as a way to sell the long-term value of the homes you build.

Our new brochure tells how wood windows reduce home heating costs. It includes a step-by-step explanation of how window insulation works, and a detailed report of actual test results from homes all over the country. Write for your own free copy today. We'll also send you a copy of the latest findings from our consumer research.



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Ponderosa Pine Woodwork

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 A member of the American Wood Council.
 Send me my copy of your research report.



NAME _____

POSITION _____

ORGANIZATION _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Lack of sewage plants shutting off building in parts of 74 New Jersey towns

Inadequate sewage treatment facilities have halted new construction in 74 New Jersey municipalities.

The bans, implemented by the state Department of Environmental Protection (DEP), will remain in effect until adequate sewage facilities are built.

By the year's end, state officials say, the bans will extend into another 20 towns, bringing the total to about 20% of all municipalities in the state. And plants serving 40 towns have been put on precautionary notice that they are nearing capacity.

Recent enforcement. The state began its crackdown last February. Under a 1953 law and a 1966 statute the state must approve all new sewers and all changes or expansions of existing lines.

The bans, plus tight mortgage money this year, have resulted in a sizeable drop in new housing starts; estimates of the decline run as high as 25%.

Builder reaction. Builders say the construction bans hurt, but they point out that there are towns in which they can still build.

The vice president of one of northern Jersey's largest construction companies explained:

"We can't beat the problem. We have to be more careful as to how many houses we build and where we put them. We need more forward planning."

Hardest hit are the small builders who have neither the finances to weather the tight money market, nor large tracts of land in reserve.

First laws. The state's sewerage-based construction bans are the culmination of 74 years of state effort to alleviate water pollution. New Jersey was the first state to enact a pollution control law when it passed the Basic Stream Pollution Act in 1899. This law prohibits the discharge of raw sewage into streams and sets up sewerage requirements to protect water quality. The Stream Encroachment Law of 1929 further strengthened the state's hand, giving it the power to approve or reject all construction that intrudes on a stream channel.

The latest orders affect 27 of 37 municipalities in Camden County, six towns in Ocean County and one in Middlesex.

Some building. Two qualifications soften the bans slightly: Construction already underway and hardship cases will be allowed to continue, and towns can apply for permission to build interim sewage facilities to clear the way for a partial resumption of new building.

In most cases, interim improvements can be used for two to three years. In Camden County, though, interim changes will have to suffice for at least five years, or until a regional plan is implemented.

In addition to cracking down on overworked plants, DEP Commissioner Richard Sullivan has continually fought for regionalization of treatment facilities to make them more efficient. He wants the current 750 plants consolidated into about 150 at an estimated cost of \$1 billion. "Unless they're built," the commissioner says, "forget it. We'll all go down the drain with the sewage."



JERSEY'S SULLIVAN
'We all go down drain—unless'

Law's delay. State laws and the 1972 federal requirement that new plants must be the product of waste-water management studies mean that this or any other permanent improvement will take an average of three to five years. In the case of Camden County, officials estimate the time will be five to ten years.

Until the state approves a plan and then sends it to Washington and gets back Environmental Protection Agency approval, no new major construction of treat-

ment plants will occur and the building bans will remain in effect.

Areas affected. These municipalities have already been notified that plants serving their areas are at or past the limits of their treatment facilities and may not add users until arrangements have been made to expand capacity:

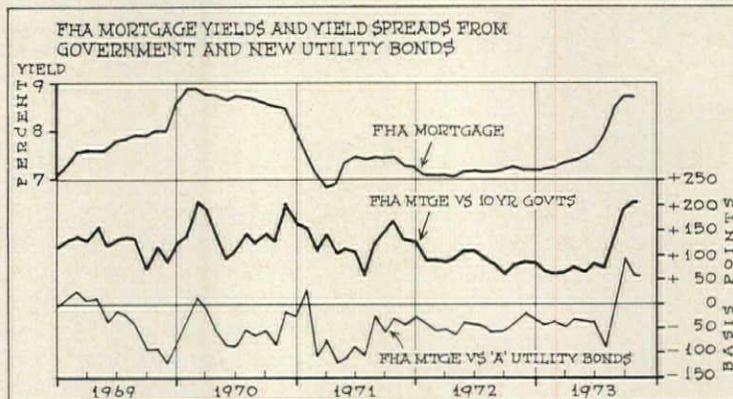
Allentown Borough, Atlantic City, Audubon Borough, Barrington Borough, Beach Haven Borough, Bellmawr Borough, Berkeley Heights Township, Berlin Borough, Bernards Township, Bernardsville Borough, Branchburg Township, Brigantine City, Brooklawn Borough, Butler Borough, Camden City, Clementon Borough, Collingswood Borough, Easthampton Township, Egg Harbor City, Englishtown Borough, Evesham Township, Freehold Borough, Freehold Township.

Also Gibbsboro Borough, Gloucester City, Haddon Heights Borough, Haddonfield, Haddon Township, Town of Hamonton, Hanover Township, Hillsborough Township, Jackson Township, Borough of Keyport, Lakehurst Borough, Lakewood Township, Lavallette Borough, Lawnside Borough, Lindenwold Borough, Little Falls Township, Livingston Township, Lumberton Township, Magnolia Borough, Manalapan Township, Margate City, Maple Shade Township, Marlboro Township, Matawan Borough, City of Mellville, Morristown, Morris Township, Mount Ephraim Borough, Mount Holly Township, Mount Olive Township, Town of Newton, North Bergen Township, Oaklyn Borough, Parsippany-Troy Hills Township, Passaic Township, Pemberton Borough, Princeton Borough, Runnemede Borough, Salem City, Seaside Heights Borough, Seaside Park Borough, Somerdale Borough, South Brunswick Township, Stratford Borough, Surf City Borough, Ventnor City, Voorhees Township, Wanaque Borough, Westhampton Township, West Paterson Borough, Woodlynne Borough.

Plants serving these municipalities have been warned that their capacities may be reached within a short time, and could then come under the ban (some municipalities have made it into both lists):

Borough of Atlantic Highlands, Berkeley Township, Branchburg Township, Bridgewater Township, Burlington Township, Chatham Township, Cherry Hill Township, Town of Clinton, Florham Park Borough, Hamilton Township, Hillsborough, Borough of Highlands, Jackson Township, Borough of Longport, Lower Township, Mendham Borough, Morris Township, Mount Olive Township, Neptune Township, Borough of Netcong, Ocean Grove, Peapack and Gladstone Borough, City of Pleasantville, Pompton Lakes Borough, Raritan Township, Somerville, City of Somers Point, Borough of Stanhope, Borough of Swedesboro, Warren Township, Willingboro, Winslow Township, Wrightstown Borough.

—CAROL ABAYA
McGraw-Hill News, Trenton



FHA mortgage yields rise sharply

FHA mortgage yields leaped from a level 67 basis points above ten-year Treasury bonds to a spread of 206 points beyond the governments in last summer's mortgage credit squeeze.

One hundred points equal 1%.

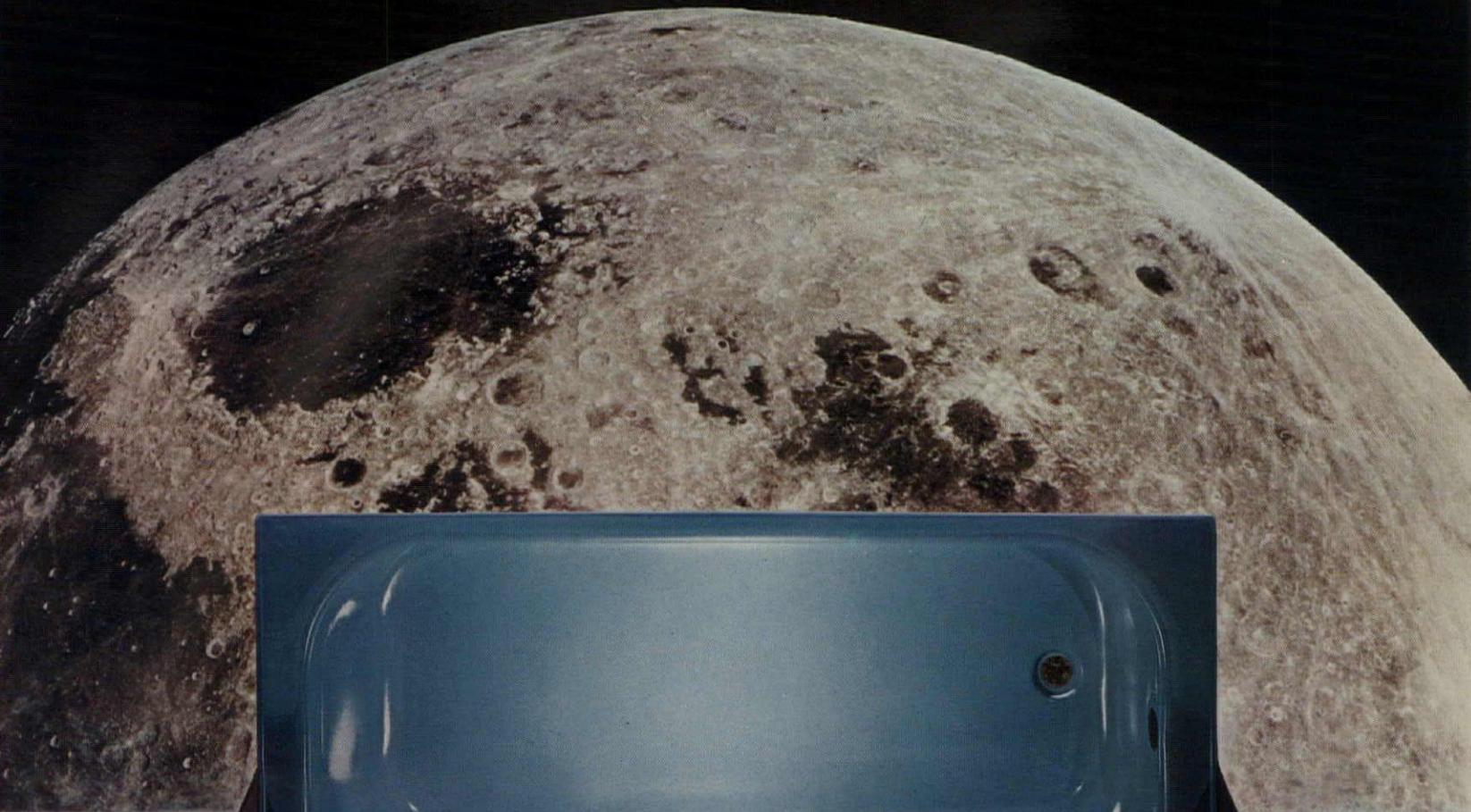
Salmon Brothers, the New York City stock and bond brokerage, reported that the FHAs were yielding 8.71% in mid-November. The return was based on 12-year mortgage life, with servicing costs already deducted.

FHA yields had risen 152 points from January 1 to mid-November, compared with increases of 65 points for new

A-rated utility bonds and 32 points for the ten-year governments. Both instruments are considered to have yield patterns similar to that of FHA mortgages.

The spread of the FHAs over governments was the widest in three and a half years, or since the mortgage stringency of 1969-70.

FHA yields had run 25 to 50 points below the utility bonds for most of 1973 and were almost 100 points lower in mid-summer. The FHAs then soared to a level 91 points above the utilities in October, although that spread narrowed to 56 points in the next month.



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Hotpoint's Builder Service: It's an appliance salesman who thinks like a builder.



When we say your Hotpoint builder representative thinks like you do, we mean it.

You see, his experience in working with builders has taught him a lot about the building business: the ways to make a project more profitable and more saleable. And the ways to help prevent and solve the problems that can come up.

And his knowledge of buildings is just part of the story. It's also his training and the special builder services he can bring to every project. When he sees a way he can help you, he has the back-up support to get the job done.

He knows how important delivery is.

He'll work hard to see your appliances arrive when he says they will. And our factory-owned distribution and regional warehousing nationwide will help back up every delivery promise he makes.

He knows the value of good kitchen design.

He knows that a kitchen can be the best salesman a builder has. And, if you want, he can put your blueprints in front of our kitchen design staff. They'll search for ways to make your kitchens more attractive and functional.

He knows the benefits of strong merchandising.

To help you with sales and rentals you need strong, professional merchandising and

advertising assistance. And that's exactly what he can offer.

Why is your Hotpoint builder representative doing all this? For a very selfish reason: he wants your business and he can provide you with any appliance you need.

One final word. If anything ever keeps one of our appliances from doing its job, you and your customers will be happy to know a phone call is all it takes to bring a Hotpoint factory-trained serviceman right to their doorstep. We call it Customer Care...Everywhere™ Service.

Let your Hotpoint builder representative tell you more.

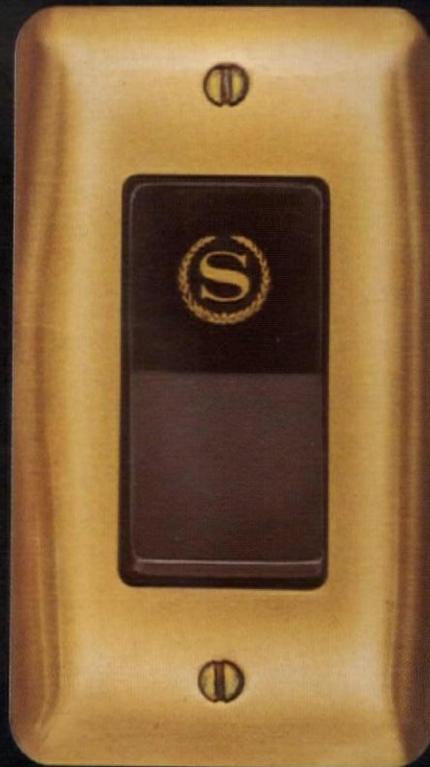
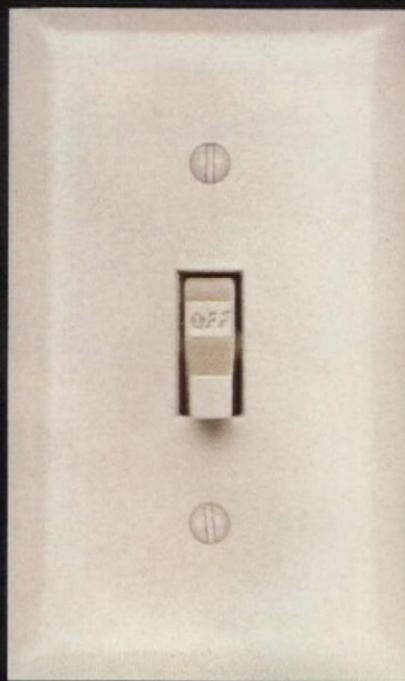
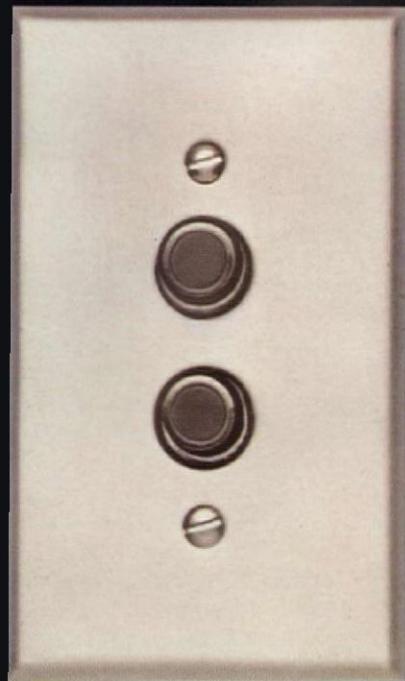
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Let's face it, the only part of the wiring installation that the customer sees is the devices installed on the wall. At Slater we are full of ideas to make your jobs look good so you look good.

For example, all our Decorator devices are modular designed to fit the same wall plates. The devices are available in eight colors, and you can select from a dozen different plate finishes to match or contrast so the devices can become decorative factors in room design.

To dress up a job even more, Slater can supply the touch switches with personalized embossing with a company logo, a hotel or motel name (such as the Sheraton Hotel switch shown), switch functions, or most anything else. Sixteen imprinted functions are available for immediate delivery, and we can produce custom designs as well.

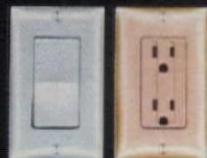
Decorator face receptacles are available with the same features found in all of Slater's popular Medalist conventional duplex receptacles, such as the 5242, 5252, 5262, etc.

And naturally, all Slater wiring devices carry a lifetime replacement guarantee. The Medalist series has a call back labor guarantee.

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Housing's pitfalls: Bethlehem Steel backs away from homebuilding business

The ups and downs of the housing industry have been mostly downs lately, and small fry are not the only casualties.

Bethlehem Steel is phasing out its **Multicon** subsidiary, which built 2,200 townhouses and low-rise apartment units throughout the eastern U.S. in 1972. It is estimated that the company produced about \$45 million in rental properties and grossed \$20 million in rents that year.

The **Multicon** name will remain a part of the homebuilding industry, however. Peter Edwards, who was co-president of the Bethlehem operation, has formed two new companies, **Multicon Development Inc.**, which is developing condominiums and offices in Ohio, and **Multicon Communities Inc.**, with three residential properties under development in Florida.

Some of the old **Multicon** per-



sonnel are associated with Edwards, including Jack Kessler, the other former co-president, and Jack Deinhardt, a former executive vice president.

Redman Industries, meanwhile, is turning over management of its garden-apartment empire of 14,509 units to an outsider, **Lincoln Property Co.** of Dallas. Redman, whose headquarters are also in Dallas, will retain ownership.

Redman announced last spring that it was abandoning house and apartment building [News, May].

Another casualty is a company that never was. The widely predicted **Gulf Oil-CNA Financial** merger never came off, and some observers speculate that the troubles of CNA's big homebuilding subsidiary, the **Larwin Group** (Los Angeles) were a factor. It has been reported

that Larwin expects to record extraordinary losses of \$12 million to \$13 million for 1973. CNA, a diversified financial holding company with headquarters in Chicago, earned \$100 million in 1972, the last year for which full figures are available.

Suit filed to void factory-housing act

The city of Compton has sued to invalidate the widely acclaimed California Factory-Built Housing Act, one of the first in the country to override local code restrictions in order to facilitate wider use of mass-produced housing [News, Oct. '69 *et seq.*].

Compton's suit argues that the state act unfairly preempts the city's right to make laws for the protection of health and welfare, and that the state act also fails to replace local laws with equally strict state standards.

The suit also claims that the task of determining standards for factory-built houses was wrongfully left to the state's administrative Department of Housing and Community Development. Finally, the city seeks to have buildings declared fire hazards if they fail to meet Compton's standards, even if they do meet the state's specifications.

The legal attack was triggered by a fire that brought death to a four-year-old boy last January. The factory-built house involved had plywood bedroom walls, legal under the state law but a violation of the city's code, which specifies gypsum or other fire-retardant materials for bedroom walls. Compton's building inspector reportedly contends that the house could have been saved had it been built to the superseded city standards.

Another housing problem? Mobile-home builders have it

Most builders are worried about rising costs, falling demand, high interest rates, tight money and a slowing economy.

Consider **Joseph J. Morris**, president of **Champion Home Builders Co.**, one of the largest makers of mobile homes. He has all those headaches along with another that most housing industry is free of just now—price controls.

Morris doesn't like it. "Both conventional builders and mobile-home manufacturers have to pay the same price for lumber and other materials," he complains, "yet we are under price controls and they are not."

Champion has had to absorb a 20% increase in materials costs since Aug. 1, 1971, Morris says,



CHAMPION'S MORRIS
One more worry than he'd like

but government controls have held him to less than a 1% price increase.

Morris contends that such stiff price regulation is "smothering the only real source of new low-income, single-family housing."

Rising costs have virtually

driven conventional builders out of the low-income market; in 1972, according to Morris, mobile homes accounted for 80% of all homes under \$20,000. Some 3.4 million units, or 95% of all mobile homes, now serve as primary housings for nearly 10 million people.

Morris finds the controls especially unfair because the mobile-home industry is actually selling its units for much less on a square-foot basis now than it did years ago.

The industry's recent request for exemption from Phase IV controls has Morris' full support. "This industry is too competitive for prices to rise sharply if controls are removed," he insists.

Miami gets a bond proposal to build its own public housing

A \$100 million bond issue to provide housing for moderate- and low-income families in greater Miami has been proposed by a coalition of community leaders.

The coalition committee has been studying the area's housing problems for six months, seeking to ease the shortage of non-luxury housing.

Under the proposal, broached

by Dade County Mayor John B. Orr last year [News, June], the bond issue would be backed by county property taxes and would finance about 3,400 units. Heading the coalition committee is Jay Janis, a developer who served in Washington as deputy to the HUD director during the Johnson Administration.

It is estimated that 70% of the proposed housing units would be

priced for moderate-income families, 20% for low-income families and 10% for the elderly.

In announcing plans for the bond issue that could go on the ballot in the general election in 1974, County Commissioner Harvey Ruvin said the community has to stop looking to Washington for solutions to the housing shortage. The solution, he argues, must come at home.

REIT handbook appears

The 1973-74 *REIT Handbook of Member Trusts* has just been published with a wealth of statistical and general information on 152 trusts ranging from Alison to Wisconsin Real Estate Investment.

The book runs to 630 pages and sells for \$40 prepaid to its publishers, the National Association of Real Estate Investment Trusts, 1101 17th St. N.W., Washington, D.C. 20036.



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Most people don't know much about building, but they do know something about brick.

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So a smart builder uses brick. Especially in exterior walls.

He knows that the outside of a house is good for about 80 per cent of a buyer's first

impression. And only about 5 per cent of the house's cost.

He also knows that if the first impression isn't a good one, he usually won't get a second chance.

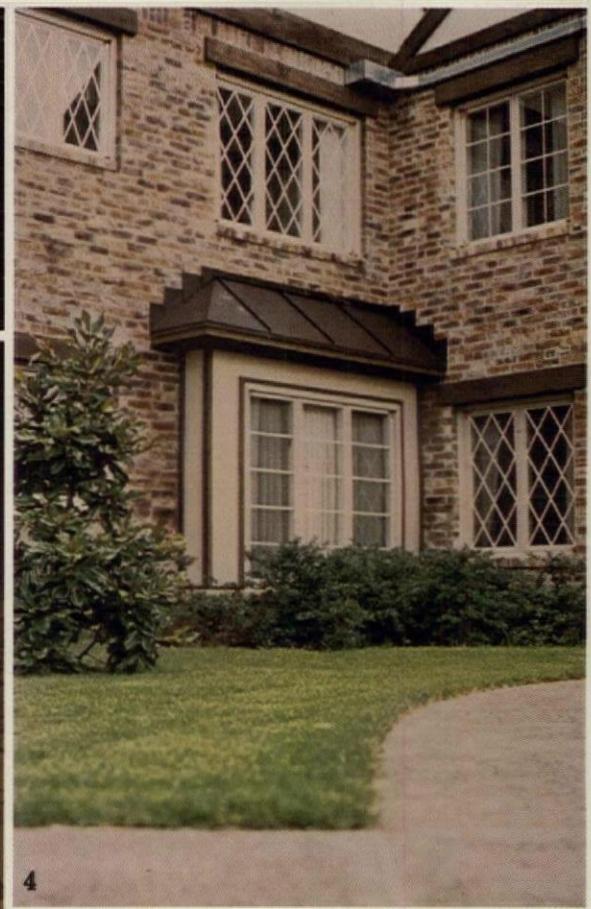
A smart builder uses brick for inexpensive custom touches, too. To make the house look as valuable as it is.

After all, a buyer doesn't know as much about your house as you do. So you have to give him a little help.



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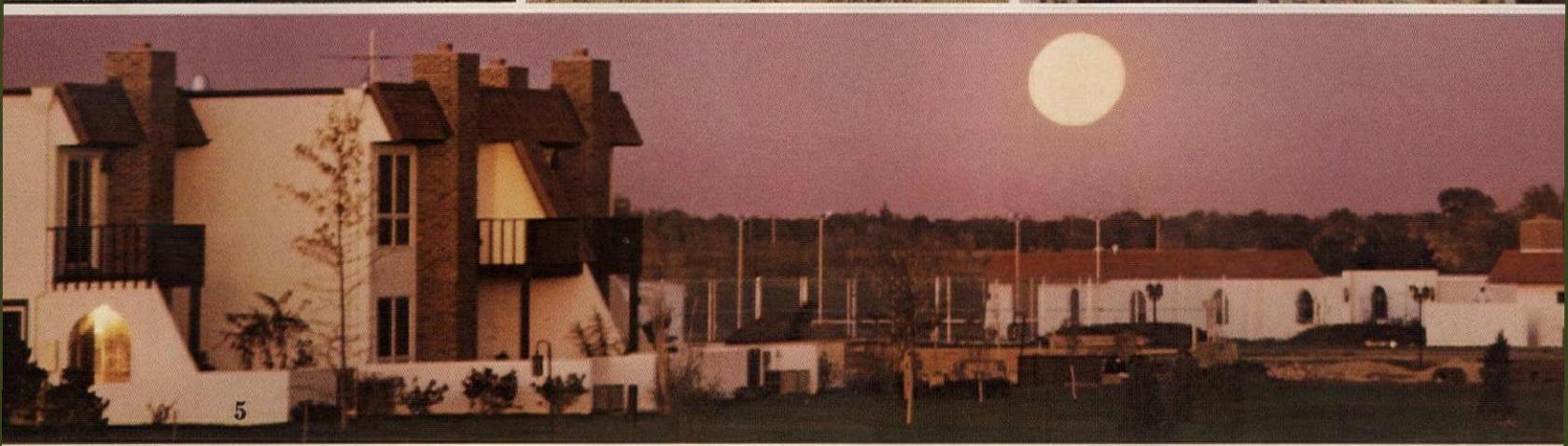
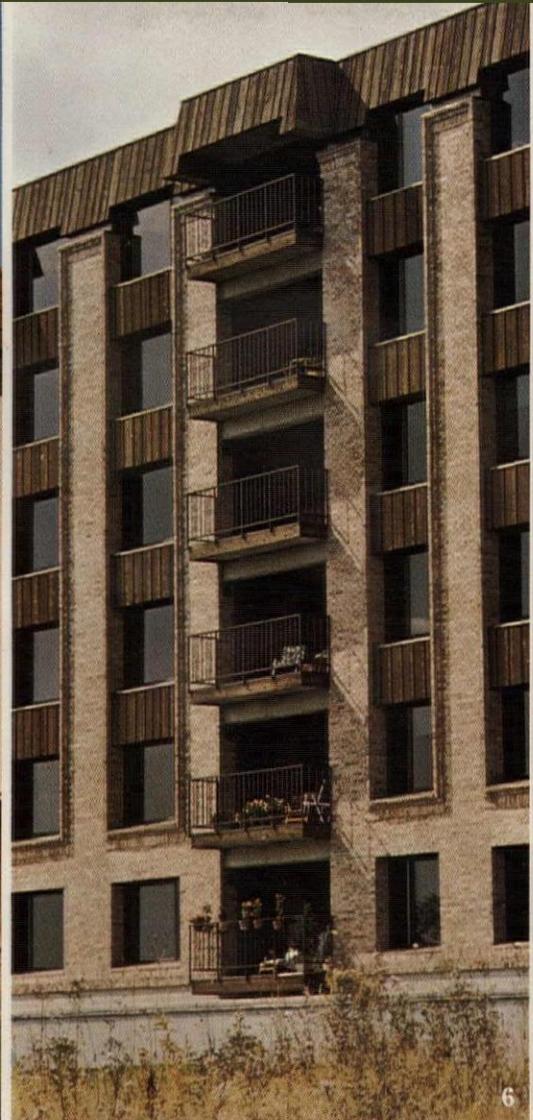
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Perma-Shield® Windows and Gliding Doors is low maintenance. All exterior portions are enclosed in a sheath of tough, durable vinyl that will not rust, pit or corrode and won't need painting*. Inside wood trim can be stained or painted to match any decor.

Andersen also features optional double pane insulating glass. Eliminates



1. Lake Hinsdale Village, Clarendon Hills, Illinois. Architect: Kyle Benkert Assoc., Chicago, Illinois. Builder: Tekton Corp., Hinsdale, Ill., Windows: Andersen Casement Windows and Gliding Doors.
2. Cold Springs Park Apartments, Manchester, Pennsylvania. Architect: P. Thomas Long, W. Reading, Pennsylvania. Builder: Henry J. Mohr, Manchester, Pennsylvania. Windows: Andersen Perma-Shield® Narroline® Windows.
3. Housing for The Elderly development, Herman, Minnesota. Architect: R. F. Ackermann & Assoc., St. Paul, Minnesota. Windows: Andersen Perma-Shield® Gliding Doors and Beauty-Line® Windows.
4. Brentwood Park Estates, Stillwater, Oklahoma. Architect: Dan Higgins, Tulsa, Oklahoma. Builder: Boomer Development, Inc., Stillwater, Oklahoma. Windows: Andersen Casement Windows.
5. The Villas at Crestview Country Club, Wichita, Kansas. Designer: J. D. Finney, Wichita, Kansas. Builder: Jerald R. Jones Companies, Wichita, Kansas. Windows: Andersen Perma-Shield Casements, Awnings, and Gliding Doors.
6. Chateau du Lac Apartments, Duluth, Minnesota. Architect: Damberg & Peck, A.I.A., Duluth, Minnesota. Builder: Hedenberg Construction Co., Duluth, Minnesota. Windows: Andersen Casement Windows.

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dealer or distributor. He's in the Yellow Pages under "Windows, Wood." Or see Sweet's File (Sections 8.16/An. and 8.6/An.) or write us.

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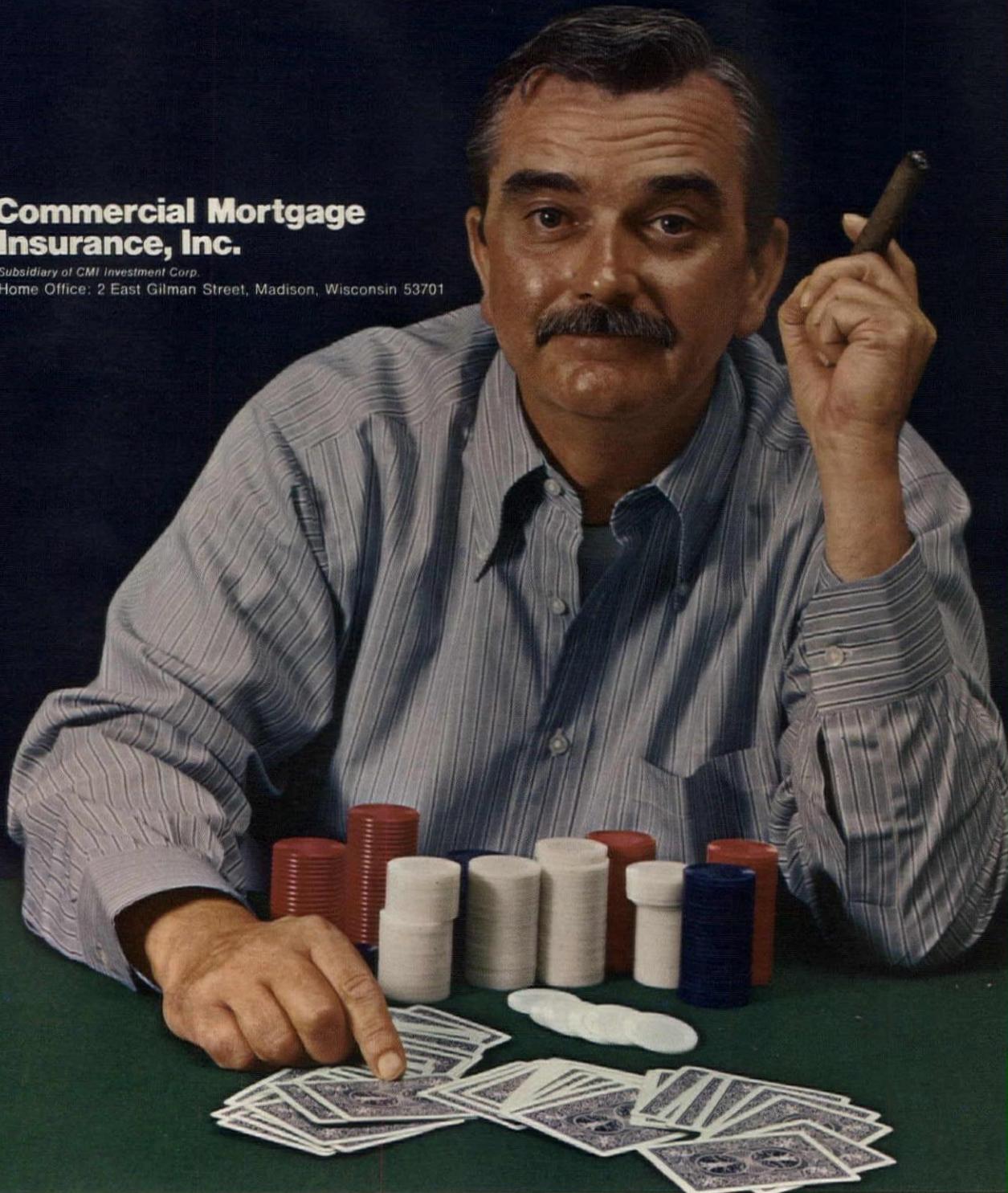
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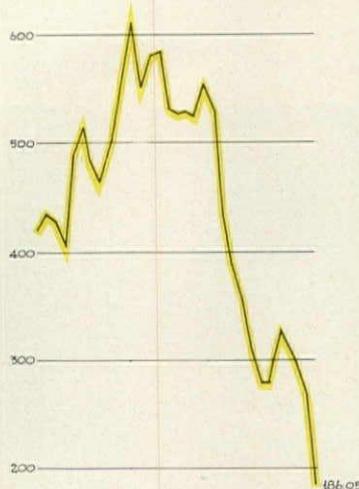


Energy crisis sinks housing stocks

Housing issues have fallen hard in reaction to the energy crisis. The HOUSE & HOME index of 25 representative issues plummeted to 186.05, from 268.37, in the month ended December 3. The index equates share values of January 1965 with 100.

Among the building companies Kaufman & Broad plunged another 5 3/8%, to 11 3/8%, after losing 8 1/4% in the previous month. U. S. Home fell 3 1/8%, to 4 1/8% in the latest period, off a good 20 points from its year's high of 25 1/4%.

Here's the composite graph.



SHARE PRICES OF JANUARY 1965 = 100

Here's how the five companies in each category performed.

	Dec. '72	Nov. '73	Dec. '73
Builders	471	241	167
Land develop.	341	149	116
Mortgage cos.	1,435	812	507
Mobile homes	1,590	455	290
S&Ls	242	132	103

Company	Dec. 3 Bid/Close	Chng. Prev. Month
BUILDING		
Alodex	OT 3/4	- 1/2
AVCO Comm. Devl.	PC 1	- 3/8
American Cont. Homes	OT 3 3/4	- 5/8
American Housing Sys.	OT 1 1/4	- 1/4
American Urban Corp.	OT 1 3/8	- 3/8
Bramalea Con. (Can.)	OT 6 1/8	+ 1/8
Building Systems Inc.—d	OT .02	-.03
Campanelli Ind.	OT 8	+ 1/4
(New America Ind.)		
Capital Divers (Can.)—d	OT 21	- 18
•Centex Corp.	NY 11 7/8	- 3 3/8
Cenvill Communities	AM 9 1/2	- 1 1/8
Cheezem Dev. Corp.	OT 2	.....
Christiana Cos.	AM 2 1/4	- 3/8
Cons. Bldg. (Can.)	TR 2.55	- 35
Dev. Corp. Amer.	AM 9 1/8	- 5/8
Dev. Int. Corp.—d	OT .15	-.23
Edwards Indus.	OT 4 1/4	- 3/4
First Builders Bancorp.	OT 1	- 1
First Hartford Corp.—d	AM 2 3/8	- 7/8
FPA Corp.	AM 6 1/2	- 1
Carl Freeman Assoc.	OT 2 3/4	- 2
Frouge Corp.—d	OT 5 1/2	- 1
General Builders	AM 1 1/8	- 1/4
Gil Development—d	OT 1 1/8	- 1/8
Hallcraft Homes	OT 1 7/8	- 1
Hoffman Rosner Corp.	OT 2 1/2	- 1/2
Homewood Corp.	OT 4	- 1
Hunt Building Corp.	OT 2 7/8	- 1/8
•Kaufman & Broad	NY 11 3/8	- 5 3/8
Key Co.—d	AM 3	- 3/8
Leadership Housing	OT 5 1/4	+ 1 1/8
(includes Behring Corp.)		
Leisure Technology	AM 4 3/4	- 1 1/4
Lennar Corp.	AM 5 7/8	- 1 1/8
McCarthy Co.—d	PC 2 1/8	- 3/4

Company	Dec. 3 Bid/Close	Chng. Prev. Month
McKeen Const.	AM 2 1/4	- 5/8
H. Miller & Sons	AM 8 3/4	.....
Mitchell Energy & Dev.	AM 25 3/8	- 2 3/4
National Environment	OT 1.44	-.185
(Sproul Homes)		
L. B. Nelson Corp.	AM 3	- 1
Oriole Homes Corp.—d	AM 9	- 2 1/8
Prel. Corp.	AM 2 3/4	- 1 3/4
Presidential Realty	AM 9 3/4	- 1 1/8
Presley Development	AM 2 3/4	- 1 1/2
Pulte Home Corp.	AM 2	- 1 1/4
F.D. Rich Housing Corp.	OT 1	- 1/8
Robino-Ladd Co.	AM 5 3/4	- 1 1/4
Rossmoor Corp.	AM 4 3/8	- 2 1/4
•Ryan Homes	AM 14 1/4	- 7 3/4
Ryland Group	OT 3 1/2	- 3
•Shapel Industries	NY 8 7/8	- 3 1/4
Shelter Corp. of America	OT 3 1/4	- 3/8
Standard Pacific	AM 1 1/8	- 5/8
Universal House & Dev.—d	PC 1 1/8	.....
•U.S. Home Corp.	NY 4 1/8	- 3 1/8
Valley Forge Corp.	OT 3 1/4	.....
Washington Homes—d	OT 3 1/4	- 1
Del. E. Webb	NY 3 1/4	- 1 3/4
Western Orbis	AM 7 1/8	- 1 1/8
Westchester Corp.	OT 1 1/8	- 1/2

SAVINGS & LOAN ASSNS.

American Fin. Corp.	OT 13 3/8	+ 1 1/8
Calif. Fin.	NY 3 1/4	- 5/8
Empire Fin.	AM 6 5/8	- 1 3/4
•Far West Fin.	NY 5 1/4	- 2
Fin. Corp. of Santa Barb.	AM 9 7/8	- 2 1/4
•Fin. Fed.	NY 10 1/4	- 2 1/8
•First Charter Fin.	NY 12 5/8	- 4 3/8
First Lincoln Fin.	OT 2 3/8	- 3/8
First S&L Shares	AM 10 7/8	- 4 1/4
First Surety	OT 3	- 3/8
First West Fin.	OT 1 1/2	- 3/8
Gibraltar Fin.	NY 11 1/2	- 4 1/4
Golden West Fin.	NY 10 5/8	- 2 3/8
•Great West Fin.	NY 16 5/8	- 4 1/4
Hawthorne Fin.	OT 6 1/4	- 1 1/8
•Imperial Corp.	NY 8 3/8	- 1 1/4
Trans World Fin.	NY 6 5/8	- 1 1/4
Union Fin.—d	AM 7 1/4	- 2 3/8
United Fin. Cal.	NY 6 1/8	- 1 1/2
Wesco Fin.	NY 10 5/8	- 3 1/8

MORTGAGING

Charter Co.	NY 18	- 4 1/2
CMI Investment Corp.	NY 14 1/2	- 6 5/8
•Colwel	AM 7 1/2	- 3
Cont. Illinois Realty	NY 15	- 3 1/4
Excel Investment	AM 7 3/4	- 4 1/4
Fed. Nat. Mtg. Assn.	NY 19 1/8	- 1 1/8
Financial Resources Gp	OT 1	- 1
(Globe Mortgage)		
FMIC Corp. (formerly		
First Mtg. Ins. Co.)	OT 7 3/4	- 4
•Lomas & Net. Fin.	NY 9 3/4	- 4 3/8
•MGIC Inv. Corp.	NY 27 3/4	- 18 1/8
Midwestern Fin.	AM 9	- 1 1/2
Mtg. Associates	OT 9	- 3 3/8
Palomar Fin.	AM 2 1/2	- 5/8
Western Pac. Fin. Corp.—d		
(formerly So. Cal		
Mort. & Loan Corp.)	OT 3	- 1/2
UPI Corp.	AM 1 3/4	- 1/2
(United Imp. & Inv.)		

MORTGAGE INV. TRUSTS

Alison Mtg.	NY 23 1/2	- 4 1/2
American Century	AM 11 1/2	- 4
Arlen Property Invest.—d	OT 12	- 1 3/4
Atico Mtg.	NY 13 1/8	- 4 1/4
Baird & Warner	OT 15 1/8	- 3 3/8
Bank America Rlty	OT 22 3/4	- 3 1/2
Barnett Mtg. Tr.	NY 20 5/8	- 5 1/2
Beneficial Standard Mtg.	AM 18 7/8	- 3 1/8
BT Mort. Investors	NY 19 3/4	- 7 3/8
Builders Investment Gp.	NY 25	- 5 3/4
Cameron Brown	NY 13 3/4	- 5 1/4
Capitol Mortgage SBI	NY 18 3/4	- 4 3/4
Chase Manhattan	NY 45	- 7 1/8
CI Mortgage Group	NY 12 3/4	- 4 3/4
Citizens Mtg.	AM 13 3/8	- 2 1/2
Citizens & So. Rlty.	NY 29 5/8	- 6 3/8
Cleve. Trust Rlty. Inv.	OT 15 1/4	- 3 3/8
Colwel Mtg. Trust	AM 24 1/4	- 3 3/4
Conn. General	NY 17 1/4	- 5
•Cont. Mtg. Investors	NY 7 1/8	- 3 1/4
Cousins Mtg. & Eq. Inv.	NY 20 1/2	- 6 1/4
Diversified Mtg. Inv.	NY 16 3/4	- 7
Equitable Life	NY 23 3/4	- 2
Fidelo Growth Inv.	AM 24 1/8	- 7
Fidelity Mtg.	NY 10 3/8	- 5 3/8
First Memphis Realty	OT 16 1/4	- 3 3/4
•First Mtg. Investors	NY 11	- 4 3/8
First of Denver	AM 18 3/4	- 2 1/4
First Pennsylvania	NY 14 3/4	- 5 3/8
Franklin Realty	AM 4 1/2	- 3/8
Fraser Mtg.	OT 11 3/4	- 5
Galbreath Mtg.	OT 9 3/4	- 4 3/4
Gould Investors	AM 8 1/4	.....
Great Amer. Mtg. Inv.	NY 29 1/2	- 7 1/4
Guardian Mtg.	AM 21 1/8	- 9 1/8
Gulf Mtg. & Rlty.	AM 14	- 3 3/8
Hamilton Inv.	OT 15 1/4	- 2 3/8
Heitman Mtg. Investors	AM 11 1/2	- 1 1/2
Hubbard R. E. Inv.	NY 17 1/4	- 1 3/8



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Company	Dec. 3 Bid/Close	Chng. Prev. Month
ICM Realty	AM 17	- 4%
Lanwin Mtg.	AM 15 3/4	- 7 1/4
Lincoln Mtg.	OT 4 1/4	- 1 1/4
Mass Mutual Mtg. & Rty.	NY 17 1/4	- 2
Mony Mtg. Inv.	NY 7 3/8	- 3
Mortgage Trust of Amer.	NY 9 3/8	- 3 3/8
National Mortgage Fund	NY 11 1/4	+ 1/2
North Amer. Mtg. Inv.	NY 20 3/8	- 7 5/8
Northwest Mut. Life Mtg. & Rty.	NY 22 3/8	- 1 3/4
PNB Mtg. & Rty. Inv.	NY 18	- 3
Palomar Mtg. Inv.	AM 8 3/8	- 3 7/8
Penn. R. E. Inv. Tr.	AM 12	- 1 1/2
Property Capital	AM 11 3/4	- 4 1/8
Realty Income Tr.	AM 14	- 1 1/4
Republic Mtg. Inv.	NY 13 1/8	- 2 1/2
B. F. Saul, R.E.I.T.	NY 12 1/8	- 3 7/8
Security Mtg. Investors	AM 7 1/4	- 1 1/4
Stadium Realty Tr.	OT 4 1/2	- 3/4
State Mutual SBI	NY 15	- 5 1/8
Sutro Mtg.	AM 12	- 2 1/2
Unionamerica Mtg. & Eq.	AM 17 3/8	- 3 7/8
U.S. Realty Inv.	AM 10	- 2 7/8
Wachovia Realty Inc.	NY 17 3/8	- 5 1/2
Wells Fargo Mtg.	NY 16 3/8	- 3 1/2

LAND DEVELOPERS

All-State Properties—d	OT 3/8	- 1/4
American Land—d	OT 1/16	.....
*AMREP Corp.	NY 4 3/8	- 3/4
Arvida Corp.	OT 6 3/4	- 1 1/8
Atlantic Imp.—d	OT 5	+ 1
Canaverall Int.—d	AM 2	.....
Cavanagh Communities	NY 2 1/4	- 1
Crawford Corp.	OT 5 1/2	- 1/4
*Deltona Corp.	AM 7	- 3
Disc. Inc. of Amer.	OT 1 1/4	- 1/4
Evans & Mitch. Ind.	OT 2 1/2	- 1 3/4
Fairfield Communities—d	OT 1/2	- 1/8
*Gen. Development	NY 5 1/2	- 1 1/8
Getty Financial Corp.—d	OT 3 1/2	.....
(Don the Beachcomber)	.....	.....
*Holly Corp.	AM 2 1/8	.....
Horizon Corp.	NY 7 3/8	- 1 1/8
Landmark Land Co.	AM 2 3/4	- 1/4
(Gulf State Land)	.....	.....
Land Resources	OT 2	- 5/8
Major Realty	OT 3 1/4	- 1 1/4
*McCulloch Oil	AM 5	- 1 3/4
South. Rty. & Util.	AM 5	.....

MOBILE HOMES & MODULES

*Champion Home Bldrs.	AM 3 1/2	- 1 3/4
*Commodore Corp.	AM 1 5/8	- 1
Conchemco	AM 7 5/8	- 3 3/4
De Rose Industries	AM 1 5/8	- 7/8
*Fleetwood	NY 4 3/8	- 2 3/4
Golden West	OT 2 1/8	- 1
Moamco Corp.	AM 2 3/8	+ 1/8
(Formerly Mobil Americana)	.....	.....
Mobile Home Ind.	AM 5 1/8	- 2 5/8
Monarch Inc.	OT 1 1/8	- 5/8
*Redman Ind.	NY 4 1/4	- 3
Rex-Noreco	NY 2	- 3/8
*Skyline	NY 10 1/4	- 5 1/4
Town & Country Mobile	AM 2 5/8	- 1 1/2
Triangle Mobile	OT 1	- 1/2
Zimmer Homes	AM 3 3/8	- 1 7/8

Albee Homes—d	OT 1/2	.....
ASM Ind.—d	OT 3/8	- 1/8
(Formerly AABCO)	.....	.....
Brigadier Ind.	OT 2 1/4	- 3/8
Environmental Commun.	OT 2 1/8	.....
Hodgson House	OT 1 3/4	- 3/4
Liberty Homes	OT 1 1/4	- 1 1/4
Lindal Cedar Homes	OT 2 1/4	- 1 1/4
Modular Dynamics—d	OT .02	-.01
Nationwide Homes	AM 4 3/8	- 2
Shelter Resources	AM 3	- 1 5/8
Swift Industries	OT 1/4	- 5/8

DIVERSIFIED COMPANIES

Amer. Cyanamid	NY 21	- 2 1/4
Amer. Standard	NY 11 3/8	- 3 3/8
Arlen Realty & Develop.	NY 2 3/4	- 1 1/2
AVCO Corp.	NY 7 1/8	- 2 3/8
Bethlehem Steel	NY 27 3/4	- 3 3/8
Boise Cascade	NY 12 1/4	- 2 3/4
Building & Land Tech.	OT 5 1/4	- 1
CNA Financial (Lanwin)	NY 9 3/8	- 1 1/4
Castle & Cooke	NY 14 1/4	- 1 3/4
(Oceanic Prop.)	.....	.....
CBS (Klingbeil)	NY 26 1/4	- 6 3/8
Champion Int. Corp.	NY 14 3/8	- 2 5/8
(U.S. Plywood-Champion)	.....	.....
Christiana Securities	OT 142	- 30
Citizens Financial	AM 2 7/8	- 1
City Investing	NY 10 1/8	- 2
(Sterling Forest)	.....	.....
Corning Glass	NY 83	- 17
Cousins Properties	OT 16 1/2	- 6 1/4
Davos Inc.	OT 1/2	- 1/4
Dreyfus Corp.	NY 7 1/2	- 1 1/2
(Bert Smokler)	.....	.....
Environmental Systems	OT 1	- 3/8
Evans Products	NY 10 1/2	- 5
Ferro Corp.	NY 24	- 8 1/2
First Gen. Resources	OT 1/4	.....
First Rty. Inv. Corp.	AM 3 3/8	- 2
Fischback & Moore	NY 46	- 15 1/2
Forest City Ent.	AM 6 1/8	- 2

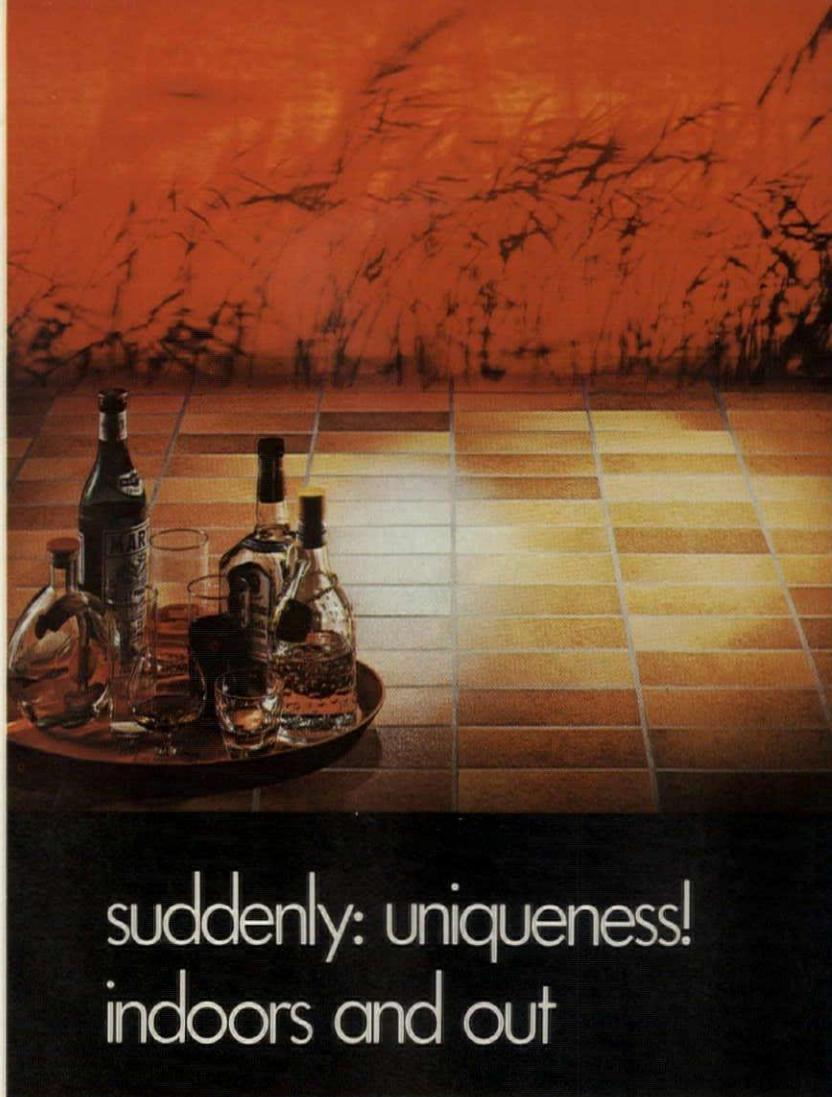
Company	Dec. 3 Bid/Close	Chng. Prev. Month
Flagg Industries	AM 3	- 1/2
Frank Paxton Corp.	OT 9	- 1/2
(Builder Assistance Corp.)	.....	.....
Fruehauf Corp.	NY 21	- 4
Fuqua Corp.	NY 7 3/8	- 3 3/4
Georgia Pacific	NY 33 3/4	- 7 1/4
Glassrock Products	AM 2 3/8	- 1 1/2
Great Southwest Corp.	OT 3 1/8	+ 1/4
Gulf Oil (Gulf Reston)	NY 20 7/8	- 1 3/4
INA Corp. (M.J. Brock)	NY 32 3/8	- 3 3/8
Inland Steel (Scholtz)	NY 25 3/8	- 4 7/8
International Basic Econ.	OT 3 3/8	+ 1/8
International Paper	NY 43 1/4	- 6
Inter. Tel. & Tel. (Levitt)	NY 27 1/8	- 4 7/8
Investors Funding	AM 2 3/8	- 1/4
Killearn Properties	AM 2 7/8	- 5/8
Leroy Corp.	OT 2 1/2	- 1/2
Ludlow Corp.	NY 9 3/8	- 2 3/4
Monogram Industries	NY 4 5/8	- 1 5/8
Monumental Corp.	OT 17 1/4	- 2 1/2
(Jos. Meyerhoff Org.)	.....	.....
Mountain States Fin. Corp.	.....	.....

.....	OT 4 3/4	- 1 3/4
National Homes	NY 2 3/8	- 3/4
NEI Corp.—a	OT 2 3/4	.....
Occidental Petroleum	NY 9 1/4	- 1 1/4
(Occ. Pet. Land & Dev.)	.....	.....
Pacific Coast Prop.	AM 1 1/8	- 3/8
Perini Corp.	AM 5 3/8	- 1 1/8
Philip Morris	NY 106 3/4	- 6 1/4
Prosher Corp.—d	OT 7 1/8	- 1/8
Republic Housing Corp.	AM 3 1/4	+ 1/8
Rouse Co.	OT 7 3/4	- 4 3/4
Santa Anita Consol.	OT 11 1/2	- 1 1/2
(Robt. H. Grant Corp.)	.....	.....
Sayre & Fisher—d	OT 1/8	.....
Shareholders Capital	OT 1/2	- 1/4
(Shareholders R.E. Group)	.....	.....
Tenneco Inc.	NY 21 1/8	- 4
(Tenneco Realty)	.....	.....
Time Inc.	NY 26 3/4	- 10 1/4
(Temple Industries)	.....	.....
Tishman Realty	OT 17 1/4	- 2 3/4
Titan Group Inc.—d	OT 1/2	- 3/8
UGI Corp.	NY 14	- 2
Uris Bldg.	NY 11 3/8	- 3/8
Weil-McLain	NY 7	- 1 1/2
Westinghouse	NY 31 1/2	+ 1 1/2
(Coral Ridge Prop.)	.....	.....
Weyerhaeuser	NY 69 3/8	- 1 3/4
(Weyer. Real Est. Co.)	.....	.....
Whittaker (Vector Corp.)	NY 2 1/2	- 5/8
Wickes Corp.	NY 12 1/4	- 2 1/2

SUPPLIERS

Armstrong Cork	NY 22 1/4	- 4 3/8
Automated Bldg. Comp.	AM 3 3/8	- 7/8
Bird & Son	AM 17	- 8 1/4
Black & Decker	NY 104 1/8	- 15 3/8
Carrier Corp.	NY 14 1/8	- 6 3/8
Certain-lead	NY 13 1/2	- 1/2
Crane	NY 16 1/8	- 2 3/8
Dexter	NY 13	- 5 3/8
Dover Corp.	NY 31 3/8	- 11
Emerson Electric	NY 44 3/8	- 4 7/8
Emhart Corp.	NY 16 1/2	- 2 3/4
Fedders	NY 10 1/4	- 6
Flintkote	NY 16 1/4	- 3 3/8
GAF Corp.	NY 9 3/8	- 2
General Electric	NY 60	- 3 1/4
Goodrich	NY 15 3/8	- 5 3/8
Hercules	NY 30 3/4	- 2 1/2
Hobart Manufacturing	NY 25 1/4	- 4 7/8
Int. Harvester	NY 25	- 5 3/8
Johns Manville	NY 17 1/8	- 4
Kaiser Aluminum	NY 18 3/8	- 3 3/8
Keene Corp.	NY 3 1/8	- 1 1/4
Leigh Products	AM 5 1/2	- 1 1/2
Masco Corp.	NY 44 3/8	- 11 7/8
Masonite Corp.	NY 35 3/8	- 2 3/4
Maytag	NY 24 3/8	- 6 1/4
National Gypsum	NY 11 3/8	- 1 3/8
Norris Industries—d	NY 22	- 5
Overhead Door	NY 11 7/8	- 2 3/8
Owens Corning Fibrgl.	NY 48 1/4	- 4 7/8
Pottlatch Corp.	NY 23 3/4	- 5 7/8
PPG Industries	NY 23 3/8	- 7 3/8
Reynolds Metals	NY 16	- 2 3/4
Rohm & Haas	NY 64 1/2	- 14 1/2
Ronson	NY 5 3/8	- 1 1/8
Roper Corp.	NY 14 1/4	- 3 3/8
St. Regis Paper	NY 42	- 5
Scovill Mtg.	NY 12 3/4	- 4 3/4
Sherwin Williams	NY 29 3/8	- 6 1/4
Skil Corp.	NY 12 3/8	- 1/2
Slater Electric	OT 6	- 4 3/4
Stanley Works	NY 29 3/4	- 8 1/4
Tappan	NY 6 7/8	- 2 1/2
Thomas Industries	NY 8 3/8	- 3 3/8
Triangle Pacific	NY 12	- 1 3/4
U.S. Gypsum	NY 17 3/8	- 3 3/8
U.S. Steel	NY 31 3/8	- 3 3/8
Wallace Murray	NY 9 3/4	- 1 7/8
Jim Walter	NY 14 1/2	- 3 1/2
Whirlpool Corp.	NY 24 3/8	- 5 7/8

AM—closing price American Stock Exchange. NY—New York Stock Exchange. OT—over-the-counter bid/price. PC—Pacific Coast Exchange. TR—Toronto Stock Exchange. a—stock newly added to table. d—not traded on date quoted. *—Computed in HOUSE & HOME's 25-stock value index. Source: Standard & Poor's, New York City.



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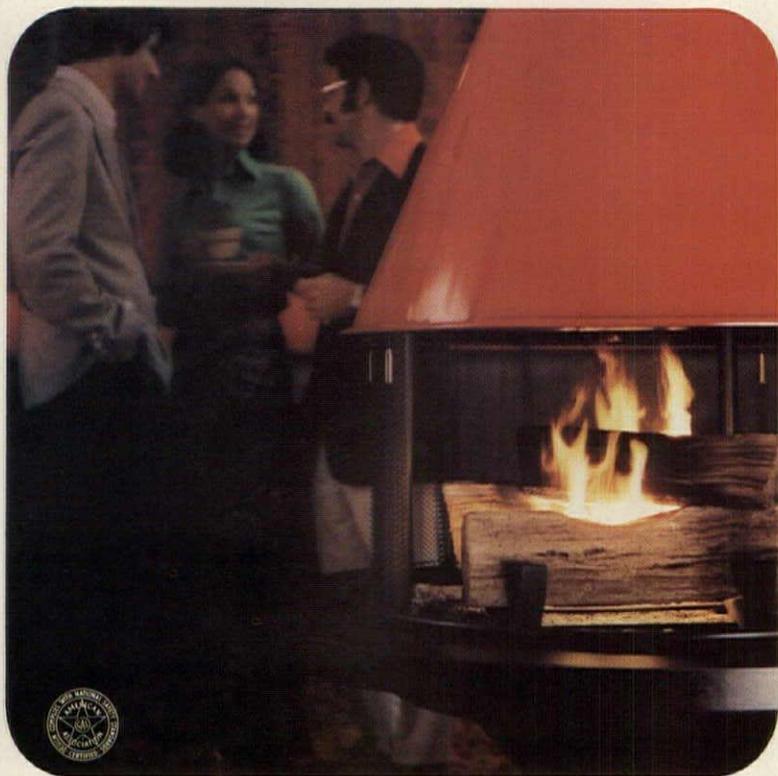
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Senator Edward J. Gurney, center, received Order of Lafayette's Freedom Award with Admiral Thomas Moorer and Governor George Wallace at dinner in New York Dec. 4.

Gurney accused of taking builder cash

After promising to fight what he called a hatchet job and trial by headline, Senator Edward Gurney has acknowledged charges that a secret \$300,000 campaign fund was raised in his name from Florida FHA builders. Gurney emphasizes, however, that the collections were made without his knowledge.

The senior senator from Florida and Watergate committee member says that he is anxious to testify before a federal grand jury probing the charges. Assistant U.S. Attorney Bruce Wagner says, "We're glad to give him the opportunity." No date has been set for the testimony.

Meanwhile, Gurney said at a Florida news conference that when he learned, in the summer of 1972, that fund raiser Larry Williams had accumulated the contributions, he immediately ordered the money-raising effort stopped. However, in July 1973 Gurney issued a statement denying that Williams ever worked for him. Williams has since agreed to plead guilty to felonies and to testify for the government.

Of the Gurney denial in July, Williams said between grand jury appearances in November that the denial has already been proved inaccurate and that, "yes, emphatically, I worked for Senator Gurney." Williams has also said of *Miami Herald* stories about builder payments and deliveries to Gurney staffers that they are fairly accurate. This is the kind of comment made by Miami builder John Priestes of the *Herald's* stories saying he got \$170,000 in kickbacks from his subcontractors. [News, Oct. *et seq.*] Priestes has been sentenced to a year in prison.

According to *Herald* sources, unreported cash contributions

from FHA builders in Florida have been traced to a safe in Senator Gurney's Washington office. The money is believed to have been collected by Williams and passed in envelopes to James Groot, a former administrative assistant to the senator. Williams is reported to have collected a minimum of \$300,000 from 1971 to May 1973.

Agents of the FBI are now checking all FHA projects processed in that period seeking federal law violations.

Two builders have said they were approached by Williams for contributions—Philip Emmer of Miami and Gainesville, who builds under FHA subsidy programs, and a Sanford builder named J. Brailly Odham, a prominent Democrat in state politics during the 1960s. Neither is reported to have given any money.

Tampa builder Alfred Austin did pledge money to Gurney and it was forwarded by the Florida Republican party. The *Herald's* sources say Austin gave \$5,000 in hopes of obtaining an FHA commitment for a \$3.7 million apartment house in Jacksonville.

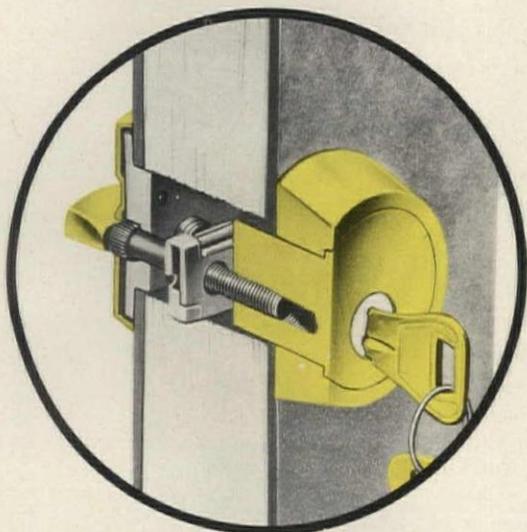
Austin is a Republican supporter. He will not now talk about the contribution but he has said that, last year, he was chosen to build the Pablo Towers for low-income elderly. The *Herald's* sources say that, after the Austin contribution, Williams and Groot lobbied for the project with the Jacksonville FHA director, Forrest Howell.

Howell says his approval of the project was routine. Howell did write to Florida's Senator Lawton Chiles that local housing surveys showed no need for the project.

—FRED SHERMAN
McGraw-Hill News, Miami



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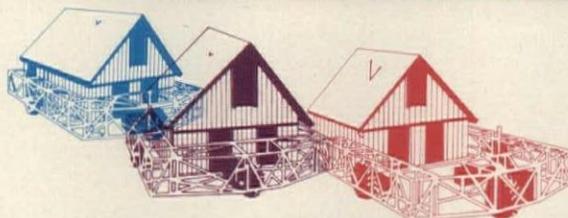
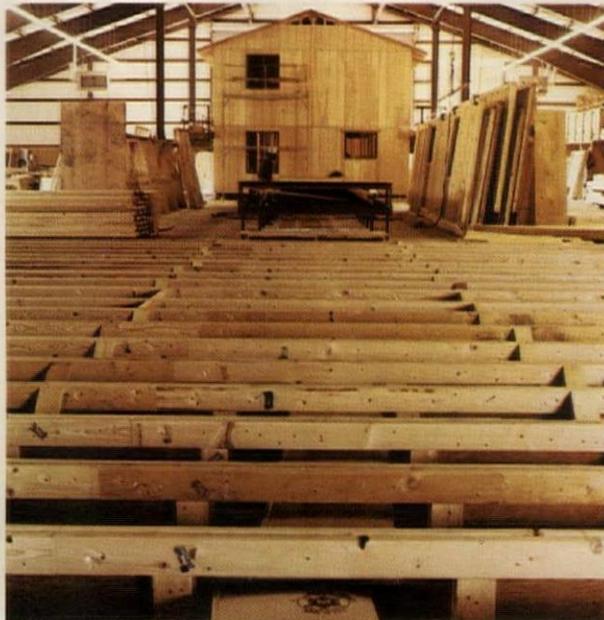
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HH-1

NEWS/PEOPLE



FOREST CITY'S AL RATNER
Taking over family's company



FREEMAN'S FREEMAN
Stepping from veep to pres

Youth taking over reins at Forest City; Carl Freeman shaking up its management

Forest Cities Enterprises has a new president and chief executive. He is **Albert B. Ratner**, son of **Leonard Ratner**, who now adopts the title of founder-chairman. Leonard's brother and the co-founder of the company, **Max Ratner**, becomes board chairman. And **Samuel H. Miller**, who has been chief operating officer, assumes in addition the position of vice chairman of the board.

Leonard and Max, with brother **Charles**, established the Cleveland-based company in 1922 and developed it into one of the nation's major home-building operations.

Carl M. Freeman Associates, another residential builder, also reports a management shuffle. **Carl M. Freeman** himself is still chairman of the board and chief executive officer, but **Robert B. Friedman** moves up into the presidency from a vice presidential slot after 11 years with the company. **Michael T. Rose** shifts to executive vice president from vice president for marketing and administration. (He had an earlier stint as marketing vice president at Larwin.) In addition, **Morton Klevan** assumes the post of vice president for legal affairs (instead of secretary and general counsel), and **Nicholas V. Sambuco** takes the title of vice president for finance and administration. (He was formerly vice president and controller).

Florida's Millstream Corp. shifts **Wyn Pope** from the executive vice presidency to the president's post. **Herman J. Soffer** takes over Pope's old job, coming into the company from a similar spot with Miller Builders of Skokie, Ill., a diversified land development and building company. (Millstream and Miller Builders

are subsidiaries of Miller Associated Industries Inc.) **Albert J. Miller** becomes chairman of Millstream's board.

Kaufman and Broad, the nationwide builder and developer, brings in a new director of corporate communications, **Jack Cumming**, former PR man for Yamaha International, the motorcycle producer. Vice President **Barbara Sayre Casey** will supervise Cumming but concentrate on financial PR and investor relations.

The Richards Group, a developer associated with Gulf & Western Industries and headquartered in Great Neck, N.Y., brings **Jeffrey H. Gansberg** aboard as president of its new Eastern shopping center development division. Gansberg developed shopping centers for Arlen Realty and Development.

The Federal National Mortgage Association names **Thomas A. Ronzetti** as vice president for corporate planning, an activity he has been carrying on with the designation of director since he joined Fannie Mae in 1971.

Two West Coast execs forming own companies

Richard Hahn, formerly vice president/architecture for National Homes, forms his own architectural and land planning firm in West Los Angeles.

R. Gregg Anderson leaves Amfac Inc., whose headquarters are in Honolulu, for much the same purpose. He is establishing his own development company, also in California. Amfac's president, **Henry A. Walker Jr.**, announces Anderson's departure, expressing regret.

Most homes are sold in the kitchen and the bath. And that's where ceramic tile can really pay off.

Ceramic tile can make your homes look like they're worth more than your asking price.

Naturally, you'd expect us to say that. But you don't have to take our word for it.

Recently, in a leading trade magazine, Professional Builder, some of the top builders in the country tell why and how they're building more luxury into the kitchen and the bath. And they agree the extra investment is paying off in quicker sales and customer referrals.



Now we didn't ask the magazine for an endorsement. So we were pleased to see ceramic tile used in most of the baths shown.

Which proves what we've said all along: builders who really move houses put their money where the action is. In kitchens and bathrooms.

And when it comes to kitchens, nothing can be more impressive than ceramic tile. Because it's virtually waterproof, fireproof and cutproof. And most people know that.

And here's something you should know. A new, improved joint filler, Acric-fil, is now available.

It's premixed. It resists chipping, mildewing, staining. And it's also the first tile joint filler you can color-blend, so it can harmonize with any tile or contrast design. (As you can see in the effect terrific.) And tile is a joy

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We'll be telling over 48,000,000 consumers this year about the advantages of ceramic tile with beautiful ads in 19 leading national magazines.

For our free color book that shows new and unusual ways you can use ceramic tile throughout your houses, and more information about Acric-fil, the new joint filler, write us at the address below.

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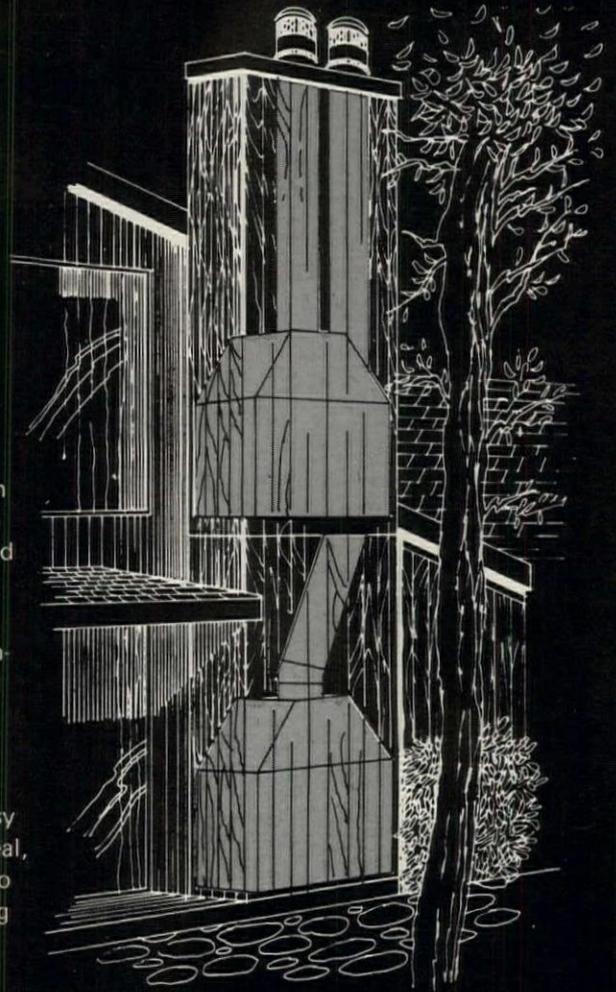
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build in easier, perform better, increase your profits!

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Martin "Build-In-Anywhere" Fireplaces perform better because each is a carefully-engineered system, complete in itself, with factory-built, hearth-to-chimney-top components including round contemporary or simulated brick roof-top terminations. And because the outer walls of each Martin firebox are insulated with 1" compressed insulation. Minimum heat loss from room when fireplace is not in operation!

Martin "Build-In-Anywhere" Fireplaces boost profits because they're easy and economical to install, yet add immeasurably to the competitive appeal, saleability, or rentability of any residential property. It's good business to install fireplaces ... good sense to install "Build-In-Anywhere" Fireplacing by Martin!



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- 3. No special starter sections required as with other manufactures. Simplifies stocking.
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- 5. Round contemporary or simulated brick roof-top terminations.
- 6. 1" compressed insulation around outer walls of firebox.
- 7. Simple, fast installation requiring no foundation.
- 8. Designed for single or multi-story installation.
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Martin offers a complete line of quality fireplaces, such as: Free-Standing, Built In, and Wall-Hung, in gas, electric, and wood burning models.



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Send in the coupon and we'll be glad to send you more information on the Scholz Builder Program...the one builders all over the country are talking about.

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PHOTOS: PIERRE MARQUES HOTEL

HOUSE & HOME'S Mexican resort conference uncovers a market on the brink

It's too early for any meaningful predictions on the potential size of the market or the degree to which U.S. developers, investors and other housing professionals can participate in it. But the more than 330 conference attendees (250 from the U.S., 80 from Mexico and a sprinkling from Canada and other countries) came away from the three-day November conference in Acapulco with some firm convictions. Among them:

The Mexican government is actively encouraging foreign participation in resort development. Mexico's enormous birth rate is already creating employment problems which promise to get much worse unless new industry comes on stream immediately. Resort development could be one of Mexico's best industries in this regard.

Further, Mexico's rapidly expanding growth has stretched that country's capital resources to their limit and beyond. Resort development, with its healthy profit potential, would be an ideal way of attracting foreign capital—especially from the U.S.

Mexico has the potential to

become one of the greatest, if not the greatest, resort areas in the world. It has thousands of miles of magnificent coastline—most of it almost completely undeveloped—and in most areas, a superb climate. And it is a natural magnet for tourists from the U.S.: Baja California will soon be opened to California, U.S.A. via a new highway; the Yucatan peninsula gives Mexico a Caribbean orientation, which is little more than an hour's flight from

Miami; and for most of the U.S., much of Mexico can be reached in less time than it takes to fly from New York to Los Angeles.

But just as there are opportunities, there are also problems. And questions about these problems occupied much of the conference's attention.

The key questions concerned what is known as the 30-year trust. Foreigners in Mexico are forbidden by constitutional law from owning property in what is

called the forbidden zone—an area reaching back 50 kilometers, or about 31 miles, from the coast. But to encourage foreign resort investment, Mexico's president, Luis Echeverria, five months after he took office in 1971, established by decree that credit institutions, notably banks, could acquire as trustees ownership of property in the forbidden zone, and assign use of the land to others, including foreigners.

Thus a U.S. developer working with a Mexican entity as part owner (in some cases a 51% owner) of the venture, can in effect buy the right to develop and operate a resort for 30 years.

The big question: What happens at the end of 30 years?

Legally, the property must then be sold to a Mexican entity. And officials connected with the Mexican government, several of whom attended and addressed the gathering, assured U.S. businessmen at that time, foreign investors would certainly be fairly recompensed for their property.

But the U.S. businessmen were not comfortable with this. They pointed out, especially in



Miguel Aleman, former president of Mexico, welcomes the conference

TO PAGE 44

you knew we could open
garage doors...
but did you know we
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Automatic garage door opener system by Alliance.

Opening a heavy garage door is one of the most inconvenient things about any new home, especially with the new seat belt/safety laws.

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HH-1

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Celotex is proud of its line of "dimensional shingles." They're the best we know how to make. Roofing shingles with architectural dimension... a deep-dimensional look that

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Whether it's Rustic Shakes,[®] or Traditional Shake Asphalt Shingles. It's Celotex. Whatever the color. Square tab, random tab, hexagonal or T-shaped. Angled, lapped, "key" locked or 4-corner fastened. It's Celotex. Self-sealing, fungus-resistant to keep white roofs white, a U.L. Class "A"

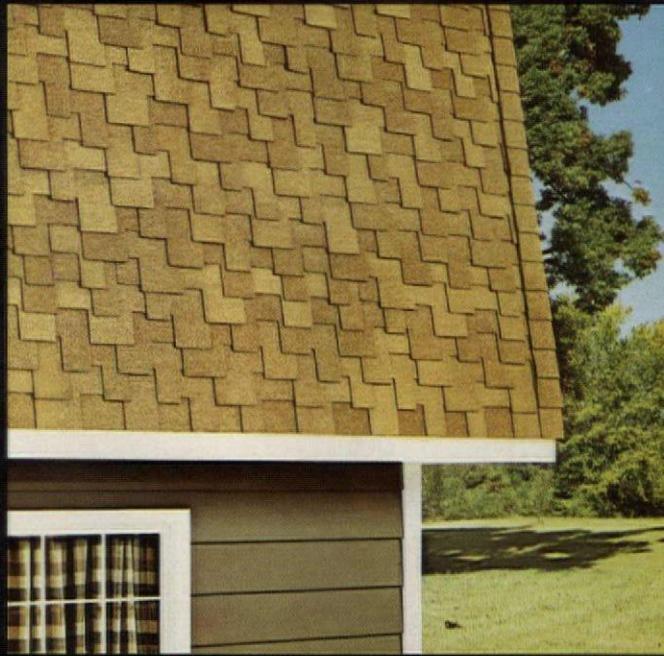
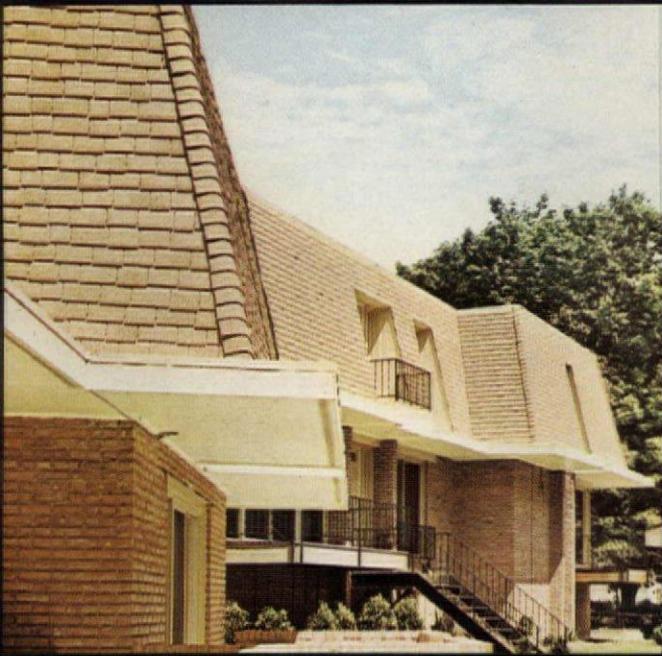
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FROM PAGE 40

discussion periods between conference speakers and attendees, that to get money for investment or development in Mexico they would have to convince banks of the soundness of the investment. And they were sure that under existing conditions, most banks would not be happy.

For example, while foreigners might be guaranteed a fair market price at the end of the 30-year period, what would happen if a number of, say, resort hotels had their trusteeships expire at the same time? The resulting temporary glut on the market might result in the hotels' bringing only a fraction of their real value.

And what of a hotel which, after about 15 years, needed extensive modernizing to remain competitive? Lenders might feel that the remaining time of the trusteeship was not long enough to make the loan safe, and the owner might then be forced into holding a property that was rapidly losing its market value.

U.S. attendees were virtually unanimous in their belief that before any major increase in the investment pace could take place, this problem would have to be clarified. Either some form of trust renewal would have to be available, or investors would have to have a guaranty of a realistic market take-out price.

And if the problem could be resolved, they agreed that things could really start to hum.

The conference program was set up first to establish the parameters under which a U.S. investor or developer must work in Mexico, second, to document the experiences of U.S. firms that have actually worked in Mexico, and third, to examine some of the financial and bureaucratic limitations that would emanate from the U.S. private and governmental sectors.

The conference was opened by Miguel Aleman, former president of Mexico and now director of the Mexican Tourism Council, who welcomed the attendees and expressed his support of the conference's aims.

Other speakers included:

Luis Gomez Pimienta, senior vice president of the Banco de Comercio, Mexico's largest private bank.

Robert Frojen, president of a Los Angeles public relations and advertising firm, who has done extensive work in Mexico, much of it for the Mexican government



James Boddorf, publisher of HOUSE & HOME, kicks off the conference.



Maxwell Huntoon, managing editor of H&H, was conference chairman.



Luis Gomez Pimienta, Sr. V.P. of the Banco De Comercio



Jose Riojas, director general of Playasol S.A.



Sherman Eubanks, vice president, Crocker Land Co.



Barry Bunshoft, attorney, Cushing, Cullinan, Hancock & Rothert



Antonio Enriques Savignac, director general, Infratur



Alfredo Rios Camarena, director general, Fideicomiso Bahía de Banderas

in tourist-related areas.

Alfredo Rios Camarena, director general of Fideicomiso Bahía de Banderas. This is an arm of the Banco de Mexico (Mexico's equivalent of the U.S. Federal Reserve) which is responsible for developing former ejido (homestead) land expropriated by the Mexican government for coastal resort development. The Fideicomiso (which means trust) masterplans the land, builds the infrastructure and sells the land; in some cases it may act as a joint-venture partner with a foreign investor.

Antonio Enriques Savingnac, director general of Infratur, another arm of the Banco de Mexico. Infratur is developing two huge tracts, one at Cancun on the Yucatan, the other at Ixtapa, on the west coast north of Acapulco, and in both areas, the government is providing the infrastructure and selling parcels to other developers.

Jose Riojas, head of Playasol, S.A., Mexico's largest condominium developer [H&H, August].

Sherman Eubanks, vice president and general manager of Crocker Land Co. of San Francisco, which is planning developments on two Mexican tracts.

Russ Ballard, president of Salt-Ballard Properties of Salt Lake City. His company is developing Club Mazatlan Sur, a 365-acre project in Mazatlan on Mexico's west coast. Three members of Ballard's development team also were speakers.

Barry Bunshoft, attorney with Cushing, Cullinan, Hancock & Rothert of San Francisco.

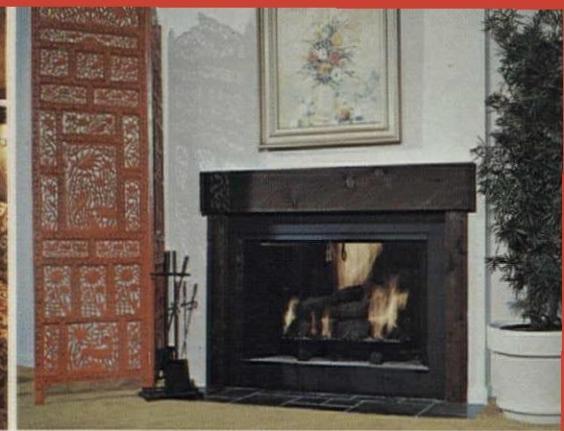
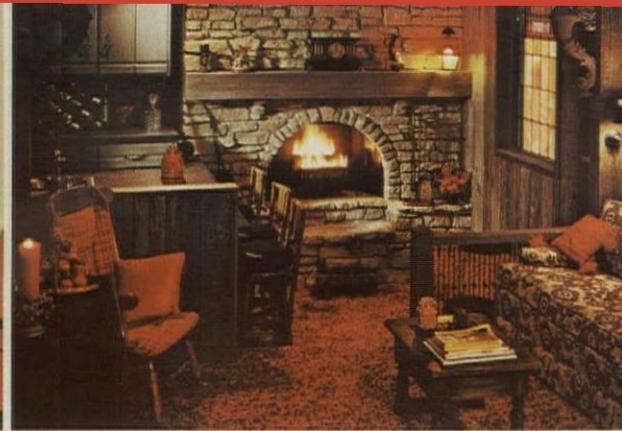
Edward D. Stone Jr. president of Edward D. Stone Jr. Associates, Miami land-planning firm; and

Richard McElyea, president of Development Research Associates, a San Francisco real estate and economic consulting firm specializing in tourism and resort development.

Other speakers were John G. Heimann, senior vice president and director E.M. Warburg, Pincus & Co., a New York investment counseling and investment firm with real estate as one of its major activities; and

Barry K. Thorpe, attorney with the Washington, D.C. firm of Danzansky, Dickey, Tydings, Quint & Gordon, and a former senior attorney with the U.S. Securities and Exchange Commission.

PHOTOS: PIERRE MARQUES HOTEL



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The adaptability of Majestic's extensive line of fireplaces is practically unlimited! Literally a smorgasbord choice in design, motif, style, type, size — and even color! Majestic gives you that "just right" feature for today's living unit.

The simplified and trouble-free design of Majestic prefabricated fireplace units should now be included in every quality house or apartment plan because it is the conventional way to build a fireplace today. Designed for zero clearance to combustibles and framed-in with wood, Majestic Built-Ins are lightweight, eliminating costly footers and masonry work. And the package is complete from hearth to chimney top! Popular sizes of front-opening or corner-opening, up to a commanding 42" model, are available for either wood or gas firing. Built-In Gasilators have the exclusive Majestic feature of an automatic damper which opens when the fireplace is in operation.

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Our non-ammonia machine vs their non-ammonia machine.

A price comparison.

There is only one other non-ammonia whiteprinter on the market. It costs \$25 per month to rent, plus \$5 per hour for every hour you use it (up to 18 hours a quarter). Even under moderate usage,

that adds up. In fact, even if you only use their machine two hours a week, it'll cost you more than ours. Not that we've sacrificed convenience for savings. Far from it. Our machine is easy to operate and clean (there's no daily clean-up) requires no warm-up, and installs easily atop any table or counter (it's only 60" long). All you do is plug it in.

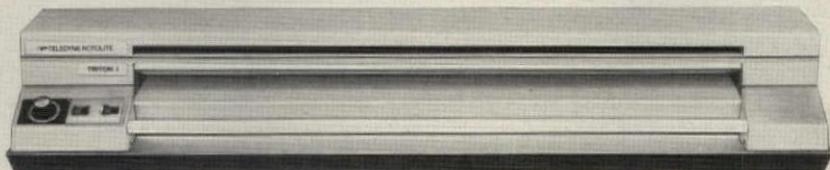
Best of all, Triton I is made by *Rotolite*, the people who pioneered diazo printing equipment and have produced quality machines for over 20 years.

We think you'll like *Rotolite's* new Triton I whiteprinter. Why not write us for all the details? **Teledyne Rotolite, 328 Essex Street, Stirling, N.J. 07980.**

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 **TELEDYNE ROTOLITE
TRITON I**

Porous pavement: an ecological product that may cut road building costs

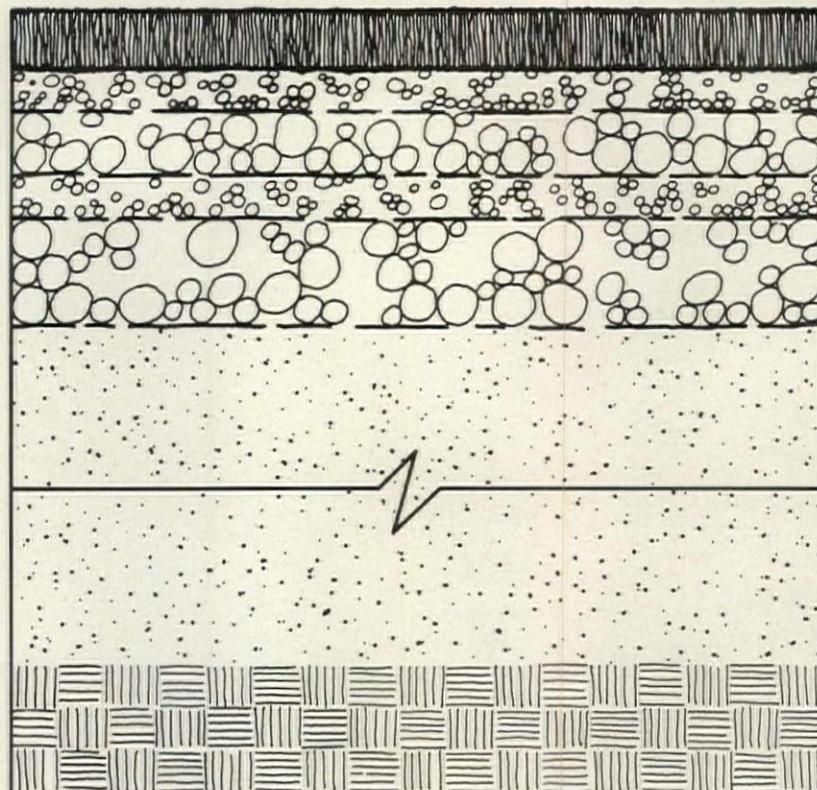
Rare indeed is anti-pollution research that reveals possible dollar savings for developers. Such a rarity is a government-funded project that has produced porous pavement—so-called because water percolates through it instead of running off the surface.

The new pavement material, a hot-mix, asphalt concrete, is open graded—meaning that it includes a coarse rock aggregate but no fine sand. Water seeps through tiny openings between the rock particles to a crushed-stone base that serves as a reservoir—holding the water until it finally seeps into the subsoil.

Porous pavement was developed by the Franklin Research Institute Laboratories of Philadelphia under a grant from the U.S. Environmental Protection Agency. The researchers' aim: to reduce the rain-water run-off that overloads combined sewers and storm drains and thus causes water pollution.

Now the new pavement turns out to have other advantages over conventional paving; it reduces auto skidding, for example, because its surface doesn't retain a water film.

More importantly to residential developers, however, porous pavement can trim road building costs by as much as 30%—or roughly \$2.85 a sq. yd. Reason:



Layers of stone and fill hold rain water until it soaks into the soil.

It eliminates the need for storm drains which add 85¢ a sq. yd. to road costs, and for curbs and gutters, which boost costs by about \$2 a sq. yd.

But Edmund Thelen, who heads the Franklin Institute research team, points out that such savings could hinge on the porosity of the soil beneath the road. It must be good. Other-

wise, the crushed-stone base must be deepened—possibly to a point where all potential savings could be wiped out.

Porous pavement's first installation was in a University of Delaware parking lot. Results, after several months of use and many rain storms, have been good, according to Thelen. In Texas, Mitchell Energy & De-

velopment Corp. will use the new paving in a parking lot at Woodlands, its Houston-area new town. Mitchell estimates the cost at \$3.05 a sq. yd. vs. \$3.60 a sq. yd. for conventional paving with draining. Thelen will install instruments at Woodlands' lot to monitor such factors as water absorption rate and degree of pollution in water.

DRAWING: MITCHELL ENERGY & DEVELOPMENT CORP.

Squeaky floors giving you trouble? Check this builder's preventive action

The action: Glue and screw the plywood subflooring to steel C-joists.

Results: "Our callbacks for squeaky or warped floors are down to almost zero," says Leonard Frank, construction vice president of Centex Corporation's midwestern operations.

Frank tested the new method on three houses and then on 30 more. Now he is using it throughout Winston Grove, a 1,500-home Centex project in Elk Grove, Ill.

Here's how it works:

1. The 16- or 18-gauge joists are attached to wood perimeter beams with clips. They are usually on 2' centers and up to 29'6 1/2" long.

2. A neoprene adhesive is applied to the tops of the joists and to the tongues and grooves of the 3/4" subflooring.

3. Self-drilling screws secure the subflooring to the beams to assure bonding until the adhesive cures.

"When the neoprene cures, it creates a diaphragm effect," says a spokesman for the Franklin Glue Co., which supplies the adhesive. "This lets dissimilar materials expand and contract without causing cracks."

Do steel joists offer any direct cost savings?

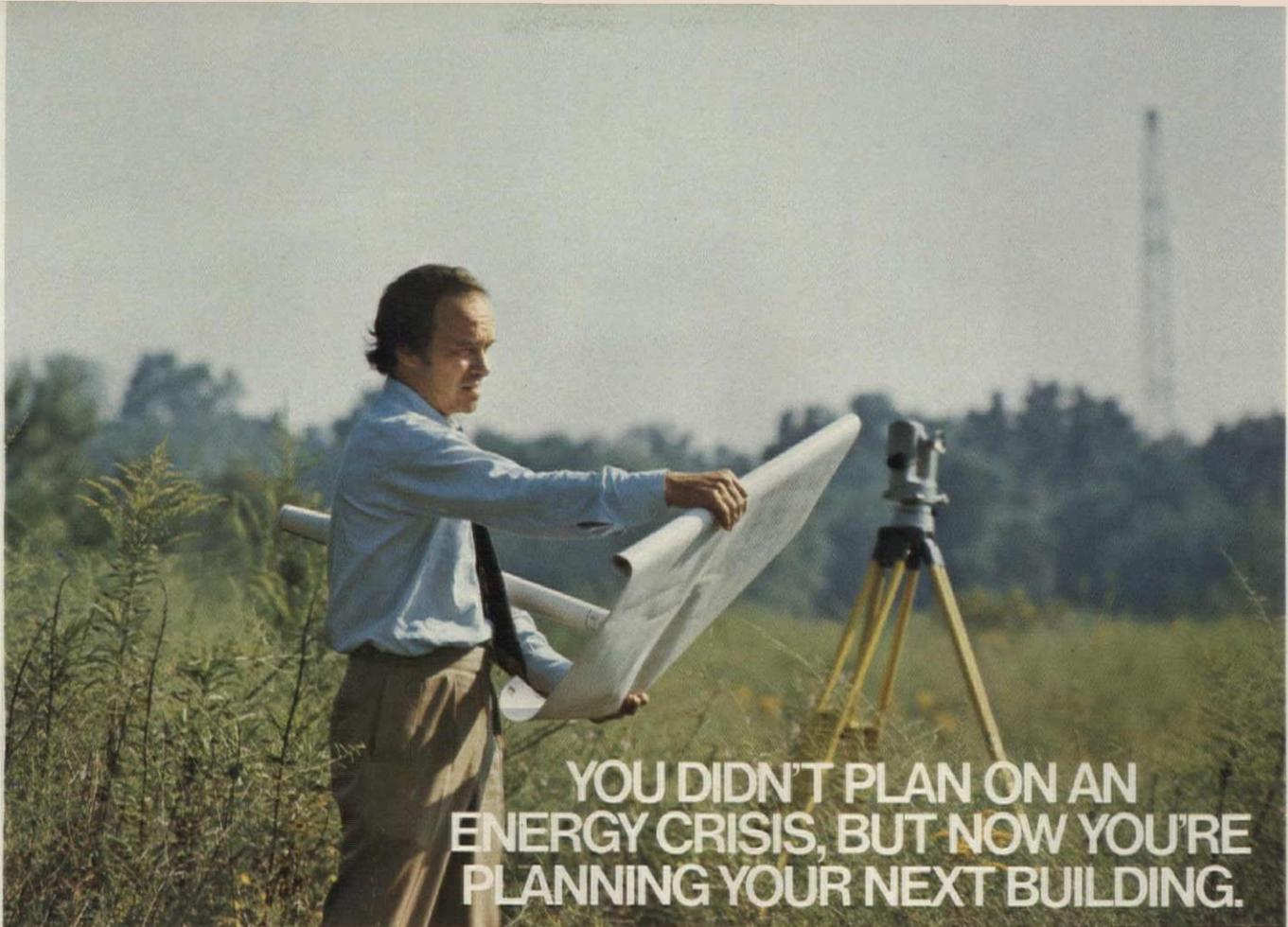
"Not really," says Frank, "because, early last year, when lumber prices were at their peak, wood and steel joists still cost about the same."

But, he adds, his joist costs are now more predictable because steel prices don't fluctuate like lumber prices: "Lumber prices are quoted only at the time of shipment whereas we can get a steel quote six months before shipment."



Adhesive is applied to plywood subfloor edges (foreground), while worker at rear secures subfloor to steel C-beams with self-drilling screws.

DUPONT COMPANY



YOU DIDN'T PLAN ON AN ENERGY CRISIS, BUT NOW YOU'RE PLANNING YOUR NEXT BUILDING.

Which building material will you use?

You've got energy shortages to think about. Air-conditioning costs. Heat gain through the long, hot summers. Heat loss in the winter months. Heating equipment costs. The whole set of energy-use factors suddenly has become critically important. The building material you use affects all of them.

Compare the energy conserving capability of masonry, for instance, with double-plate glass walls.

At 4:00 P.M. on a hot August day in Washington, D.C., the heat gain through a square foot of west-facing insulated brick and concrete block wall will be 2.2 Btus an hour.

The heat gain through a double-plate glass wall in the same location will be 173 Btus a square foot in an hour. A big difference.

Project this differential over 10,000 square feet of wall. You come up with a heat gain through masonry of 22,000 Btuh, while the heat gain through double-plate glass is 1,730,000 Btuh.

In the case of the masonry wall, cooling equipment with a two-ton capacity can handle the heat gain. But with the double-plate glass wall, about 143 tons of cooling capacity will be needed.

An analysis of a typical 10-story building shows that over its useful life, the air-conditioning cost for a square foot of our masonry wall will be about 23 cents. For the double-plate glass wall, it will be \$7.60.

It takes a lot of money to buy, install and create space for all the extra air-conditioning equipment

required by the double-plate glass wall. A lot of money and a lot of energy to run that equipment.

Compare the heat loss in winter. It has a dramatic effect on energy consumption and building operation costs.

Our masonry wall, for example, has a "U-value" of .12. The double-plate glass wall has a "U-value" of .55. (U-values are used to determine heat loss through one square foot of wall area in Btuh per degree Fahrenheit differential across the wall.)

This means that the masonry wall is about 450% more efficient, on the average, than the glass wall in reducing heat loss.

Over the useful life of the building, the heating cost per square foot of wall area for masonry will be about 30 cents. For double-plate glass, about \$1.38.

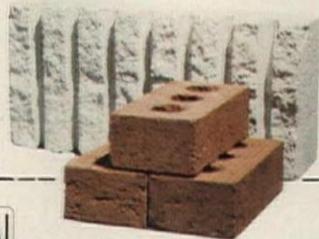
In a time of one energy crisis after another, masonry makes eminently good sense as a good citizen.

The masonry industry believes that the thermal insulating qualities of masonry are an important economic consideration to building designers, owners and investors, and all citizens.

Masonry walls save on air-conditioning and heating costs. And just as important, they are less expensive to build. The masonry wall we've described would have a 38% lower initial cost than the double-plate glass wall.

If you'd like to find out more, write to us and we'll send you a booklet comparing the thermal

insulating qualities of masonry walls with double-plate glass walls, metal panel walls and pre-cast concrete walls.



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Stressing peace of mind and a richer environment for living, Hoffman Rosner's Westlake in suburban Chicago, is a carefully planned community of \$40-50,000 single-family homes, enhanced by lakes, clubhouses, swimming pools, tennis courts, playgrounds, schools and shopping. One of the nation's largest and most experienced builders, Hoffman Rosner takes special care to preserve the natural beauty of the land and to create home quality that gains in value.



“Why did the Hoffman Rosner Corporation switch to Scheirich's Westmont cabinet ?

Because we think it's the best cabinet value on the market.”

*Mr. Jack Hoffman, Chairman
Hoffman Rosner Corporation
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“With Westmont, we can offer home buyers both the style they want and the kind of durability that will hold up as long as the mortgage payments. And we're still able to keep the price of our Westlake homes within the average family budget.”

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FINE FURNITURE FOR THE KITCHEN AND BATH

Good neighbor policy pays unexpected marketing dividend for K&B high-rise

Ten of the first 58 buyers in the Greenhouse—the first Kaufman & Broad high-rise condominium, now being built in Cliffside Park, N.J. [NEWS, Nov. '73]—were local residents. Another nine were referrals, many of them family and friends of local residents.

The president of the Cliffside Park Chamber of Commerce bought an apartment on opening day—and then signed on as a K&B saleswoman to boot.

Zoning issue. What turned out to be an inspired marketing strategy was really part of the company's response to an ugly situation that had developed when K&B sought site approval from the planning board. For even though this community of one- and two-family homes is located in sight of Manhattan and right alongside the high-rise community of Fort Lee (where Centex is now building six 31-story apartment houses), high-rise construction had turned out to be as explosive an issue as it would be in deepest suburbia.

The company was not expecting any problems when it went before the planning board for site plan approval, says Ira Norris, president of Kaufman & Broad Condominium Communities, for the property had already been zoned for high-rise.

At the first meeting the board members indicated they liked the company's plan but wanted some time to discuss it among themselves before voting on it.

A month later two board members who had been at the previous meeting were absent, so the company made its presentation before their alternates. Again decision was deferred.

By now an opposition was beginning to coalesce. It stuffed mailboxes with flyers urging an end to high-rise construction and circulated petitions against the K&B project. By the time the planning board met again, feelings in town were running so high that the residents turned out en masse.

Emotional meeting. Ordinances imposing a moratorium on high-rise construction and changing the zoning of K&B's land from high-rise to commercial were introduced and passed on first reading.

"We were one meeting away from having the property down-



Neighborhoodly visit takes place in kitchen of model apartment as K&B project chief Ira Norris greets local residents Betty Kunz (left) and Irene Marta (right) at opening party.

zoned," Norris recalls. "People were screaming and clamoring: 'Don't let them build it!'"

The future of the project was in doubt until the company met with the town fathers and convinced them it had a strong legal position and the town would risk having disorderly growth if the company took its case to court successfully.

"In a quiet room, without hundreds of people screaming, they recognized the merits of the case," says Norris.

Sales pavilion. The plan was finally approved and work began both on the project itself and on mending fences with the community.

Thus when K&B opened its sales pavilion—three full-size model apartments were built in an old supermarket on the Greenhouse site and decorated by California designer Carole Eichen—it invited the neighbors. Some 500 showed up.

The company put their names on badges that read "I'm your neighbor" and invited them to

enjoy the bar and buffet and to tour the models.

Evidently they liked what they saw, for more than one told HOUSE & HOME that if they had known that this was what K&B had in mind they would never have opposed it.

The scene was repeated several weeks later at the groundbreaking party.

"Now we're doing things like sending letters to the neighbors apologizing for any inconvenience they may have to suffer because of dirt or noise during the construction period," says Norris. "We've given them a telephone number and if they have a legitimate complaint we'll do whatever we can to solve it for them."

Sales results. The 21-story \$18 million Greenhouse is scheduled to open in May 1975. It will contain 340 apartments—204 one-bedroom and den and 136 two-bedroom, selling at prices ranging from \$34,990 to \$56,000 for the one-bedroom and 54,990 to \$78,000 for the two-bedroom

models. The four penthouses will range from \$140,000 to \$160,000.

At the end of six weeks the company had received deposits (10% of the purchase price) on 58 apartments or 17% of the building. It had also received commitments on another 62 apartments but would not include them in its tally of apartments sold until the contract had been signed, the full deposit received and the buyer had filled out a detailed questionnaire.

Of the first 58 units sold, 48 were one-bedroom or one-bedroom and den and ten were two-bedroom, including one penthouse. However one- and two-bedroom apartments are selling more evenly than this would indicate, according to Norris.

Buyer profile. Based on the first 58 sales, people between 41 and 50 make up the largest group of Greenhouse customers—there were 27 buyers in this age group, with the remaining 31 almost evenly divided between the 20-30 group and the 60 and over group.

Seventy-five of the Greenhouse buyers and members of their family work, many of them in nearby New Jersey towns. Twenty-six of these earn between \$25,000 and \$50,000, 16 earn \$15,000 to \$20,000 and 14 earn \$20,000 to \$25,000. The remainder is evenly divided between those earning over \$50,000 and under \$15,000.

Occupations include: veterinarian, scientist, engineer, teacher, accountant, lawyer, executive, printer, foreman and surprisingly, three real estate appraisers.

The majority of the buyers took advantage of the favorable financing the company had arranged at 8% (the mortgage ceiling under New Jersey's usury laws). Fifteen paid 10% down, 20 paid 20%, 19 paid over 20% and four paid cash.

The overwhelming majority (42 buyers) now live in New Jersey and the rest live in New York. Thirty-nine rent their present homes and only 19 own them.

The *New York Times* provided the largest number of sales leads for the Greenhouse (26), followed by local residents (10) and referrals (9). The remainder first heard of the project through local newspapers and billboards.



Scale model that lights up to show location and view of each type of apartment is tested by Margaret Warwick, wife of K&B executive, and publicist Lee Cherson.

Go see who's at the front door.



The people who have made great sliding and folding doors for years have now got one

that swings. It's a brand new, complete steel entry system. Come by and open it for yourself.

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The Houston Home Show. January 20-24. Booth 3242.**

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This year, they want it.

Remember the Product Delivery Crisis of 1973? A lot of builders lost patience, and a lot of manufacturers lost their friends.

Not so with our Textured Insulite Siding. We had plenty on hand and delivered it with

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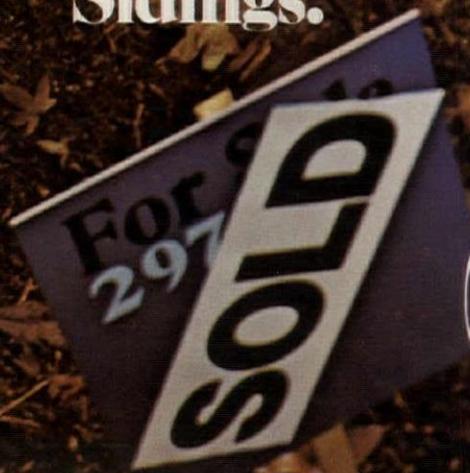
If this siding didn't win you over last year, you still have a chance. See your dealer and also ask him about the new color-matched nailing system. Or write: Boise Cascade Wood Products, Portland, Oregon 97208.



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How do you sell condos where they've never been sold before?

This 80-unit project, the first condo in South Bend, Ind., offers some clues.

Planned for a three-year build-out, it was 75% sold less than a year after opening. Sales at New London Lake have gone well, says developer Portage Realty Corp., for these reasons:

- A land plan that creates its own environment by focusing inward toward a lake and turning its back on the surrounding neighborhood—mostly commercial buildings and modest single-family houses. Portage dredged the lake to a depth of 15 ft. and installed a swimming pool on an island (see plan). One- and two-car garages, attached to the townhouses and apartments, and parking areas are on the perimeter of the 12-acre site.

- A convenient location about 15 minutes from downtown South Bend.

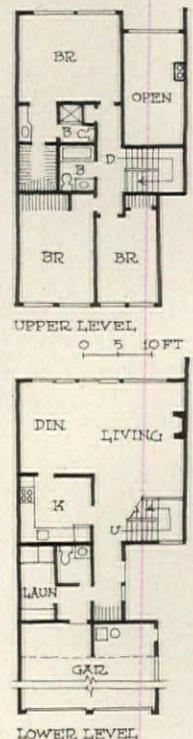
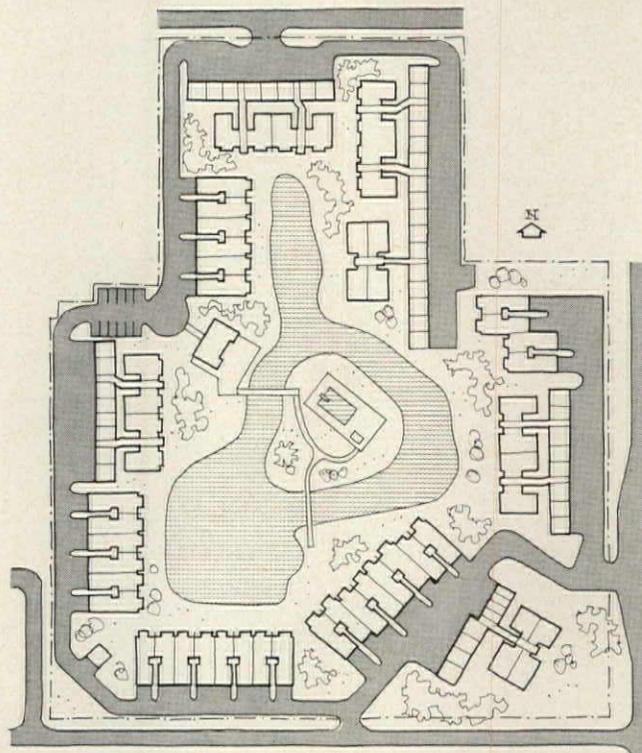
- A trade-in plan, under which Portage guarantees to take over a buyer's previous home at an agreed-on price. "So far we've had to take only seven trades," says Wayne W. Holleman, Portage vice president and marketing director, "but the offer helped attract prospects."

- A strong advertising campaign to promote the advantages of condominium living.

Most buyers are empty nesters in the 40-to-50-year age bracket with incomes around \$20,000. Prices range from \$25,900 for a one-bedroom apartment to \$40,900 for a three-bedroom townhouse. The project was designed by Korbuly & Graf, a South Bend architectural firm.



PHOTOS: COURTESY AMERICAN PLYWOOD ASSN.



Lake-oriented plan offers waterfront view for every unit. Three-bedroom townhouse layout (right), with a two-story high living room, is the project's top seller.

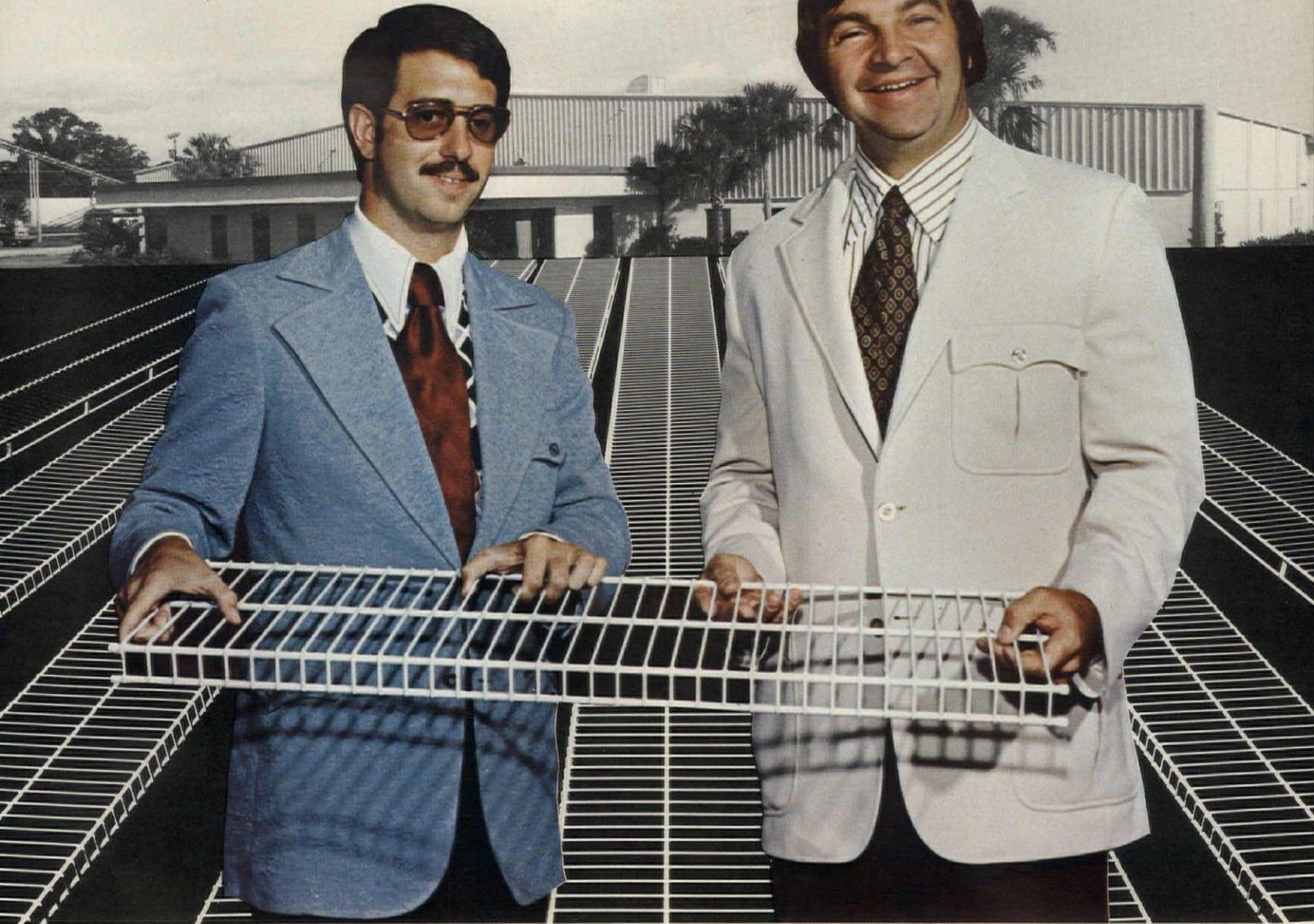


Island swimming pool was built early so it could be viewed from model units.

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kassuba development corp.



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We've put that Bradtrol cartridge into every single-control faucet we've ever sold. Bright chrome Cascade faucets for the bath and

kitchen. Elegant Sceptre in brushed and bright chrome or gold. And the same cartridge goes into our new Aurora line. The single-control faucets that come in five decorator colors to coordinate the entire bathroom. To brighten kitchens like never before.

But we didn't stop there. Now, we have a two-handle line, proven by over seven million faucets in use. With another exclusive Bradley

cartridge called Pos-I-Pak® that eliminates washers, seats, threads, packings. All the things that used to wear or corrode. That's why we can also back this cartridge with an 83 $\frac{1}{3}$ year guarantee.

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on china... with coordinated ashtrays, towel bars, soap dishes and other accessories.

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It's a bigger, better line than ever before. Everything you need from a single source. Bathroom and kitchen ideas from the people who re-invented the faucet. Write for detailed literature. Bradley Corporation, Faucet and Special Products Division, 9161 Fountain Boulevard, Menomonee Falls, Wisconsin 53051.



Bradley



PHOTOS: COURTESY AMERICAN PLYWOOD ASSN.

Waterside pagoda clubhouse, a prime marketing tool, was location for open-house contests that offered free rent as prizes. Apartment balconies open to living/dining rooms.

Total environment: Once more it pays off in the rental market

Last month HOUSE & HOME showed the value of environment in attracting and holding tenants. This 17-acre project—Cypress Point in Mountain View, Calif.—is another case in point.

Despite a 10% area vacancy rate when Cypress Point opened, the first phase of 114 units rented up in 60 days, the 188-unit sec-

ond phase in 120 days. Current status: no vacancies and a monthly turnover of only 4%.

The formula for this success: an environment that includes two man-made lagoons, landscaped open areas and a complete recreational package—plus an early decision by the developer, Thrust IV Development Corp., to build a pagoda-shaped club-

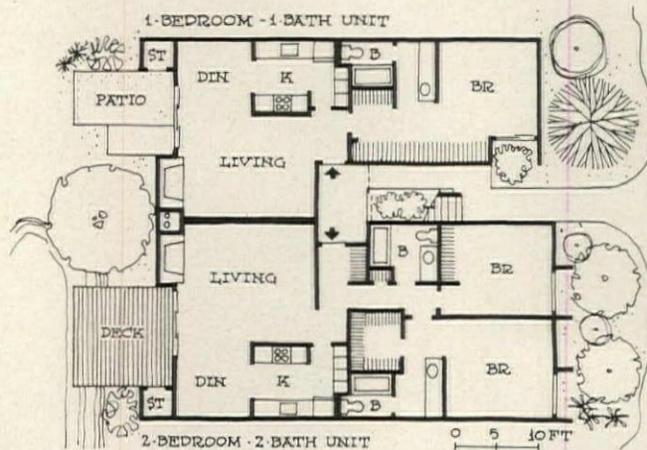
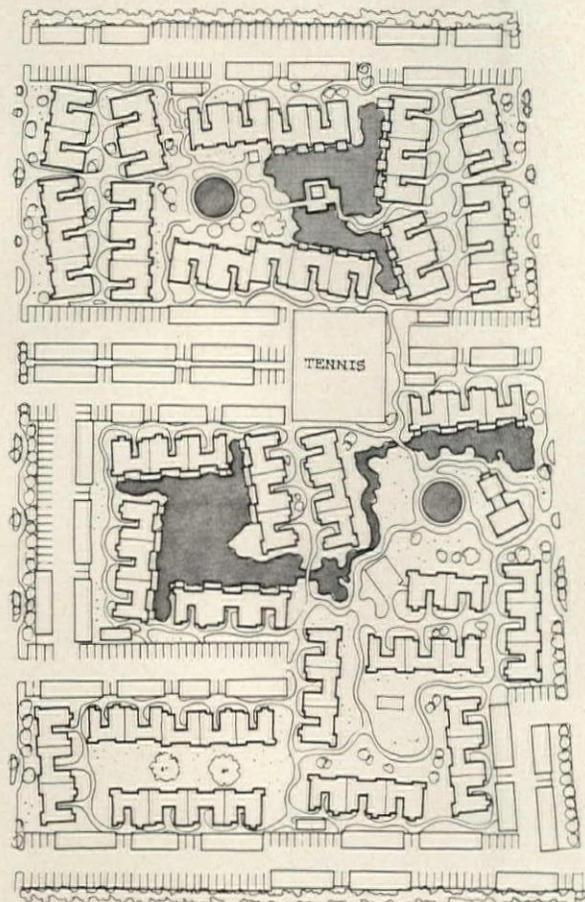
house that could double as a sales office.

Dick Henry of Thrust IV recalls the original marketing problem: "Apartments were overbuilt and unemployment was high. We knew the project would sell itself, but our problem was to get people out. That's where the pagoda paid off. We used it for waterside parties. And

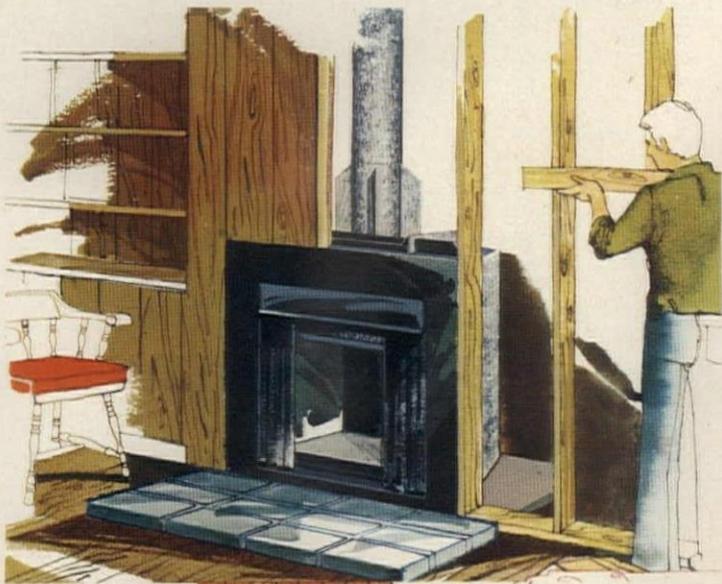
it set the tone for the entire complex."

Included in the rec package are swimming pools, tennis and volleyball courts and a second clubhouse with a gym, saunas, billiard and pingpong tables.

Most tenants are young marrieds and singles with \$16,000 to \$20,000 incomes. Architect: May and McElhinny AIA.



Typical living/dining room in the 640- to 1,100-sq-ft units. Rents: \$180 to \$290.



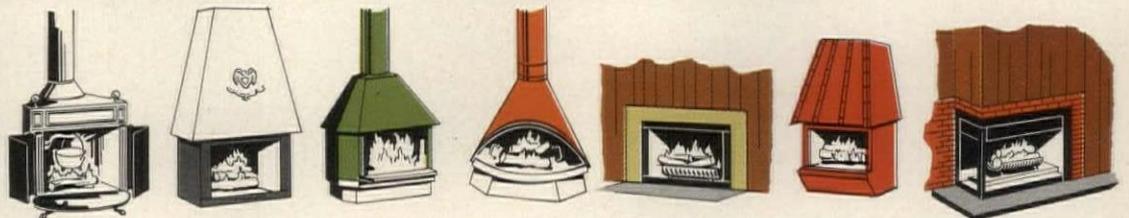
The
PREWAY
Style

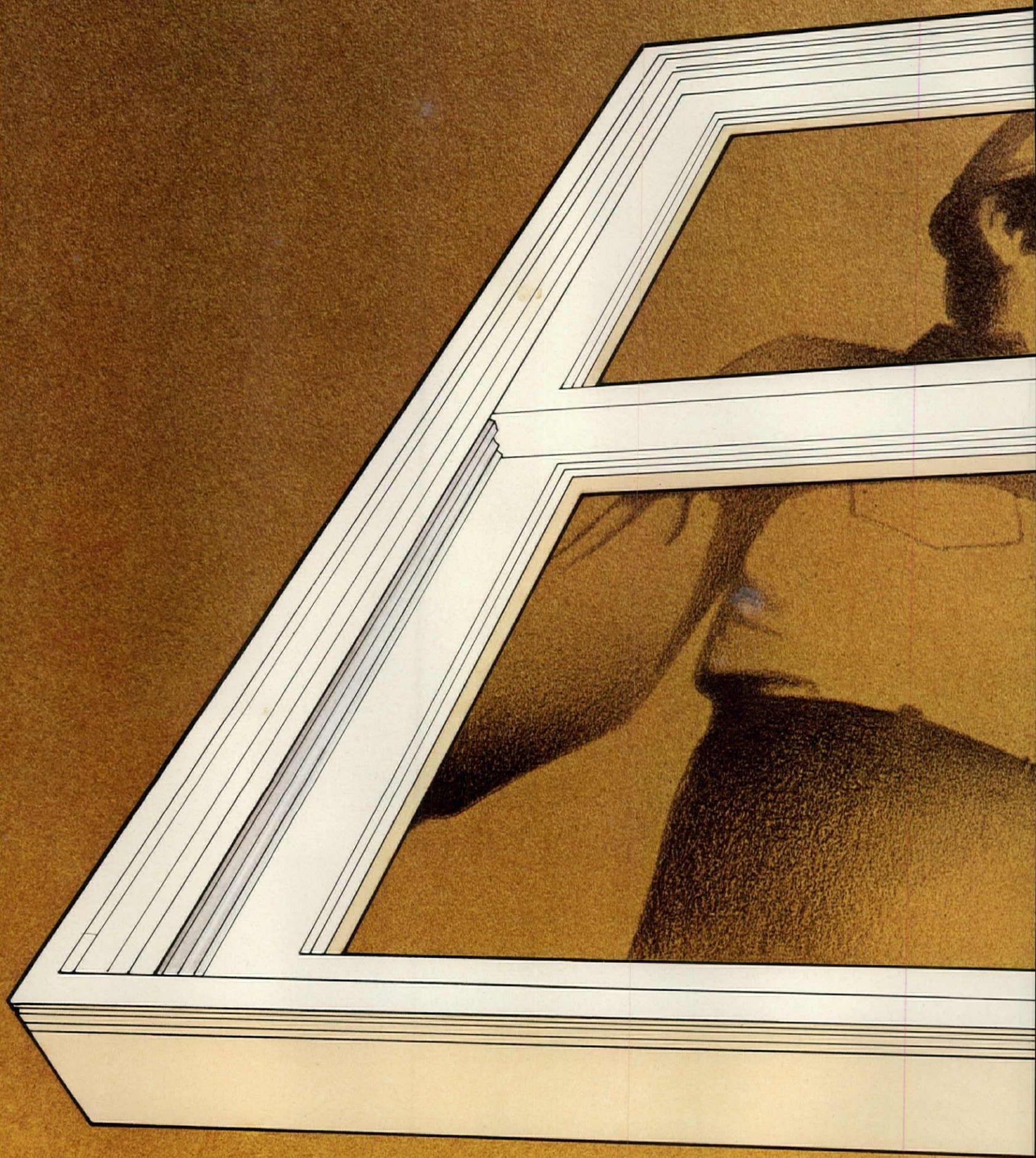
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Built-in fireplaces? What's your idea of size, style, fuel, location? Preway has it. From 28" to an impressive new 48" New front-and-side open designs. In models for any fuel. For flat-wall, corner, or island installations. For chase and vertically stacked arrangements. Our fireplaces fit them all. And we top them all off with one of the easiest, most economically installed chimney systems in the business. The nationally approved all-fuel sections are preassembled to save time. They're light-weight for easy handling. They come in extra-long lengths for fewer joints and less cost per running foot. That's why many builders are switching to the Preway fireplace and chimney system. See Sweet's Light Construction or Architectural files, or write for full details on adding fireplace profits to your homes . . . Preway style.



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"The prudent builder must build into his plans the possibility of a sudden onset of tight money in the same way he hedges against changes in materials costs"

Over a seven-year period the housing industry has undergone three full-scale credit crunches and at least one mini-crunch.

The latest of these appears to be winding down. By spring, it may be history. But no one doubts there will be another. The only question is the timing.

The crunches seem to be coming so frequently that the prudent builder—or lender—must now build into his plans the possibility of a sudden onset of tight money in the same way that he hedges against changes in materials costs or possible environmental problems.

What are the builder's options? First, how well can he forecast a credit crunch?

The general trends which lead up to it usually give clear signals. Thus, nearly everyone predicted that savings flows, and thus the funds available for housing, would decline substantially this year.

But the flash point, at which a gradually tightening situation turns into an overnight crisis, nearly always comes as a surprise—as was the case last July. And the economy is now so large and so vulnerable to shifts in federal policy and to external factors such as the energy crisis that the possibility of surprises is increasing.

How to prepare. A good working attitude, then, is to expect the next crunch to come tomorrow, even as you're emerging from the last one, and prepare accordingly. In 1968, for example, when the housing market was just starting to recover, there was a mini-crunch, a sudden tightening of money. Many people who were gambling on a continuing drop in mortgage yields were hurt.

It is not possible to eliminate all the hazards of a future credit crunch but a careful builder can limit his exposure.

One requirement is to have a relationship with two kinds of financing sources, a local and a national lender. When one type of lender is short, the other may have funds. In this last crunch, for example, mortgage bankers as a group had better supplies of low-down payment money than the local lenders.

A corollary of this rule is to choose the loan source in each category which is most likely to have funds available in a tight market. This is not necessarily the lender who is most liberal when money is flush. The essential factors are financial strength, innovativeness and willingness to lean against the wind.

Another good rule is to deal with construction lenders who are also capable of

providing the takeout. This has been the case in general with homebuilders. Their construction and final lender is usually either the same institution or two local institutions with established relationships.

Condominium financing. Most builders have not been as careful when financing condominiums, however. They have dealt with two very different institutions with little mutual contact—REITs and savings and loans. This practice has been a major contributor to the recent condo takeout problem. REITs will continue to provide the bulk of condo construction financing for the foreseeable future, but it may be wise to deal with them through a local intermediary, such as a mortgage banker, who also has access to end financing.

Condo end financing has been left almost exclusively to local lenders, but this may be changing. We expect condo loans to become a staple of the secondary market. The rapid growth of the condo sector is causing a decline in the supply of good rental-loan merchandise. One result is that a number of life insurance companies and other secondary lenders are showing interest in diversifying into condo end loans—not on a one-at-a-time basis but in packages of \$1 million or more.

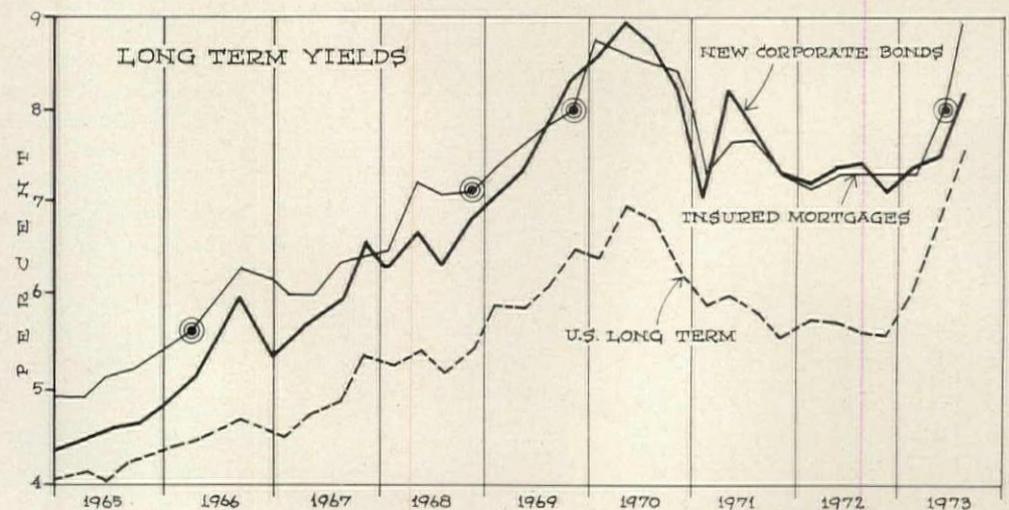
Forward coverage. A forward commitment is worthwhile even when interest rates seem to be on the decline. One lesson of the last few years is that interest rates do not move in a straight line for long. The trend may turn completely around with little warning and the experts may be as confounded as the amateurs. A fee may seem wasted if the rates keep going down, but it is good business-interruption insurance never the less.

It is wise to make sure the language of a commitment is binding. Many builders hold commitments "subject to available funds." Some of those same builders were left dangling last summer and fall.

The bridging loan. If a crisis does come, consider bridge financing—particularly the intermediate loan running 2½ to five years, prepayable without penalty after six months. The one thing we know for sure about a tight money period is that it is of limited duration. Sooner or later, it gives way to the next phase in the cycle. If the bridge loan runs long enough, the builder will almost certainly come to a time when a permanent mortgage is more available and less costly than now.

Even when the spread between permanent and intermediate-term loan rates is as wide as it was this summer—and usually the spread is much narrower—it takes only a small drop in the permanent loan rate to justify the cost of carrying the intermediate-term loan. At the same time of course, by postponing permanent financing to a more favorable money climate and giving a project more time to prove its success, the builder may be able to get more dollars and perhaps a premium interest rate.

In summary. The alternation of tighter and easier money is predictable but the timing of the transition and, particularly of the flash points that turn into crises, are not. These crises have become so frequent in recent years that a prudent builder will gear his operation to the possibility that another one is imminent. It is not possible to eliminate all the hazards of a future credit crunch, but a careful builder can make choices that will limit his financial exposure.



The pattern of three credit crunches and a mini-crunch: The tightening of funds was signalled far in advance, but the flash points (circled on chart) at which the trends developed suddenly into credit crunches came as surprises.

ROBERT J. MYLOD, EXECUTIVE VICE PRESIDENT, ADVANCE MORTGAGE CORP., DETROIT, MICH.

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The Micromatic is made for the woman who'd love to try microwave cooking but needs a range.

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- Litton Micromatic microwave range is one of the safest kitchen appliances. Litton microwave ovens meet all safety standards set by the U.S. Dept. of Health, Education and Welfare. Look for the safety seal and the UL tested label on every oven.

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"KitchenAid appliances help convince buyers they're getting a quality home. And in tight money times like these, that's doubly important."

Those are the words of Ken Waymire, of Waverly Construction, builders of Mossytree Park, a community of 105 new homes in Gresham, Oregon, five miles east of Portland.

"We feel that the more plus items we include in our homes, the better they'll sell. So special things like shake roofs, wall-to-wall carpeting, wallpaper and KitchenAid dishwashers are included in the purchase price.

"You see, I've found that two-thirds of my buyers are transferees to the Portland area.



They've never heard of me, never heard of Waverly Construction. But they have heard of KitchenAid dishwashers. And they know that KitchenAid means quality."

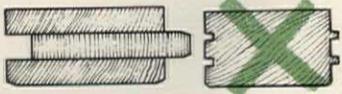
Let KitchenAid appliances be salesmen for you, too. Check our catalog in Sweet's Light Construction File. Or call your KitchenAid distributor about his builder plan. KitchenAid Division, Dept. 4DS-1, The Hobart Manufacturing Co., Troy, Ohio 45374.

KitchenAid® Built better. Not cheaper.

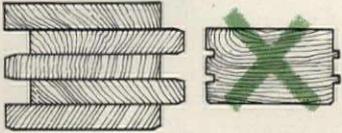
CIRCLE 66 ON READER SERVICE CARD Dishwashers • Trash Compactors • Disposers • Hot-water Dispensers



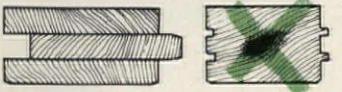
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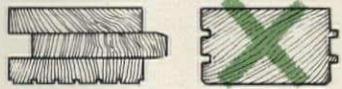
EXCLUSIVE: Lock-Deck consists of 3 or more kiln-dried boards, offset to form tongue on one side and end, groove on the other, laminated with weatherproof glue. We invented it.



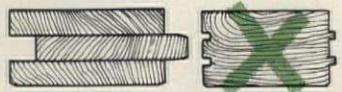
STRENGTH: Lock-Deck offers a range of E factors giving superior load-carrying values in spans to 20' or more in 5" thicknesses.



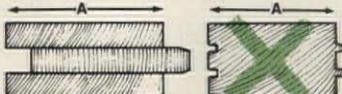
STABILITY: Each board in Lock-Deck is kiln-dried to 10-12% m.c. before lamination. This assures greater stability under all conditions.



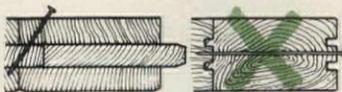
BEAUTY: One or both faces of Lock-Deck can be any desired grade, in a wide choice of species. Solid decking is limited in both grades and species.



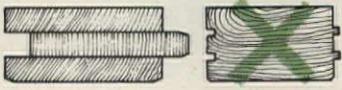
ECONOMY: In-place, finished cost of Lock-Deck is often less than solid decking due to speed of erection, factory-finishing, absence of waste, better coverage.



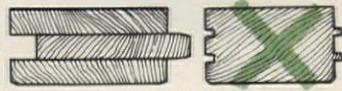
MORE COVERAGE: Offset tongue and groove on Lock-Deck gives more coverage per bd. ft. than machined solid decking.



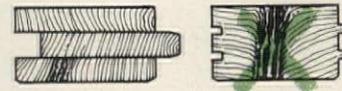
LESS LABOR: Lock-Deck installs quicker, using ordinary nails. Solid decking requires spikes, special fasteners or splines.



LESS WASTE: Offset end match, absence of twisting and few unusable shorts keeps waste well below that of solid decking.



VERSATILITY: Lock-Deck forms excellent load bearing or curtain walls as well as floors and roofs.



DURABILITY: Unlike solid decking, knots or checks can go through only one ply in Lock-Deck. Weather-proof glue and exclusive process make bond stronger than the wood itself.



Murray Hill, Vermont, Townhouses; Deck House, Inc.; Architects, Deck Associates, Acton, Mass.



Lock-Deck® decking helped Deck House, Inc. create these townhouses

These unique New England townhouses use Potlatch laminated Lock-Deck decking to form both structural roof and floor as well as finished natural cedar ceiling in a single imaginative application. Laminated of three or more kiln-dried boards, under heat and pressure, Lock-Deck decking is available in four thicknesses from 3" to 5", nominal 6" and 8" widths (10" and 12" in some species on inquiry) and lengths from 6' to 15' with 36' and longer available on inquiry. Faces, in a choice of grades and species, can be smooth-surfaced, saw-textured or wire-brushed and factory-finished in Colorific penetrating acrylic stains.

Lock-Deck decking helped Deck House find a whole new world of creative architecture and construction. It can do the same for you. Write for more information today.

Potlatch

Potlatch Corporation,
Wood Products Group
P. O. Box 3591
San Francisco, Ca. 94119



**"Operating cost spiral got you worried?
Then maybe it's about time to face
facts and start putting
your apartments on a paying basis"**

Apartment operators never stop worrying and complaining about skyrocketing operating costs. But lately the lament has become much louder, and now it looks like there's strong justification for it.

Some new statistics compiled by the Institute of Real Estate Management show that the national average for apartment operating costs as a percentage of total possible rental income is now at 45%. Compare that with the old rule-of-thumb average of 36% to 38% that owners and developers have traditionally projected and you see that the operating-cost ratio is reaching the crisis level.

Ratios in excess of 45% after debt service don't leave much room for profit, so more and more, word is going around that there's no way to survive in apartments. Operating costs can only continue to rise until ultimately there will be no way anyone can make money operating apartments.

Reasons why. If you're one of the efficient professionals who run well below the national average, you may wonder how operating costs could ever get to 45%. Well, this time the increase can't all be blamed on loose management. Most of the rise has come in the last two years, and it actually has three causes.

First, the restraints imposed by the Economic Stabilization Act prevented rental income from keeping pace with operating costs from August 1971 through 1972. Most costs continued to rise throughout this period of national rent control, so rents fell behind.

And even though rent increases have been put into effect this year, because of leases and other tenant commitments there is generally a lag of several months before they can produce all the additional income they're supposed to. Furthermore, the average rent increase put into effect this year is not enough to compensate for the operating cost rises of '71 and '72, so the national operating cost ratio will remain high.

Second, sloppy management practices have had a compounding effect on the impact of rent restraints. Instead of tightening up their management operations to compensate for the freeze on rents, many operators simply waited for the restraints to be lifted and thought they could bail themselves out with rent increases. But that remedy isn't working fast enough now, and for some it's not going to work at all.

Third, there is the added effect of bad project design. Shortcomings in design and structure that were built into rental complexes during apartment boom times in the

sixties are now coming back to haunt the people who have to operate the complexes. Too many of these projects were not designed to be run economically for 30 to 40 years; they were designed simply to sell.

Crux of it all. But weak management and chronic maintenance problems are really only secondary reasons for today's operating-cost dilemma. The primary reason is that rental income has not kept up with costs, and apartments are not paying their way.

Few renters realize it, but rental apartments have become one of the best bargains in the shelter market today.

Renters have long been under the misconception that landlords make a big profit on apartment rents. They resent rent increases for that reason, and also because they look upon their apartments as products that should remain at the price they originally acquired them for. After all, monthly car or appliance payments are never increased, so why should monthly rents be raised?

What's overlooked here is that the car price was based on work that had already been performed back when the product was manufactured, while the cost of keeping up an apartment, its environment and its amenities can never be fixed except in short-term lease agreements.

What the apartment resident actually gets for his monthly rent check is not a product, but a service. And the cost of that service is bound to increase along with the costs of labor, supplies and taxes.

Some renters think that owning is cheaper than renting. They look forward to the day when they can buy their own homes or condominiums and save money. But the truth is that many renters are now paying much smaller percentages of their incomes for shelter than owners pay.

We recently acquired a late-1940s apartment complex in a very attractive waterfront location where people with \$15,000-and-up incomes were paying as little as \$140 a month in rent. That amounts to a mere 10% of their incomes, compared with the 25%-plus that the average owner pays to carry a single-family home, townhouse or condominium.

The awful truth. Renters who buy are often painfully enlightened about the landlord's true cost of maintenance. *The New York Times*, in the October 7, 1973 issue, described the plight of city co-op apartment owners whose monthly maintenance costs have become higher than rents for compara-

ble-size apartments. Their costs have doubled since 1963 in average annual increases of 10%, topped by an 11.7% rise last year.

Co-op owners who prefer the independence of owning versus renting are turning to professional management companies for cost-saving ideas such as converting old manually operated elevators to automatics, closing service entrances, eliminating all-night doormen and closing laundry rooms on weekends.

But in falling back on management companies for answers to the cost squeeze, the co-op owners are looking primarily for competent on-site managers to run their buildings more efficiently. Says the *Times* article, "Just what does a management firm do to earn its keep? Well, its most important job is finding a good superintendent and supervising him effectively... The superintendent on the premises is inevitably the key to satisfied shareholders... But the competition for good superintendents is fierce, and to entice a top man many a co-op has had to buy one of its fine apartments for use as a major employment lure."

So the value of effective apartment management, not yet fully recognized even by the apartment industry, is gradually gaining recognition among the public. The public is beginning to realize its true worth in dollars and cents and, when necessary, is willing to pay for it.

Despite the rapid success of condominiums, townhouses and other types of multifamily for-sale housing, rental apartments are not going to be phased out by home ownership. Renting can always remain less expensive than owning, and renting will always offer benefits that ownership doesn't, e.g., mobility, convenience, recreational amenities and no responsibilities.

The three ifs. But the true cost of providing this service to renters, when it's handled well, has got to be impressed upon the renter and retrieved by the landlord.

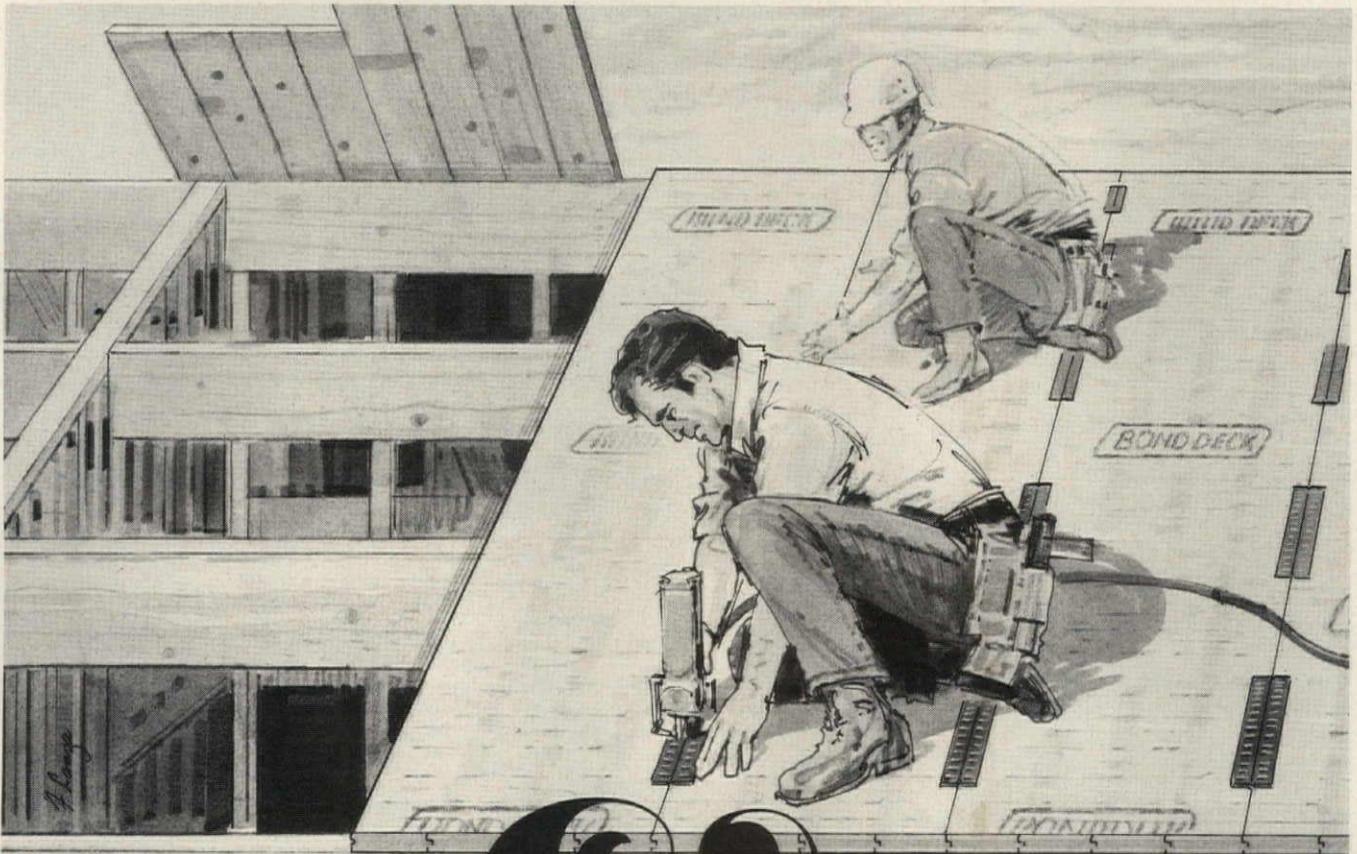
Developing and managing rental apartments can only be profitable if...

... apartment management methods are planned and carried out with the same kind of business sense used for apartment development,

... apartment complexes are designed with an eye to how much it will cost to operate them for the first 30 years, and

... apartment renters pay realistic rents determined by what the public pays for other kinds of shelter and by what a good apartment management service actually costs.

H. CLARKE WELLS, SENIOR VICE PRESIDENT, L. B. NELSON CORP., MENLO PARK, CALIF.



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Introducing the Bond-Deck Shear Clip Diaphragm System: a revolutionary new concept in commercial and industrial roofing techniques. Panelized, cut-to-length decking combined with "The Clip" provides a perfect diaphragm, superior shear resistance and eliminates the necessity of a plywood overlay. Two-inch Hem-Fir decking that has a 20" net width, can be specified cut-to-length, allows you to lay whole panels instead of individual pieces. Combined with the clip, you have a perfect roofing system. And it's I.C.B.O. approved. It's simple, it's effective and it'll save you time and money. Clip and Save.

BOND-DECK
BY



**American
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NATIONAL SALES DIVISION
2740 Hyde Street
San Francisco, CA 94109

A **Bendix** Company



**"Launching your model units:
For a smooth countdown make sure
your finish-up timetable
jibes with the decorator's schedule"**

Installation time has arrived—the day when your decorator starts furnishing and accessorizing your models.

The 90 to 120 days of planning, design and color coordination are about to be tied up in a single package. How will it go? Splendidly . . . if the installation itself is scheduled and executed with the precise timing of a military maneuver—a completely choreographed production.

Your interior decorator should have a strategy and each member of the design staff should have specific jobs to perform. But you, the builder, play a key role in the installation and your cooperation and preparedness (or lack of it) can spell success or failure in terms of meeting your grand opening date.

The builder's responsibility. Primarily it is to have the model units completed and relatively clean and free of debris. You must be sure that extras—carpeting, floor tiles, production lighting fixtures, mirroring, etc.—as well as decorator upgrades like paneling and wallcovering are installed.

It is equally as important that the electricity is connected giving you power and lights for evening work; and of course, so that heat and air conditioning are available where necessary.

Also, you will want to test all the lamps during installation. Accordingly, prior to the installation date be sure your decorator has provided a list of light bulbs with specific wattage needed. Proper wattage is important. Many small lamp shades will burn if light bulbs are too powerful.

Another builder responsibility is to have clear plastic runners laid down for all traffic pattern areas. You don't want installers tracking in dirt. And depending on your schedule and the weather, dirt and mud could be plentiful. That's why, if possible, your walkways and landscaping should be in by installation day—again to protect your models. Patios should also be completed so the designer can place the outside furniture and arrange the conversation groupings.

When the furnishings arrive. The decorator's delivery van and the firm's crew of designers and backup personnel should be on the job no later than 8:30 A.M. Crew sizes vary. I use one lead person per model and one backup person, both of whom have had installation experience and are thoroughly familiar with esthetic placement requirements.

To avoid confusion, each model unit should be clearly marked outside with the plan number. Inside, your decorator should

have each room designated—"boy's room," "master bedroom," "dining room," etc. Each package and item of furniture on the truck also should be clearly marked with its plan and room number.

It may sound like I'm belaboring an obvious point, but there is no time for guessing on installation day and the precise identification of each item can eliminate confusion and wasted time.

Next, the furniture should start rolling off the truck. A member of the decorator's staff should be at the foot of the ramp, color board in hand, ready to tell the delivery men in which model a particular chest of drawers should be placed; another member of the decorating team should be stationed in each house ready to direct the delivery man.

If your decorator follows a procedure similar to this, the firm should be able to install, i.e., fully decorate and furnish, four model homes in four days, or six in six days. This pace is reasonable providing the firm is experienced and the builder prepared.

But let's go back to the action. When all furniture is unloaded and placed in the proper room of the proper house, the delivery crew helps the individual decorators uncrate the furnishings and set up such items as the box springs and mattresses. At this point everyone starts unloading boxes and putting their contents on the floor. That way the lead decorator can start placing the items where they belong.

Once furniture and accessories are in place, pictures are hung. Pictures are always hung last so their contribution to the overall look of the room can be evaluated.

Check-off time. It's at this point that the decorator and each of her staff should compile what I call a punch list. Using the color board as a guide, each of them checks to make sure all pieces of furniture are accounted for; and equally important, that they are in their proper place.

In compiling your punch list, you may discover that a chair has been damaged in shipping, or that a bolster on a child's bed is missing. Or that perhaps you need an extra lampshade. Other problems may not be as obvious: Perhaps, for instance, a cushion doesn't fit its chair—a manufacturer's mistake, but one that has to be remedied quickly.

Although I hate to admit it, there is no such thing as a job where nothing goes wrong. So the primary idea of the punchlist check, which should begin the afternoon of the first day, is to spot and correct mistakes as quickly as possible. This is what I call the recovery

process.

By the end of the second day, your accessorizing has been completed, and once again you check to see if anything is damaged, missing or what might be needed to spark up a possible dull corner. During this final stage, it is imperative to keep the models clear of trash. If the room is fairly neat, your perspective is never cluttered and the totality of the impact is visible at all times.

Now the lead decorator of each house is ready to make her final punch list. Small items such as scratches in the painting or flaws in the wallpaper should be noted and logged for correction. And anything missing, omitted or damaged should be replaced.

The final crew to go through the completed model is the cleaning staff which should dust, sweep, vacuum, etc. thoroughly. However, be certain they don't rearrange any furniture or inadvertently misplace the accessories; still, every speck of dirt should be removed, finger prints erased, chrome polished. When the cleaning people leave, the models should be gleaming and inviting.

The builder and his marketing people have further responsibilities on installation day. I have found that it is to the builder's advantage to walk through every room of the model home with the decorator who can explain the design concepts and rationale which should, in turn, be relayed to the sales people. For instance, a bachelorette—a small unit decorated for a woman—could be sold to a bachelor—with a suggestion by the salespeople for other colors and furnishings.

Back to the beginning. If everything is to run smoothly, one point cannot be emphasized too strongly. It is the need for coordination between the builder's marketing staff and the interior designer. Patrick Bartholomy, director of marketing for Donald Scholz & Co. of California, says installation problems stem directly from a communications breakdown between marketing men and the decorator.

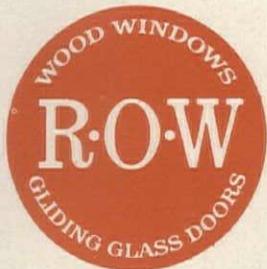
"You have to maintain a strict schedule and adhere to it," he says. "You can never take anything for granted when it comes to the installation day."

Mr. Bartholomy has one other word of caution. "Be sure the decorators' craftsmen—their carpenters and such—are not the artsy-craftsy type whose work runs counter to the basic design of your homes."

The key then to a successful installation is the same as in any large-scale maneuver: Coordinate, communicate and by all means stay on schedule.

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It is generally known that wood is a very superior thermal insulator (as sharply opposed to the thermal conducting materials used for pots, pans and ice cube trays).

Less well known, but now more important than ever, is the unique spring pressure-seal

mechanism which assures year around snugness of R.O.W. Lif-T-Lox windows TO COMPENSATE FOR SEASONAL EXPANSION AND CONTRACTION.

Send for literature on the full top-quality R.O.W line of wood windows and patio doors. Build better with R.O.W removable double-hung windows, removable gliders, single operator awnings, self-locking casements and metal-reinforced wood patio doors.

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Jan. 1974: The end of the



concrete foundation begins.

Read on 



The All-Weather Wood Foundation could mean the demise of the concrete foundation. Crazy? Is saving \$300 per home crazy? Read this plywood ad.

In Bakersfield, California, there are homes with wood foundations sixty years old and still in great condition.

In Madison, Wisconsin, a pressure-treated wood foundation was tested for thirty years. It's in excellent shape.

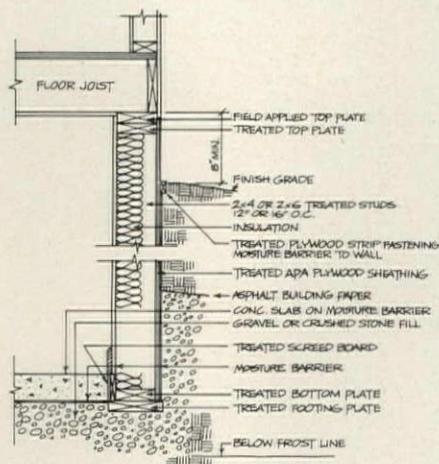
And how about utility poles?

And pilings for high-rises?

Both are long-standing proof that wood, when preserved correctly, will last almost indefinitely underground.

What it is.

The All-Weather Wood Foundation is a new way to install house foundations in terrible weather. And in sunshine, it's a new way to build six times faster than concrete or masonry.



It's a pressure-treated plywood-sheathed stud wall below grade. Exterior is covered with polyethylene film. Joints are sealed. And a concrete slab is poured over a gravel base.

Install in lousy weather.

"We proved it could be done in January when the wind-chill factor was -40° and the depth of the frozen ground was 3 to 4 feet." —Robert Bergquist, Citation Homes, Spirit Lake, Iowa.

We all know that concrete foundations place the builder at the mercy of cold, wet, miserable, freezing weather.

But weather is no problem with a wood foundation. The builder can keep a crew the year around. And stick to a schedule. Even in sub-zero temperatures.

Save \$300 per home.

According to the NAHB Research Foundation, the All-Weather Wood Foundation costs \$300 less for a typical 1,000 sq. ft. house — and requires 60 fewer man-hours on site compared to a masonry foundation (Sept. 1973).

The wood foundation is outrageously fast. In a 1969 NAHB project, a five-man crew installed a wood foundation in $1\frac{1}{2}$ hours as compared to $10\frac{1}{2}$ hours for a concrete block foundation.

Component construction.

Shop-built panels can be installed in a fraction of the time as on-site construction. For example, Shoemaker-Wells Homes of Milan, Illinois, installed a full-basement wood foundation, interior wall (studs only), stairway and panelized first floor—in just over two hours.

There are many other advantages of the All-Weather Wood Foundation explained in a new book by APA. Send the coupon.

**American Plywood Association
Department H-014
Tacoma, Washington 98401**

- Please send me the All-Weather Wood Foundation booklet and a list of treaters.
- I can't wait. Send me a man who can get me started now.

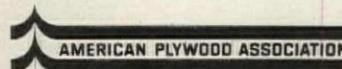
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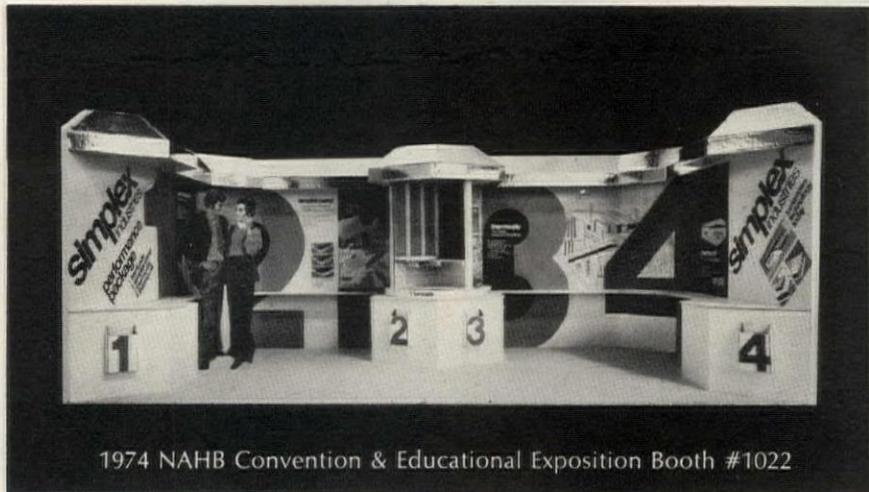
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Going to Houston? Then see the All-Weather Wood Foundation at our NAHB exhibit #2320, January 20-24.

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Meeting us at the NAHB Show could be the most important thing you do in 1974.



1974 NAHB Convention & Educational Exposition Booth #1022

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Thermo-ply Structural Sheathing — no corner bracing — code approved — insulative — easy to work with.

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Barricade Utility Barrier — 1,001 uses — impervious to moisture — resistant to impact — insulative.

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While you're building, the Gas Industry is exploring drilling importing and more.



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The gas industry is working in many ways to

increase our country's supply of natural gas. Sinking deeper wells than ever before. Drilling offshore. Importing some LNG (liquefied natural gas) from overseas. Working to pipe in gas from Canada. And researching to turn things like coal and oil into clean gas energy.

We will continue to supply residential customers. Because keeping families warm is our main concern. But we're working to have enough gas for everyone who wants it.

Gas, clean energy for today and tomorrow

AGA American Gas
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 The look, the feel, the beauty
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The best qualities of wood, the exceptional durability of Structured Polymer . . . C-E Morgan has combined all these to produce a dramatic difference in bi-fold doors. Your choice of two designs, each having solid, unitized construction. No reinforcement needed. Come complete with hardware, ready to be installed. Attractive white factory prime finish . . . install as is, or paint if desired. Trimmable in height for perfect fit.

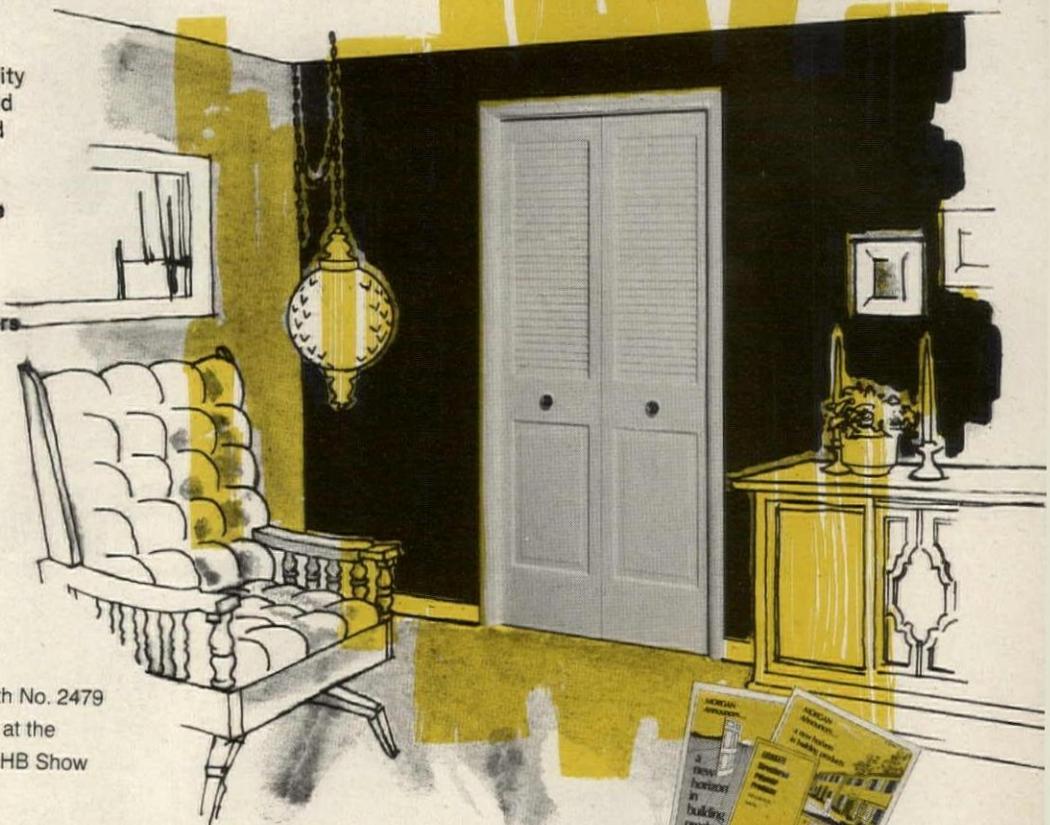
Structured Polymer is a unique material which offers a variety of advantages. Dimensional stability. Rich, warm appearance. Impact resistance. High density. These are proven facts; write for details.

Also available from C-E Morgan . . . with the same attractive appearance and lasting qualities . . . window and door shutters of Structured Polymer. Available in nine different window sizes, or as a handsome door shutter.

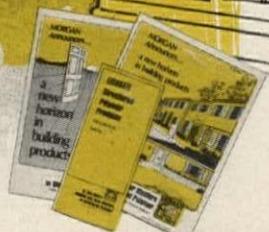
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Morgan Company
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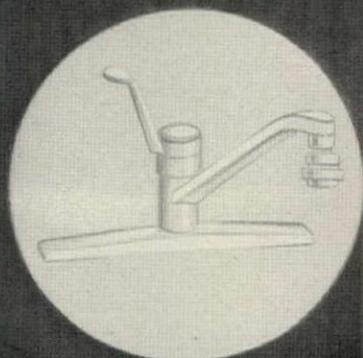
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MOEN TIES IN WITH YOUR HOME WARRANTY PROGRAM.



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It starts with you installing Moen faucets. Moen has a well-deserved reputation for quality, based on the reliable performance record of the 15-million installations we've made over the past decade.

Moen takes responsibility.

In return, Moen will take complete and direct responsibility for product quality. We will guarantee our products from the move-in date through the first two years of occupancy. So once you install Moen products, you can forget about them. No time-consuming, expensive callbacks; no outside

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You show concern.

This program merchandises your concern with the energy crisis and tells your prospects how Moen products help save fuel energy and water. Based on our studies, we've found savings amount to \$5 to \$15 per faucet per year over conventional two-handle faucets. A big part of the savings comes from water savings — several thousand gallons. Another part from heating fuel; 60% of wasted water is heated.

Finally, Moen answers the cries of consumerism for quality products that are made to last. This

is the kind of quality that reflects well on you as a builder.

Moen wraps it up.

To top it off, we give you a complete package of materials, including our plain-spoken warranty . . . and merchandising aids that spotlight your concern with product integrity and energy conservation. Your prospects keep getting the message from their first walk-through right up to move-in.

Write: Moen, a Division of Stanadyne, Elyria, Ohio 44035. We'll have your Moen man call you for an appointment.

There's only one. **MOEN**



Get all the details in Booth 3507 at the NAHB Show in Houston.

massive study of 584,874 sales leads from House & Home readers confirms that sales action in housing & light construction comes from every segment of the industry

To identify all the important people in housing and light construction who are active in the selection of building products, materials, and equipment, House & Home followed up 584,874 advertising inquiries from its reader service cards and received a 33% return involving 195,200 inquiries.

Survey questions were designed to determine what, if any, "sales actions" were taken as a result of readers having seen advertisements in several issues of House & Home.

For the purpose of this study, "sales actions"—that is, those actions bringing products and prospects closer to a sale—have been defined

as *specifying, recommending, approving, purchasing, and still investigating further.*

For each sales action, of course, the unknown multiplier is the number of residential or other units for which the sales action was taken. For example, a single *purchase* mention could involve a 10-house development, a 280-unit apartment complex, or anything in-between.

As shown in the table below, results indicate in the clearest possible manner that sales action comes from every segment of the industry and only House & Home—with its industry-wide circulation—offers all the sales action in the market.

Reader Classification	Literature Requested by Readers Surveyed	Literature Requested by Survey Respondents	Literature Received by Survey Respondents	SALES ACTIONS TRIGGERED BY ADVERTISING						Sales Actions as % of Literature Received
				Specified Product	Recommended Product	Approved Product	Purchased Product	Still Investigating Product	Total Sales Actions	
Architects	117,716	43,545	37,942	5,442	6,351	3,834	996	9,447	26,070	68.7%
Builders	248,906	77,961	66,624	5,489	7,666	7,057	7,227	22,890	50,329	75.5%
Commercial	15,005	4,761	4,024	281	477	209	209	1,361	2,537	63.0%
Engineers	15,321	6,067	5,340	391	599	329	229	1,862	3,410	63.9%
Financial	11,280	4,394	3,832	206	402	276	182	1,351	2,417	63.1%
Government	12,521	5,717	4,977	308	537	355	219	1,641	3,060	61.5%
Realty	22,803	7,521	6,633	392	679	609	381	2,569	4,630	69.8%
Retailers	11,502	3,447	2,835	241	318	233	236	1,027	2,055	72.5%
Subcontractors	20,952	6,010	5,243	351	644	604	515	1,665	3,779	72.1%
Wholesalers	6,821	2,284	1,963	141	248	124	130	696	1,339	68.2%
Others not identifying self	102,047	33,493	28,983	1,883	2,766	2,052	1,296	8,713	16,710	57.7%
TOTAL	584,874	195,200	168,396	15,125	20,687	15,682	11,620	53,222	116,336	69.1%

McGraw-Hill's marketing and management publication
of housing and
light construction **House & Home**
1221 Avenue of the Americas, New York, N.Y. 10020

FEDDERS, first to meet the challenge

New Fedders E-Flex™ is today's full line of residential central air conditioning systems that already meets the efficiency standards being considered by the U.S. Government for 1975.

Fedders saw the energy crisis coming.

Fedders started doing something about it—a long time ago.

Now, after years of research and the expenditure of millions of dollars, Fedders has achieved an engineering breakthrough and arrived at a new and more efficient system of central air conditioning.

It's called the E-Flex System of central air conditioning.

What This Means to You

Major users of energy—such as builders of office and apartment complexes and large-scale residential builders—are in an energy squeeze. On one side there is the constant rise in the cost of fuels. On the other side is the dwindling supply.

A remarkable quality of the new Fedders E-Flex System is that it is the builder's answer to both these problems—rising costs and dwindling supply. Be-

cause an E-Flex System—by actual tests—requires less energy and makes better use of it.

So startling are the capabilities of new Fedders E-Flex to perform in both these critical areas that, in a feature article in the October 1973 issue of "Airconditioning & Refrigeration Business," editor Sam Milnark reports:

...“for a 200-apartment complex, it would cost the owner about \$10,000 to \$20,000 more (at \$50 to \$100 more for each system) but in 20 years he'd save \$150,000 on the average in electricity at today's rates.”

Since the Fedders E-Flex System will save you considerable sums of money at today's rates, think how much more it will save in the future. Right now, experts predict that within a decade the cost of electricity may double or treble, which means that costs for this energy source alone will rise from an average of 3 cents a kilowatt to 9 cents.

manufacturer of air conditioners of the **energy crisis**

Here's Evidence

Look at the table below. It compares the BTU-Watt efficiency ratios of new Fedders E-Flex Central Air Conditioning with the best and most efficient models (1-1/2 to 5 ton capacities) of five other leading manufacturers. As you can see, Fedders outscores them all.

Translate these energy-efficiency ratios into dollars and cents per month or per air conditioning season and you'll determine for yourself the exact amount an E-Flex Central Air Conditioning installation can save.

CAPACITY BTU/HR	CENTRAL AIR CONDITIONING EFFICIENCY RATINGS BTU PER WATT					
	FEDDERS	SEARS	CARRIER	G.E.	LENNOX	YORK
18,000	8.18	6.2	7.5	6.66	—	—
24,000	9.60	8.27	7.5	7.27	7.27	7.01
30,000	8.56	7.89	7.14	8.33	7.89	6.67
36,000	9.23	8.57	7.35	8.78	7.66	7.06
42,000	10.00	8.40	7.77	7.77	7.92	7.37
48,000	10.00	8.42	8.0	7.16	7.50	7.38
60,000	9.52	7.79	7.50	9.37	—	—

Competitive capacities and watts based on the Directory of Certified Unitary Air Conditioners, published by the Air Conditioning & Refrigeration Institute, August 1-December 31, 1973.

An E-Flex System for Every Use



Are there new Fedders E-Flex Systems with the right capacity for special builder needs? Yes. In fact, the E-Flex System was originally conceived for residential use and smaller commercial installations then later expanded to include units of large capacities.

Whatever your need, whether it is to air condition a 200-apartment complex or to cool an 8 room single family residence, the adaptability of the Fedders E-Flex System is remarkable.

You can combine it with a variety of Fedders vertical or horizontal evaporator blowers or—when gas, electric or oil heat furnaces are involved—with Fedders evaporator coils. The result in every case—is a custom-built air conditioning system whose unusually high efficiency gives you the lowest operating costs.

What Makes E-Flex Possible?

To oversimplify: at the heart of this revolutionary new system is a compact, smoother, more efficient method of compressing refrigerant gas—a rotary compressor. Coupled with this is a completely new arrangement of uniquely-matched components to create a condensing unit with the highest efficiency in the industry.

For complete information on the Fedders E-Flex Residential Central Air Conditioning System and equipment, circle the appropriate number on the reader reply card or write to Fedders Corporation, Woodbridge Avenue, Edison, New Jersey 08817.

See the E-Flex at the Fedders Booth Number 2220 at the NAHB Show, Houston, January 20 through 24 and at the ASHRAE Show, Los Angeles, February 4 through 7.

FEDDERS CORPORATION
EDISON, NEW JERSEY 08817

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of housing and light construction
House & Home
1221 Avenue of the Americas, New York, N.Y. 10020

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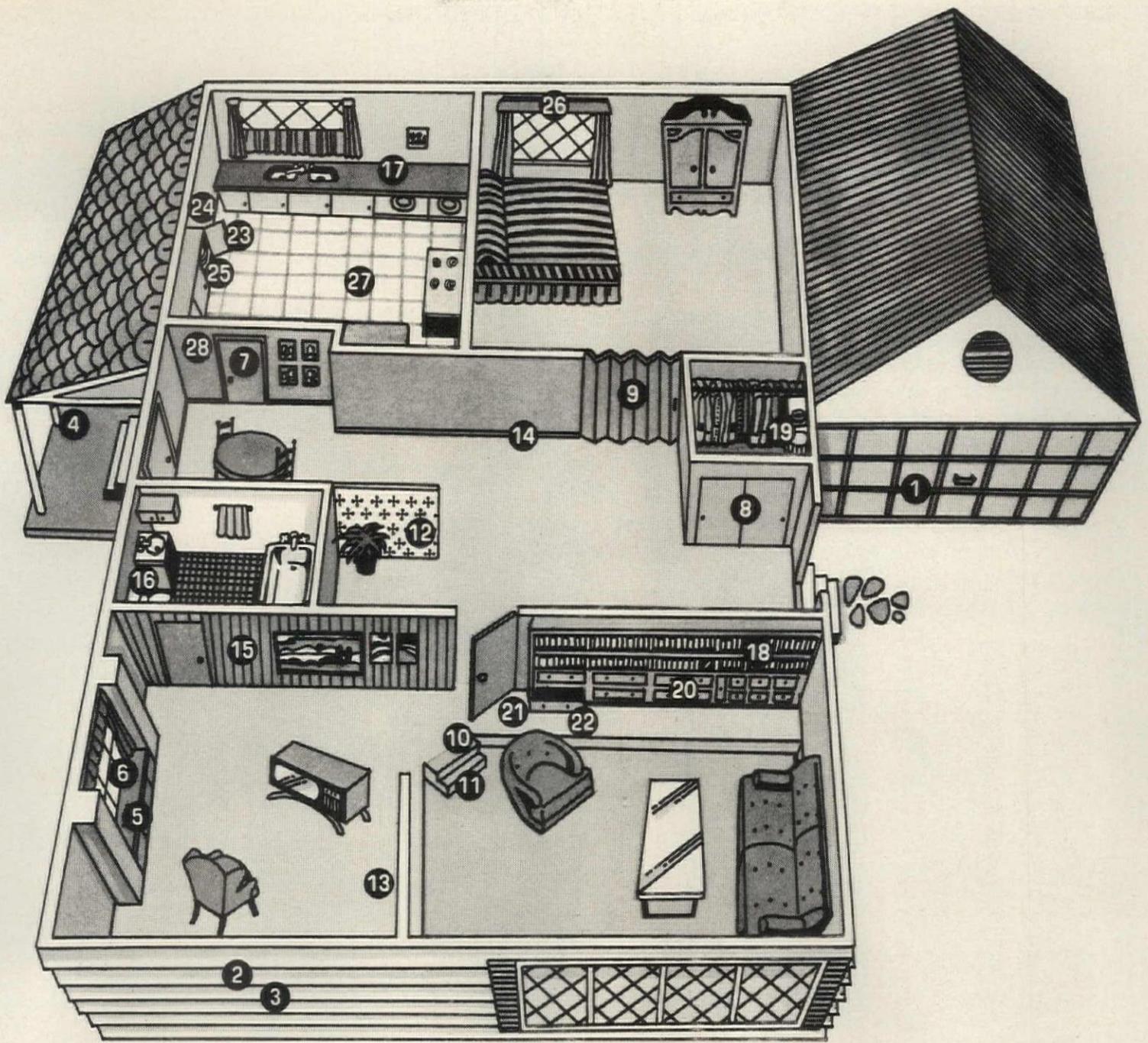
Watch for House & Home's quarterly postcard service free to all subscribers— coming your way soon with useful product ideas

House & Home's quarterly postcard service — free to all subscribers — is designed to *widen your choice* of available products and *provide fast action* through direct personal contact with suppliers.

This month, and every three months after, House & Home will deliver a packet of product postcards *post-paid* and *already addressed* to forty or fifty manufacturers offering information on products, materials and equipment suitable for your current and future projects.

You'll find these postcards a quick, convenient way to get information from manufacturers who frequently test the market with brand-new product ideas you may well want to consider — and pass along to key people concerned with your planning, design, construction and marketing problems.

It's dealer's choice! So watch the mails for the full deck of product postcards — coming your way from House & Home, soon!



Builders have found 28 uses for particleboard. How many benefit you?

Particleboard has become one of the biggest multiple-use products in building today. And smart builders know it. Whether they're using it on-site or buying products or components, they're specifying particleboard.

It's easy to see why. Particleboard is more readily available and can meet the most exacting standards of builders today.

It's easy to saw, machine and fasten. It has a smooth surface, is free of voids, and paints easily. Manufacturers and fabricators have learned how to use it for superior products as diverse as cabinets and molding.

If you've been using particleboard for traditional applications

only, like underlayment and shelving, it's time you took another look at multiple-use particleboard. And remember, particleboard underlayment manufactured by NPA members is grademarked by NPA and conforms to CS 236-66, your assurance of quality.

To help you, we've developed a free booklet that's yours for the asking. Just ask the National Particleboard Association, 2306 Perkins Place, Silver Spring, Md. 20910, for "MULTIPLE-USE PARTICLEBOARD."

MULTI-PURPOSE APPLICATIONS OF PARTICLEBOARD

- | | |
|------------------------|-------------------------|
| ① Garage door panels | ⑮ Wall paneling |
| ② Sheathing | ⑯ Vanities |
| ③ Siding | ⑰ Counter tops |
| ④ Soffits | ⑱ Book cases |
| ⑤ Window seats | ⑲ Closet shelves |
| ⑥ Window sills | ⑳ Drawer fronts |
| ⑦ Doors | ㉑ Drawer sides |
| ⑧ Sliding closet doors | ㉒ Drawer bottoms |
| ⑨ Bi-fold doors | ㉓ Kitchen cabinet doors |
| ⑩ Stair treads | ㉔ Kitchen cabinet sides |
| ⑪ Stair risers | ㉕ Kitchen shelving |
| ⑫ Partitions | ㉖ Valances |
| ⑬ Dividers | ㉗ Underlayment |
| ⑭ Molding | ㉘ Door jambs |

NPA Members: (those with asterisks manufacture underlayment)

American Forest Products Corp.*
Bohemia Inc.*
Boise Cascade Corp.*
Brooks-Willamette Corp.*
Collins Pine Co.
Duraflake South, Inc.*
A Willamette Industries Co.
Georgia-Pacific Corp.*

Hambro Forest Products, Inc.*
International Paper Co.*
Louisiana Pacific Corp.*
Mexwood Products, Inc.*
Olinkraft, Inc.*
Rodman Industries, Inc.*
Resinwood Division
Southwest Forest Industries*

Temple Industries, Inc.*
Tenex Division
The Pack River Co.
Timber Products Co.*
Union Camp Corp.*
Weyerhaeuser Co.*
Willamette Industries
Duraflake Division*



**National
Particleboard
Association**
2306 Perkins Place,
Silver Spring, Md. 20910

Twenty one years, the most dependable, and now the largest supplier of aluminum doors and windows for the shelter industry. Capitol, always there "with what you need"...when you need it. Our two plants result in over 620,000 sq. ft. of manufacturing space, and place us within 300 miles of 90% of our customers. Around the clock "truck fleet" service and our extensive raw material inventory puts us in an excellent position to service your needs.

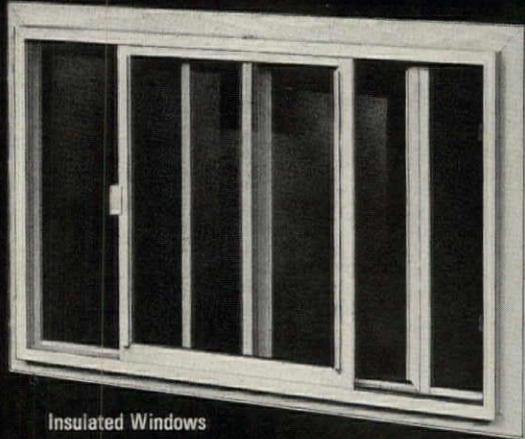
In addition, our two plants have the capacity to meet most any demand, we are completely integrated...from liquid metal to finished product.

first and finest - aluminum windows and patio doors

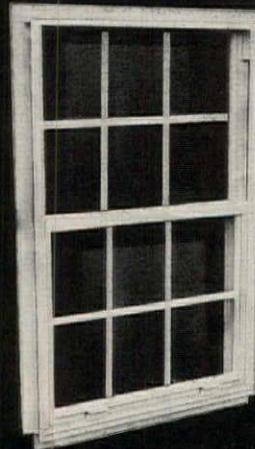
But, the big plus you realize as a Capitol customer, is the variety of product line. It provides you with precisely the aluminum door or window for your particular need...Insulated or single glazed Horizontal Rolling and Single Hung Windows...The finest in aluminum Patio Rolling Doors ...Oriel, Single Hungs and a multitude of fixed lite and mulling arrangements. Most windows available with inside, self-storing, screens and storm sashes. Framing choices include Fin, Box Frame, Thermal-Break as well as frames to accommodate Buck or Receptor installation. All products are available in mill finish or in PPG baked-on enamel colors.



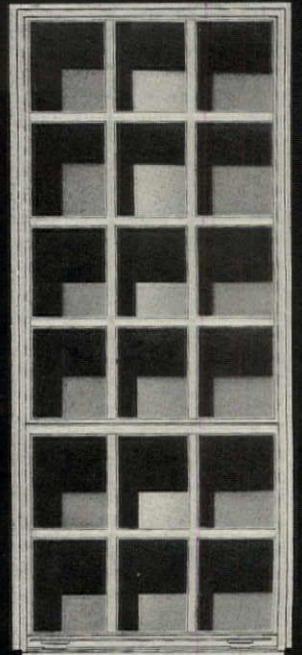
Patio Door



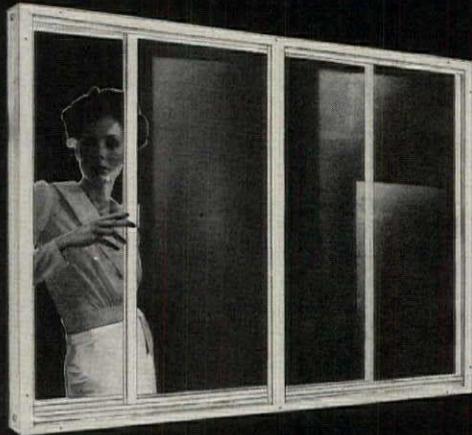
Insulated Windows



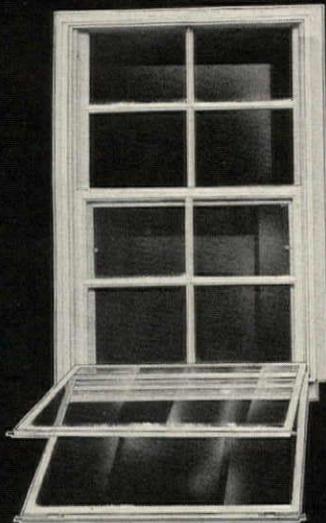
Insulated Windows
Thermal-Break Windows



Oriel Windows



Thermal-Break Windows



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design ideas



Join the Custom Home Plans Club plus 5 new designs each month for of professional working drawings

Get 1,000 home designs now

The Custom Home Plans Club has been created to provide a fresh flow of design ideas you can use to make your business more profitable.

As a new member, you will immediately receive an attractive binder containing 1,000 home designs illustrated with full color renderings and detailed floor plans.

With this complete library of a thousand buildable homes to select from, you and your clients will be pleased with the wide variety of homes available in all styles, types and sizes appropriate to local needs, tastes, and budgets.

These wide-ranging selections include:

Deluxe Small Homes—two and three bedroom

Ranch and Suburban Homes—conventional and contemporary

Brick and Masonry Homes

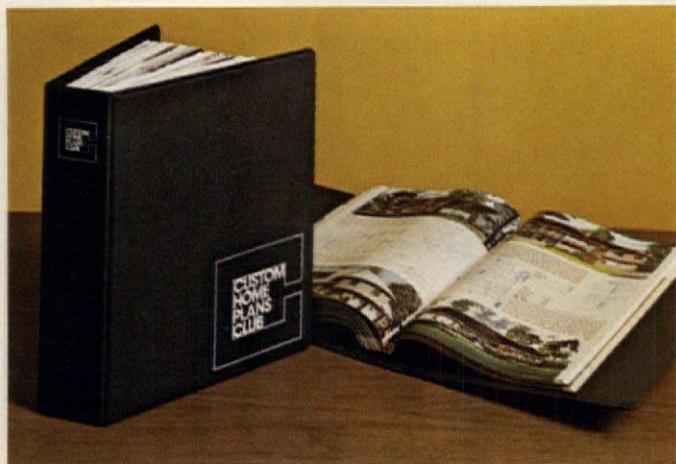
Multi-level and Hillside Homes—split level, split foyer, others

Second Homes—duplex and multi-family; holiday and retirement; chalets, A-frames, cabins, cottages

As you guide clients to a commitment, you—as a member of the Custom Home Plans Club—will lose no time in coming up with a complete set of working drawings, which will be shipped postage-free from Club headquarters the same day your request is received.

And with your working drawings you will also receive a complete list of the building materials you will need—essential for accurate bids and reliable cost estimates.

With so much of the exacting, tedious, preparatory work already done, you will realize substantial savings in time, effort, and money and at the same time, a growing list of clients will realize that you're the one to come to for the right home at the right price.



plus 5 new home designs- of-the-month each month for the next 12 months

To supplement your library of 1,000 home designs, the Custom Home Plans Club will provide you with a steady flow of 5 new home design ideas each month for the next 12 months.

Illustrated in full color renderings—and complete with detailed floor plans—your five fresh designs-of-the-month can easily be added to your basic binder of 1,000 homes.

In this manner, the Custom Home Plans Club broadens the range of selections available to you and your clients, and keeps you current on home design trends beyond your immediate market.

A full set of working drawings with collateral floor plans and a list of building materials will be available on both the original 1,000 home designs and the 60 new designs you will receive during the coming year.

plus 12 sets of professional working drawings for homes of your choice

Members of the Custom Home Plans Club are entitled to receive a total of 12 sets of professional working drawings without charge.

These building plans may be ordered in any combination desired: 12 sets of drawings for 12 different homes; 4 sets for 3 different homes; or any other way you prefer them.

Beyond the initial 12 sets available as part of the Club

and get 1,000 home designs now the next 12 months plus 12 sets to homes of your choice.

membership fee, members may obtain additional working drawings at a 35% discount off published prices which range from \$25 to \$50 for single sets and from \$50 to \$75 for four-set packages—depending largely on the square-footage of single-family homes and the number of units for multi-family dwellings.

Drawn to FHA and VA general standards, these blue line prints—size 36" x 20"—are easy to read on a white background. Depending on the size and complexity of the house design, plan sets may include as many as nine sheets. Notes and drawings indicate location and types of materials to be used. With complete freedom of choice, Club members may order their 12 sets of detailed working drawings at any time during the 12-month membership period.

Club working drawings include: (1) Floor Elevations, (2) Complete Framing Plans, (3) Wall Sections, (4) Floor Plans, (5) Basement/Foundation Plans, (6) Roof Plan, (7) Plot Plan, (8) Kitchen Cabinet Details, (9) Fireplace & Built-in Details, (10) Specification and Contract Booklet.

plus itemized lists of building materials for accurate bids and reliable cost estimates

To eliminate the time-consuming task of taking off material requirements from each set of plans ordered, the Custom Home Plans Club automatically provides members with item-

ized lists of building materials needed to obtain reliable bids, to make accurate cost estimates, and to order building materials from suppliers.

The lists include the size and quantity of all millwork such as doors, lumber and built-ins . . . framing lumber . . . roofing . . . flooring . . . wallboard . . . masonry . . . concrete . . . reinforcing . . . insulation . . . beams . . . finishing materials, and more.

The lists of building materials used in conjunction with the detailed working drawings—save Club members dollars, drudgery and valuable time more profitably spent with clients.



Application for membership

Enclosed is a check for \$240 for a full year of membership in the Custom Home Plans Club. For this I am to receive immediately a binder containing 1,000 home designs, plus a portfolio of 5 new designs each month for the next 12 months.

My membership also entitles me to a total of 12 sets of professional working drawings and a list of building materials for Club homes of my choice. These sets of working drawings may be ordered in any combination I desire: 12 sets for 12 different homes, 4 sets for 3 different

homes, or any other way I prefer them. Beyond these 12 sets included in my membership fee, I will be able to buy additional sets at a 35% discount off published prices during my membership period.

If after receiving my first set of working drawings I am less than completely satisfied, I am entitled to a refund in full—and no hassle—simply by returning the binder of 1,000 designs and the working drawings in good condition.

Make check payable to Custom Home Plans Club.



occupation

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- retailer
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- realty
- finance
- government
- manufacturing

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Signature _____ Date _____

The big new idea in home lighting is only this big.

Mini Track Lights by Progress are the first miniature track lights sized and priced for homes.

Use this flexible and versatile track system for new lighting and decorating effects to help you clinch sales.

Progress Mini Lights mount anywhere along the track for work, play or dramatic accents. They swivel, move easily to new positions, switch on or off individually.

You can install Progress track easily, on ceilings or walls, in a variety of patterns. The track measures an unobtrusive 5/8" deep for one circuit and 1-1/8" for two circuits. It comes in 4- and 8-foot pre-wired sections.

Choose from seven styles of Mini Lights, in antique brass, white, black or chrome. Progress also offers a complete line of larger Maxi Lights for apartment lobbies, corridors or commercial use.



(shown actual size)

Your nearby Progress Lighting Distributor has Mini Track Lights. He's listed in the Yellow Pages under "Lighting." For additional information, use the reader service card or write to us.

progress
LIGHTING

DIVISION OF LCA CORPORATION
BOX 12701, PHILADELPHIA, PA. 19134

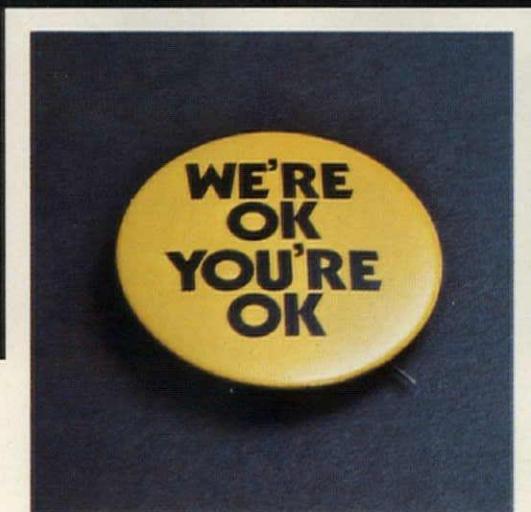
REPEATING OUR NAHB SHOW SAMPLE SPECIAL! A \$69 Value for only \$26.50

To familiarize you with this new lighting system, we are repeating our special offer of our P6100 2-light Plug-in Track Kit to use in your own home. It comes complete with two high intensity white Mini Lights, a 4 ft. track with 15 ft. plug set attached.

To order your kit (and get our new catalog),

bring this ad to Progress Lighting Booth 2566 at the NAHB Show. If you aren't going to Houston, mail this ad with your name, address, and check for \$26.50 (includes postage and handling), to Progress by Jan. 31, and we'll send you a kit. Limit, one per customer.

HOW WE CAN HELP YOU MAKE MONEY EVEN IF THERE'S NOT MUCH AROUND TO BE MADE.



No matter how uncertain things are in the housing industry this year, there's one thing that is certain.

Some people are going to make money. And you might as well be one of them.

We can help you make it happen.

Through good business planning. The kind that took us from being just another cabinet company to being the biggest cabinet company in the U.S. in just three years.

First of all, because of our size we can offer you the kind of deliveries you need now more than ever.

Deliveries that cost less because we're closer. We're the only cabinet company with nationwide manufacturing facilities.

And deliveries that are more dependable, too. For one thing, unlike smaller companies, we have the plant capacity to handle any size job, no matter how big. And because we've foreseen shortages of materials and energy—and planned for them, we have the

capacity to finish what we start.

Also, because of the greater productivity our size affords us, we can keep prices lower and guarantee them longer than other companies.

Another way we can save you money is through our Sales Force, the largest and most professional one in the business.

To cut costs, your Triangle Pacific salesman will help you lay out kitchens that are functional and beautiful and yet, require the least number of cabinets.

He'll also make sure your cabinet deliveries meet your job's requirements.

In other words, your Triangle Pacific salesman will help you get the most out of every business dollar.

Add to all this the fact that our wide variety of kitchen and bathroom cabinets may well offer you the best quality, styling, and value and you'll understand why together, we're OK.

And why this year, more than ever, being the biggest makes us better to do business with.

**Triangle Pacific**
Cabinet Corp

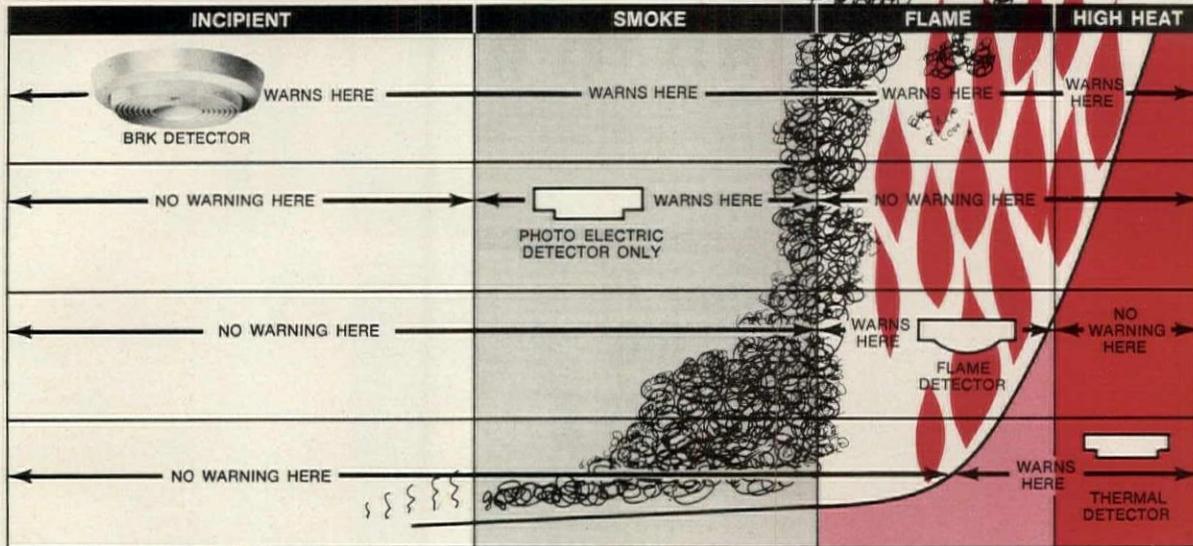
9 Park Place, Great Neck, New York 11021, (516) 482-2600

Come be O.K. with us in Houston at booth 2358



Before you build another thing, study this chart!

How BRK compares with other types of detectors in the **Four Stages of Fire**



It shows you which **early Warning Fire Detector best enables you to comply with the new mandatory requirements of FHA, HUD, UBC and others.**

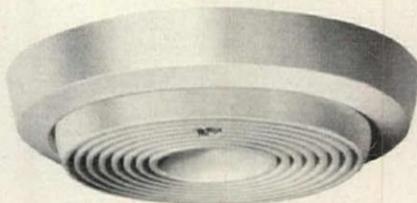
There's no getting around it. Pressure's mounting to have early warning fire detectors installed in every new dwelling in the country — including mobile homes.

As the chart above shows, these devices vary greatly in ability to detect, and earliness of warning. It's vital to know their limitations.

BRK's SS729ACS is an *ionization* detector. No other type of device warns earlier.

No other type of device detects in all four stages of a fire — even the Incipient Stage before smoke or flame appear. And no other detector has BRK's self-monitoring feature — a special solid-state indicator that constantly checks the BRK's circuits, sensitivity and power supply.

BRK's early warning ionization detector



BRK
ELECTRONICS
First in Fire Warning

The BRK has a loud, insistent alarm horn; resets automatically, when cleared of combustion products, and is handsomely styled to harmonize with any decor. It is designed to operate on 120V AC with its own transformer, or 12V AC from a remote transformer. Mounts easily to a 4" square junction box. U.L. listed, of course. For information about our complete line of early warning detectors, call or write. Then get busy building again — with confidence.

BRK Electronics
 A Division of Pittway Corp.
 525 Rathbone, Aurora, IL
 Phone: (312) 892-8721

Visit us at Booth 3025 Home Builders Show Astrohall, Houston, Texas. Jan 20-24.

PRODUCTS '74

New Products from House & Home Advertisers

a timesaving guide to the 1974 NAHB exhibits

Builders attending the big sprawling NAHB convention in Houston next January will face a bewildering array of products, new and old, spread out over a huge exhibit area. Products '74 has been created by House & Home and its advertisers to organize your shopping tour of this impressive display. Copies will be available free at Houston.

see the best, newest, most exciting

This pocket sized guide to the exhibits is a collection of building products, materials, tools and equipment . . . in each case especially selected by the exhibitors themselves as being the best, the newest, the most exciting they will be offering in 1974. Each product will be handsomely illustrated in full color, described in detail and identified by company and booth number.

save time and steps

The order of presentation in Products '74 will be by booth sequence enabling you to move quickly and



efficiently through the aisles pin-pointing just the specific products of interest to you.

The booth numbers will also be color coded to match the carpeting and banners that identify the different sections of the exhibit area. This means you can start your Products '74 tour at any exhibit and still save hours of time and thousands of footsteps.

can't make the show?

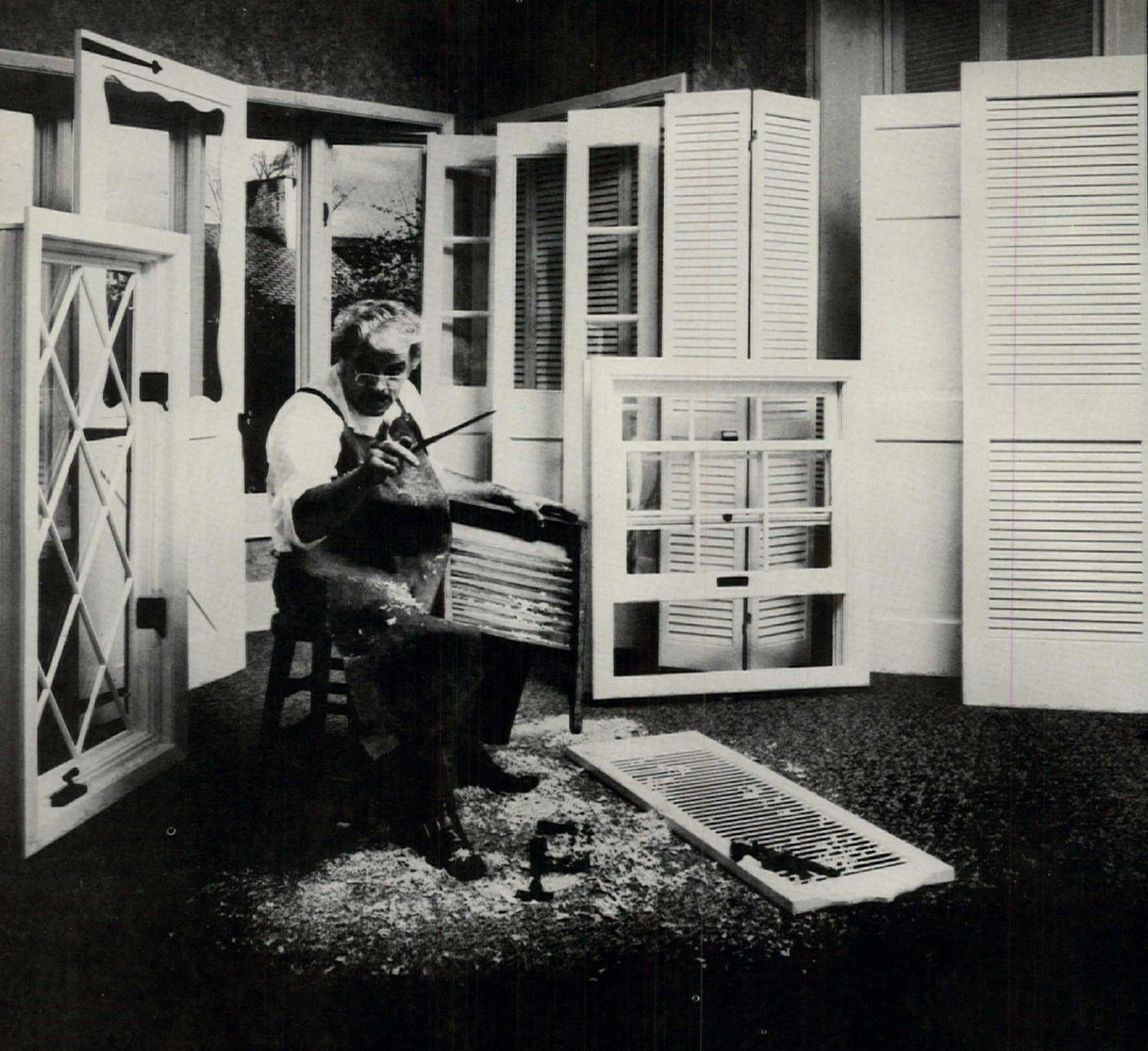
If you can't make the show this year you can use Products '74 to see for yourself just what the participating exhibitors are displaying as their

best, their newest, their most exciting. Every copy of Products '74, including those distributed in Houston, will have two reader service cards so that you and your associates can request catalog information by mail.

reserve your copy now

If you can't make the show, you can reserve a copy now by sending two dollars along with your name and address to Products '74, House & Home, 1221 Avenue of the Americas, New York, New York 10020. Your copy will be mailed immediately on publication in January.

Be sure to attend the NAHB Convention in Houston: January 20-24, 1974



“We Weren’t Born Yesterday!”

Wabash has brought you quality wood products since 1884. No matter what the fortunes of the times have been, we have always maintained a tradition of quality and craftsmanship.

And now we’ve added a new dimension in personal attention and service. We’re proud of our name and our heritage!

Wabash . . . a tradition of quality craftsmanship since 1884 combined with modern technology and personalized service to meet your needs for tomorrow . . . today.



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ENERGY CRISIS ANSWER



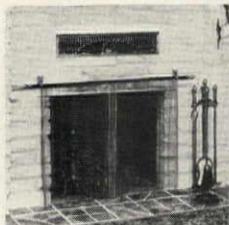
Heatform Fireplaces circulate more heat. Like a furnace.

HEATFORM. The unique, efficient wood and coal burning, warm air circulating fireplace that **conserves** and **circulates** extra heat can become your number one built-in amenity or profitable option. A Heatform provides **comfort insurance** for townhouse and single family unit buyers chilled at the prospect of future restrictions on gas, oil and electric heating.

The HEATFORM gives 3 to 4 times more heat than regular fireplaces that waste warmth up the chimney. HEATFORM has given proven dependable heating for over 50 years. Specify HEATFORM because only HEATFORM has heat tubes through the throat to save and circulate more heated air, like a furnace.

S
superior
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Quality Products to Reduce Construction Costs.



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See-Through Fireplaces



Side Opening Fireplaces

See these SUPERIOR products too • E-Z Wood Burning Fireplaces
 • Fireform Gas Fireplaces • Freeform Free Standing Fireplaces
 • Hi-Form Dampers • Feastmaster Barbecues.
 In Sweets Light Construction File
 and at the NAHB Convention.

SUPERIOR FIREPLACE COMPANY

P.O. Box 2066, Fullerton, Ca. 92633 (714) 521-7302

- Please send Heatform Technical Information
 I've a current project. Please call me.

Attn: _____ Title _____

Company _____ Phone _____

Address _____

State _____ Zip _____



Master bathroom has long vanity tops of solid, 3/4" Cameo White CORIAN. Shower surrounds, whirlpool tub trim and side and back splashes are in 1/2" Cameo White CORIAN.

"I recommend Du Pont CORIAN to my clients for its lasting beauty."

Gary Jon, N.S.I.D., Gary Jon, Inc.,
Interior Design, Palm Springs, California

"I tell my clients that CORIAN has advantages no other surfacing material has," said Mr. Jon, who completely remodelled this \$300,000 home in Palm Springs where this elegant bathroom was photographed.

"It has beauty, of course. For this home, I chose Cameo White CORIAN. It has a deep opalescent quality almost like alabaster, and it blends perfectly

with the vivid yellows and greens I selected for this home to create the cool feeling you want in a desert climate.

"CORIAN gives me superb design flexibility because it can be cut and shaped so easily. And it gives my clients durability because it resists chipping and staining. CORIAN starts beautiful and *stays* beautiful."

Du Pont CORIAN® building products are available in sheet stock for custom surfaces (it can be worked with regular tools), kitchen countertops, wall wainscoting, bathtub and shower surrounds. One-piece molded vanity tops and bowls of CORIAN also available. For more information and the name of the distributor nearest you, write to Du Pont, Room 23719, Nemours Building, Wilmington, DE 19898.

DU PONT **CORIAN**[®]
REG. U. S. PAT. OFF.
Building Products

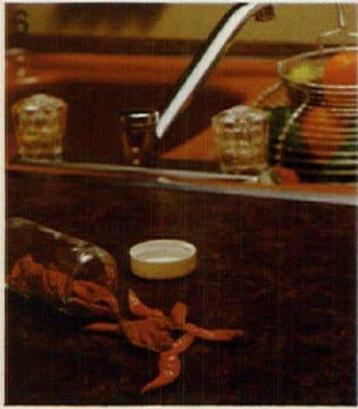
1974 New Products

Over 200 selected homebuilding and furnishing products are catalogued here for your inspection. Many are brand new, others are improved, still others updated to keep pace with changing technologies and life styles. Many of these products will be on display at the NAHB convention in Houston, January 19 through 24; others are specialized items that HOUSE & HOME considers particularly significant. The index below is your guide to the more than 40 pages of products in this issue ranging from cabinetry and kitchen equipment to recreation and security packages, from tools and plumbing to interior furnishings and decorative accents.

—ELISE PLATT

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1974 New Products



kitchens



1. Sleek contemporary kitchen is equipped with the most modern cooking appliances. Featured are a 27" self-cleaning double oven with an automatic timer control, a Smoothline™ electric built-in cooktop and an undercounter microwave oven. Hotpoint, Louisville, Ky. *Circle 200 on reader service card.*

2. "Superstove" cooking center boasts a Versatronic® oven system that cooks with microwaves, conventionally or both ways simultaneously to provide speed as well as browning. The range is equipped with all top of the line conveniences. General Electric, Louisville, Ky. *Circle 201 on reader service card.*

3. Slip-in electric Counterange™ has a Pyroceram® glass-ceramic cooking surface. Sunburst designs indicate the heating areas and turn yellow when element is on. The deluxe "Gourmet" model shown features automatic cooking controls for the self-cleaning oven and the appliance outlet. Corning Glass Works, Corning, N.Y. *Circle 202 on reader service card.*

model shown has a shaded-glass oven door that becomes see-through when oven light is on, infinite heat controls and lift-up top. Magic Chef, Cleveland, Tenn. *Circle 206 on reader service card.*

8. Classically detailed cabinetry, "Olde Dominion" is genuine oak throughout. Exteriors have a hand-rubbed, glazed finish. Deeply sculptured doors show off the natural wood grain. Cabinets feature spring-loaded self-closing hinges and maintenance-free vinyl drawer interiors. Raygold, Winchester, Va. *Circle 207 on reader service card.*

9. Elegantly designed cabinetry, "New Yorker" is a moderately-priced line. Doors, molded of high-impact polystyrene, won't warp, crack or peel. Cabinets are finished in a pecan woodgrain, then hand-glazed. A full range of convenience options is offered. Yorktowne, Red Lion, Pa. *Circle 208 on reader service card.*

10. Classic English-styled cabinets, "Canterbury", complement any decor. Constructed of pecan wood with a deep, hand-wiped stain, cabinets have a maintenance-free Rel-Var® finish that is highly resistant to abrasion, marring, staining and heat. Triangle Pacific, Great Neck, N.Y. *Circle 209 on reader service card.*

11. Set-in range with a smooth-top cooking surface features infinite heat controls with individual indicator lights and a calibrated dial to help judge heat selection. Model has a self-cleaning oven, a radiant-heat broiler and an automatic Mealtimer clock. Whirlpool, Benton Harbor, Mich. *Circle 210 on reader service card.*

12. Bold traditional styling of "Town & Country" cabinets blends naturally with any decor. Deep grained genuine oak cabinets are rubbed to a soft warm glow. Line is available in sunset or charter oak tones, with a choice of hardware. Riviera, St. Paul, Minn. *Circle 211 on reader service card.*

(For more on kitchens turn to page 162)



4. Efficient modern kitchen is equipped with strategically located sinks. Auxiliary unit in the foreground is a stainless steel "Harvest" bar sink with a gooseneck-spout Aqua-mix fitting. The main sink is a double-bowl, satin-finished stainless "Sunset" with an Aquarian single-control faucet and spray. American Standard, New Brunswick, N.J. *Circle 203 on reader service card.*

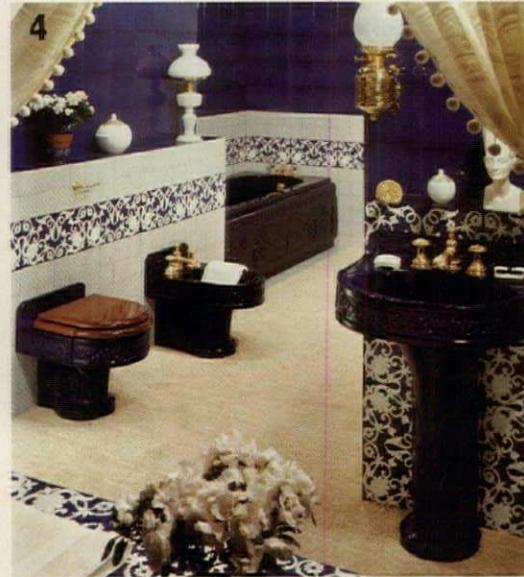
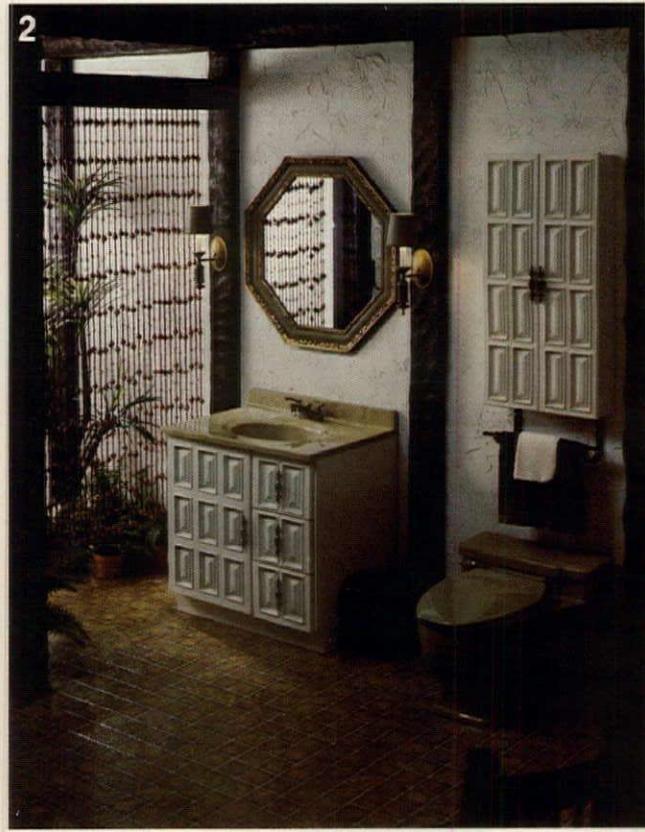
5. Three-in-one built-in wall oven offers a microwave unit with a browning element, a pyroletic cleaning conventional appliance and a "Stay-hot" oven that provides moist or crisp warming without overcooking. Centralized controls are located on a top panel. Thermador, Los Angeles. *Circle 204 on reader service card.*

6. Textured laminate "Eldorado Leather" is rich brown with deep-shaded undertones. Designed to blend with today's color schemes, the natural-looking pattern is an interesting addition to any kitchen. Formica, Cincinnati, Ohio. *Circle 205 on reader service card.*

7. Drop-in range features removable, reversible oven liners with a continuous-cleaning porcelain finish. The top-of-the-line



1974 New Products



bathrooms



1. Accordion folding shower door completely disappears from view when opened. Shown on a compact Fiat "Jubilee" non-metal shower stall, door folds back in either direction. Made of sturdy polystyrene, easy-to-install doors won't crack, shatter or mildew. Hinges come in 14 accent colors. Tub-Master, Orlando, Fla. *Circle 212 on reader service card.*

2. Mediterranean-styled vanity, molded of high density polyurethane, offers drawer and door storage in a 30"-wide unit. Vanity, shown in Spanish white woodgrain with a marble center bowl, also comes in a walnut finish. Unit is available in a standard 21" or space-saving 18" depth. Matching double-door wall cabinet measures 18"x36". Marblecast, Richwood, Ohio. *Circle 213 on reader service card.*

3. One-piece acrylic bathtub has an integral, self-draining convenience seat that makes grooming-chores, child and dog washing and tired-foot soaking easy. The slip-resistant tub, fiber glass reinforced for strength, features a safety grab bar and a unique tile flange that provides watertight, grout-free installation. Borg-Warner, Mansfield, Ohio. *Circle 214 on reader service card.*

4. "Victoriana" bathroom suite is based on a design originally introduced in 1837. The highly decorative ensemble includes a wash basin and pedestal, bidet, water closet and bath. Fixtures, accented with chrome or gold finished fittings, come in a wide range of colors and color combinations including the Astral blue shown. Adamez Ltd., Newcastle upon Tyne, England. *Circle 215 on reader service card.*

5. "Provincial" wood vanity, in a hand-rubbed, alcohol-proof white and gold finish, is made up of three modular units. Vanity features a twin-bowl cultured-marble top. Surface-mounted wall cabinet with side wings that open for three-way viewing has additional storage behind the center mirror. General Bathroom, Elk Grove Village, Ill. *Circle 216 on reader service card.*

6. Botanical bathroom is accented by "Spring Green" fixtures. "Rotunda" self-rimming countertop lavatory, available in acid-resistant vitreous china and porcelain enameled steel or cast iron, features a single-control "Easy-Mix"

faucet. "Mount Vernon" elongated water closet and "La Salle" recessed steel tub complete the room. Gerber, Chicago. *Circle 217 on reader service card.*

7. Spacious "Garden Tub", measuring 60"x49"x24", is one-piece molded Corlglass. The tub, with a built-in center step and integral convenience ledge, features center drain and backwall overflow. Unit, in a choice of six colors, can accommodate right or left hand fittings. Corl, Ft. Wayne, Ind. *Circle 218 on reader service card.*

8. Elegantly simple vanity of molded polystyrene, "Wyngate" is available in white with gold trim as shown and in autumn brown or Madeira oak finishes. A wide range of matched door, drawer and wall cabinets is offered. Chemcraft, Elkhart, Ind. *Circle 219 on reader service card.*

9. Contemporary bath tub, "New Neptuma", is vacuum-formed of one-piece acrylic-faced fiber glass. The easy-to-install, lightweight Acra-Bath™, impregnated with fade resistant color, is extremely durable. Universal Rundle, New Castle, Pa. *Circle 220 on reader service card.*

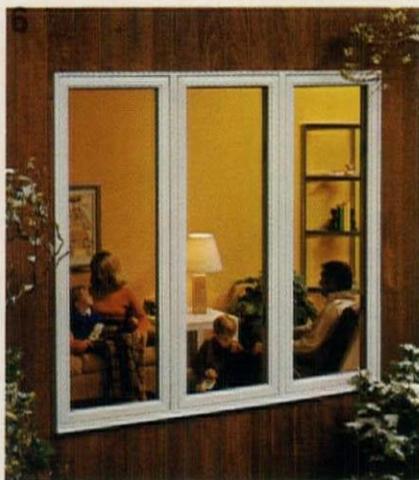
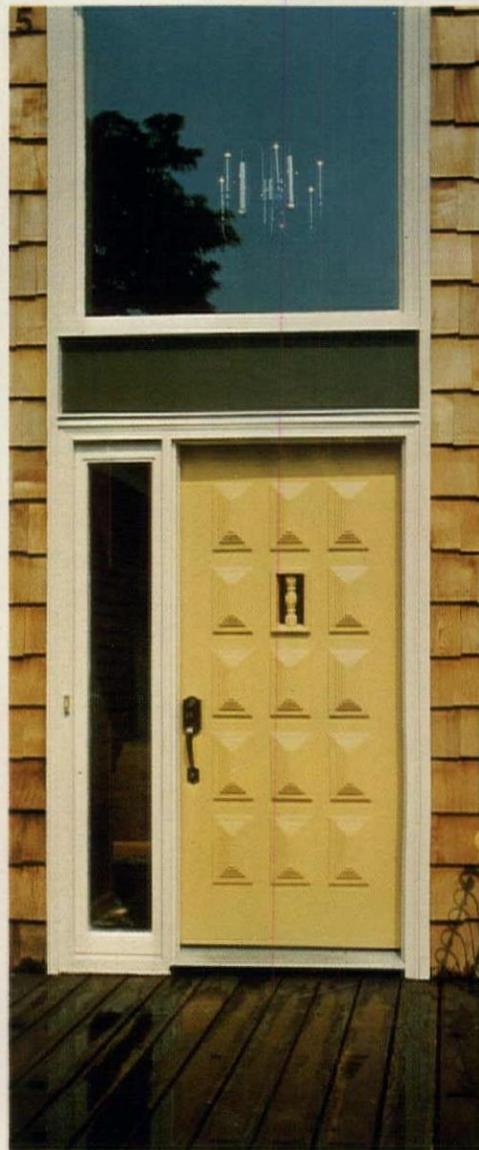
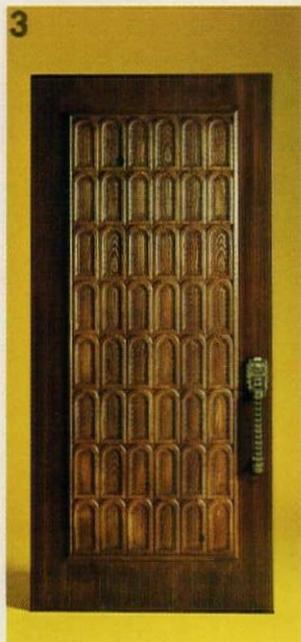
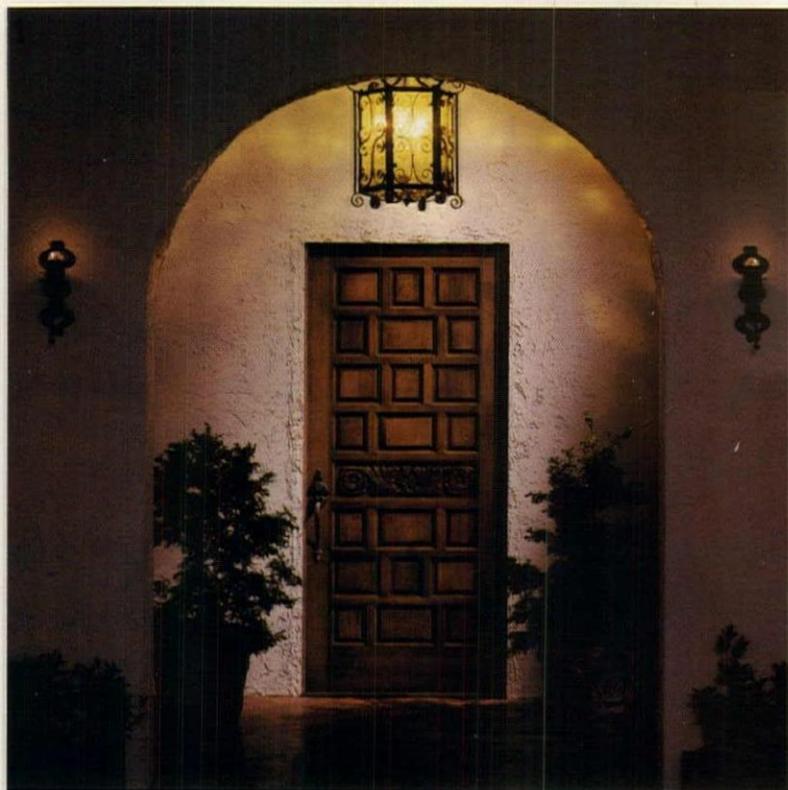
10. Wide-spread lavatory fitting, "Crystal Glo" permits flexibility of installation. Faucets can be set at varying distances from the spout to conform to basin design or specifications. Fitting, in chrome or gold finish, is adjustable for 8" to 15" centers. Harcraft, Torrance, Calif. *Circle 221 on reader service card.*

11. Renaissance-inspired cabinetry, "Medici" features polyurethane doors with vertical panel lines for added interest. Vanity shown includes drawer, door and hamper units and has an "Americana" cultured marble top with an integral bowl. Matching wall cabinets are also pictured. Rutt-Williams, Elkhart, Ind. *Circle 222 on reader service card.*

(For more on bathrooms turn to page 194.)



1974 New Products



8 doors/windows



1. Spanish-styled door, "Castillo," adds elegance to a dramatic entryway. The intricately carved door, of select kiln-dried Douglas fir or hemlock, consists of 22 deep-cut panels, each 1 1/8" thick. It accepts paint or stain. Simpson Timber, Seattle, Wash. *Circle 223 on reader service card.*

2. Remodel-door/frame unit is designed to easily replace worn-out or damaged wood entry doors. Complete with "Perma-Seal" weatherstrip and "Thermal-Break" sill, the unit needs no preshimming or adjustment. Doors come in a wide range of designs. Perma-Door, Steelcraft, Cincinnati, Ohio. *Circle 224 on reader service card.*

3. Decorative doors can be created from plain flush metal or wood ones by applying ArtCarved Uni-Panels™. The high density urethane panels, available in five hand-rubbed wood tones and 20 designs, won't crack, chip, fade or peel. Entol, Miami, Fla. *Circle 225 on reader service card.*

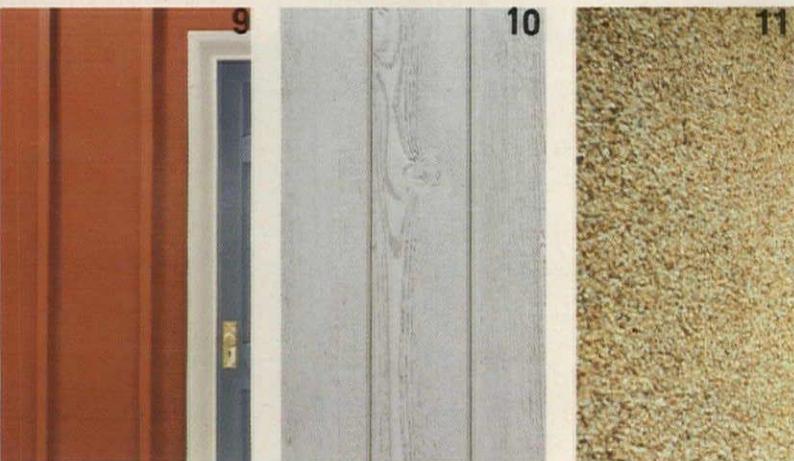
4. Moldings for doors and glass doorlights can now be perfectly matched in both design and material. Fabricated of durable plastic instead of wood, snap-mount doorlight moldings firmly hold glass panels in position. Pease, Ever/Strait, Fairfield, Ohio. *Circle 226 on reader service card.*

5. Mayan-inspired steel door emphasizes the bold look of a southwestern-style entrance. The prehung, weatherproof door features rows of tiered, dimensional panels accented by a central light and spindle. Therma-Tru, Lake Shore, Toledo, Ohio. *Circle 227 on reader service card.*

6. Wood casement windows feature a four-step CARKote™ long-life exterior finish. The inside frame is natural wood leaving finishing options open. Locks, inside screens and chestnut bronze hardware are standard. Double insulating glass set into leakproof vinyl gaskets is double weatherstripped. Caradco, Scovill, Dubuque, Iowa. *Circle 228 on reader service card.*

7. Elegant entry door, "Voyager" captures an old-world look. Reproduced in high-density urethane foam from a hand-worked original design, door is carved on both sides and coated with a long life finish. Standard size unit comes in six colors. Wing, Garland, Tex. *Circle 247 on reader service card.*

(For more on Doors/Windows turn to page 174.)



exteriors

8. Finger-joined redwood, in specific lengths to 24', is especially suited for fascia and trim. A combination of upper grades of redwood, finger-joined has exceptional dimensional stability. California Redwood Assn., San Francisco. *Circle 229 on reader service card.*

9. Prestained textured siding eliminates on-site finishing. Five paneling styles, in 26 colors and a range of standard sizes, are offered. Included is "Roughtex" with matching battans, shown in Cape Cod red. U.S. Plywood, Champion, New York City. *Circle 230 on reader service card.*

10. Textured hardboard siding has the look of rough-hewn lumber. Siding, which comes in 4' x 8' grooved or ungrooved panels, is factory primed and sealed. Notched, grooved edges assure easy installation. Temple, Diboll, Tex. *Circle 231 on reader service card.*

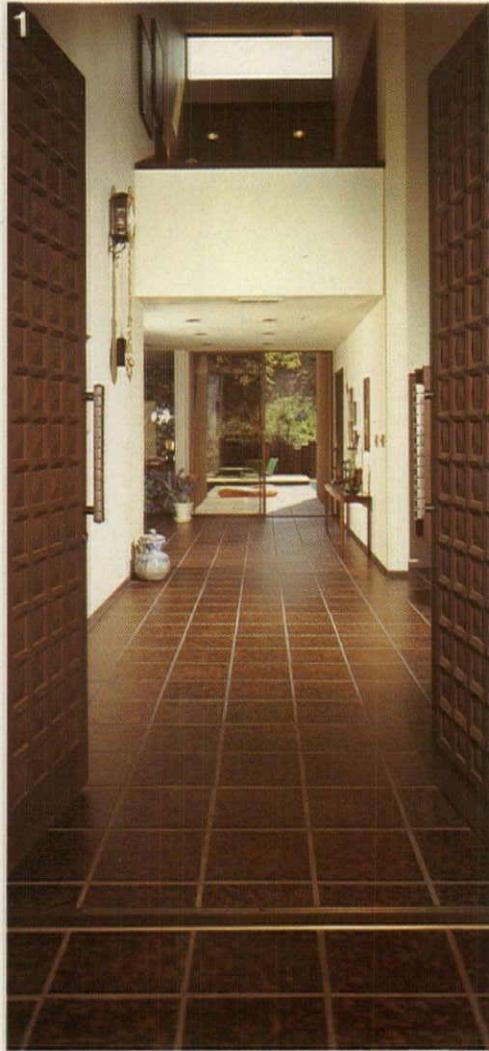
11. Decorative siding/sheathing, "Aggreboard," comes in three new colors including Sun Tan (shown). Stone aggregate surface is bonded with a non-yellowing, non-fading matrix of polyester resin. Material comes in 4' x 8' or 10' sizes on a variety of substrates. Modular Materials, Plainfield, N.J. *Circle 232 on reader service card.*

12. Aluminum siding, with a DuPont Lucite® thermoset acrylic finish, carries a 30-year guaranty against splitting, chipping, peeling or flaking. Siding with a protected inner surface is offered in 12 colors. Norandex, Cleveland, Ohio. *Circle 233 on reader service card.*

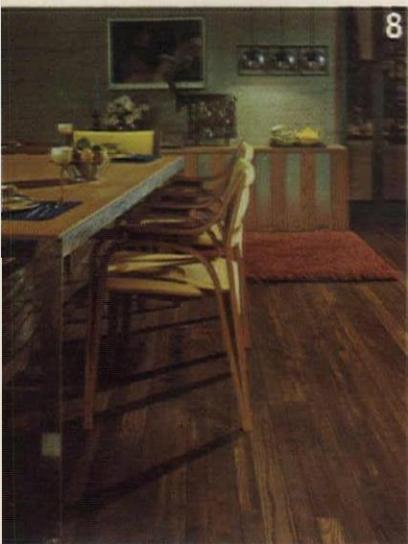
(For more on exteriors turn to page 180.)



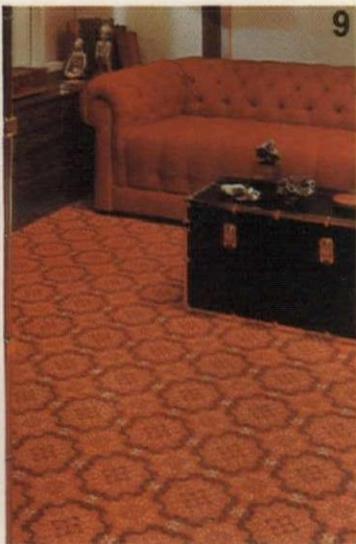
1974 New Products



flooring



8



9

1. Symmetry of a ceramic tile floor emphasizes a dramatic entryway. Franciscan Terra Cotta "Flashed Walnut", used both indoors and out, unites the two environments. The easy-to-maintain tiles can be applied to walls as well as floors. Interpace, Los Angeles. *Circle 234 on reader service card.*

2. Creatively designed child's room, geared for rugged play, is carpeted with "Apropos", a tight level-loop floorcovering of Allied Chemical Anso® nylon. Available in 12 colors, the carpet retails for about \$7 a sq. yd. Walter, City of Industry, Calif. *Circle 235 on reader service card.*



10

3. Resilient carpet, "Glencove", is a strong-textured, level-loop constructed of Acrilan acrylic pile. Five multi-color moresque effect patterns, including "Midnight Tweed" shown, have been added to the heavy duty floorcovering line. Philadelphia, Cartersville, Ga. *Circle 236 on reader service card.*

4. Thick, rich plush carpet, "First Prize", adds warmth to a contemporary family room. The pattern is offered in 15 colorways including "Fiesta" shown. Nylon floorcovering with a jute-weld backing retails for approximately \$10.95 a sq. yd. Collins & Aikman, New York City. *Circle 237 on reader service card.*



11



12

5. Luxurious textured plush carpet of Eastman Kodol III polyester gives a spacious, airy look to a compact contemporary living area. Shown in pineapple, "Luxera" comes in 12 solid and 9 tweed colorations. It retails for about \$11.95 a sq. yd. World Carpet, Dalton, Ga. *Circle 318 on reader service card.*

6. Installation of ceramic tile is greatly simplified by "Press-N-Set", a pressure sensitive asbestos felt sheet system. Drying time and messy mastic mixing are completely eliminated. Underneath backing is removed and 4 sq. ft. double-faced adhesive sheet applied to existing floor. Top-backing is then peeled off as illustrated and tiles laid into place. Grout can be set immediately. American Olean, Lansdale, Pa. *Circle 238 on reader service card.*

7. Gaily printed carpet with the look of an Early American quilt, "Milady", brightens up the kitchen work area. Tufted of 100% DuPont nylon, the multi-color design minimizes visible traffic pattern and

helps hide spots and spills. Dense loop carpet is cushioned by a latex foam backing. Patcraft, Dalton, Ga. *Circle 239 on reader service card.*

8. "Homestead Oak Plank" flooring is a natural accent to a contemporary dining area. The hardwood floor, made up of alternating 2 1/4" and 3 1/4" planks in random lengths, is wire brushed for a distressed look. Finished in old English mellow brown, the material installs over subfloors or screeds. Bruce Flooring, Memphis, Tenn. *Circle 240 on reader service card.*

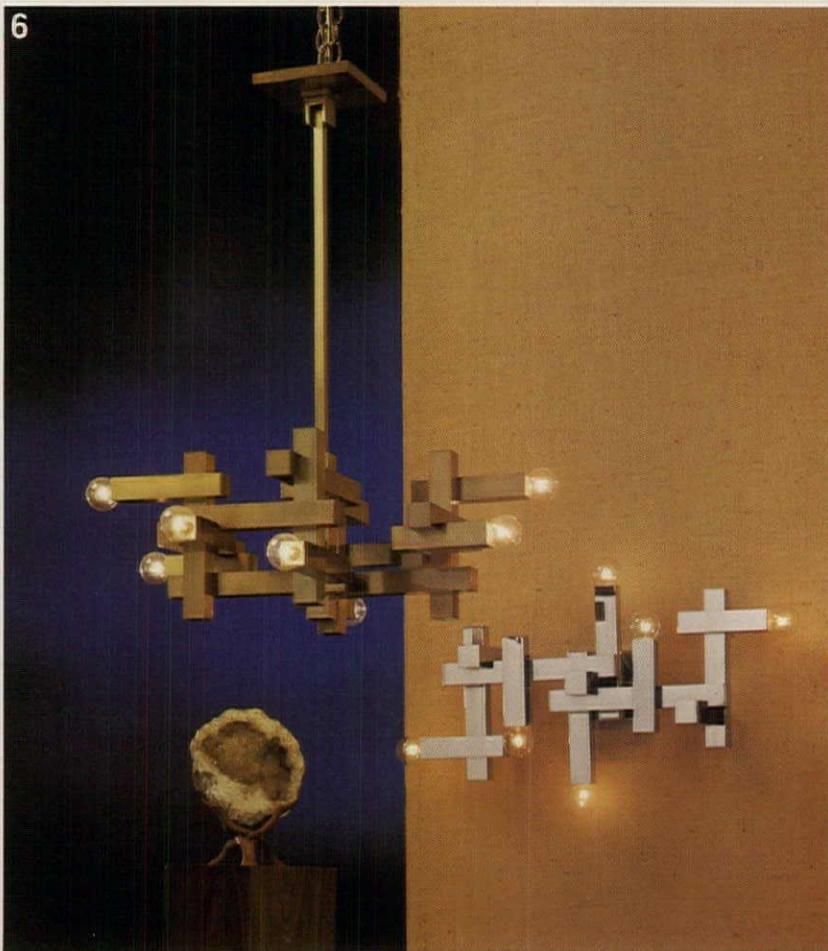
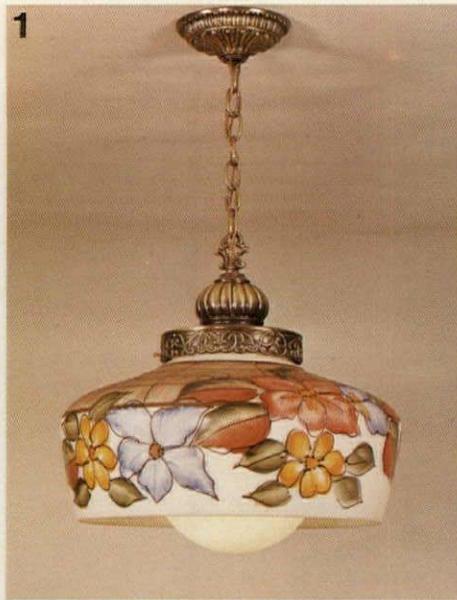
9. Sculptured vinyl flooring, "Topiary", is deeply cushioned for comfort. The multi-colored pattern, from the "Air East" line is designed to blend with any decor. The easy-to-maintain flooring comes in six colors. GAF, New York City. *Circle 241 on reader service card.*

10. Grass green carpet, "Enchantress", brings springtime indoors. Thick, plush body-shag of heat-set, twisted, two-ply Dacron polyester pile, is available in 20 colors. Resilient carpet retails for about \$12.95 a sq. yd. Lees, Burlington, Norristown, Pa. *Circle 242 on reader service card.*

11. Cushion vinyl flooring, "Peg 'n Plank", is inspired by wide plank hand-hewn floors of colonial America. Authenticity is simulated complete to the pegs. Part of the "Castilian" line, the durable flooring is easy to maintain. Armstrong, Lancaster, Pa. *Circle 243 on reader service card.*

12. Vivacious sculptured shag, "Casual Splendor", features from five to seven hues in each of the ten available colorations. Double-level, space-dyed fabric, of soil-hiding nylon, is ideal for heavy traffic areas. Ozite, Libertyville, Ill. *Circle 317 on reader service card.*

1974 New Products



8 lighting

1. Tiffany-styled pendant fixture is a colorful accent to any room. Decorative shade with a multi-color floral design hangs from an antique brass-finished holder and chain. Unit, measuring 16" in diameter accepts a 100w lamp. Virden, Cleveland, Ohio. *Circle 244 on reader service card.*

2. Contemporary chandeliers are a combination of chrome, butcher block and glass. Both the 21"-diameter 4-light version and the 28"-diameter 6-lamp model feature high-intensity downlights. Fixtures come in blonde or burl finishes. Sunset Lamp, Los Angeles. *Circle 245 on reader service card.*

3. Colonial wall lantern for outdoor use is finished in Etruscan iron. Fixture measures 8" wide, 25" high and extends 4" from the wall. A textured amber glass front panel is featured. Thomas, Louisville, Ky. *Circle 246 on reader service card.*

4. Contemporary tole-lamp chandelier, "Revelation", is accented by hurricane lamps topped with spun aluminum shades. Interiors of shades are white to provide good light reflection. To receive a catalogue send \$1.50 to Lightcraft of California, P.O. Box 9050 Cincinnati, Ohio 45209.

5. Architecturally styled luminaire, Vista/Primasphere™, features a

weather-resistant clear acrylic sphere with injection-molded prisms that diffuse light. Unit also comes in a virtually indestructible polycarbonate version. Holophane, Denver, Colo. *Circle 248 on reader service card.*

6. Contemporary sculptural fixtures feature abstract designs of candelabra bulbs and criss-crossed columns. Both the 16-light chandelier (*left in photo*) and the 6-light wall-mounted model (*right in photo*) are available in a choice of chrome or bronze. Progress Lighting, Philadelphia. *Circle 249 on reader service card.*

7. Pyramidal cube luminaire is available in smoke, clear or opal versions. Unit, measuring 16" square, is an interchangeable addition to the "Geometrics" line. Fixture can be post-top, wall- or multiple-mounted. McGraw-Edison, Racine, Wis. *Circle 250 on reader service card.*

fireplaces

8. Modern Franklin fireplace comes complete with a heat-refracting hearth and built-in damper. Fully insulated cabinet always stays safe to the touch. Unit features a scratch- and fade-resistant porcelain finish. Martin Stamping & Stove, Huntsville, Ala. *Circle 251 on reader service card.*

9. Corner fireplace, "Fire Jester" offers the luxury of a woodburning fireplace where space is limited. Unit, available in a choice of porcelain-enameled colors, comes in 39" and 47" wide versions. Malm, Santa Rose, Calif. *Circle 252 on reader service card.*

10. Freestanding "Vulcan" fireplace requires only a 6" clearance from any material including combustibles. Unit is primarily designed for installation in corners or against walls. Fireplace, which burns any fuel, comes in four sizes in a choice of finishes. Viking-Universal,

Pittsburgh, Calif. *Circle 253 on reader service card.*

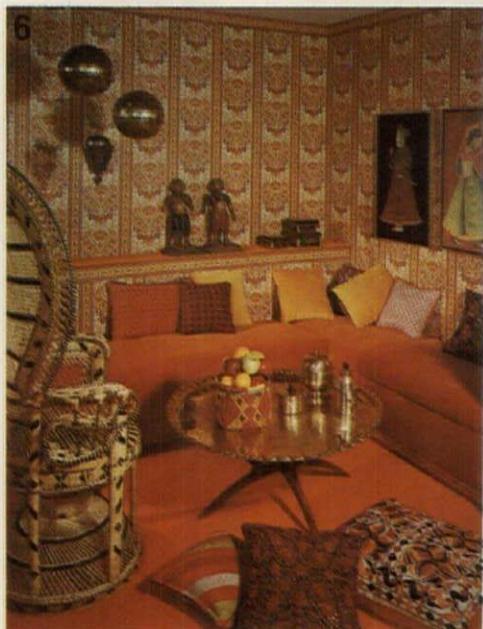
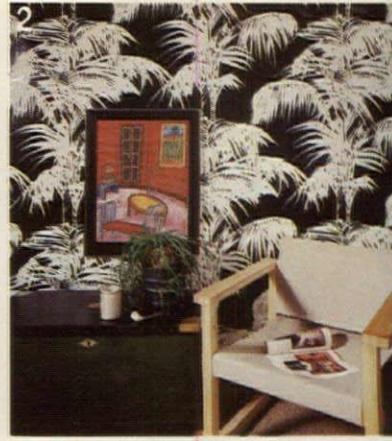
11. Large-size gas-fired fireplace measures 42" across the front opening and installs in minimum depth. Prefabricated unit features an automatically controlled damper. Majestic, Huntington, Ind. *Circle 254 on reader service card.*

12. Portable electric fireplace can be hung on any wall with no structural changes required. Unit features a thermostatically controlled fan that sends heated air into the room. Heatilator, Mt. Pleasant, Iowa. *Circle 255 on reader service card.*

(For more on fireplaces turn to page 170.)



1974 New Products



interiors



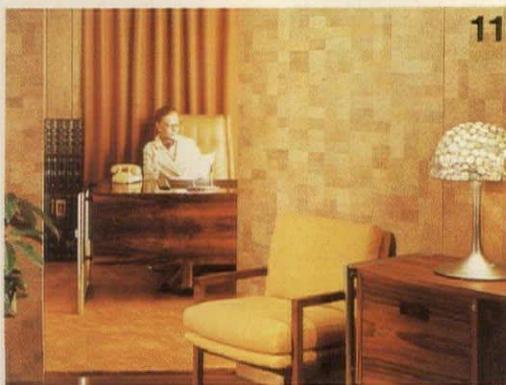
9

1. Simulated stones of lightweight polyester are used to create an oriental garden. Designed in many shapes and sizes, including corner pieces, naturally colored stones are easily applied with adhesive mortar. Dacor, Worcester, Mass. *Circle 256 on reader service card.*

and mylars are combined for a unique effect. "Wajir", a pattern of mask-like shields, is set on a background of "Ujiji", a strong cane design. Collection contains 14 patterns. Bill Miller Wallpaper Studios, College Point, N.Y. *Circle 263 on reader service card.*



10



11

2. Tropical-inspired wallcovering, "Paradiso", is a stylized conception of palm foliage. Part of "Ambiance 8", the vinyl on silver mylar pattern is offered in eight colorways. Karl Mann, New York City. *Circle 257 on reader service card.*

9. Handprinted vinyl wallcovering, "What a Beautiful Morning", is a floral on unusual background colors such as the brown shown, silver mylar or buckskin. Wallcovering is complemented by "Rendezvous", Aladdin's carpet of Anso® nylon. J. Josephson, Hackensack, N.J. *Circle 264 on reader service card.*

3. Lavish, turban-like swirls highlight "Valentino", a vinyl wallcovering from the "Here/And/Now" collection. The pretrimmed, fabric-backed wallcovering comes as shown, or in three other colorways—two on silver mylar grounds. James Seeman Studios, Garden City, New York. *Circle 258 on reader service card.*

10. Rustic-looking ceramic wall tiles add excitement to a contemporary entranceway. Easy-to-maintain tiles from Buchtal have a distinctive look achieved by texture and color variation. Amsterdam, New York City. *Circle 265 on reader service card.*



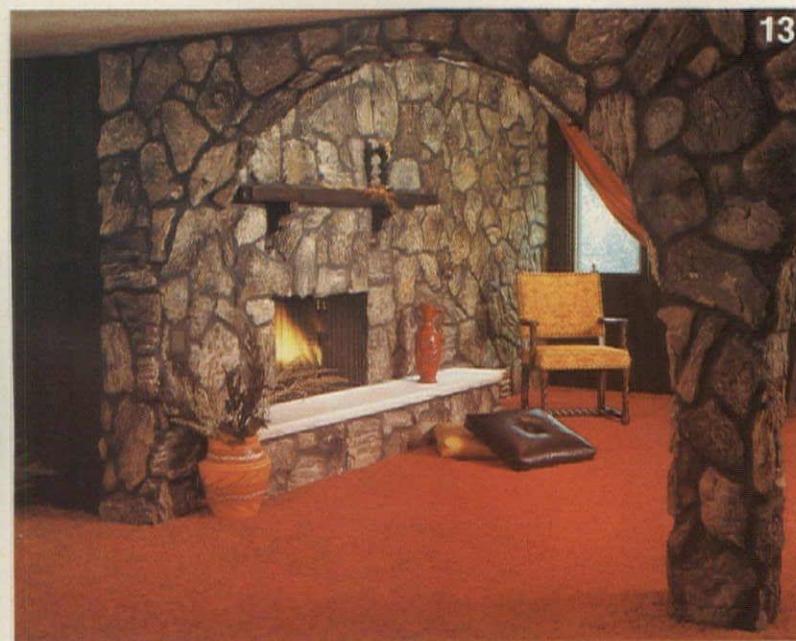
12

4. Shingled panels create a dramatic interior accent wall. Interior-Tex panels consist of assorted dark and light western red cedar shingles with contrasting grains and knots. Panels measure 46½" long with a 7⅝" wide face exposure. Shakertown, Cleveland, Ohio. *Circle 259 on reader service card.*

11. Vinyl-surfaced gypsum wall paneling, Durasan®, provides an easy-to-maintain surface ideal for heavy wear areas such as the reception room shown. The Mediterranean parquet pattern is a cork design available in three colors. Gold Bond, Buffalo, N.Y. *Circle 266 on reader service card.*

5. Hardboard wall paneling in a French Provincial style adds elegance to a dining area. "Provence" features deep-detailed insets in soft white. Each 4'x8' panel is made up of three narrow sections with a hand-fitted appearance. Masonite, Chicago. *Circle 260 on reader service card.*

12. Custom-look plywood paneling, "Teak 4", is used vertically and horizontally as a dramatic accent to a dining room. Paneling with low-maintenance factory-applied finish, is part of the "Weldwood Collection". U.S. Plywood, New York City. *Circle 267 on reader service card.*



13

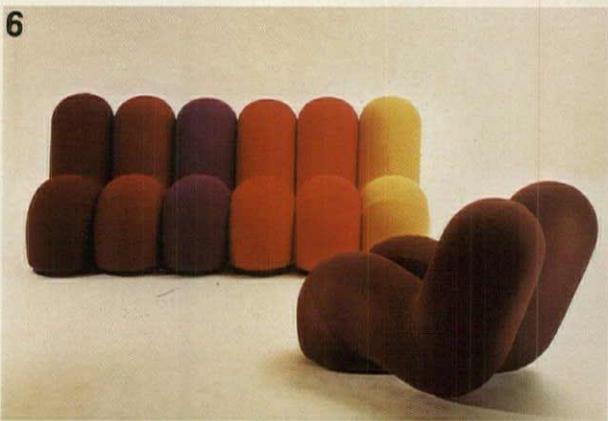
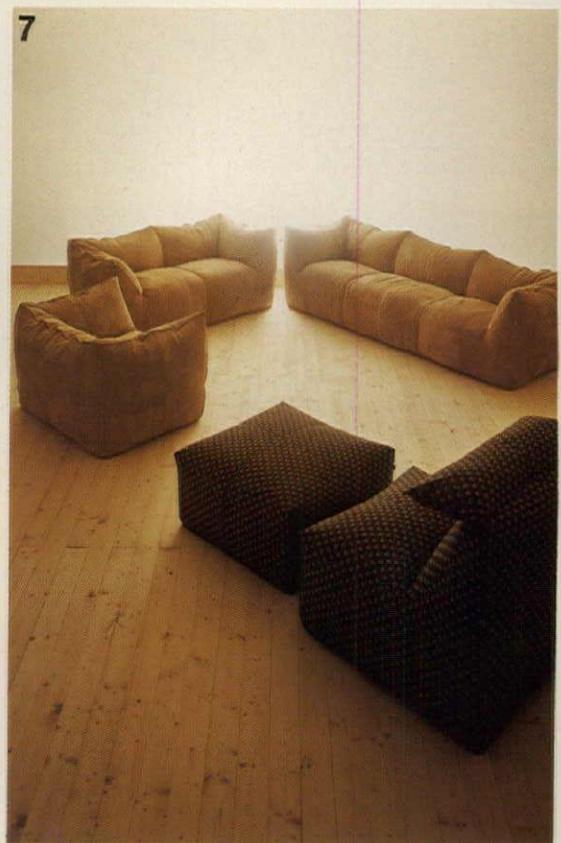
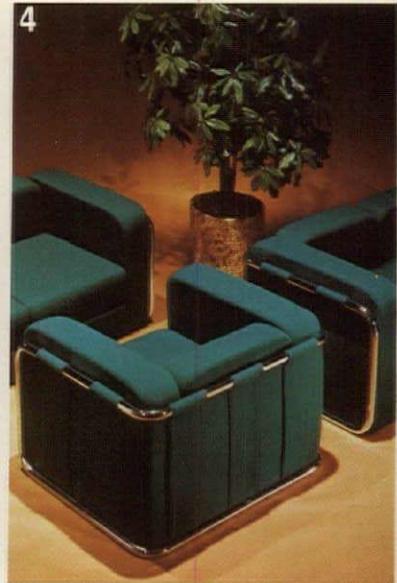
6. Indian-inspired wallcovering, "Shalimar", is part of the "Vinyl Wallcloth" collection. A special four-layer manufacturing process makes Wallcloth suitable for heavy wear areas. Covering is scrubbable and strippable. Imperial, Cleveland, Ohio. *Circle 261 on reader service card.*

13. The quarry-stone look accents an archway and fireplace in a family room. Suited for interior or exterior use, fireproof "River-stone" is a concrete aggregate molded into flat-back slabs. Naturally colored material can be easily broken into irregular stone-like pieces and applied with mastic and mortar. River Products, Rockford, Ill. *Circle 268 on reader service card.*

7. Plywood paneling, "Pinehill", captures the aura of a deep pine forest. Weathered-look paneling comes in the pale, misty Springfrost shown, in bold, shadowed Winterbark or in glowing, warm Autumn gold. Real-pine-veneered paneling is deep-textured. Georgia-Pacific, Portland, Ore. *Circle 262 on reader service card.*

8. Wallcoverings from the "Afro Handprinted Collection" of vinyls

1974 New Products





8



9

furniture

1. Modular seating group, "Hexibloc", lends itself to an infinite number of arrangements. Seats with or without backs, are constructed of "Proberon" urethane foam molded around welded-steel frames. Zip-off coverings come in a selection of fabrics. Harvey Probbler, Fall River, Mass. *Circle 269 on reader service card.*

2. Contemporary seating collection has the added attraction of a sofa that opens into a queen-size bed. Also included in the modular "Avanti" group are armless seating pieces and matching ottomans. Collection is shown in a natural and brown woven polka-dot fabric. Simmons, New York City. *Circle 270 on reader service card.*

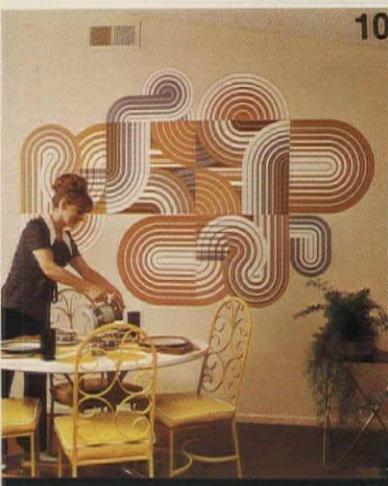
3. Sumptuous seating group, "Solo", consists of two basic modules, a chair with arms that fold up when multiple units are formed and an ottoman. Seats and backs of the chair adjust to a variety of reclining positions. Tetrad, Preston, Lancashire, England. *Circle 271 on reader service card.*

4. Bold "Cubico" seating features plump urethane cushions imprisoned by a chrome-plated tubular steel frame and straps of upholstery. Contemporary collection comes in a choice of fabrics and vinyls. Thonet, York, Pa. *Circle 272 on reader service card.*

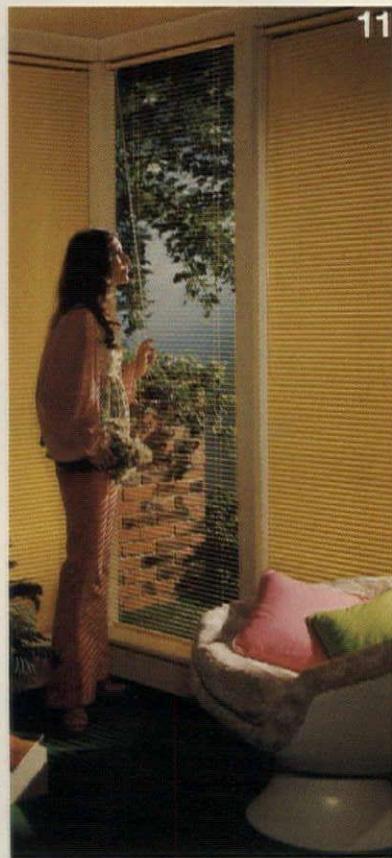
5. Striking dining ensemble is constructed of smokey "Perspex", an easy-to-clean plastic that comes in five colors. Polyurethane chair cushions are covered in a choice of fabrics. Matching lounge chairs, sofas, footstools and accessories are available. Banks Heely, Royston, Hertfordshire, England. *Circle 273 on reader service card.*

6. Add-on seating, "Digit", provides a flexible size arrangement. Single elements of molded foam are connected one to the other until desired length is reached. The strong, durable Italian import comes in a wide range of bold colors. Stendig, New York City. *Circle 274 on reader service card.*

7. Soft modular seating, "Le Bambole", is constructed of entirely flexible materials. Polyurethane bodies and corners are encased in pillows of foam and dacron fiberfil. Furniture is shaped from the outside by stretch-resistant textiles such as leathers and buffalo hides. Atelier International, New York City. *Circle 275 on reader service card.*



10



11

accessories

8. Window shades of wood slats interwoven with yarn are a dramatic decorative accent. Available in a wide range of textures and multi-color patterns, shades can be fabricated to fit even the most irregular shape window. Del Mar Woven Wood, Westminster, Calif. *Circle 276 on reader service card.*

9. Space saving closet system can be easily builder-installed in place of the conventional wood shelf and pole. Strong steel grillwork is coated with a smooth permanent white vinyl finish that never needs painting. Closet Maid, Ocala, Fla. *Circle 277 on reader service card.*

10. Wall graphic kit contains 28 squares that fit together to create unique murals. Modules can be placed in any order and direction, so design possibilities are limitless. Contemporary "Swirlwind" pattern shown comes in three colorways and sells for \$79. West Wall Graphics,

Santa Monica, Calif. *Circle 278 on reader service card.*

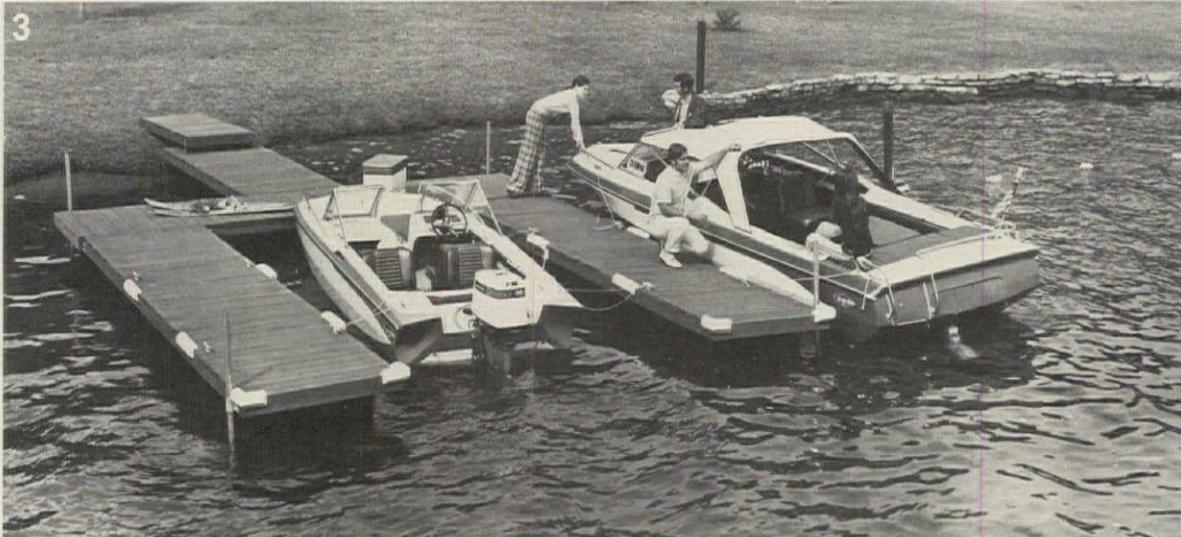
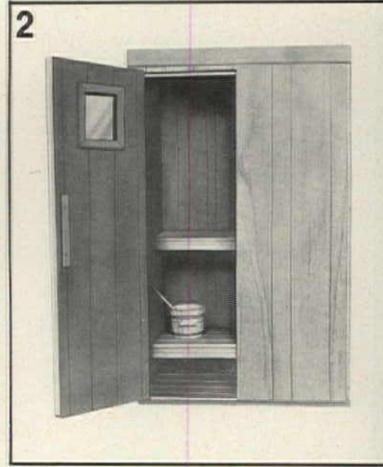
11. "Bali-Architect" venetian blinds offer a light airy look and provide privacy at the same time. Slats come in a choice of materials, widths and colors. Easy-to-install and maintain, blinds feature compact headrails. Marathon Carey-McFall, Philadelphia. *Circle 279 on reader service card.*

12. Wall art, "Peacock in a Moon Garden", is an abstract fabric collage from "Space Banners I". Designer Jack Lowery has combined color, texture and stitchery to create an interesting substitute for conventional graphics. Collection consists of 20 hand-made pieces. Karl Mann, New York City. *Circle 280 on reader service card.*

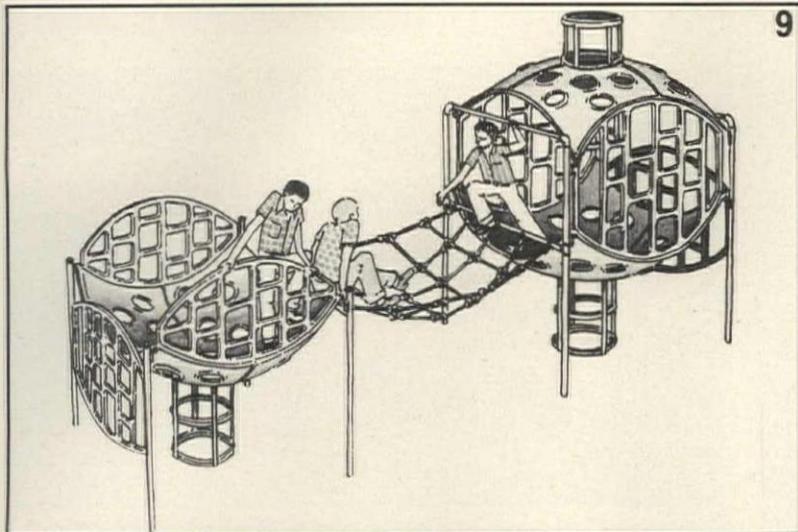


12

1974 New Products



recreational



1. Outdoor physical fitness trail, "Parcourse" is designed to blend with the natural environment. The one-mile meandering jogging course is marked with 20 exercise stations, some equipped with specially constructed apparatus such as the log "Step-ups" shown. Parcourse, San Francisco. *Circle 281 on reader service card.*

2. Residential "Helo" sauna is easy to install. The UL-listed unit operates on standard 110v current. Prewired sauna comes complete with a heater and Finnish igneous rocks. Available in large or small sizes, it is equipped with a visibility window and a light. MacLevy, Elmhurst, N.Y. *Circle 282 on reader service card.*

3. Floating docks for residential use come in preassembled lightweight modules. Non-sinkable polystyrene foam encased in polyethylene pans provides flotation. All wood deck components are treated with an exclusive preservative, making them maintenance-free for life. Koppers, Pittsburgh, Pa. *Circle 283 on reader service card.*

4. Prebuilt saunas come in a range of modular sizes. Packages are complete with insulated walls and ceiling, floor, carpet, heater, sauna stones, electrical controls, door, light and benches. A patented latching device built into the panels makes for quick, easy assembly. Viking Sauna, San Jose, Calif. *Circle 284 on reader service card.*

5. Computerized indoor golf course, "Golfomat", is a full-scale game simulator that offers a choice of championship courses. Players tee up 17' in front of a 100 sq. ft. screen and drive a regulation ball towards the projected target. Ball velocity and direction are instantly computed and film strip automatically moves to within a few feet of where the ball would lie. Golfomat, EMC, Alexandria, Va. *Circle 285 on reader service card.*

6. Hexagonal-shaped shelter, "Tudor", features fiber glass roof panels fabricated to simulate natural brown shakes. Heavy duty steel supports with a MiraCote® finish have a timberlike appearance. Roof and frame are easily bolted together. Miracle Recreation, Grinnell, Iowa. *Circle 286 on reader service card.*

7. Compact version of "Air Hockey", a fast-action table sport, is

ideal for project recreation rooms. Modeled on ice hockey, the game is played by two or four people. Table weighs 200 lbs and operates on standard 115v current. Brunswick, Skokie, Ill. *Circle 287 on reader service card.*

8. Freestanding sauna, requiring no structural supports, seats five bathers. The "Mark 58" with two long benches and one short one, features a mahogany exterior, a polyurethane core and a redwood interior. Am-Finn, Camden, N.J. *Circle 288 on reader service card.*

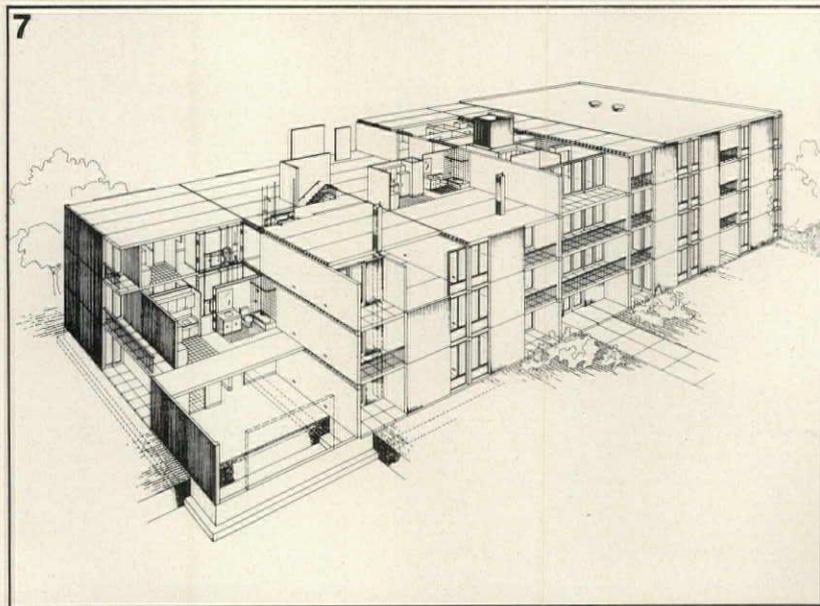
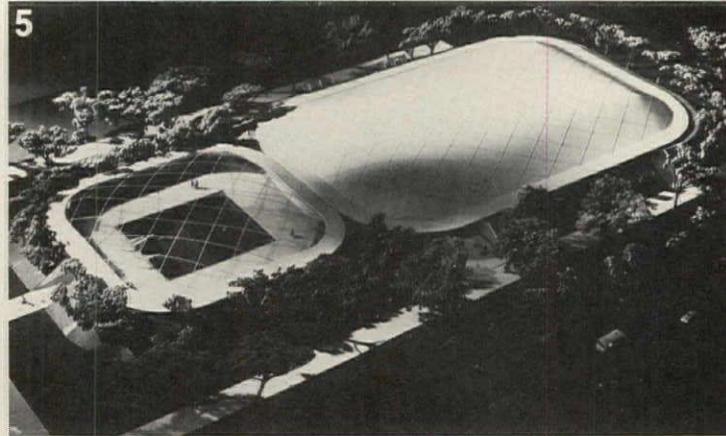
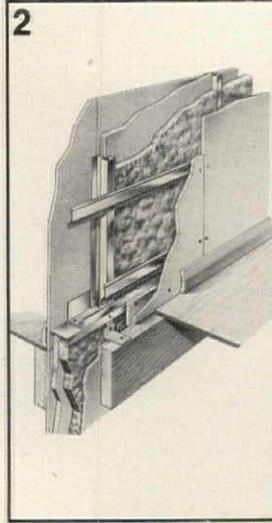
9. Creative play apparatus, "Satellite III", is a colorful, safety-oriented unit. Composed of sturdy aluminum domes, ladders and linked-bar network, it accommodates up to 25 youngsters. Playground Corp. of America, Long Island City, N.Y. *Circle 289 on reader service card.*

10. Radiant electric sauna heater, with built-in thermostat and timer, provides even heat distribution. Steel baskets hold the stones in position around an immersion heating element made to use with water. Ilo, A. & L. Dollar Bay, Mich. *Circle 290 on reader service card.*

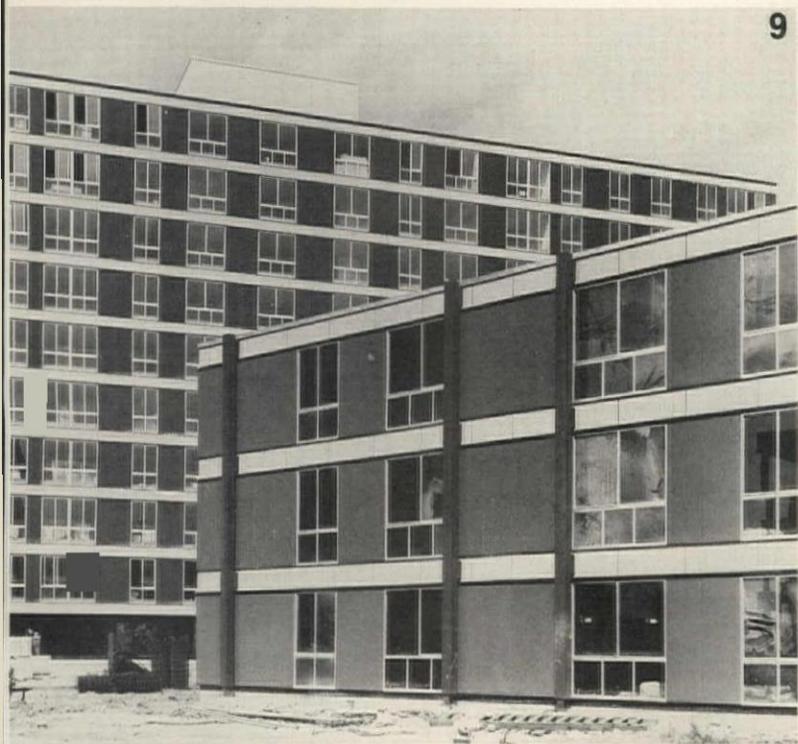
11. Multi-purpose table can be used for checkers, chess, backgammon, cards or as a work area. Playing board designs are permanently silk-screened onto the mar-proof melamine 36'-square table top. Pedestal-base piece comes in red/black/white, or walnut finishes. Murrey & Sons, Los Angeles. *Circle 291 on reader service card.*

12. Relaxing whirlpool, "Hydro-Spa", is constructed of durable fiber glass. Available in a wide range of sizes, shapes and colors, units can be installed indoors or out—above or below ground. Package comes with all necessary hardware, filter, pump and heater. American Leisure Holding, Ft. Lauderdale, Fla. *Circle 292 on reader service card.*

1974 New Products



9 structural



1. Reflective, heat-absorbing glass, "Solarcool", is available in gray and bronze tints as well as the standard clear. Metallic coating applied to the float glass reduces indoor heat build-up and helps control air-conditioning loads and costs. PPG, Pittsburgh, Pa. *Circle 293 on reader service card.*

2. Fast-erecting drywall partitions are low-cost fire barriers for wood frame multifamily housing. Lightweight, non-load-bearing "Area Separation Walls" that attach to specially designed steel studs and runners are easy to install. Cavity system shown is for party walls between apartments. U.S. Gypsum, Chicago. *Circle 295 on reader service card.*

3. Spray-on acoustical insulation, "Celbar", provides effective sound barriers in multi-unit buildings. Used in wall cavities and around ductwork and piping, the material is composed of cellulose fibers chemically impregnated to resist mold, mildew and fire. National Cellulose, Houston, Tex. *Circle 294 on reader service card.*

4. Single-pane reflective glass, "Vari-tran", substantially reduces solar heat gain in a structure. Manufactured by applying thin layers of metallic and non-metallic particles to glass in a vacuum, "Vari-tran" comes in 15 variations based on five color families. Libby-Owens Ford, Toledo, Ohio. *Circle 296 on reader service card.*

5. Architectural fabric, "Sheerfill", made of Owens-Corning Fiberglas coated with Teflon® fluorocarbon resins, is used as a covering on permanent structures. Fire-safe, weather-resistant material, available either opaque or translucent, can be used on air- or cable-supported structures. Chemical Fabrics, Bennington, Vt. *Circle 297 on reader service card.*

6. "Polyarch" structural system is based on gracefully arched fiber glass segments which combine with window, door and solid panels to create a countless variety of building forms and layouts. Each segment is a high-strength insulated wall and roof unit in one continuous molded piece. Color impregnated units have cores of urethane foam. Rudkin Wiley, Stratford, Conn. *Circle 298 on reader service card.*

7. Precast concrete building system, "Vista-Space", provides for

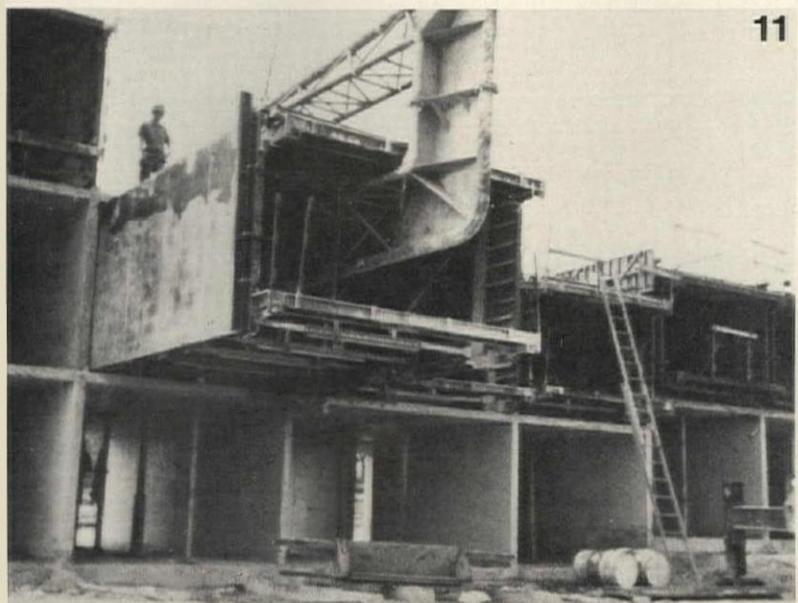
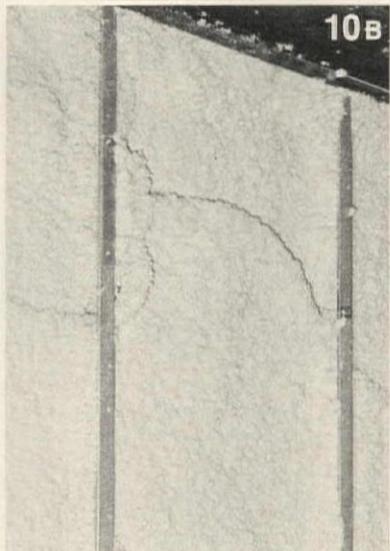
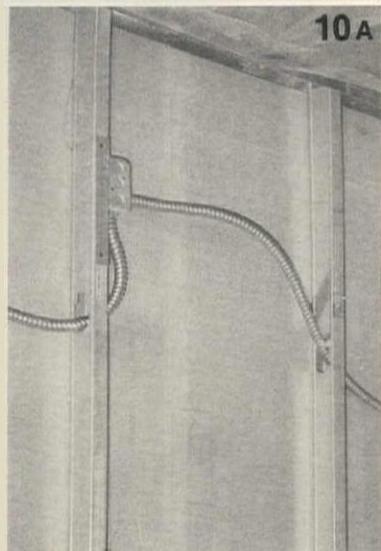
simplified construction of multifamily housing. Hollow core floor- and solid load-bearing wall panels combine with compatible mechanical, electrical and plumbing subassemblies to create completed structures. Companion manuals offer architectural, design and engineering options as well as interior and exterior finishing guidelines. Precast Systems, Rosemont, Ill. *Circle 299 on reader service card.*

8. Standardized hydraulic elevators for low-rise buildings provide optimum performance. Unnecessary weight is eliminated to conserve power without sacrificing safety. Cars feature mix-and-match panels for individualized interiors. Otis Elevator, New York City. *Circle 300 on reader service card.*

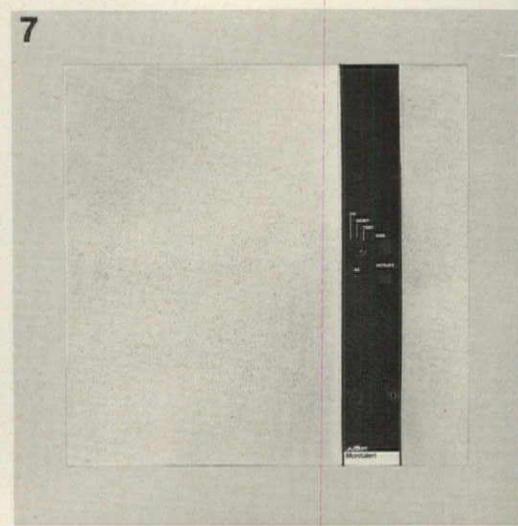
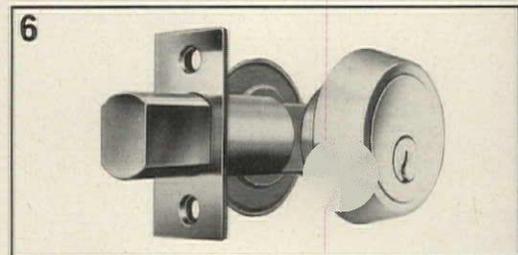
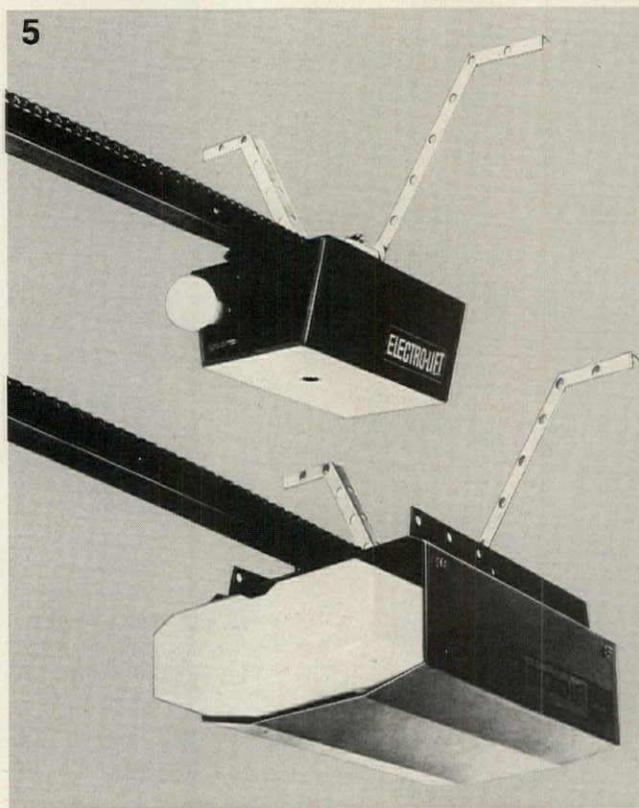
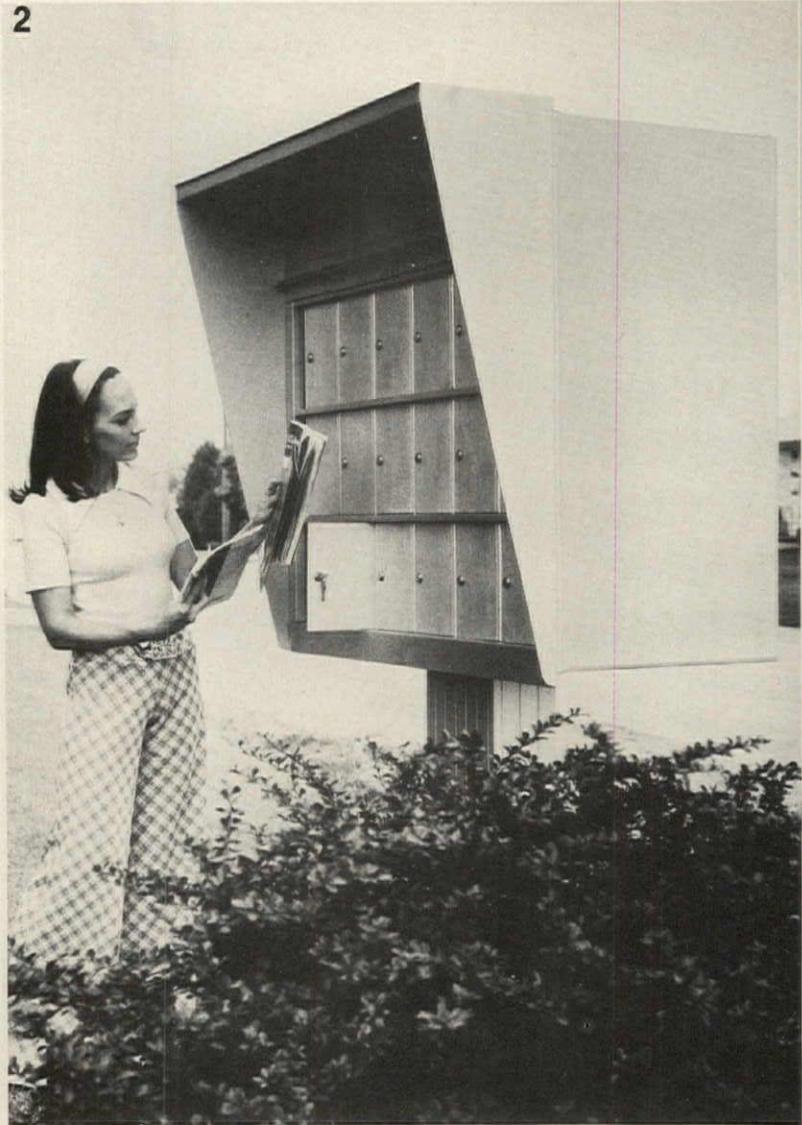
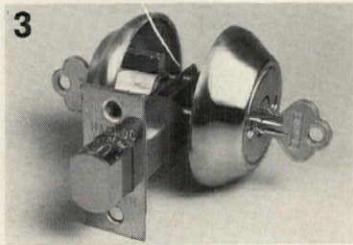
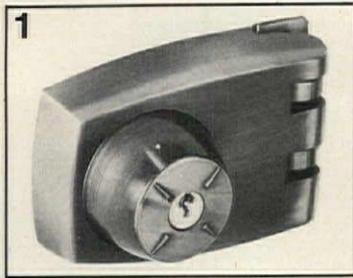
9. Flexible building system is based on a steel frame made up of stacked floor panels and columns. Assembled with lateral and electrical works inside, floor panels are hoisted into place. Prefabricated insulated wall panels as well as windows that tilt into place enclose the structure. Component Building Systems, Chicago, Ill. *Circle 301 on reader service card.*

10. Spray-on insulation, TCI-75, provides thermal control, soundproofing and fireproofing. Cellulose-based material can be applied to any surface and conforms to complex shapes as shown in photos A and B. Therma-Coustics, Chilton, Tex. *Circle 302 on reader service card.*

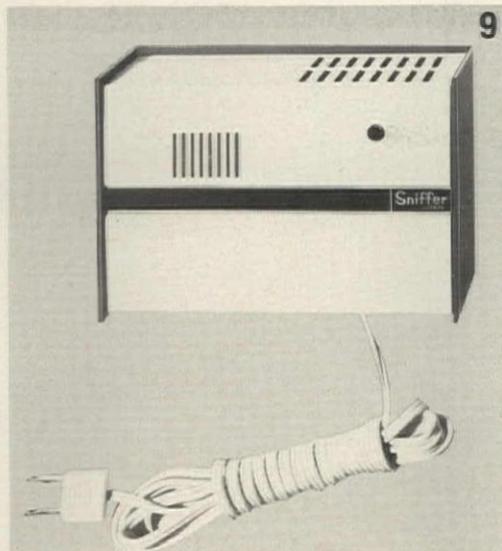
11. Patented steel tunnel forms speed up multifamily construction by permitting concrete walls and ceilings to be poured simultaneously. Adjustable, retractable "Batimetal" units provide flexibility of size and building design. Heating device cuts setting time to ten hours so forms can be used daily. Scientific Construction, Rahway, N.J. *Circle 303 on reader service card.*



1974 New Products



security



1. Jimmyproof double cylinder lock bolts to itself not the door. Part of the "Superguard Lock" series, the device has a decorative escutcheon plate that protects cylinder from prying. Ideal, St. Paul, Minn. *Circle 304 on reader service card.*

2. Community mail box contains 18 individually locked compartments. Designed to save delivery time, the unit is serviced by the postman from the rear. Weatherproof doors are of extruded aluminum with concealed hinges. American Device, Steelville, Ill. *Circle 305 on reader service card.*

3. Rugged double-cylinder deadbolt locks or unlocks from either side only with a key. Unit, with a free-turning hardened steel insert and a heavy duty solid brass cylinder guard, is self-adjusting for door thicknesses from 1 3/8" to 1 3/4". Harloc, West Haven, Conn. *Circle 306 on reader service card.*

4. "Meteor" lock features a 1/2" throw deadlocking latch plus a 1" throw deadbolt. A concealed hardened steel roller within the deadbolt resists sawing and tampering. Unit locks from the inside with a thumbturn. Schlage Lock, San Francisco. *Circle 307 on reader service card.*

5. Electronic door opener, "Electro-Lift", features portable solid state remote controls that operate from distances up to 100'. Powered by a 1/3 hp motor, system is equipped with an automatic safety reverse and a security light. Chamberlain, Elmhurst, Ill. *Circle 308 on reader service card.*

6. High security deadbolt lock features a tapered, free-turning cylinder guard that defies assault by burglar tools. A full 1" projection deadbolt is made of solid bar brass with a free-turning hardened steel insert that makes sawing through the bolt almost impossible. Weiser, South Gate, Calif. *Circle 309 on reader service card.*

7. Comprehensive security system, "Monialert", detects intrusion, fire and smoke. Easy-to-operate from a remote control panel, system monitors all windows and doors—even those which are not tightly fitted. "Monialert", with audible alarms both indoors and out, continually checks itself for proper functioning. Back-up power source is standard. AMF, Alexandria, Va. *Circle 310 on reader service card.*

8. Colonial-style handleset, "Monticello", features a tapered non-crushable brass cylinder collar that deters tampering. The 21" long unit is available in bright or antique brass finishes and comes with a choice of interior knobs and trim. Dexter, Grand Rapids, Mich. *Circle 311 on reader service card.*

9. Electronic fire alarm system alerts occupants to the presence of smoke and flame in the earliest stages. Solid state UL-listed unit operates on standard household current and meets federal, state and local requirements and building codes. Lutron, Coopersburg, Pa. *Circle 312 on reader service card.*

10. Electronic smoke detection device, Smoke-Alert™, has a dual photo electric cell that senses fire in the earliest stages of combustion. Easily heard warning signal cannot be set off by normal household procedures. Easy-to-install unit is enclosed in a decorative plastic body. Circle F, Trenton, N.J. *Circle 313 on reader service card.*

11. Early warning fire alarm detects the combustion before flame or smoke is evident. Decorative battery operated ionization type unit sounds a piercing warning. Kwikset, Anaheim, Calif. *Circle 314 on reader service card.*

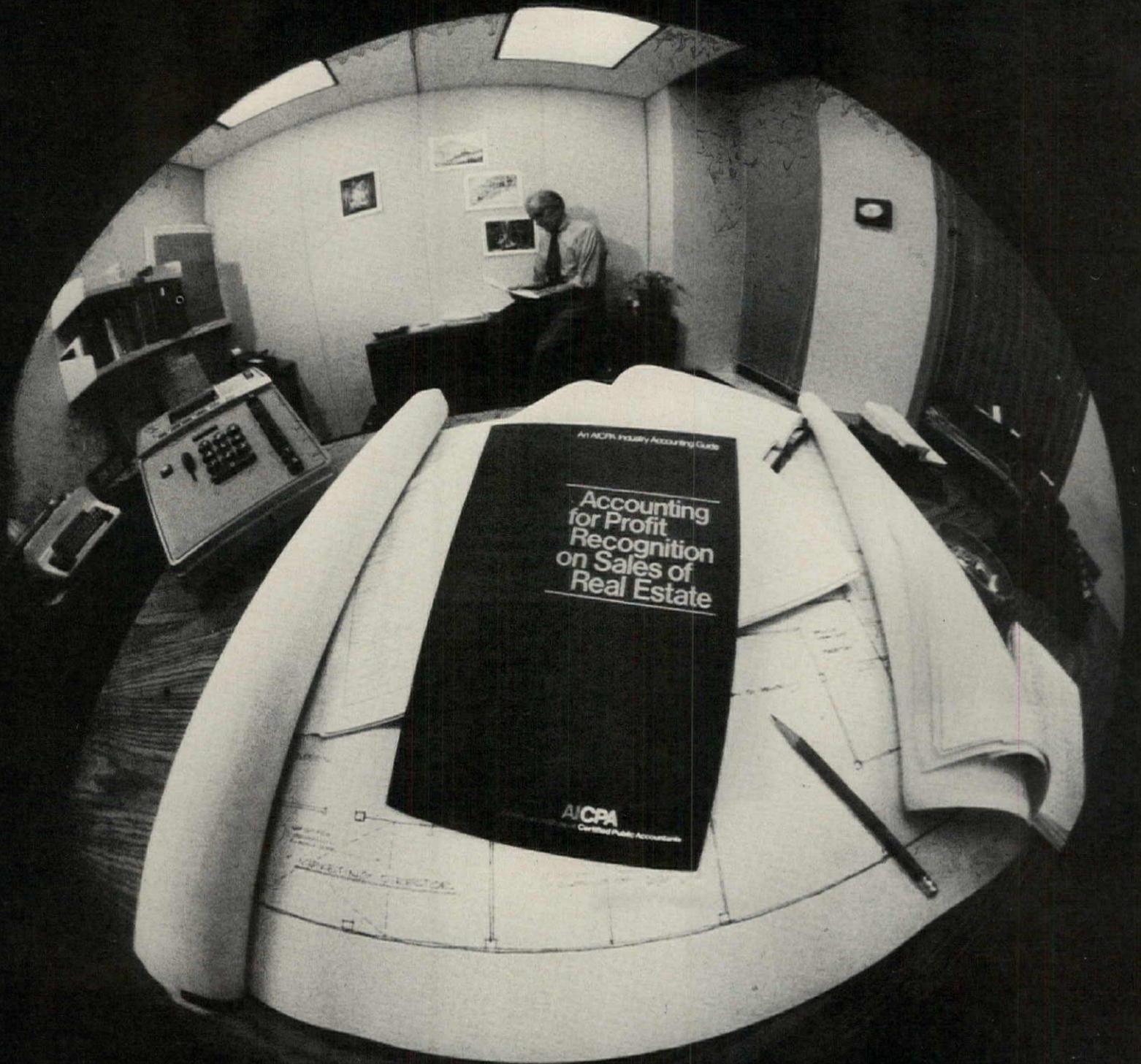
12. Panicproof lockset can be opened from the inside by simply turning the knob. Thumbscrew is not needed to release the lock. Unit has a 1" deadbolt with hardened steel inserts that cannot be sawed through. Weslock, Los Angeles. *Circle 315 on reader service card.*

13. Electronic garage door opener, "Genie", features a hand-size radio transmitter control. "Cryptar" coding/decoding increases the number of radio frequencies available, making unauthorized entry nearly impossible. Alliance, Alliance, Ohio. *Circle 316 on reader service card.*



13





An AICPA Industry Accounting Guide

Accounting for Profit Recognition on Sales of Real Estate

AICPA
Certified Public Accountants

Those new accounting rules will make a world of difference to your profit picture

You've made a good deal on selling a piece of land and ended up with a bundle of cash and a hefty tax bill. But your financial statements say you've added nothing to your net worth—not for the moment at least.

That's life in the new world the accounting profession created on July 1, 1973. On that day, rules on *Accounting for Profit Recognition on Sales of Real Estate** took effect. They were drafted to keep the big guys from making the type of deal that gets them in trouble with the SEC, but one way or another they'll affect everyone in the industry. They may affect you when you sell an apartment building but continue to manage it. Or when you accept 10% down on a piece of land. Or when you go to the bank for financing with your new P&L statements.

Of course if you're privately owned, you may not care what those financial statements say. In that case you'll keep doing business as usual, and you'll have the edge over the public companies that must keep one eye on the quarterly report.

Under the new rules there are times when a sale is a sale for tax purposes but not for accounting—or financial statement—purposes. There are times when profits must be deferred. There are tests to meet on down payments, time of sale, buyer's investment and seller's continuing involvement. Understanding these rules may help you structure your deals so you can report profits in the way that is best for you. Or it may just help you make your banker understand why he should lend you money despite your anemic financial statements.

Stan Ross, partner of Kenneth Leventhal & Co. of Los Angeles, helped draft the new rules, and HOUSE & HOME has asked him to explain them. Here are the highlights . . .

The new rules will hit some companies harder than others even though accountants will follow them for all real estate transactions. Those developers or builders whose financial statements are scrutinized most closely—publicly held companies and privately held companies that plan to merge or go public in the next few years—will be affected the most by the

stricter requirements for reporting profits.

Many transactions that would previously have shown profits at time of sale will now be accounted for by deposit, installment and cost recovery methods that either defer recognizing the sale until its substance can be determined (see "Sometimes a sale is not a sale," below) or defer recording profit until the money is actually in hand.

* Available from the American Institute of Certified Public Accountants, 666 Fifth Ave., New York, N.Y. 10019, for \$2.00.



The guide has its most dramatic effect on the structuring of sales of rental apartments and other income-producing properties, and some companies have reacted by shifting to condominiums. Under the guide, it will no longer be financially beneficial from a reporting point of view for the seller to retain ownership interests in a property or to guarantee return on investment or deficit cash flow. Possibilities for involvement with a property after a sale has closed are drastically curtailed.

Privately held companies, on the other hand, do not have to structure their deals so that they will look good on an earnings statement and thus can maintain any type of continuing relationship with the property after it is sold so long as it produces an economic profit. The privately held company can also employ incentives in selling land, single-family homes, condominiums or income properties that would be impossible for publicly held companies because of their profit impact. Such transactions may not qualify as sales under the rules of the guide, but this does not matter if the developer is concerned with generating economic rather than accounting income.

Still, each transaction will have an impact on cash flow and income taxes and thus must be evaluated carefully. The effect on net worth must also be taken into account when financial statements are to be provided to banks and other financial institutions.

Those quick paper profits won't be possible anymore

The SEC was beginning to crack down on such deals. For example:

- A company sold a shopping center but received only a small deposit. The SEC ordered its annual reports revised to exclude the profits on the sale.
- Two land purchases were immediately resold at a significant profit. The SEC charged that false information had been issued.
- A company sold some amusement parks to a limited partnership but continued to manage them. It received very little money down and a share of the future profits. The SEC made it reverse all the profits it had reported and change its method of accounting for the deal.

Cases like these, plus the bad publicity they generated, forced the accountants to tighten their rules so that the SEC would not step in and do it for them. They concentrated on the two areas that had caused the most trouble—retail land sales* and the timing and reporting of profits.

This article is concerned with the rules covering profit recognition on all real estate transactions other than retail land sales: sales of lots to builders, and sales of homes, buildings and parcels of land to builders and others.

The general philosophy of the new rules

*The AICPA has issued a separate guide, *Accounting for Retail Land Sales*, specifying new rules for accounting for retail sales of lots.

can be summed up in these two statements:

1. *Before a seller can report revenue on a sale, the amount of that revenue must be measurable.* This means the seller must be reasonably assured that the buyer is committed by making a down payment, and the uncollected amount must be capable of being estimated.

2. *The earnings process must be virtually complete.* Thus the revenue should not depend on the seller's future actions.

Unless a sale meets these two tests, which will be explained in detail below, the seller cannot report profits at time of sale. Instead, a method that defers recognition of profits, such as deposit, installment or cost recovery, must be used.

Sometimes a sale is not a sale

A transaction that is legally a sale (i.e., when title is transferred in exchange for cash or a promise to pay cash) may be something quite different in its economic substance.

It may be a construction contract, a contract for services, a lease, an agreement to lend or borrow funds, a joint-venture agreement, an agreement to divide profits in a specified ratio, a deposit, an option, a sale of something else such as depreciation or the right to participate in profits, or a combination of any of these.

Thus, before you can report a profit you must first determine whether your transaction is indeed a sale. Specifically:

1. Are the usual risks of ownership, such as obsolescence and unprofitable operation, transferred from the seller to the buyer?
2. Are the rewards of ownership, such as profitable operation and gains from appreciation in value, transferred from the seller to the buyer?

The guide states:

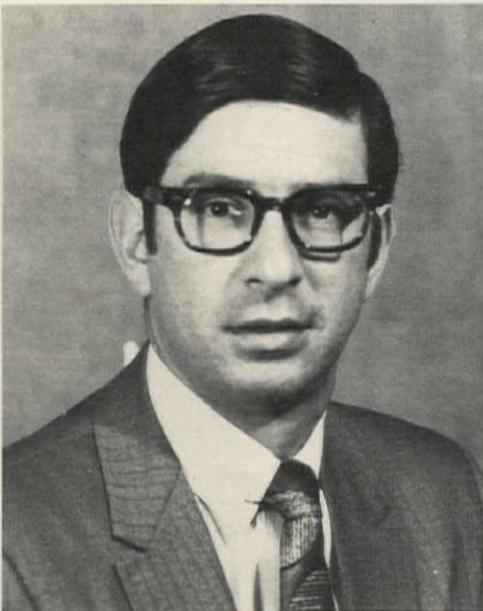
"If... the terms of the transaction are such that the buyer may expect to recover his investment plus a return through assured cash returns, subsidies and net tax benefits, even if he were to default on his debt to the seller, the transaction is probably not in substance a sale."

You have to close a sale before you can report a profit

For accounting purposes, this means the parties must be bound by the terms of the contract, and all considerations must have been exchanged and all conditions met. A contract to sell or a pre-closing is not considered a sale.

In addition, a sale must be consummated before the end of the accounting period in which it is reported. Accountants used to accept transactions that closed while they were finishing their auditing; they can no longer do this.

As you can see from the various tests a sale must meet, the accountants are conservative and have developed strict rules as to what constitutes a sale. At the same time the government, for tax purposes, is lenient as to when to report profits as it would prefer to have income reported quickly. It recog-



LEVENTHAL'S ROSS

"These new rules are probably an overreaction to abuses that have occurred in the past. But much interpretation and modification will be required if they are to be applied properly."

nizes a sale simply when the benefits and burdens of ownership change hands or when there is some other evidence that a transaction is closed. Paradoxically, a developer could thus be picking up taxable income without picking up book income.

Too small a down payment can nix your profits

One test accountants use to determine whether the seller is reasonably sure of collecting his sales price (and is thus in a position to report profits) is the down payment on the sale. The buyer's initial investment must give him a large enough stake in the property so that he would not want to lose it through default.

What large enough means is spelled out in great detail in the guide. The buyer must pay a major part of the difference between the usual loan limits and the sales "value" (rather than the sales price) of the property. Thus the minimum down payment must be the greater of:

1. The amount specified in Exhibit A to the guide (see Table 1 below), ranging from 5% for a single-family house that the owner lives in to 25% for land held for development after two years.

2. The amount by which the sales value of the property exceeds 115% of the amount of the loan or commitment by the primary lender.

Regardless of which of these tests is used, the maximum down payment need not ex-

ceed 25% of the sales value of the property.

These down payment requirements are summarized in Table 2 (page 131), which shows at a glance the relationship between the percentages required under Exhibit A (Table 1) and the 115% test.

The down payment may consist of cash, buyer notes supported by irrevocable letters of credit, payments on third party debt or payments designated as management fees, points, etc. that may in substance be additional sales proceeds. For purposes of financial reporting only, it may *not* consist of buyer notes not supported by letters of credit (until they have been sold or somehow converted to cash on a non-recourse basis), funds provided directly or indirectly by the seller, payments to third parties for improvements, developments, etc. or prepaid interest.

Once the required down payment is made, the guide considers other factors that could affect whether or not the buyer will meet his obligation. Is his credit good? What is the age and location of the property? Does it have adequate cash flow?

With single-family homes the down payment requirement begins to hurt when the money market tightens and banks make smaller loans. When loans were 90% or 95% of sales value, the 5% minimum down payment was greater than the 115% loan-to-value ratio, and the sale was thus complete and reportable. But when loans are only 80% and 85% of sales value, the developer must require higher down payments, as in the following example:

	CASE A	CASE B
Sales price	\$40,000	\$40,000
Primary loan	38,000	32,000
Loan-to-value ratio	95%	80%
Minimum down payment required by the guide	5%	8%

Another example of the way the down payment requirements may affect a deal is the case of an apartment house that is sold for \$1,100,000. If the seller accepts \$100,000 cash and a \$1 million mortgage, he cannot report a profit because \$100,000 does not meet the 10% down payment requirement. Ironically, if he reduces his price to \$1 million and receives \$100,000 cash and a \$900,000 mortgage, he can report a profit.

The buyer has to keep increasing his investment

He not only has to meet the down payment requirements, he has to continue to increase his investment. Otherwise if the property decreased in value, he might decide to stop making payments and the transaction would have been, in substance, an option rather than a sale.

The annual payments must be at least equal to the level annual payment that would be needed to pay the total indebtedness (including interest on the unpaid balance) over (1) the customary term of a first mortgage loan, (2) no longer than 20 years on the sale of land (3) or earlier than either of these if desired.

If the payments do not meet this test, but will at least be equal to annual level payments of principal and interest on the maximum first mortgage that could be obtained on the property, plus interest on a second mortgage at an appropriate rate, the seller may recognize a reduced profit at the time of sale.

Again, funds may not be provided directly or indirectly by the seller but must meet the same tests as down payments (see above). Any excess down payments can be applied to annual payments, however.

Suppose you have a deal where the buyer has met the down payment test, makes no payments for the next four years and then pays off the full amount in the fifth year. You cannot have full profit recognition on this sale because the buyer did not meet the annual amortization test.

If you were to restructure the deal so that payments equaled interest and principal on the first mortgage and interest only on the second, you would be able to pick up reduced profits. But if there is no payment in a year, all payments are valued at zero.

Beware of selling land with a receivable subject to future subordination

You will run afoul of some of the basic tenets of the guide if the seller's receivable is subject to later subordination. The effect of such subordination usually cannot be reasonably evaluated and, in addition, there would be no way to prevent the buyer from using a subordination loan to recoup his original

TABLE 1
EXHIBIT A—MINIMUM DOWN PAYMENT REQUIREMENTS

*Minimum down payment
expressed as a percentage
of sales value*

Land (other than volume retail sales by land development companies):	
Held for commercial, industrial or residential development to commence within two years after sale	20%
Held for commercial, industrial or residential development after two years	25%
Commercial and industrial property:	
Office and industrial buildings, shopping centers, etc.:	
Properties subject to lease on a long-term lease basis to parties having satisfactory credit rating; cash flow currently sufficient to service all indebtedness	10%
Single tenancy properties sold to a user having a satisfactory credit rating	15%
All other	20%
Other income-producing properties (hotels, motels, marinas, mobile home parks, etc.):	
Cash flow currently sufficient to service all indebtedness	15%
Start-up situations or current deficiencies in cash flow	25%
Multifamily residential property:	
Primary residence:	
Cash flow currently sufficient to service all indebtedness	10%
Start-up situations or current deficiencies in cash flow	15%
Secondary or recreational residence:	
Cash flow currently sufficient to service all indebtedness	15%
Start-up situations or current deficiencies in cash flow	25%
Single-family residential property (including condominium or cooperative housing):	
Primary residence of the buyer	5%
Secondary or recreational residence	10%



down payment and thus eliminate possible risk of loss. Therefore the guide specifies that profits from such a sale must be determined under the cost-recovery method.

This does not apply if the proceeds are first used to pay the seller's receivable or if the receivable is subordinate to the existing mortgage on the property.

In such situations the extent of the subordination can be evaluated at the time of closing. For example, if a receivable is subordinate to an existing permanent loan commitment, it can be in terms of the 115% loan-to-value test.

Buyers must meet commitment tests with land sold on release

When portions of land are released from liens securing related debt after certain specified conditions (normally payment of a release price) are met, the buyer's down payment and amortization tests will apply at each release to all of the property, including the portion that is not released or not subject to release. Otherwise profit should be recognized as if each release were a separate sale.

You can't get around these requirements by turning a sale into a lease

Although the guide was not intended to cover lease transactions, it does cover sales of improvements where there is a concurrent lease of land for a period that would extend over the life of the improvements, or at least 20 years.

If the lease is between the buyer and a third party, its effect must be taken into account when down payment is calculated. If the seller of the improvements is also the lessor of the land, however, the lease affects the calculation of profit on the sale of the improvements too.

In these cases the down payment is calculated by adding the present value of lease payments (over the term of the principal debt or customary term) to the sales value. As it would be difficult to distinguish between profit on the sale of improvements and profit on the related lease, the profit to be recognized on the sale of the improvements should be computed by deducting the sum of the cost of the improvements and the cost of the land from the sum of the sales value of the improvements and the present value of the lease payments (but not more than the cost of the land).

The result is that profit from the residual value of the land or from rentals on the land is deferred until the land is sold or the rental payments are received. Profit to be recognized on the sale of the improvements should not be increased by profit inherent in the land lease, since such profit is not realized until rentals are accrued under the lease.

If the seller remains involved with the property he may have to defer his profits

This is one of the major provisions of the guide. As indicated above, to report a profit

the earnings process must be virtually complete at time of sale and the revenue should not depend on the seller's future actions. Still, there are many ways a seller may want to remain involved in a property after sale, such as through financing, management, development, construction, guaranties, equity, syndication and leaseback. From now on he must weigh the impact any of these will have on his profit picture.

A simple example would be where the seller obtains or provides permanent financing for the buyer of a single-family house or condominium. If he does this, he cannot report a profit until the financing has been made available.

Or the seller may have entered into a sales contract and received a deposit before he constructed the unit. In such case profit is generally deferred until construction has been completed.

A seller may agree to develop the property in the future, construct facilities on the land or provide off-site improvements. The accountants decided that this is not substantially different from accounting for long-term construction contracts in general, and that therefore a method that recognizes profit primarily on the basis of performance rather than on sale should be used.

Table 3 (page 132) shows how continued involvement in a piece of land he has sold may affect a developer's financial statements. In this example a privately held developer sells land, obtains adequate financing to complete a project, pays income taxes on the sale, but must defer much of his financial income.

A sale cannot be accounted for as a sale if the seller's continued involvement with the property carries the same risks as ownership. This is particularly true of real estate syndications, where the seller, acting as general partner, may guarantee cash flow or returns to investors for an extended period.

There are many forms of seller involvement with property sold. Some common ones, along with recommended accounting treatment, are shown in Table 4 (page 133).

An option to repurchase can turn your sale into something else

Even if you have received 100% cash, you can't record a sale if you have an option to repurchase the property, be it in five years or in 50 years. Depending on the terms, the accountants may consider your transaction in substance a financing, leasing or profit-sharing arrangement. But right of first refusal based on a bona fide offer by a third party is not considered an option.

Condominium sales must meet special tests

Condominium units that are part of a larger structure come under the guide's provision for partial sales. Profit should not be reported unless:

1. Construction has progressed beyond a preliminary stage. (The guide does not define this, but some companies have interpreted it to mean that the percentage of completion

TABLE 2
DOWN PAYMENT REQUIRED AS A PERCENTAGE OF SALES VALUE

PROPERTY PER EXHIBIT A	LOAN TO VALUE RATIO						
	50%	60%	70%	75%	See note 80% 90% 95%		
25% Property							
Land: held for commercial, industrial or residential development after 2 years	Exhibit A 25%	Exhibit A 25%	Exhibit A 25%	Exhibit A 25%	Exhibit A Limited to 20%	Exhibit A Limited to 10%	Exhibit A Limited to 5%
Other income-producing properties: start-up situations or current deficiencies in cash flow							
Multifamily residential property: secondary or recreational residence start-up situations or current deficiencies in cash flow							
20% Property							
Land: held for commercial, industrial or residential development to commence within 2 years after sale	115% test Limited to 25%	115% test Limited to 25%	Exhibit A 20%	Exhibit A 20%	Exhibit A 20%	Exhibit A Limited to 10%	Exhibit A Limited to 5%
Commercial and industrial property: all other (See exhibit A).							
15% Property							
Commercial and industrial property: single tenancy properties sold to a user having a satisfactory credit rating	115% test Limited to 25%	115% test Limited to 25%	115% test 19.5%	Exhibit A 15%	Exhibit A 15%	Exhibit A Limited to 10%	Exhibit A Limited to 5%
Other income-producing properties: cash flow currently sufficient to service all indebtedness							
Multifamily residential property: primary residence start-up situations or current deficiencies in cash flow secondary or recreational residence cash flow sufficient to service all indebtedness							
10% Property							
Commercial and industrial property: properties subject to lease on a long-term lease basis to parties having satisfactory credit rating; cash flow currently sufficient to service all indebtedness	115% test Limited to 25%	115% test Limited to 25%	115% test 19.5%	115% test 13.75%	Exhibit A 10%	Exhibit A 10%	Exhibit A Limited to 5%
Multifamily residential property: primary residence (cash flow currently sufficient to service all indebtedness)							
Single-family residential property: secondary or recreational residence							
5% Property							
Single-family residential property: primary residence of the buyer	115% test Limited to 25%	115% test Limited to 25%	115% test 19.5%	115% test 13.75%	Exhibit A or 115% test 5%-8%	Exhibit A 5%	Exhibit A 5%

Note: Caution should be exercised in situations where there are high loan-to-value ratios and the seller remains primarily or secondarily liable on the primary debt.



of actual construction is beyond 15% to 30% for medium-rise and 50% or more for high-rise condominiums.)

2. The buyer cannot obtain a refund of his deposit.

3. Sufficient units have already been sold to assure that the building will not revert to rental. (Again the guide does not specify, but companies have interpreted this rule to mean at least 50% of the total available units have been sold.)

4. Aggregate sales proceeds can be estimated reasonably.

The profit to be recognized in these cases should be calculated by multiplying the percentage of completion of the project—which may be a single building or a group of buildings—by the gross profit on the units sold.

Condominium conversions come under the same rules, and in addition the developer should consider that:

1. Extended construction periods for refurbishing and installing amenities would defer or delay profit recognition until completion and/or until a sufficient number (*i.e.*

at least half) of the units have been sold.

2. The terms under which an existing tenant converts his apartment would have to meet the down payment test and the other rules just as though the building had been a condominium from the outset.

The tax people don't see it the same way as the accountants

In essence, the accountants are being conservative and saying, "If there's any *doubt* about collectibility of profits, don't book them," while the IRS is being liberal and saying, "If there's any *possibility* of collecting taxes on profits, we want them."

Until this is resolved, the developer will be caught in the middle. As things stand today he may be faced with a situation in which he closes a deal, incurs a tax liability, goes to the bank to borrow money to pay those taxes and is told, based on his financial statements, "I'm sorry. You have no profit so we can't lend you any money."

—NATALIE GERARDI

TABLE 3

Private Development Company buys a parcel of land for \$85,000, completes certain engineering work at a cost of \$15,000 and then sells the property to Profit Savings and Loan Association for \$200,000 cash.

ECONOMIC PROFIT		
Sales price		\$200,000
Cost of sales		
Land	\$85,000	
Engineering	15,000	100,000
Gross profit		100,000
Tax liability on profit		50,000
Net economic profit contribution		\$ 50,000

If the transaction did not contain any continuing involvement by the seller the economic profit shown above would equal the seller's financial profit. But in this case the seller has also agreed to complete the site development work at a price of \$300,000. The cost to the developer based upon firm contracts will be \$270,000.

This contract added to the land sale indicates that the seller remains involved with the property after the sale and under the new rules in the guide an allocation of total income based upon costs incurred to total estimated costs is required. The financial income is calculated as follows:

FINANCIAL INCOME

1. Total income

	Sale of land	Site development	Total
Income	\$200,000	\$300,000	\$500,000
Costs	100,000	270,000	370,000
Gross profit	\$100,000	\$ 30,000	\$130,000

2. Income reportable upon the disposition of the land

$$\frac{(\text{Cost of land}) \$100,000}{(\text{Cost of land}) \$100,000 + (\text{Cost of site development}) \$270,000} \times (\text{Total gross profit}) \$130,000 = \text{Reportable gross profit of } \$35,126$$

The \$35,126 would have a financial statement tax of \$17,563 resulting in a net profit contribution of \$17,563.

Thus although the developer had an economic increase in net worth of \$50,000 after paying income taxes of \$50,000, his financial statements will only reflect \$17,563 because he had involvement with the property after sale.

The new accounting guide will have a drastic effect on Private Development Company's financial statements which could result in limiting its financing capability. Therefore, the privately held company must consider these rules when structuring transactions.

TABLE 4
EFFECT OF SELLER'S CONTINUED INVOLVEMENT WITH PROPERTY SOLD

Form of involvement	Transaction does not qualify as a sale	Transaction qualifies as sale—portion of profit reportable:	
		Pursuant to extended % of completion formula	Pursuant to other methods
1. *Seller enters into management agreements with purchasers, with no receivables or further guaranties.			All profit is reportable by the completion of construction.
2. *Seller agrees to provide management services free or below market rate.		X	Reduce profits by imputing compensation for services.
3. *Management fees may be waived or subordinated in total or in part.		X	See above for profit reduction. Add fees to formula.
4. **Guaranties by seller concerning only negative cash flows (for the useful life of the property or an extended period).	Profit on sale not reportable. May be treated as financing, leasing or profit-sharing.		
5. Cash deficits are funded by loans to the buyer by seller:			
a. *Principal or interest or both subordinated for short-term periods (i.e., 2-3 yrs.) recoverable out of subsequent excess cash flow.		X	Must include subordinated amounts of additional costs.
b. **Principal or interest or both subordinated for long-term periods up to the life of the project, recoverable out of subsequent excess cash flow.	Profit on sale not reportable. Collection of advances must be evaluated on the basis of current operating levels.		
c. **Cumulative or non-cumulative recovery by the seller, only out of subsequent refinancing or sale.	If long-term, profit not reportable. May be treated as financing, leasing or profit-sharing.	X	If short-term, must include subordinated amounts of additional costs.
6. Seller participates as general partner (directly or indirectly) and:			
a. **Holds large receivable (15% of maximum first lien) in which sole repayment is from the property.	Profit not reportable. May be treated as financing, leasing or profit-sharing.		
b. *Holds receivable under 15% and deal otherwise qualifies as sale.		X	Implied support for two years from time of initial rent-up.
7. *Seller guarantees return on buyer's investment: (expressed in contract)			
Short-term (i.e., 3 yrs.) or specified occupancy levels.		X	Defer income recognition until rentals cover all costs including guaranties.
**Long-term.	See (6) above.		
8. **Seller guarantees return of buyer's investment or: Repurchase option, buyer "puts", long-term guaranties.	Profit not reportable. Must be treated as financing, leasing or profit-sharing.		
9. *Short-term sale-leasebacks (3 yrs.).		X	Equivalent to short-term guaranty return (see item 8).
10. **Intermediate sale-leasebacks (5-10 yrs.).	Profit not reportable. May be equivalent to long-term guaranty.		
11. **Long-term sale-leaseback.	Profit on sale not reportable. Principle relating to long-term sale-leasebacks may apply.		
12. *Ceiling on continued involvement (negative cash flow guaranties or others).			If ceiling is realistic, profit reportable by end of construction after reserving for maximum.
13. Seller participation in project:			
a. *Proportionate sharing in profits and losses.		X	May qualify as partial sale if no control exists.
b. *Disproportionate sharing including preferences to buyers.		X	Partial sale rule is modified by costing out 100% of costs.
c. *Participation limited to additional profits including residual value (if transaction otherwise qualifies).			Do not anticipate additional profits. Original profits reportable by end of construction.

* of special interest to publicly held developers

** of special interest to privately held developers

Housing for the snow country

Sure, ski condos are a route to big profits... but risks are high in this very special market—and the gasoline shortage complicates the problem

Skiing is more than a sport. It's a state of mind. The sensations of skiing—soaring flight, stinging cold air and potential danger—exhilarate the mind and lift the spirit.

But skiing is also big business. Five million U.S. skiers currently shell out more than \$2 billion annually for equipment, clothes, lodging and lift tickets. And their numbers have grown by 10% to 15% a year, according to the National Ski Areas Assn., although such growth may be slowed by the gasoline shortage.

And contrary to popular belief, the ski boom is not limited to New England or the western mountain states. Southern states like North Carolina and Virginia now have ski areas as do such relatively flat midwestern states as Iowa, Michigan, Ohio and Indiana. In total, 34 of the 50 states contain some 1,000 ski areas.

Though the skiing population varies in age and income, a major segment is the upper-middle-income family. A typical profile shows a husband and wife in their mid-40s; he's a college graduate, earning \$25,000 to \$35,000 annually; they have 2.5 children. And they tend to patronize resorts that are under four hours by car from home.

Generally, there are three types of ski areas: 1) day areas,

where most customers live less than two hours away by car; 2) weekend areas, which are less than four hours from customers' homes; 3) week-long areas, where most customers fly in from homes that are from 500 to 3,000 miles away.

Few metro markets are less than two hours from prime skiing. But many are no more than a four-hour drive from excellent ski areas. And it is these weekend areas that have the best potential for second-homes. Nobody knows the exact size of this market, but most developers say condominium sales in weekend ski areas have ranged from adequate to flourishing.

However, all is not snow and profits in ski country.

"The whole skiing industry is worried about builders, developers and lenders who ignore the vast differences between building on the flat and building in the mountains," says Jim Branch, president of Sno-engineering Inc., a company that specializes in feasibility and engineering studies for ski resorts.

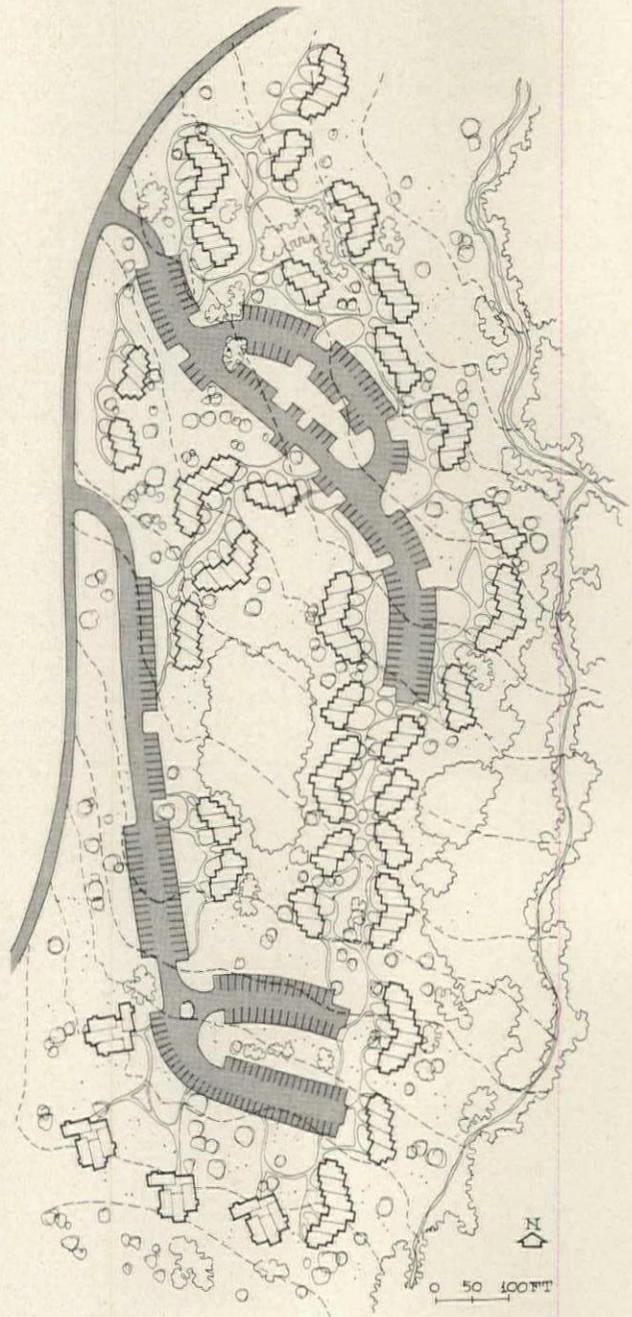
They are courting failure, he adds. And the failure of a single ski-resort project sends out ripples that hurt the economic climate of the whole area.

Here, Branch says, are the special problems of ski-country de-

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PHOTOS: JAMES K. CHENG





Low-density housing on a giant scale

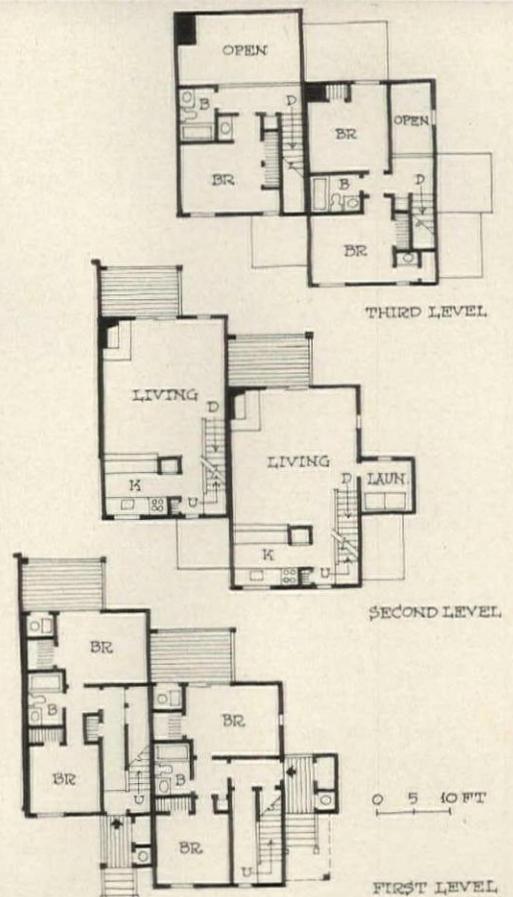
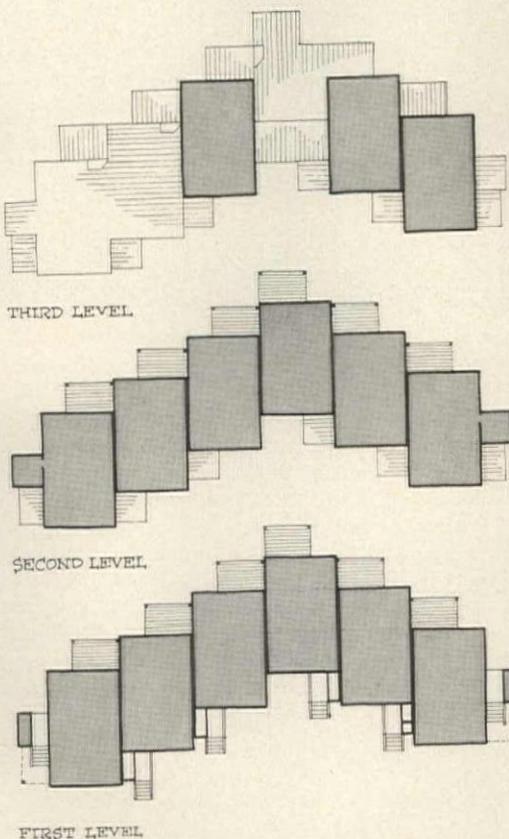
When completed, Northstar at Lake Tahoe will contain 3,150 townhouses, single-family homes and apartments, but they'll be scattered over 2,500 acres—a density of only 1.26 units/acre.

"We were determined to leave the natural terrain as undisturbed as possible," says architect Henrik Bull. "So we sited buildings among trees at the edges of clearings and put roads and parking lots in the natural open areas.

The project's first phase (*site plan at left*) consists of 30 six-unit buildings. Each building is a mixture of two- and three-story townhouses (*plans at right*).

"All units are 18'x28', so a two-story, two-bedroom unit has the same depth and width as a three-story, four-bedroom unit," says Bull. "This allows us to plug in different size units as demand warrants during construction."

Prices range from \$50,000 to \$80,000. Architect: Bull, Field, Volkman and Stockwell. Developer: Trimont Land Co. Builder: Murchison Construction Co.



veloping and building:

Construction costs are higher because of steep slopes, rocky terrain, poor roads, long distances from suppliers and shortages of skilled labor and experienced subcontractors.

Land costs are deceptive. Only 5% of mountainous terrain is suitable for ski areas and only one-tenth of 1% of this terrain has true potential for developing ski resorts that include second homes. So, while an unimproved acre in the East, for example, may be available for \$2,000, its cost can easily rise to \$10,000 or \$15,000 after roads and utilities are brought in. In western ski areas, improved land brings as much as \$40,000 to \$60,000 an acre.

Such costs usually preclude single-family-house development. So the alternative is higher densities in the form of condo townhouses or apartments.

The construction season is shorter. In the mountains construction crews can work from April through November, but for much of the year the ground is frozen or muddy. So in many areas site work is limited to the period between early July and mid-November.

The selling season is shorter. Sales pros say 60% to 80% of ski condominiums are sold from September to December. Either you hit pay dirt during this four-month period, or you may have to carry the cost of all completed but unsold units—and even of the full construction loan for another eight months.

Since the risks are greater in ski-country projects, developers seek a higher return.

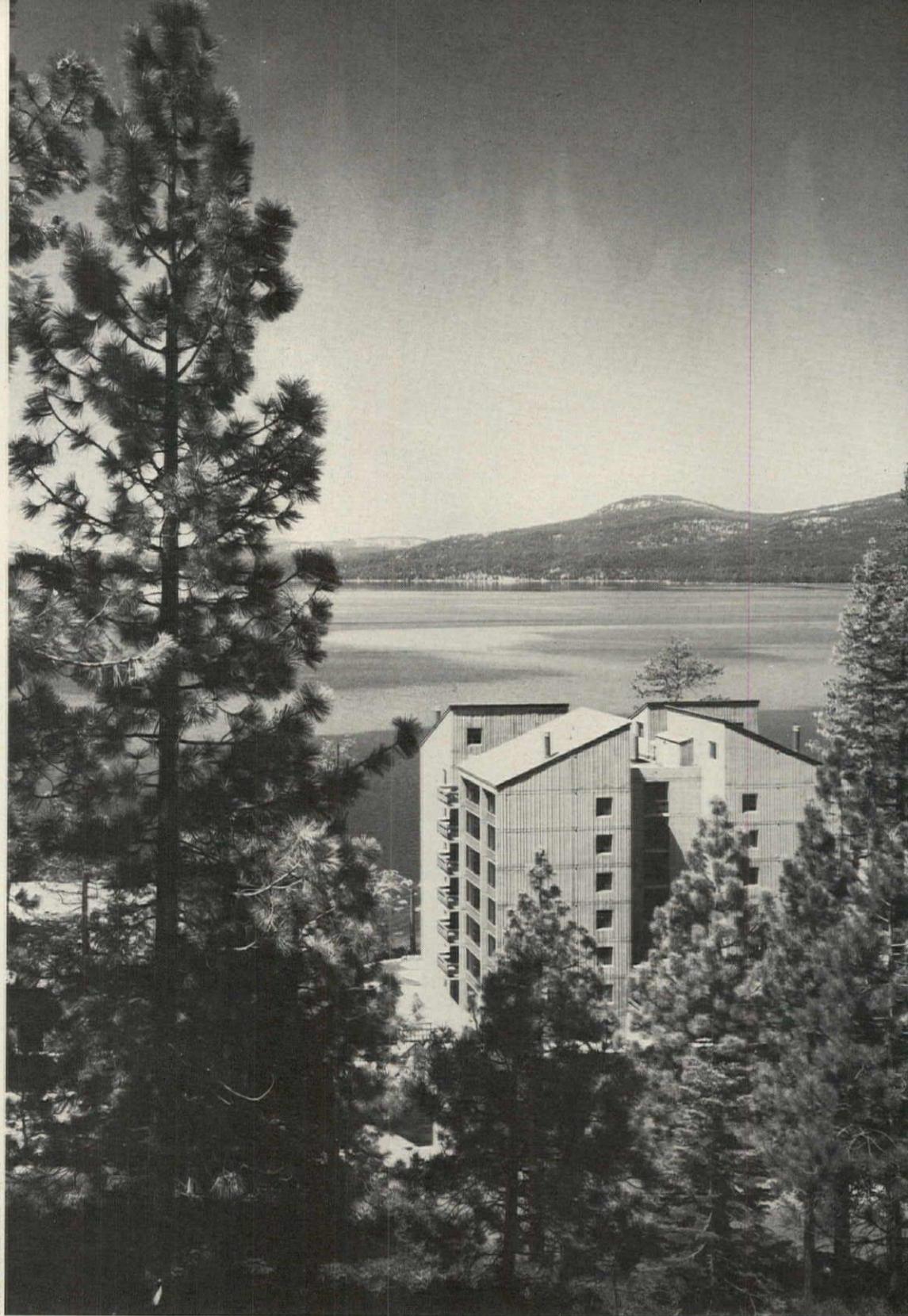
"We expect a net profit of 15% to 20%," says Donn Odell, president of Trimont Land Co. (see *Northstar*, previous overleaf).

"We always aim for a 10% to 15% net," says William Allen, president of East Sierra Development Co. "At Sherwin Villas (see page 143) we hit the mark—a \$250,000 net on a \$2.1 million project."

How can you come up with a healthy net—and also cope with the risk? Consultant Branch and developers like Odell and Allen suggest the following:

Don't try to build more units than you can complete and sell in one season. Short building and selling seasons—not estimated demand—should determine the number of units to be marketed

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PHOTOS: JAMES K. CHENG

A high-rise for land with sky-high prices

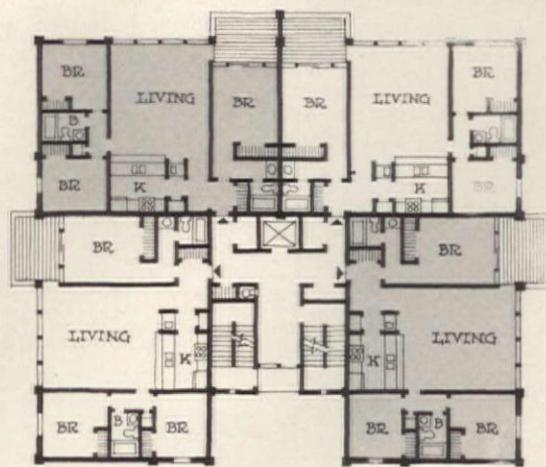
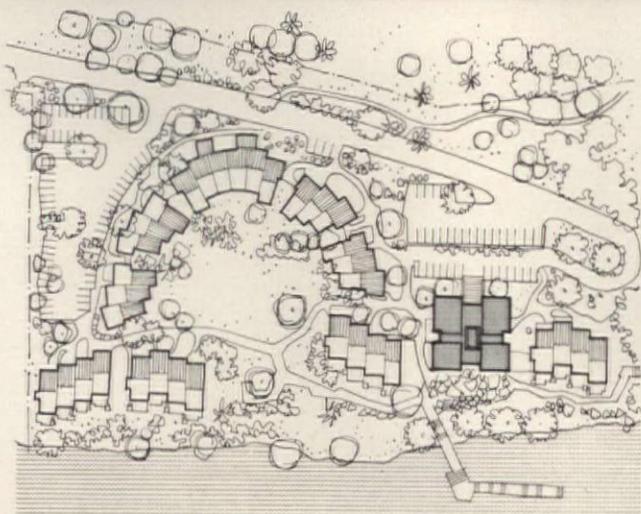
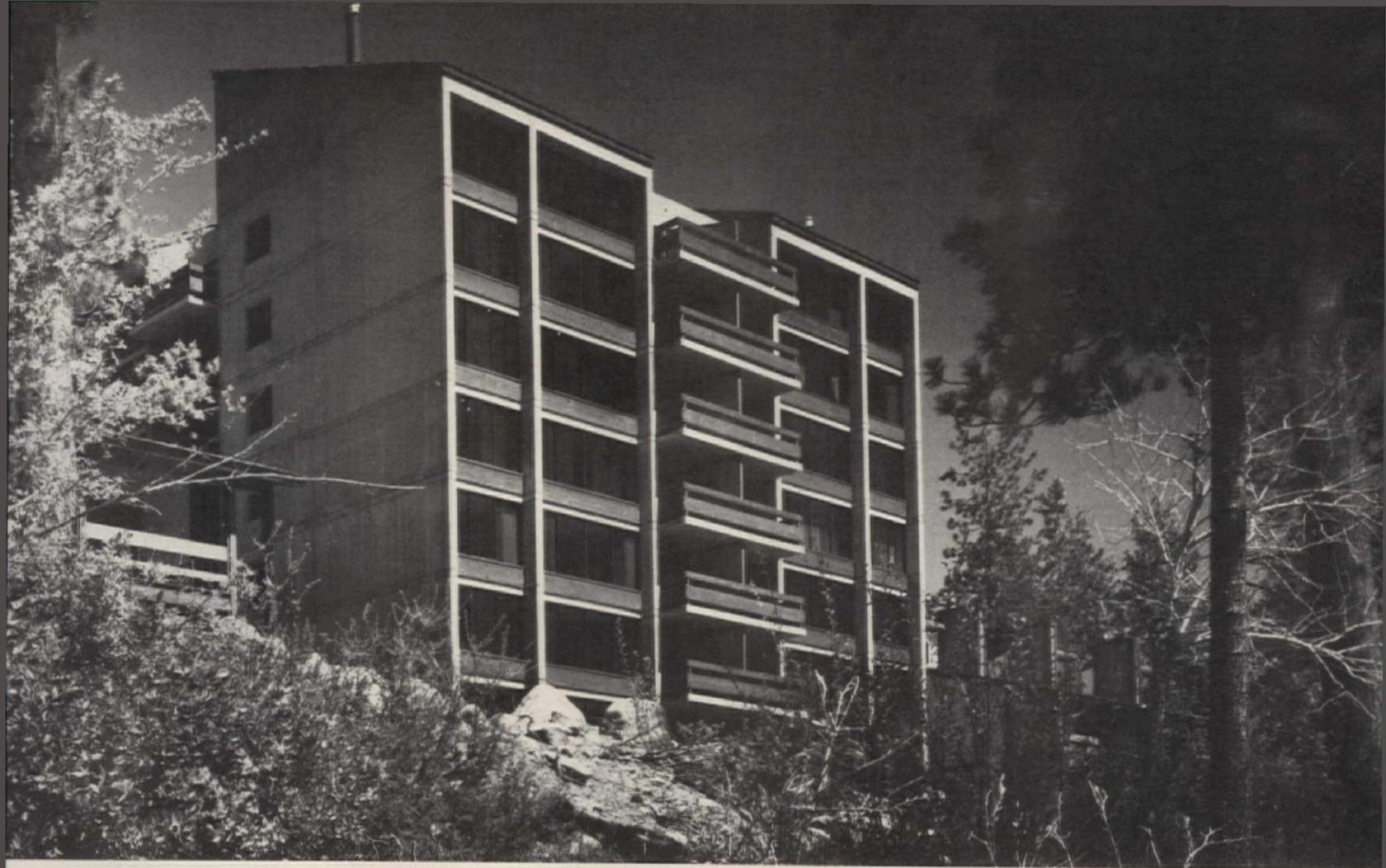
Shorefront land on Lake Tahoe sells for \$500 to \$1,000 a running foot. So it's not surprising that the original developer of Brockway Springs increased the density of the 35-acre project (site plan at right) by building a high-rise as well as townhouses.

The high-rise, four towers around an elevator and stairway core (typical floor plan, far right), is seven stories on the lake side and six stories on the uphill side. It contains twenty-two

1,150-sq.-ft. apartments and four 1,500-sq.-ft. penthouses. Prices are from \$62,000 for lower units to \$120,000 for the penthouses (interior photo, right).

Brockway Springs got off to a slow start—so slow, in fact, that the developer sold it to Innisfree Corp., the present owner. Innisfree sales manager Douglas Murdock says 18 units have now been sold, "and we have deposits on several more."

Architect: Bull, Field, Volkman and Stockwell. Builder: Wheatly-Jacobsen Construction Co.



each year. And since many buyers want delivery by Christmas at the latest, you may wind up with many contract cancellations if units aren't ready.

Start framing as soon as the snow melts. This means you'll have to put in roads, utilities, and foundations the previous fall—a tactic that requires more front money but lets you line up scarce subs early (when bids are lower), build more units in the time available and close in all units by November so they can be heated. (If men have to work in sub-freezing temperatures, their productivity drops 40% to 50%).

Shoot for a low pre-sale requirement on your take-out loan so you can close sales one at a time. Forty to fifty percent is reasonable. A 60% to 80% pre-sale requirement is impractical for the short selling and building season. It can also be fatal to your venture because if you can't hit the requirement by December, you will have to carry the entire project until the following fall.

"At Northstar we had a 75% pre-sale requirement our first year for the first 200 units," says Trimont's Odell, "and it hurt us badly. Carrying the interest on about \$10 million ate up all our profits."

Northstar was also bugged by construction delays, which made it necessary to build through the winter and thus added about 25% to the cost of the first phase.

"So even though sales are great, we're not going to break into the black until the third year," says Odell.

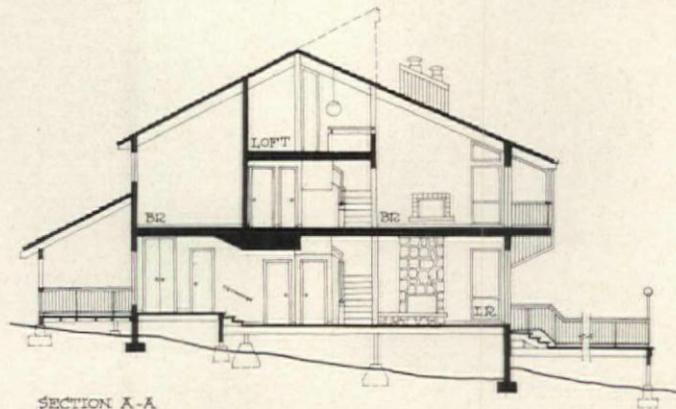
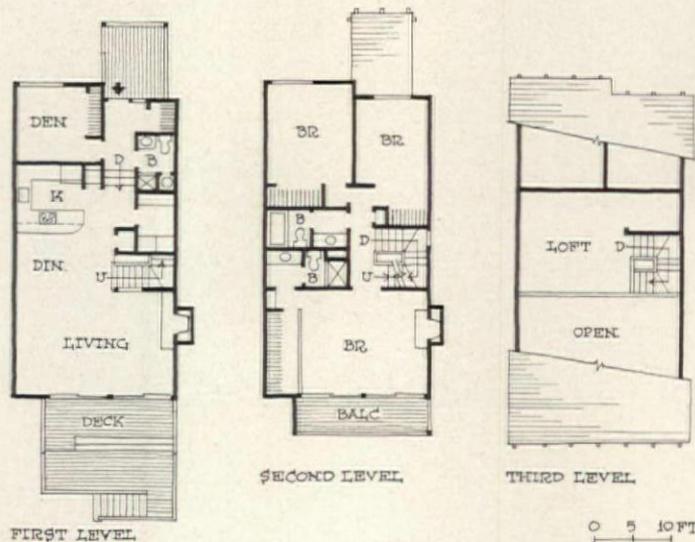
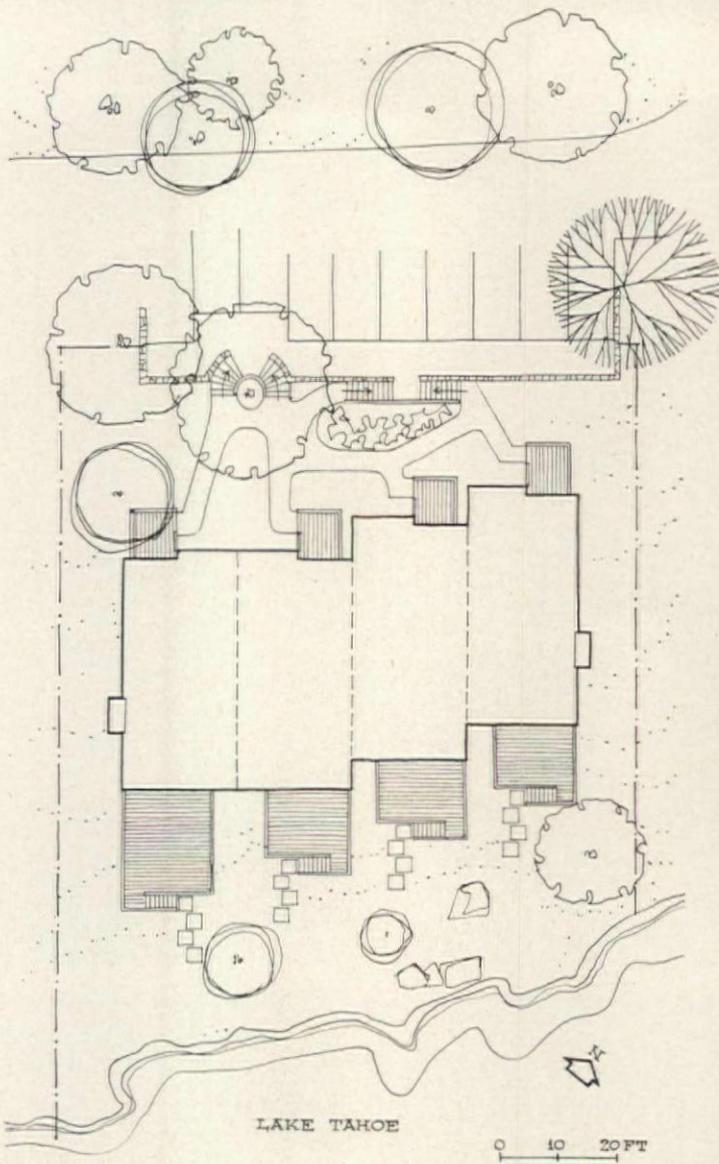
Keep the environmentalists off your back—a tall order but not impossible.

One way to turn potential opponents into supporters is to prepare an environmental impact analysis before submitting your project to the local planning and zoning boards.

Northstar's developers went that route and got results: The project was publicly endorsed by the Sierra Club and the League to Save Lake Tahoe, and voters approved a \$5 million bond issue to pay for the necessary sewer and water systems.

"It was pretty obvious to everyone that we were taking great care to keep the site in its natural state," says architect Henrik Bull, whose firm designed the project.

The Northstar impact study
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PHOTOS: TOM F. WALTERS

A fourplex for a tight waterfront site

The site is only 106' wide and 260' deep. It's smack up against a large chalet on one side, and there's a good chance another will be built at the other end.

So the architect, William Olin of Wisser/Olin, designed this fourplex with windowless end walls and indoor and outdoor living areas oriented to Lake Tahoe and the mountains beyond.

Each of the 2,116-sq.-ft. units has three bedrooms plus additional loft sleeping quarters to accommodate guests (sectional drawing and floor plan left).

Heavy post-and-beam construction (photo, far right), necessary so the units can withstand snow loads of up to 200 lbs. a sq. ft., contributed to the \$100,000 per unit construction costs. Developers Joseph Duffel and Ralph Riggins own two units; the others were sold to friends.



was a detailed analysis of the 2,500-acre site. It covered 18 factors, including slopes, water, soil types, snow depth, tree heights and locations, orientation to sun and wind and visibility from outside the property. Data, prepared by a forestry and soils expert who was known to local officials, were fed into a computer to produce a working tool for siting buildings and roads.

Another way to keep environmentalists happy is to treat a site gently during construction. Don DeBacker, formerly at Northstar and now general manager of Bretton Woods, a 10,000-acre New Hampshire resort, suggests these practices:

- Insist that only one road be used for heavy equipment, designate equipment maneuvering areas and see that workmen stick to designated footpaths.
- Include in all contracts a clause that calls for fining any sub contractor whose men or machines stray from designated routes.
- Wrap batter boards around major trees along work routes to protect them from damage by passing equipment.
- Since certain seeds can germinate only in certain soils, be sure your earth movers don't change the soil characteristics of any particular area.

Plan your project for easy snow removal. Many ski resorts are in areas where the annual snowfall ranges from 30 to 40 ft. So there's a twofold snow removal problem—first, how to minimize the shoveling and ploughing jobs; second, where to put the ploughed snow. The answers: Keep walkways as short as possible and leave areas around parking lots for piling snow.

"Long walks can double the cost of snow removal," says Glenn Evans of Mammoth Properties, which markets East Sierra Properties, "and if you have no places to pile snow, you'll have to pay to have it trucked away."

Design your buildings to cope with heavy snow and ice. You'll have to consider not only the structure but also the shapes of the buildings and how they are sited. Specifically:

Structure. Buildings should be able to withstand snow loads from 125 to 275 lbs. a sq. ft. So conventional framing won't do. Instead, you'll probably have to go to post-and-beam con-

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PHOTOS: AMERICAN FLYWOOD ASSN.

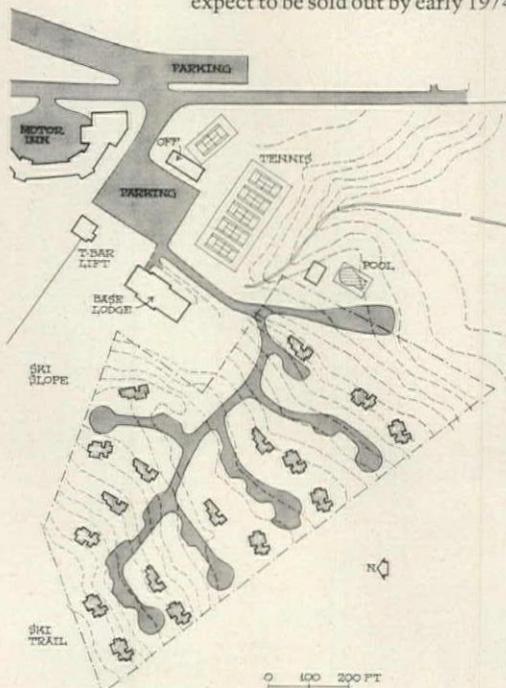
Furnished triplexes for a prime site

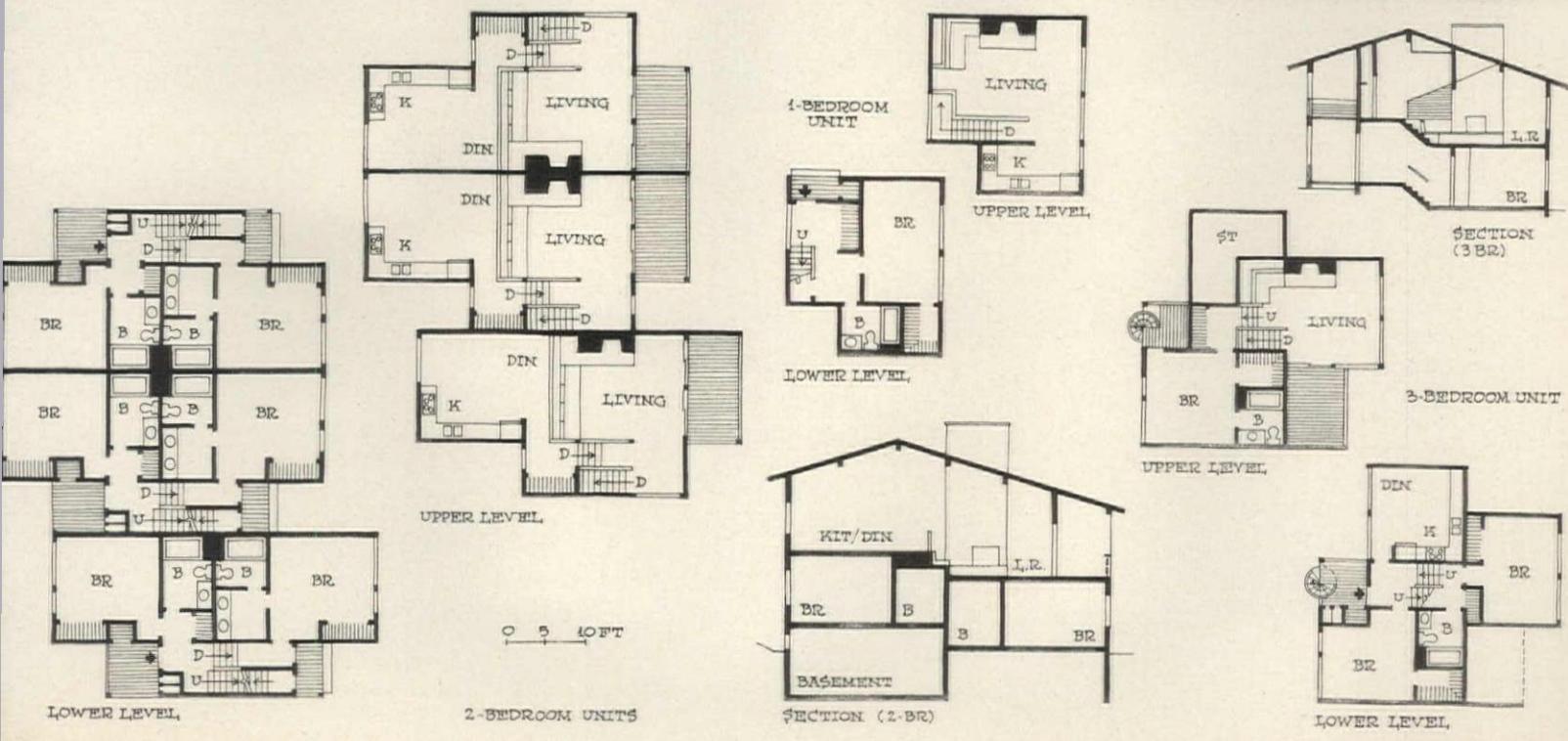
The 11-acre site (*plan below*) is particularly desirable because it overlooks the ski slopes and is close to other facilities at Stowe, Vt., a resort that predates World War II.

Fifty-one units, grouped in 17 triplexes, have one, two or three bedrooms (*plans at lower right*). Prices ranged from \$40,800 to \$70,200 when the project opened 21 months ago, have since been raised as much as 7.5%; they include furniture packages, which must be bought for cash and which start at \$4,500.

Designed by architect Jay Flood, the project was built by Pizzagalli Construction Co. for the Mt. Mansfield Co., which owns Stowe-area ski facilities plus 4,000 acres.

"We've sold 31 units," says Mt. Mansfield's Bill Riley, "and although we're a little behind schedule, we expect to be sold out by early 1974."





struction with 8x16 or 16x24 joists and rafters and 8x8 posts on 3' or 4' centers.

Shapes. In many areas you can't use a conventional pitched roof because it is subject to differential loading when wind-driven snow piles up on one side but not on the other; the result is a shearing action that can crack open a house like an egg. The best alternative is to design your buildings with small, slightly sloping shed roofs.

Siting. Orient your buildings to the prevailing wind to minimize the build-up of snow on roofs. Also be sure that roofs don't slope toward entrances, walks or parking areas since heavy icicles and masses of snow falling off a roof can cause serious injuries or crush a car.

Roofs must also be designed to prevent ice dams. These masses of ice at the eaves—formed when snow melts, freezes and then melts again—can cause roof leaks. The two most common ways to prevent them:

1. A cold roof—so called because it consists of two roofs separated by 4" of cold air. Snow remains on the outer roof without melting from the building's warmth.

"The extra cost is from \$600 to \$1,000 a unit," says Bill Allen of East Sierra Development Co. "But it's worth that to eliminate very costly callbacks."

2. An aluminum roof designed to be impervious to melting ice. It costs \$200 to \$300 more than a wood shingle roof.

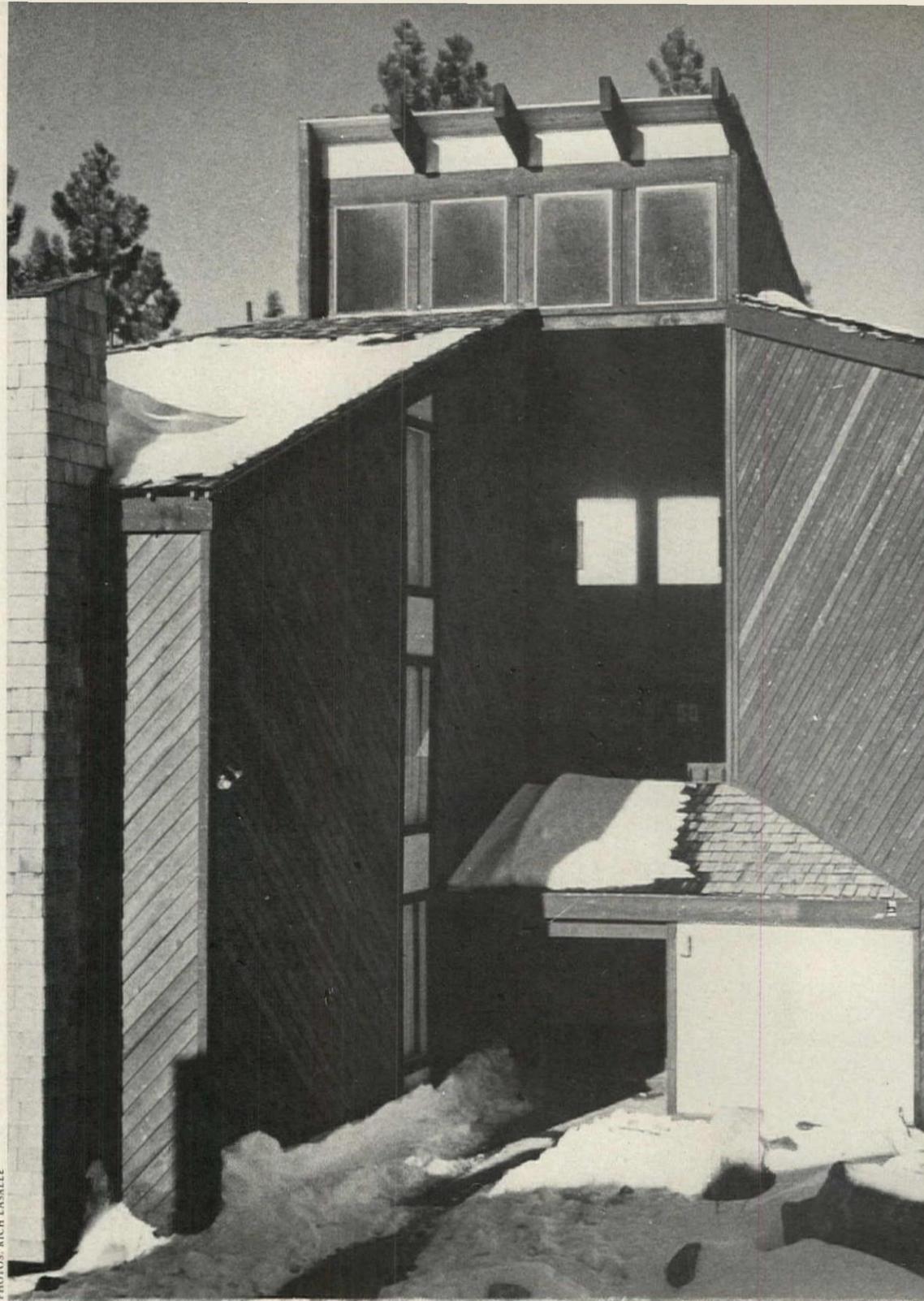
What about the impact of the gasoline shortage? How will it affect skiing in general and the ski home market in particular?

No one knew the answers as this story went to press. But ski-area developers interviewed by HOUSE & HOME were inclined to be more optimistic than pessimistic.

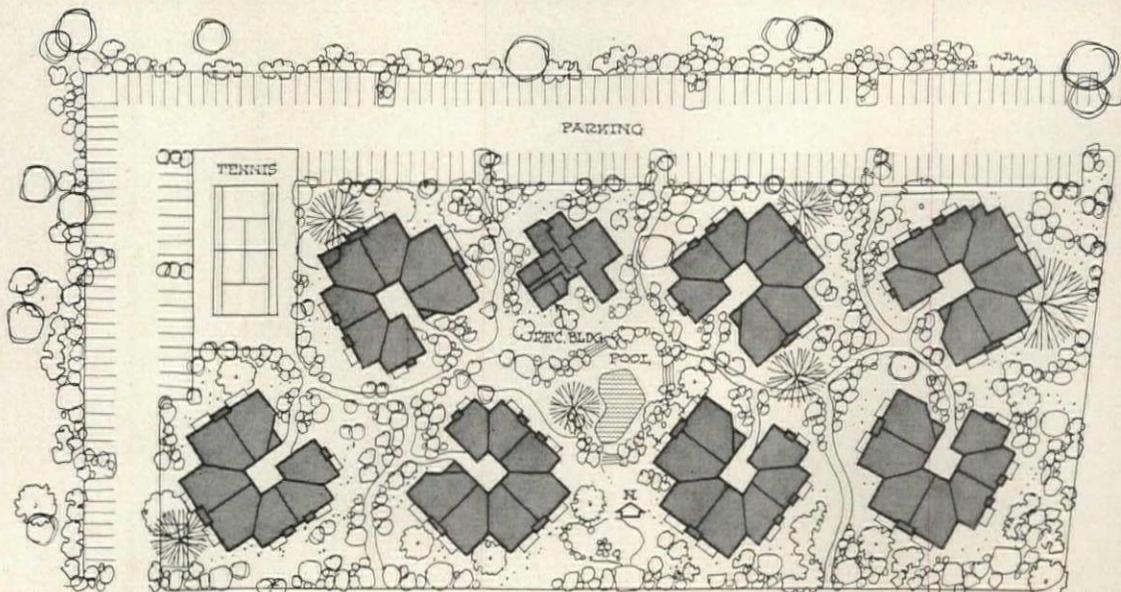
They pointed out that most of the largest ski areas are within 200 miles—or four hours driving time—of big metro markets like San Francisco, Los Angeles, New York, Boston and Denver. And they felt these areas won't be severely hurt. They also foresaw car pooling to save gas, sharing of gasoline rations if rationing becomes a fact and greater use of railroads and buses.

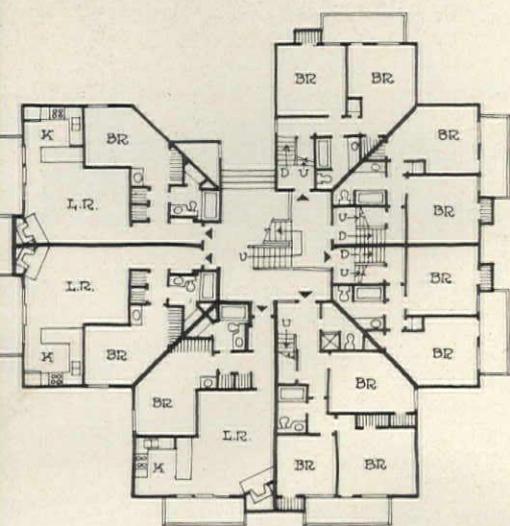
"Skiers are a very dedicated and inventive breed," said Howard Eisler, a Wilmington, Vt. developer. "If there's good snow, they get there."

—MICHAEL J. ROBINSON

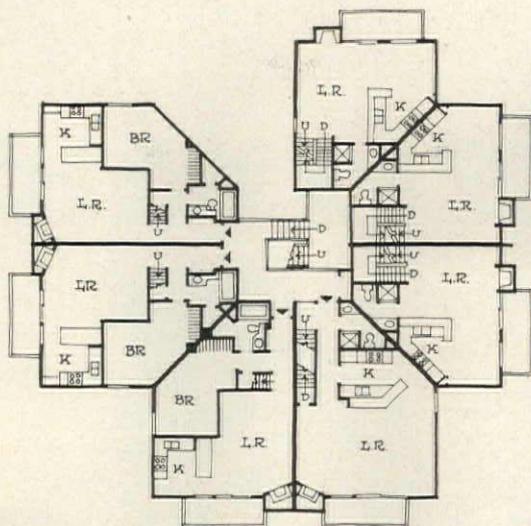


PHOTOS: RICH LASALLE

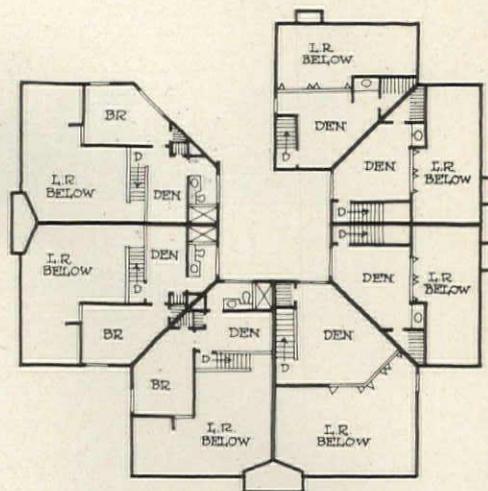




FIRST LEVEL



SECOND LEVEL



THIRD LEVEL

0 5 10 FT



Pinwheel clusters in a densely planned project

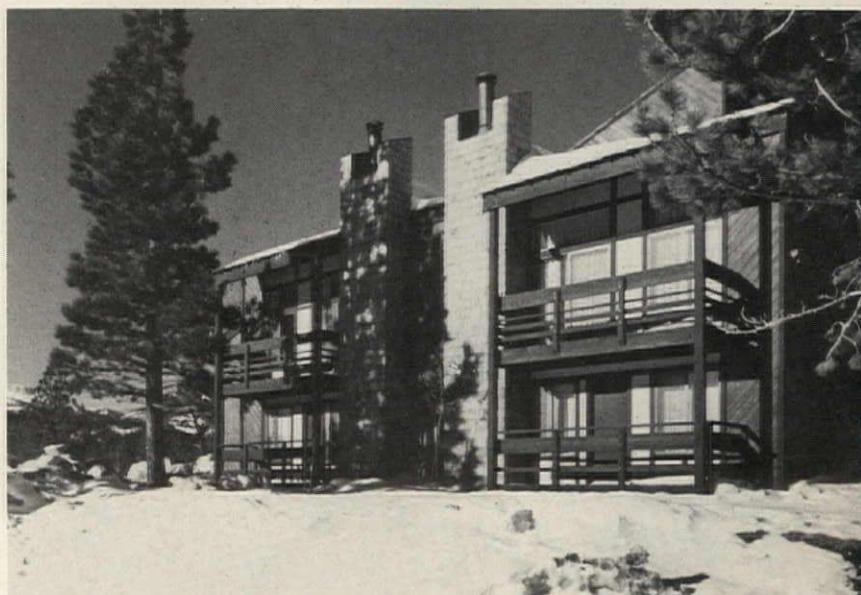
A density of 17.5 units per acre could have turned this four-acre development—Sherwin Villas in Monmouth, Calif.—into an environmental disaster. Instead, there's a high degree of openness throughout—due primarily to the pinwheel-shaped design and the siting of the project's seven buildings (*site plan, left*).

"The high density was a simple matter of economics," says developer William Allen, president of East Sierra Development Corp. "Our land cost \$50,000 an acre. And we also required a varied product mix to serve singles, couples and large families."

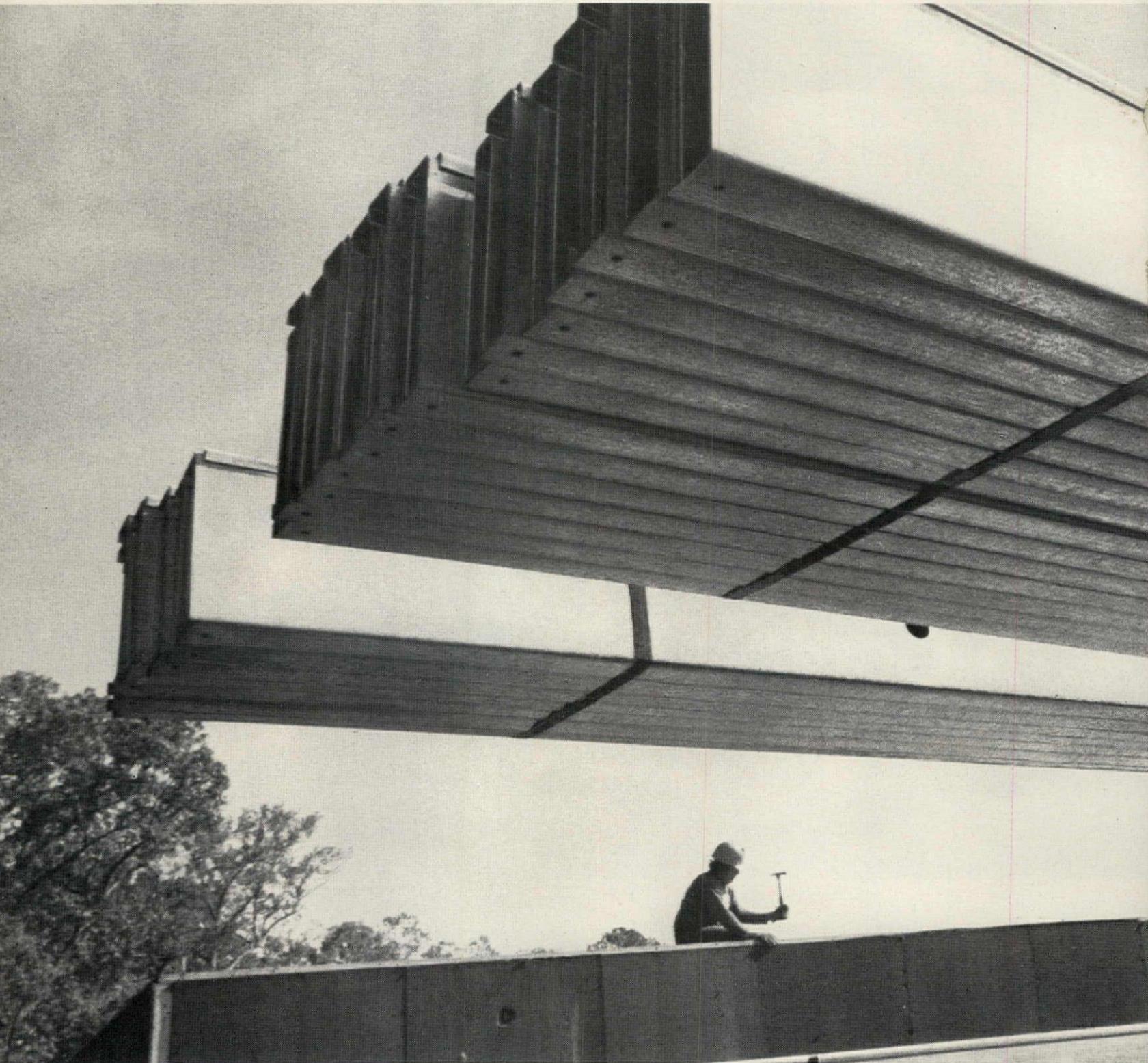
The seven buildings, designed by architect Duplanty/Huffaker, are identical (*plans, above*). Each contains three 1-bedroom, single-level units; three 2-level units with two bedrooms; three 3-level units with two bedrooms and a den; and one 3-level unit with three bedrooms and a den. Prices range from \$21,900 to \$39,900.

All units in each building are reached from a central court (*entry above, left*).

Allen credits a strong sales campaign stressing year-round recreation with a record of 40 presales before the project's furnished model was completed. While selling out the last few units, his company has begun another project nearby—this time for 110 families.



Builders who switch



...don't switch back.

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Super-C steel joists cost less installed than wood. And give a better floor.

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For detailed information, send for our highly factual booklet, which includes typical applications, load span tables and architectural details—as well as the name of the manufacturer of Super-C joists serving your area. United States Steel, Pittsburgh, Pa. 15230.



United States Steel

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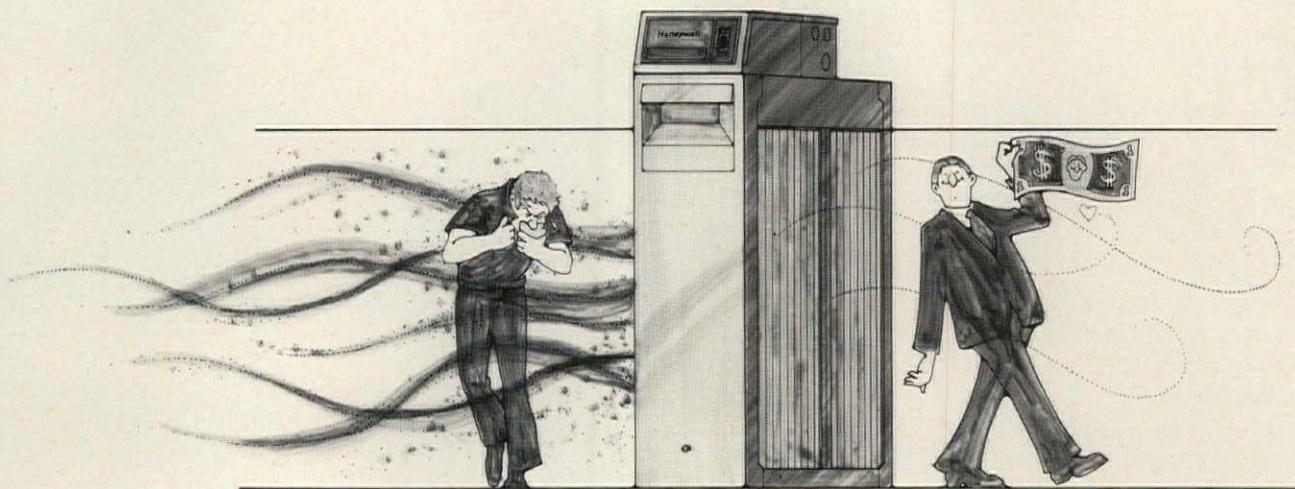
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Type of units _____ How many? _____

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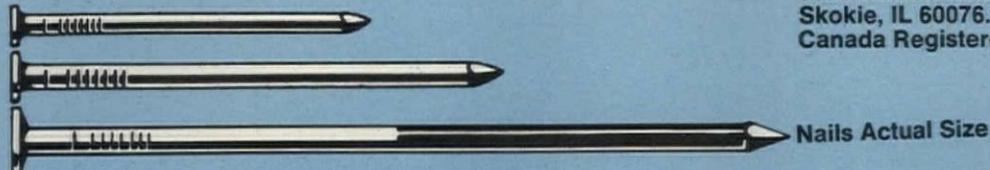
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Philip J. Drieci

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to final color coordinating of the kitchen, GE experts can do more for you and do it better."

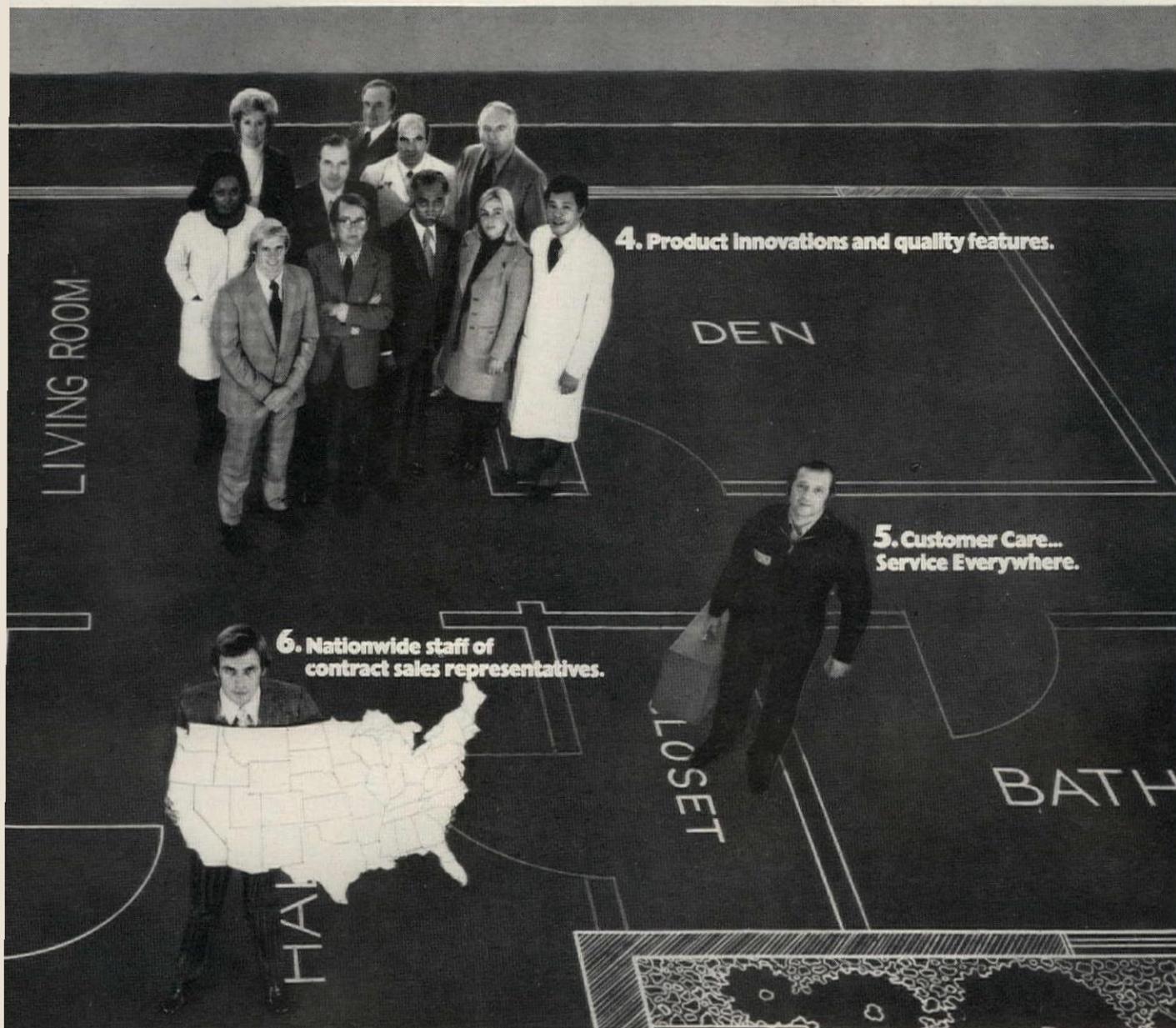
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Service Everywhere.

6. Nationwide staff of
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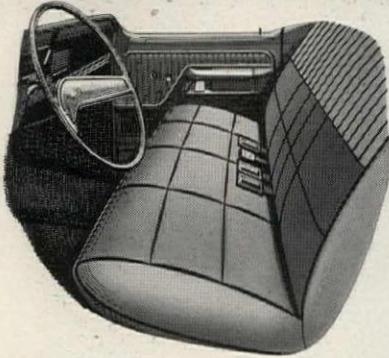
5. Behind every GE appliance is General Electric Customer Care... Service Everywhere.™ Which means that wherever your project is in the continental U.S.A., there'll be a qualified GE serviceman nearby.

6. The Contract Sales Representative coordinates and expedites all GE services that can go to work for you. You can reach him through your local General Electric major appliance distributor.



GENERAL  ELECTRIC

You need facts to pick the right pickup. Here are 12 about the '74 Ford.



1 Ford cabs are quiet, carlike, roomy. Inside width of 66 inches lets three big men ride relaxed. Padded, color-keyed instrument panel is standard.

2 Even the standard cab gives you the solid comfort of a full-foam seat 7 inches deep.

3 You can choose a Ford Six or, for heavy loads, V-8's up to 460 cu. in.



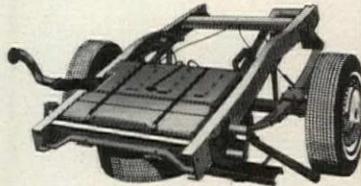
4 Optional air conditioning is built right into the instrument panel for good air circulation, full legroom.

5 Front disc brakes are standard on all '74 Ford pickups with 2-wheel drive.

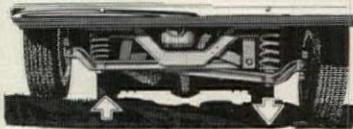
6 Ford's optional slide-out tire carrier makes the spare easy to remove and replace.



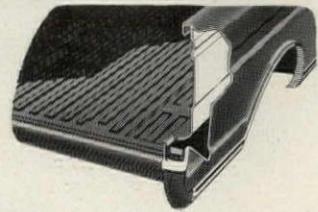
7 Behind the seat is a hidden storage space 5½ feet wide. It's big enough to hold tool boxes, golf bags or other gear.



8 Ford took the gas tank out of the cab and put it in a protected position under the box, between the frame rails.



9 Only Ford pickups have Twin-I-Beam suspension for truck strength, carlike ride.



10 Sides of the cargo box are double-wall their full depth. All told, over 200 sq. ft. of surface is zinc-coated to resist rust.



11 Ford pickups come big as 10,000 lbs. GVW, like this F-350 Super Camper Special, to meet about all your pickup needs.

12 Over 92 out of 100 Ford trucks built in the last 12 years are still on the job, based on R. L. Polk & Co. figures. For a long-term investment in trucks, see your Ford Dealer now.

A better idea for safety: Buckle up.

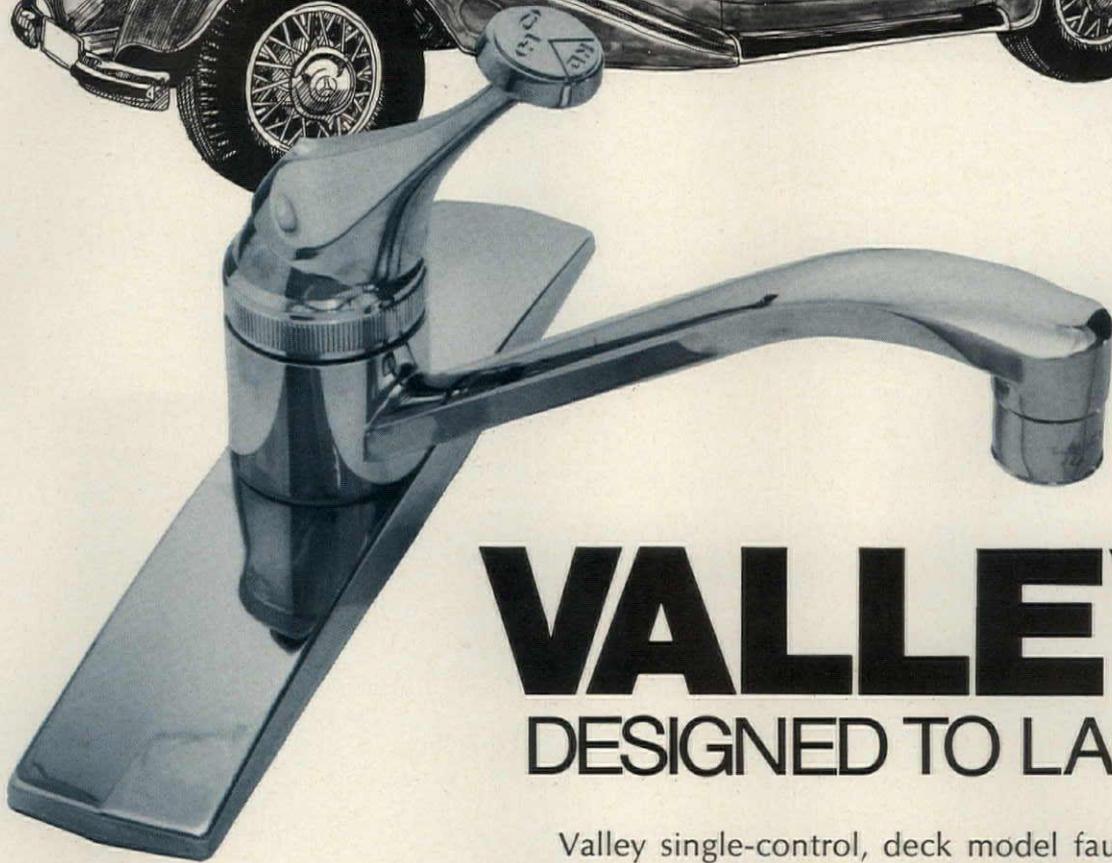
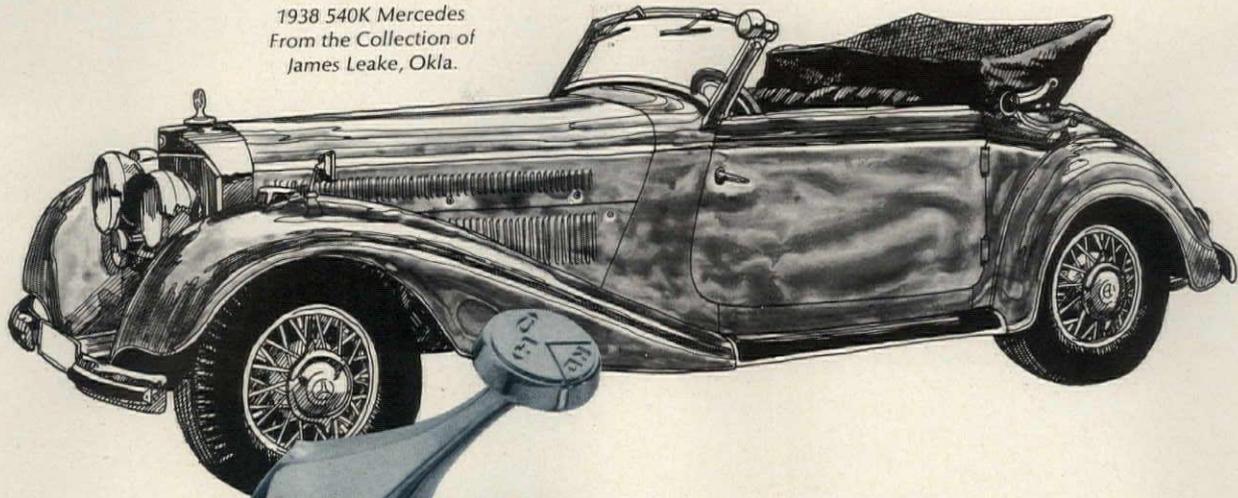
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Rides like a car.

FORD

FORD DIVISION



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Valley single-control, deck model faucet is designed to compliment the kitchen decor.

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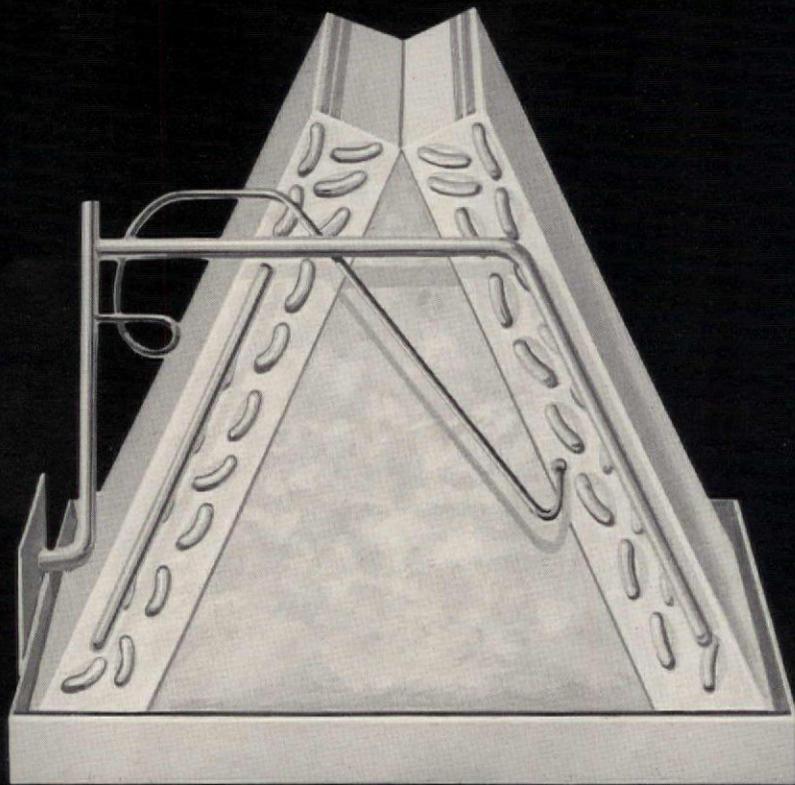


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SAY HELLO TO THE YORK FLATTOP, a major breakthrough in evaporator coils. Just 7¼ inches high, the FlatTop performs its cooling/dehumidifying job with full rated capacity in about half the space needed by "A" or slanted-slab coils . . . with comparable or less pressure drop.

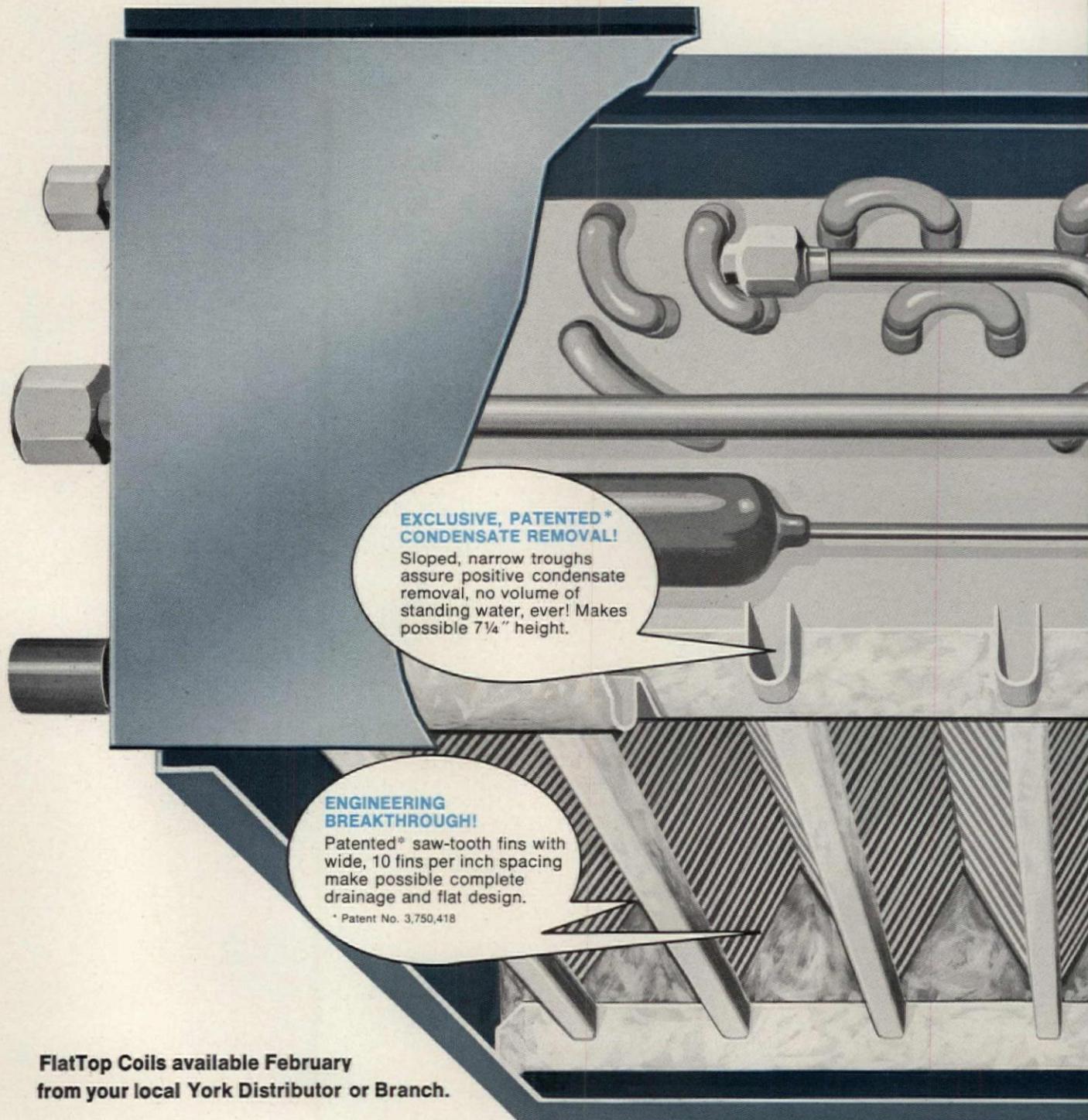
AMAZINGLY FAST AND SIMPLE TO INSTALL, the 7¼ inch FlatTop fits easily even in applications with high

furnaces, low ceilings or in confined closet spaces. In most cases, even existing plenums can be utilized. FlatTop installation is fast, neat and clean. The lightweight FlatTop means easy one-man handling.

NEW HOME SALES CLOSING BENEFITS are built into the FlatTop. For example, no large condensate drain pan (as with "A" coils) that often slow airflow, shorten furnace

You're looking at a whole

The York **FlatTop**. It's 7¼" high..



**EXCLUSIVE, PATENTED*
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Sloped, narrow troughs assure positive condensate removal, no volume of standing water, ever! Makes possible 7¼" height.

**ENGINEERING
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Patented* saw-tooth fins with wide, 10 fins per inch spacing make possible complete drainage and flat design.

* Patent No. 3,750,418

**FlatTop Coils available February
from your local York Distributor or Branch.**

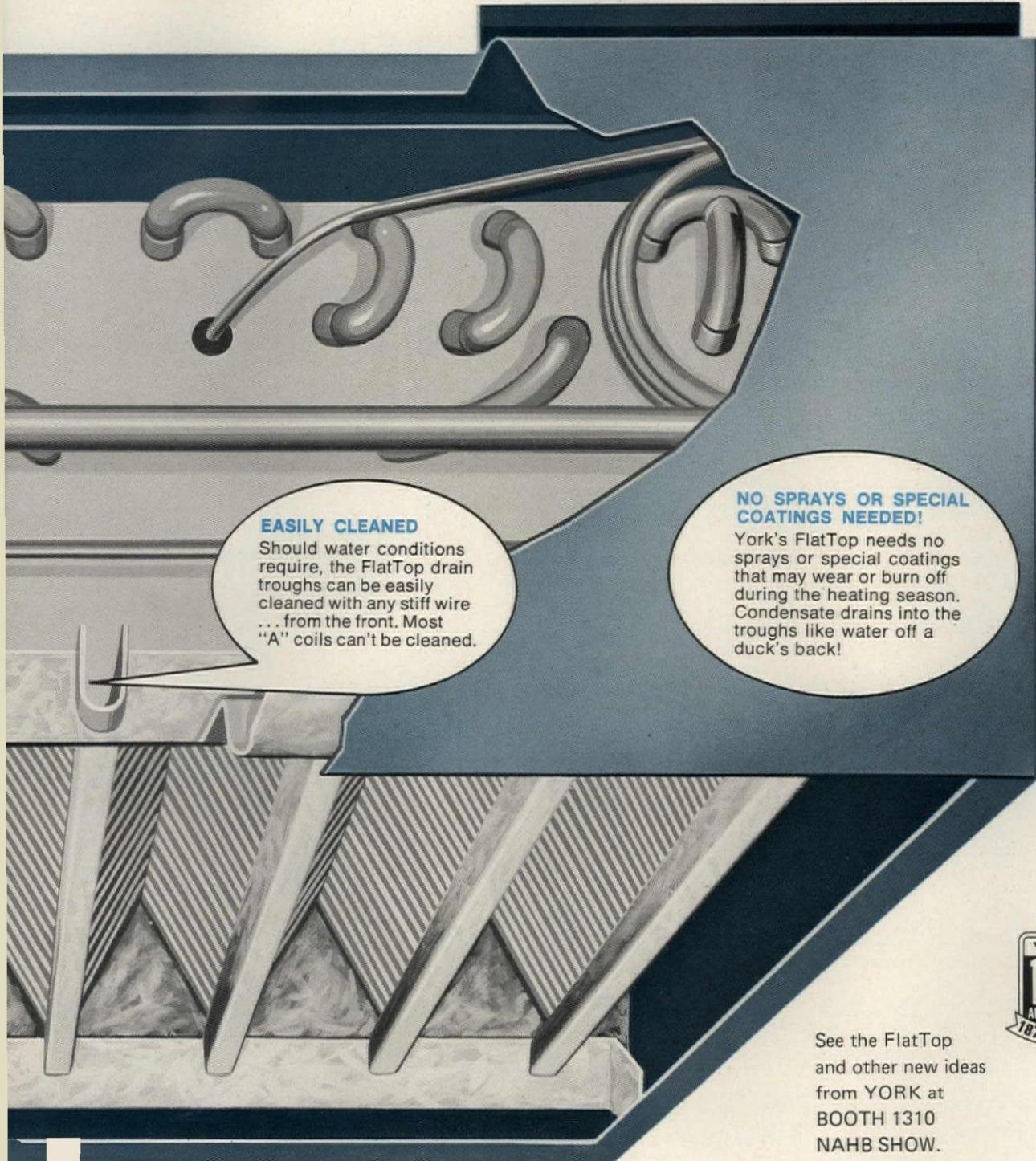
heat exchanger life and result in cooling surface not effectively used. No large pan of "standing water" to be reintroduced into the air stream during the cooling "off" cycle or to become an environment for algae or odors. No uneven airflow or noise sometimes caused by "A" and slant-slab coils extending into supply ducts. Smooth airflow through the coil helps extend furnace heat exchanger life by as much as 10%. (We have a temperature test and engineering analysis to support this

claim.) And, the FlatTop may even result in heating fuel savings, important in these energy crisis times.

GET ALL THE FACTS about the sensational new FlatTop and York's matching condensing units by turning the page. Be sure you're up-to-date on this history-making first from a company that's been making history for 100 years.

new shape in cooling!

it never gets higher...regardless of capacity.



EASILY CLEANED
Should water conditions require, the FlatTop drain troughs can be easily cleaned with any stiff wire ... from the front. Most "A" coils can't be cleaned.

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York's FlatTop needs no sprays or special coatings that may wear or burn off during the heating season. Condensate drains into the troughs like water off a duck's back!



See the FlatTop and other new ideas from YORK at BOOTH 1310 NAHB SHOW.

The York FlatTop is matched to York's Champion III condensing units for a quality system.

HERE'S THE OUTSIDE STORY

You've read the "inside" story on the York Flat-Top. Now, here's the word on York's dependably quiet Champion III condensing units that complete the system.

TAILORED SYSTEMS WITH FAVORABLE ENERGY CONSUMPTION

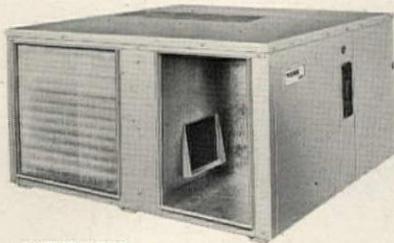
York offers condensing units in 7 basic models from 1½ through 5 tons. Now, with the new Flat-Top coil, a wide range of mix-matching options are available. In fact, York gives you a total of 44 selections so that the system can be tailored to match the load. This flexibility also results in improved energy consumption ratios.

ADD TO THIS . . .

. . . quiet operation with an enclosed compressor compartment and vertical air discharge, a low, compact silhouette and York's reputation for reliability and you'll have a system second to none in the industry.



AND, WHILE WE HAVE YOUR ATTENTION, here's a quick look at some other York residential products for specialized applications.



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ALL ELECTRIC PACKAGED PATHFINDER UNITS

York's Pathfinder line includes all electric cooling models, optional electric heating models and heat pump versions. They're ideal for slab or rooftop locations and keep the entire cooling (or cooling-heating) system outdoors. Select from five models from 24,000 to 60,000 BTUH capacities.

ELECTRIC COOLING, GAS HEATING SUNLINES

Compact, packaged units that combine electric air conditioning with gas heating, natural propane. Power vent system assures complete combustion. For applications where all-outside location of the comfort system is a "must", York's low silhouette Sunlines provide the perfect answer. Choose from seven models. 24,000 to 60,000 BTUH cooling.



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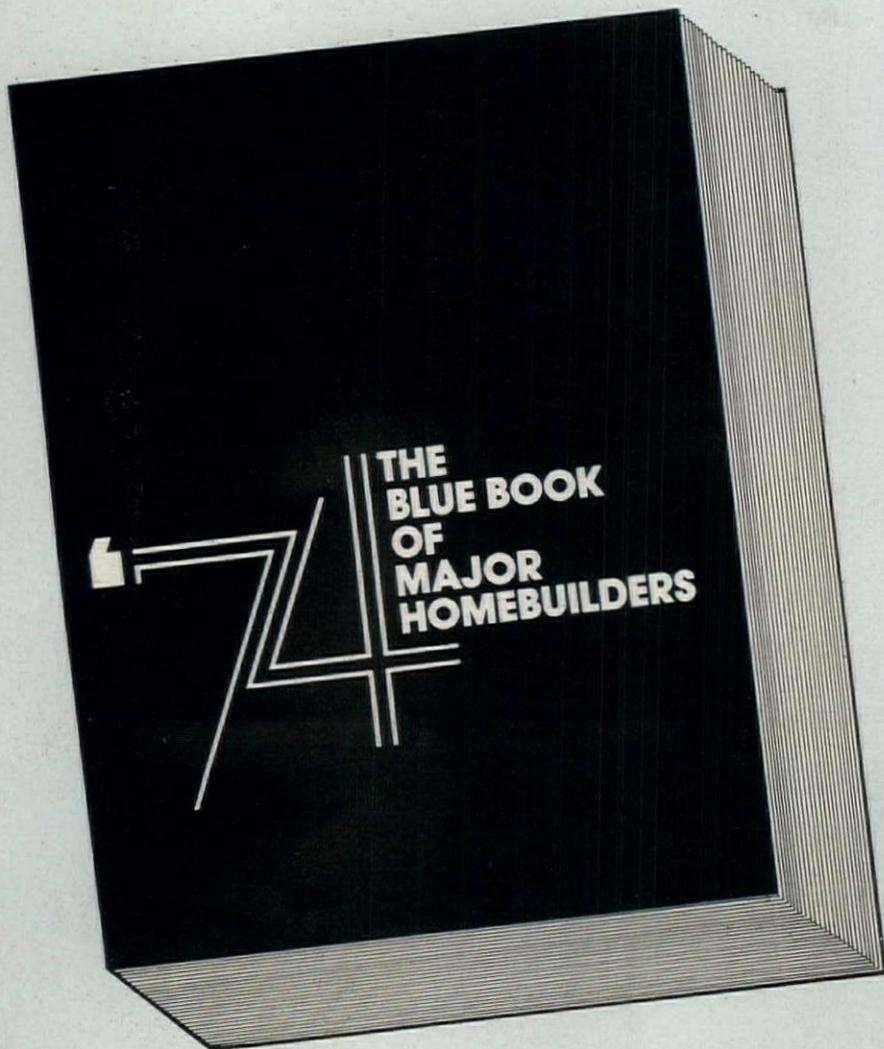
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- "We use it to target our marketing opportunities. Each of our regional managers has a copy as do all of our salesmen working in the larger metro areas."
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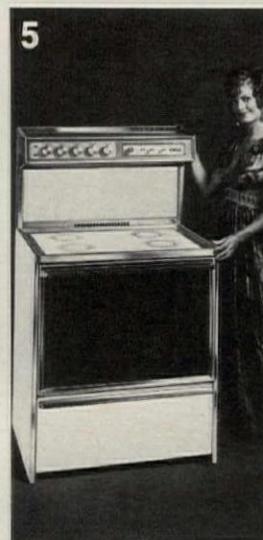
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products: kitchens

1. Top-of-the-line dishwasher features rapid-advance timer controls. Two banks of pushbuttons offer six cycles and a choice of three water temperatures. Cycles include regular wash, glass wash, rinse and hold, pots and pans, plate warmer and cancel and drain. A spray tube provides separate water distribution into the silverware basket. Unit is available in a full range of decorative kitchen colors. Tappan, Mansfield, Ohio. *Circle 325 on reader service card.*

2. Under-counter can storage cabinet turns narrow wasted space into an added convenience. Unit rolls out revealing three adjustable oak shelves on both sides. One side is deeper than the other and can hold a standard size juice can. Unit, shown in a 12" width, is also offered

in a double size 24" model. Coppes, Napanee, Ind. *Circle 326 on reader service card.*

3. Dishwasher-sink combination unit, "Superba", is available in harvest gold, avocado, coppertone and white. A one-piece stainless steel sink and countertop makes for easy maintenance. The unit can be equipped with a disposer and hot water dispenser. KitchenAid, Hobart, Troy, Ohio. *Circle 327 on reader service card.*

4. Traditionally styled cabinetry, "Country Pine", features a bold grain, a lustrous finish and a graceful arch design that blends with any decor. Doors, with changeable front panels, provide a decorative option. Standard door is a pine veneer panel

set in a solid pine frame. Wall cabinets have adjustable shelves. Base units feature hardwood frames and self-closing drawers. IXL, Westinghouse, Elizabeth City, N.C. *Circle 328 on reader service card.*

5. Smooth cooktop ranges heat up quickly, due to open coil elements, cool down fast and resist staining. Easy-to-clean, one-piece cooktops are constructed of PPG Herculite® ceramic glass. Line includes two double-oven models, two warming shelf versions and three 30" freestanding units. Hardwick, Cleveland, Tenn. *Circle 329 on reader service card.*

6. Dishwasher boasts quiet operation. Extra rigidity and firm support of the wash chamber combine with effective isolation of the motorized

power module to muffle and suppress operational noise. Dishwasher features stainless steel wash chambers, three-level washing, push-button controls and up to ten cycles. Five undercounter and four portable models are offered. Three come with decorative front panel kits. Norge, Fedders, Edison, N.J. *Circle 330 on reader service card.*

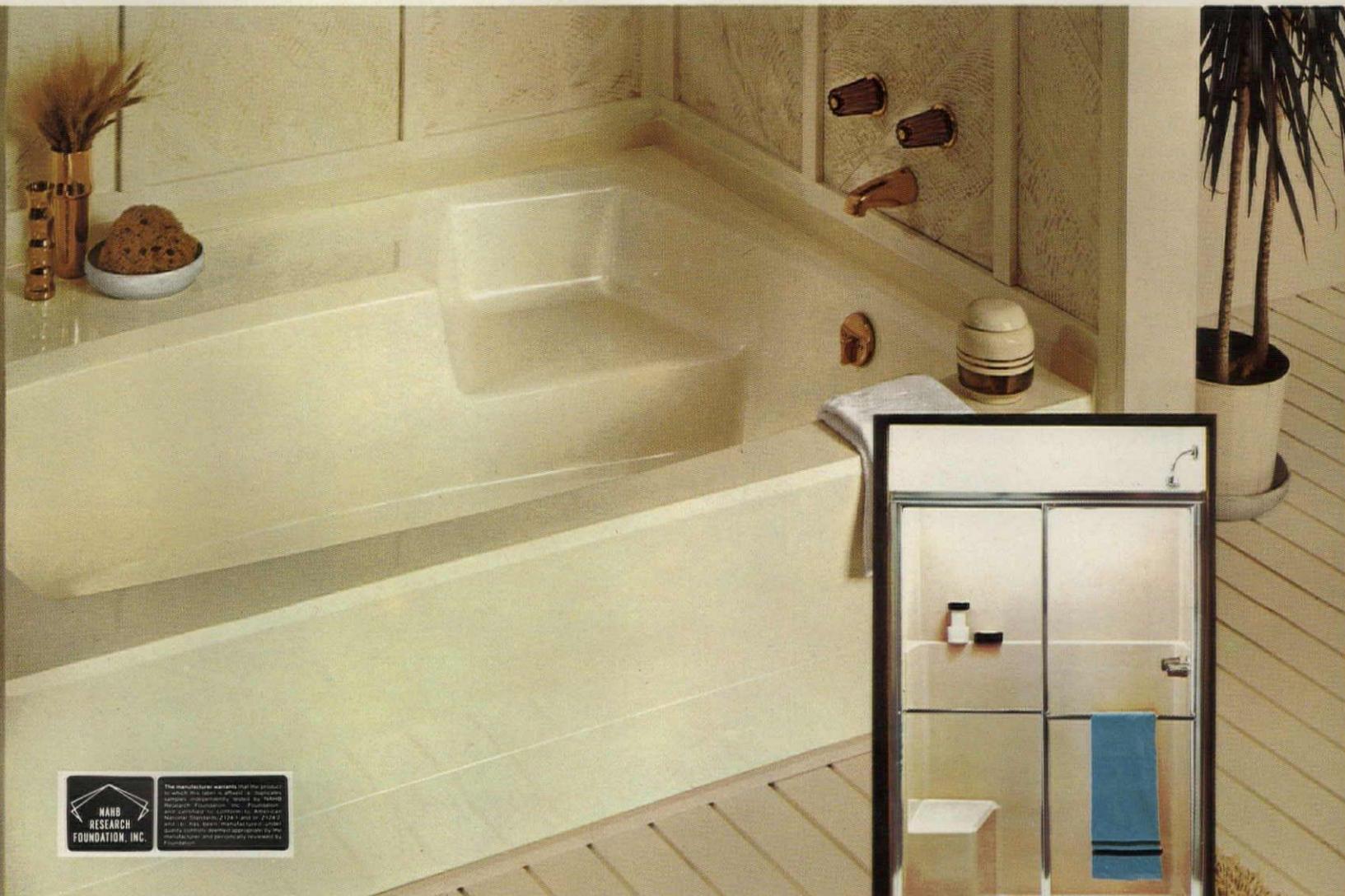
7. Convertible cooktop grill-range is available in countertop style with a choice of glass ceramic or conventional elements. Either or both plug-in/lift-out cartridge cooktops are easily replaced with plug-in charcoal grill assemblies. Options include an electric rotisserie, a shish kebab, a french fryer and a griddle. Jenn-Air, Indianapolis, Ind. *Circle 331 on reader service card.*

Specify our fiberglass Gothic Pool or Deluxe Recessed Shower.

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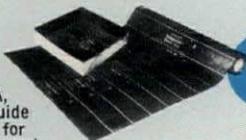
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products: kitchens

1. Convenient pantry cabinet unit is a welcome addition to any kitchen area. Cabinet is divided into an upper storage compartment that holds tall boxes and over-sized cans and bottles and the lower section, featuring adjustable, self-returning lazy susan shelves. Five steel shelves located on the inside of each door are fully adjustable. Shown in the "Mediterranean" style are two freestanding units, side by side. Long Bell, International Paper, Portland, Ore. Circle 332 on reader service card.

2. The ultimate cooking appliance, Micromatic™, combines a microwave oven, a conventional continuous cleaning electric unit and a smooth ceramic glass cooktop. Extra-large-capacity microwave oven features automatic defrosting

and a 60-minute digital timer. The 30" range, with up-front infinite heat controls, offers smokeless broiling. Brushed chrome backsplash and lift-up cooktop make for easy cleanability. Litton, Minneapolis, Minn. Circle 333 on reader service card.

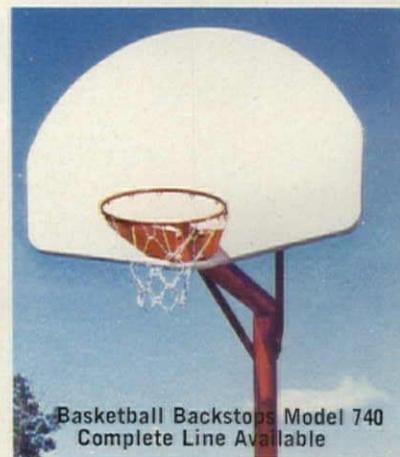
3. Rustic-styled cabinetry, "Winchester Oak", blends with any decor. Rich brown and ebony walnut stain is hand-wiped to emphasize the oak woodgrain. Three-coat finish includes a tough, durable, baked-on polymer topcoat. Solid core doors feature raised panel designs. Wall cabinets with adjustable shelves are 12" deep. Feather-touch drawers and magnetic catches are standard. Hardware is brass finished. Connor Forest, Wausau, Wis. Circle 332 on reader service card.



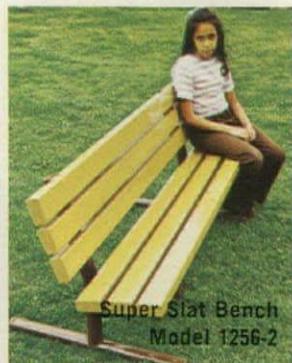
Jump, Whirlwind Slide Model 118



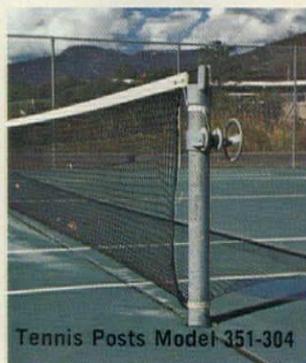
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Sun Deck Model 1220



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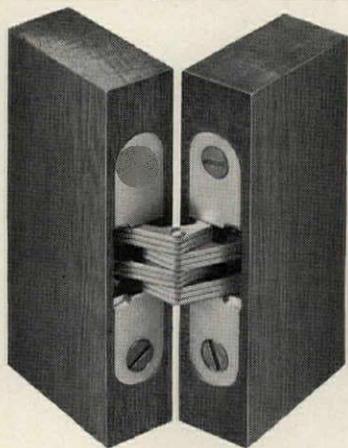
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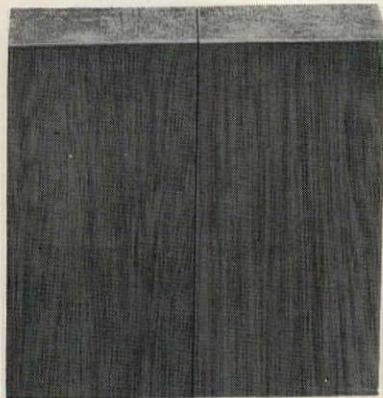
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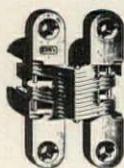


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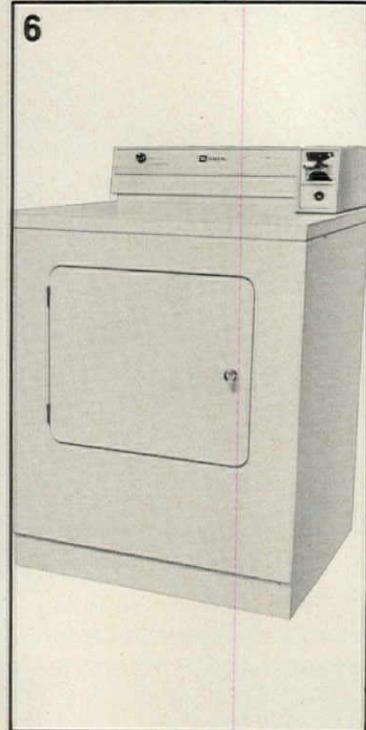
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CIRCLE 166 ON READER SERVICE CARD



products: kitchens

4. Traditionally styled "Nottingham Oak" cabinetry offers tremendous design versatility. Sculptured center door panels feature grooved reverse sides that can be faced with any type of material for decorative accent. Furniture-finish cabinets have door frames and drawer fronts of solid oak as well as easy-to-clean interiors. Wall cabinets feature adjustable shelves. Series includes convenience options and matching vanities. Home-Crest, Goshen, Ind. *Circle 335 on reader service card.*

5. Safety-oriented double oven range features a sliding, locking control cover that prevents children from accidentally turning on the unit. The smooth top range has upper and lower continuous cleaning ovens. Upper one is equipped with a double

glass door. Outer black glass door can be opened to check on cooking while the clear inner door remains shut. Lower oven is fully automatic. Range includes a lighted backsplash, infinite heat controls, a built-in exhaust fan and a lower storage drawer. Gibson, Greenville, Mich. *Circle 336 on reader service card.*

6. Self-service single load dryer for multifamily use features a large capacity, rapid drying and easy maintenance. Unit is adaptable for coin slide usage, manual timer for non-metered use and electronic ticket control. Dryer, in electric or gas models, offers preset cycles for all types of clothes. Easy-access lint filter is in the well of the front-opening door. Maytag, Newton, Iowa. *Circle 337 on reader service card.*

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No flat surface door with a mere grain finish has the deep-textured feeling of Legacy or its deep-rooted durability.

Legacy comes closer to nature than competitively priced doors. The texture is embossed into the substrate before the durable finish is applied. It won't scratch off. The total effect mirrors that of an actual wooden planked surface, each plank with

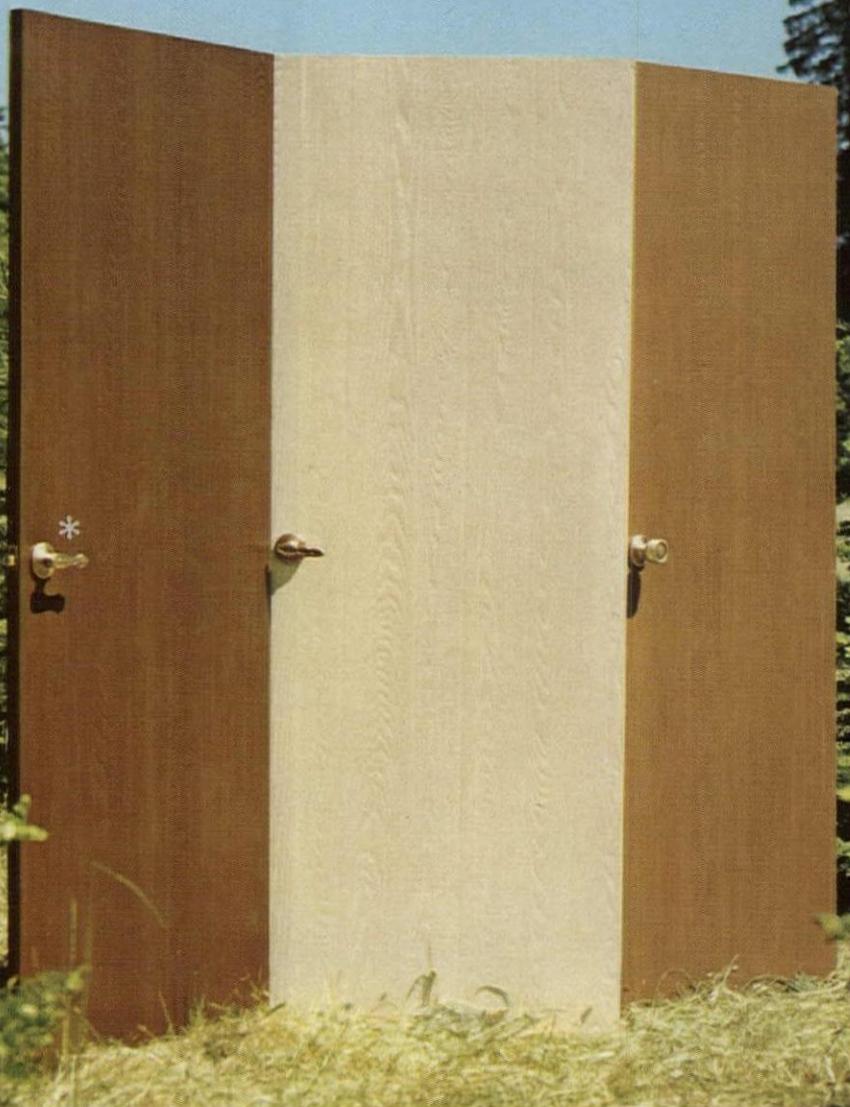
its own personality.

Mar-resistant Legacy won't split, splinter, crack or check. It can be easily repaired on site in event of damage. Legacy's high dimensional stability and great structural strength make it suitable for use with both solid and hollow core doors.

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Why such an extraordinary offer? Because Legacy is no ordinary door facing. And because we are firmly convinced that after you install your first door, you'll be hard pressed to revert back to any other.

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Limitations. This offer is limited to one payment per builder. It covers any one order for Legacy faced doors purchased and shipped to you between November 1, 1973 through and including March 15, 1974.

What do you do? Call: 800-447-4700* (toll-free of course). We will tell you where your nearest Legacy door supplier is located and send you a qualification form. Later, after you have received Legacy doors, simply send us proof of purchase—such as a copy of an invoice to you.

What will we do? Send you a check. But remember, Masonite Corporation will honor one invoice only from a builder. If the invoice you submit covers one door, you will be paid \$1.00. If it covers 50 doors, you will be paid \$50.00. If it covers 100 doors, \$100.00. Any amount over 100 doors does not qualify. In short, the maximum payment to any builder is limited to \$100.00.

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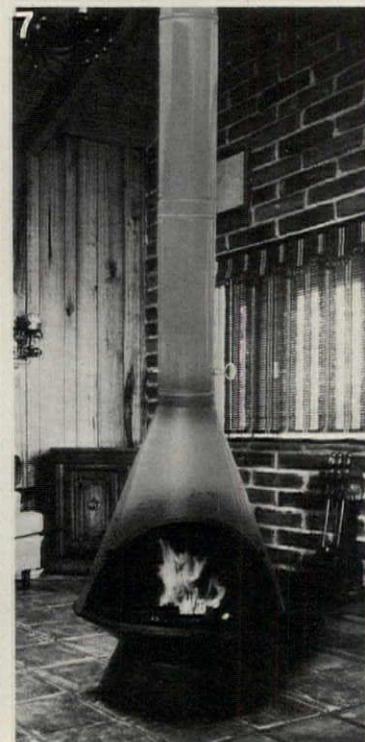
... in availability

at stable prices from leading door manufacturers in Walnut tone, White and Oak tone. Domestically made, Legacy is not subject to the vagaries of the wood industry.

... in economy

prefinished doors generally are less costly—installed—than those which must be finished on the job site.





products: fireplaces

1. Flagstone electric fireplace complements any style home. Unit is available with a choice of log sets including three with built-in heaters. Logsets plug into 110v outlets. Firebox can be placed at center as shown or to the right or left. Easy-to-install fireplace features a brass-trimmed black firescreen and slate hearth. Monoline, St. Joseph, Mich. *Circle 353 on reader service card.*

2. Traditionally styled electric fireplace doubles as a forced air heater with thermostatic control. Designed to be tucked in a corner, the "Coronado", constructed of realistic brick, is a natural looking accent for any room. Curved hearth and front and arched opening allow viewing from any angle. Heater logs are available in 120v and 240v models. Dyna, Fa-

milion, Lynwood, Calif. *Circle 354 on reader service card.*

3. Island fireplace, used as an unusual room divider, allows viewing from any direction. The bricklike unit is molded of a fiber glass masonry material. Real flickering wood log provides an authentic look. UL-listed heater provides a warm air flow. Cavrok, Vernon, Conn. *Circle 355 on reader service card.*

4. Electric fireplace, "Georgian", with the texture and look of genuine fieldstone, is a useful addition to any room. Unit, with either a 1,500 or 3,000 watt thermostatically controlled heater, includes the firebox, firescreen, draw pulls and real oak fire logs. Fasco, Fayetteville, N.C. *Circle 357 on reader service card.*

5. Built-in woodburning fireplace can be installed directly on wood floors and next to combustible materials. Available in three size firebox openings and in open ended models as shown, unit, including damper and screen, comes in one carton. Preway, Wisconsin Rapids, Wis. *Circle 356 on reader service card.*

6. Freestanding woodburning fireplace, "Lounge-Around", offers a 360° viewing area. Unit, finished in satin black, is available in a choice of brass or black firescreen and several hearth colors to complement any decor. The fireplace comes in two basic models: a 30" and 36" overall firebowl diameter with or without circular base drum. Hearths are available in 12" and 18" widths providing a 4½' to 6' diameter fire-

place. Easy-to-install unit, one of seven in the line, takes gas or electric logs. A. R. Wood, Luverne, Minn. *Circle 358 on reader service card.*

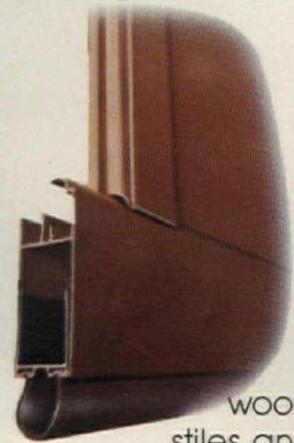
7. Cone-shaped, freestanding fireplace, "Free-form", is a UL-listed woodburning unit. A heavy-gauge steel baffle design inside protects the sides and back of the firebox. Unit features a refractory firebox floor, a curved fitted firescreen and enough matching color flue pipe to reach an 8' ceiling. Accessories include matching color sections and elbows and all-fuel chimneys to go through the roof. The decorative fireplace, available in 28" and 34" widths, comes in a choice of antique red or antique orange porcelain finish. Superior Fireplace, Fullerton, Calif. *Circle 359 on reader service card.*

Rebel, A Fine Figure Of A Door

The old ideal of the Gibson Girl owed much of its success to a no-nonsense corset, liberally aided by firm metal stays. This is something we understand completely, because we built the same idea into our Rebel garage doors. The rails on the Rebel are rigid extruded

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figure on it. The rails are formed into Tru-Fit rabbeting, which effectively seals out dust, rain and wind. Pre-drilled

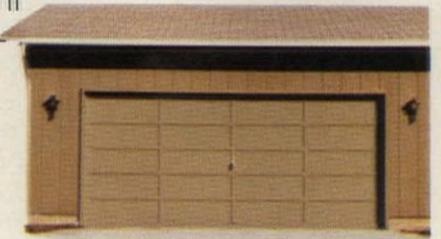


wooden stiles and muntins are incorporated for easy



installation with Raynor's time-tested hardware. Factory installed astragal, combined with an adjustable bottom rail, allows for a snug fit against uneven problem floors. The Rebel is offered in single or two car Ranch or Colonial styles, classically beautiful figures. There's one other Rebel figure you ought to know about—

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Raynor Rebel. It's a fine figure of a door, any way you look at it.



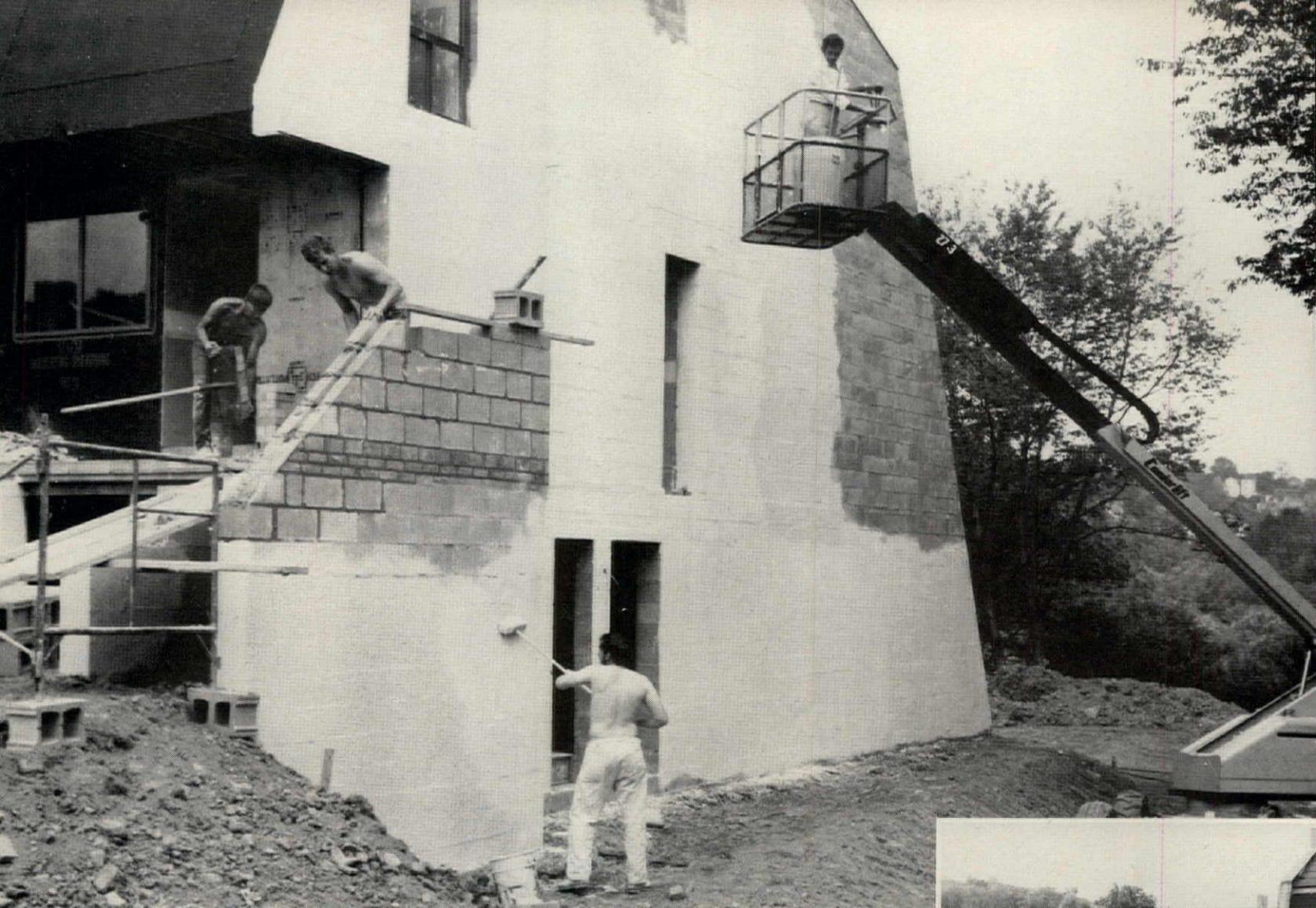
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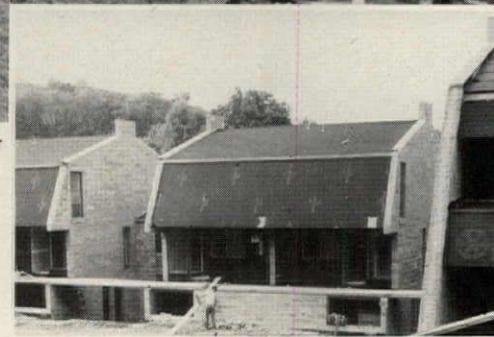
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CIRCLE 171 ON READER SERVICE CARD



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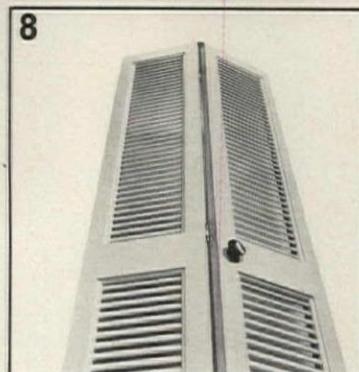
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products: doors/windows

1. Sectional steel garage door, "Sta-Lite 500", features heavy-duty hinges and roller brackets as well as integral welded trusses and muntin bars. Tapered track with large nylon rollers, adjustable leveling brackets and pinch-proof, weather-tight section joints are also standard. The lightweight door is divided into eight sections and can be easily installed by one person. Stanley Works, Birmingham, Mich. *Circle 345 on reader service card.*

2. Deeply sculptured steel entrance door eliminates warping and panel splitting problems. Fully reversible, it is deeply embossed on both front and back. The "Chateau", above, is 1 1/4" thick and made of 23-gauge galvanized steel with an electrostatically sprayed enamel finish. It comes

prehung and ready to install, including weatherstripping and threshold. Other models from the "Benchmark" line include flush doors, doors with multiple lights and combinations of the two. General Products, Fredericksburg, Va. *Circle 346 on reader service card.*

3. Prehung entrance door, "Jamlock" is installed simply by nailing exterior clip. It requires no shimming or leveling. The styrofoam-core steel door features a thermal aluminum frame with a baked white or bronze enamel finish. Predrilled door is furnished with lockset. Interior ranch casing and exterior trim are included. Unit comes with magnetic weatherstripping and threshold. Reynolds Metals, Park Ridge, Ill. *Circle 347 on reader service card.*

4. Insulating window, with heavy-duty double locks and concealed hinges, comes in heights of 5' and over. Made of rigid vinyl and aluminum, it resists sticking, warping and rusting. Exterior finish is bronze or white. Alcoa, Pittsburgh, Pa. *Circle 348 on reader service card.*

5. Casement angle-bay window is comprised of low-maintenance "Perma-Shield" units. A rigid vinyl sheath that needs no painting is applied around the wood sash and frame to resist weathering and corrosion. Available in 30° and 40° models, the unit comes in 4', 5', and 6' heights. Andersen, Bayport, Minn. *Circle 349 on reader service card.*

6. Metal bifold closet door, Float-Away®, captures the look of hand-

carved wood. Easy-to-install "Deep Drawn" model shown comes with heavy-duty decorative hardware. Kinkead, U.S. Gypsum, Chicago. *Circle 350 on reader service card.*

7. Louvered wardrobe doors of 1 3/8"-thick western hemlock are available as single doors or in two and four door models. Units come complete with hardware, sanded and ready for painting. E.A. Nord, Everett, Wash. *Circle 351 on reader service card.*

8. Open-louvered bifold door is molded of high-impact structural foam polystyrene. The one-piece, 1"-thick frame is reinforced for extra rigidity to help eliminate twisting and warping. No bottom track is needed. Allastics, Norcross, Ga. *Circle 352 on reader service card.*



Simpson Ruf-Sawn 316. The textured plywood panel for solid color finishes.

When you put a coat of paint or solid color stain on Ruf-Sawn 316 siding, it stays there up to three times longer than on natural wood.

That's because Ruf-Sawn 316 has a resin-impregnated overlay permanently bonded to the plywood substrate. This process produces a surface that's ideal for taking and holding solid color finishes. It won't chip, crack, or peel, and you won't see any blotch patches or fuzzy grain spots, either.

Yet it's a surface that looks and feels like wood. With a rough-sawn, actual woodgrain pattern deeply

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Ruf-Sawn 316, available in plain or grooved patterns, is easy to handle and install. It saws, shapes and nails better than composition. And it meets or exceeds APA "303 Siding" specifications and FHA requirements for racking strength without sheathing.

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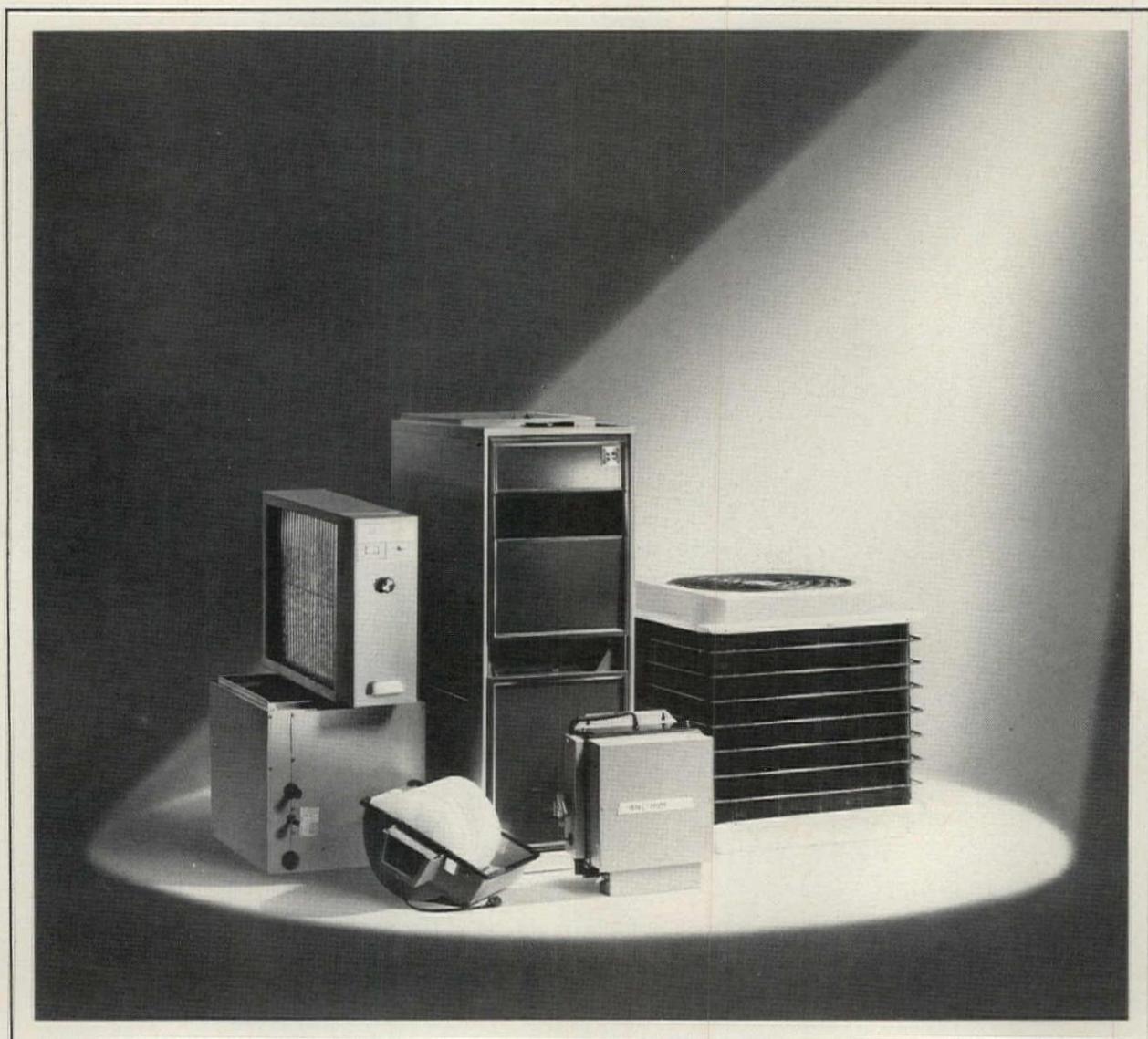
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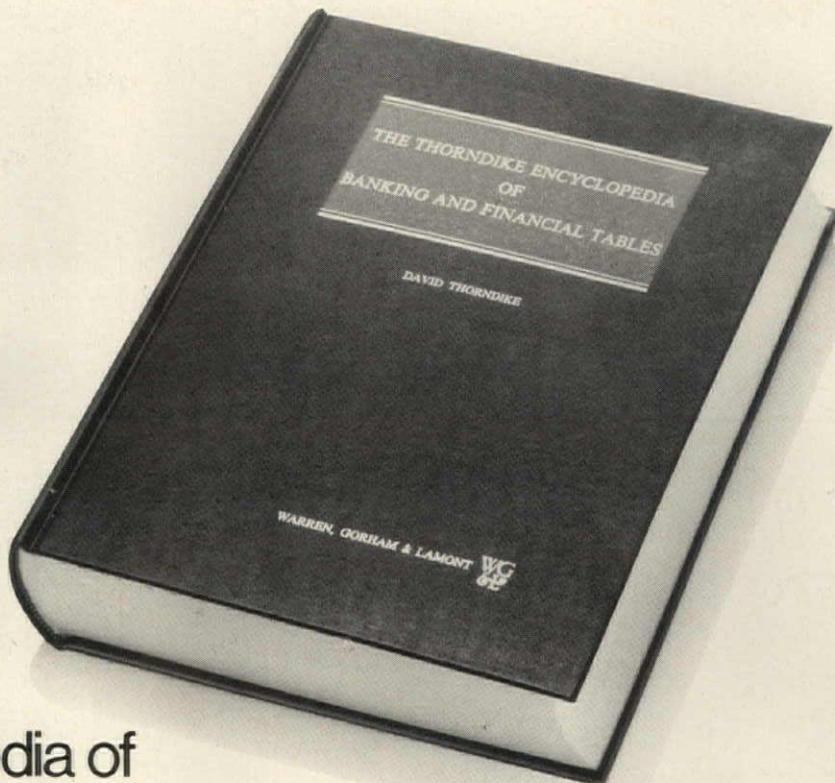
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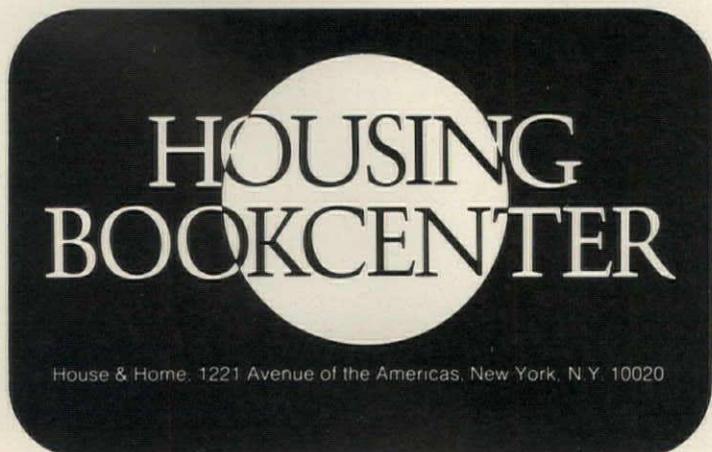
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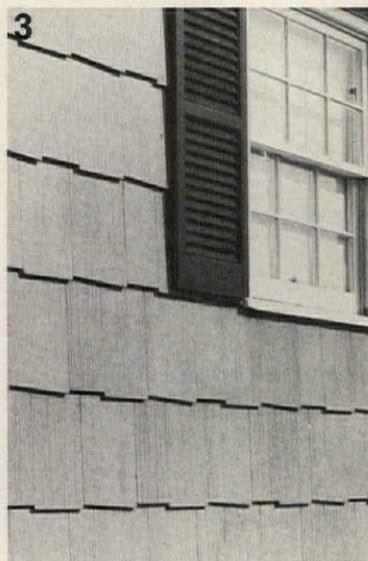
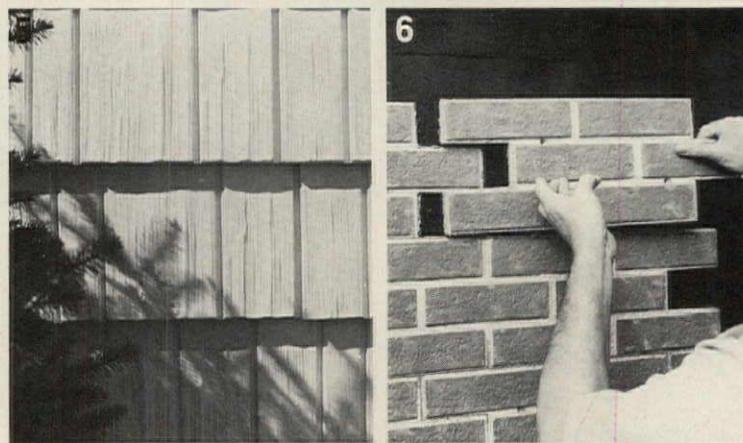
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products: exteriors

1. Slate-like siding, "Petrarch", is a nonflake composite of powdered slate and stone with a resin binder and glass fiber reinforcement. Available in green or blue, the sheets are 10'x4' and 1/4" thick. Lighter in weight than natural slate, they are easier to transport and install. The material can be applied to exterior brickwork, concrete, masonry and timber or steel frame constructions as well as interior surfaces. Unaffected by weather conditions or pollution, this man-made cladding is easily cleaned and is unharmed by solvents or thinners. Redland Claddings, Sussex, England. *Circle 338 on reader service card.*

2. Polystyrene shutters with an acrylic finish complement any style of home. They resist warping and

twisting, denting and wind damage. The open-louvered, woodgrained shutters can be installed easily with only a drill and screwdriver. Measuring 14" wide and from 25" to 81" long, they are available in white, black, brown and green with color-matched screws. Shutters can be repainted with standard exterior oil or latex. U.S. Steel, Pittsburgh, Pa. *Circle 339 on reader service card.*

3. Mineral-fiber shingles, "Pocono", are maintenance-free and prefinished and have the look of wood shakes. Ceramic-based finish cannot discolor, fade, peel or blister. Shingles are fireproof and impervious to shrinkage, warping and decay. They measure 14"x25^{5/32}" with a 13" exposure. Supradur, New York City. *Circle 340 on reader service card.*

4. Brick panels can be used as exterior siding or applied indoors on fireplaces, in kitchens or as room dividers. Fabricated of kiln-dried, fired-clay brick, 1/2" thick, and permanently bonded to an insulating substrate, the easy-to-install panels add structural strength. Material comes in a wide range of colors and textures. Panel Brick, Owensboro, Ky. *Circle 341 on reader service card.*

5. Aluminum cladding, with the rustic look of natural wood shakes, is ideal for sidewall or mansard roof application. Coated with a PVC finish, the material resists fading, chipping, peeling or cracking for up to 30 years. No painting is needed. "Great American Shakes" comes in 2'x1' panels in white, redwood and other natural colors as well as in mon-

ochromatic or polychromatic styles. Alcan, Warren, Ohio. *Circle 342 on reader service card.*

6. Premortared brick siding, "Insta-brick", consists of modules which contain six standard-size brick faces. Units, cast from natural masonry material, are 3/4" thick, 8" high and 16 3/4" long. They come in standard and custom shades. Insta Building Systems, Spring Valley, N.Y. *Circle 343 on reader service card.*

7. Copper sheeting can be used for a broad range of exterior applications. The high-strength "Tough 12" is available in 36"x96" and 36"x120" sheets. It does not burr and is readily cut and formed using hand tools. Copper Dev., New York City. *Circle 344 on reader service card.*



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Sta-Tru® doors are so full of proof, in fact, that you'll never go back to the gripes and headaches of a conventional wood door again. Or, any other metal-clad door as far as that's concerned, if you compare it feature by feature, dollar for dollar, with our Sta-Tru door.

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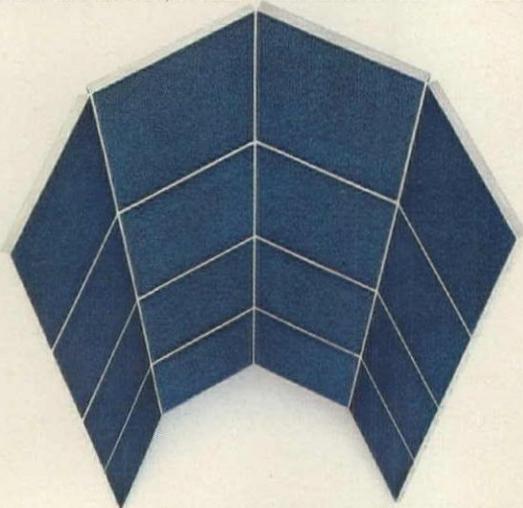
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News! American systems for every

This was just the beginning.

This is Redi-Set® Systems 100, our famous pregrouted glazed tile sheets. Homeowners love the flexible, stain- and mildew-resistant



Redi-Set grout. It's waterproof, wipes clean, and won't crack—even when the building settles. Use Systems 100 in the luxury baths in your condominiums, apartments, custom and semi-custom housing, and for remodeling jobs. It comes in sheets of up to 16 tiles.



Anywhere there's a standard-size tub in a standard recess

there's where you use Redi-Set System 310 pregrouted tub surround. It's designed to fit most

of the tub enclosures found in apartments, townhouses, industrialized housing, tract homes, and low-cost FHA housing. Installed in under an hour over almost any backup, this eight-sheet beauty is self-trimmed. Most grouting and most cuts are eliminated. Extension packages are available to extend the glazed tile to the ceiling.

The matching Redi-Set tile wainscot.

Almost anywhere you use System 310, you can add even more sales appeal with Redi-Set System 350, the matching pregrouted wall sheets. It's quick and easy to build in. Or offer it as a trade-up option. Sheets are 2' by 2', and contain up to 36 tiles.



Olean ceramic tile kind of bath.

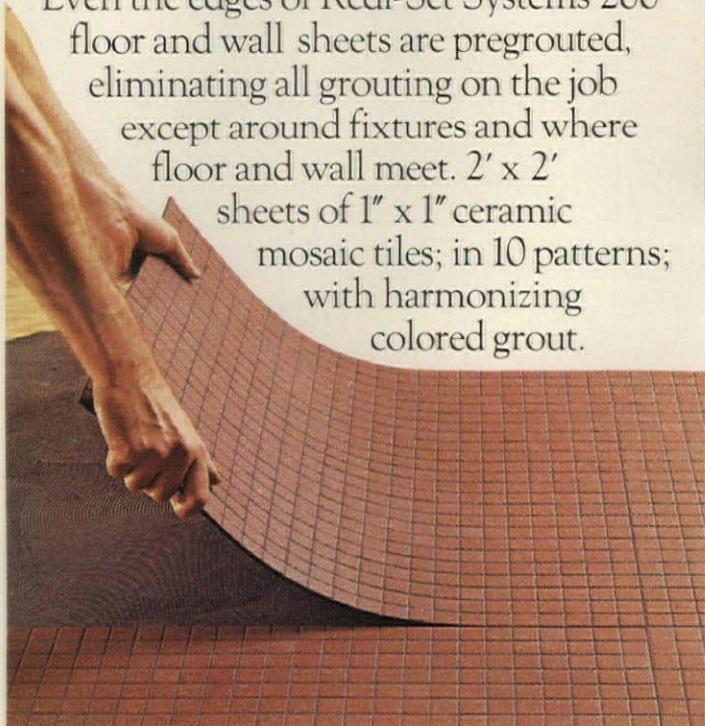
Redi-Set shower systems.

Redi-Set Systems 300 glazed tile shower surrounds are sized to fit the four most popular receptor sizes. These units can be installed directly over properly sealed drywall. 72" high, there are extension packages available to extend the tile to the ceiling.

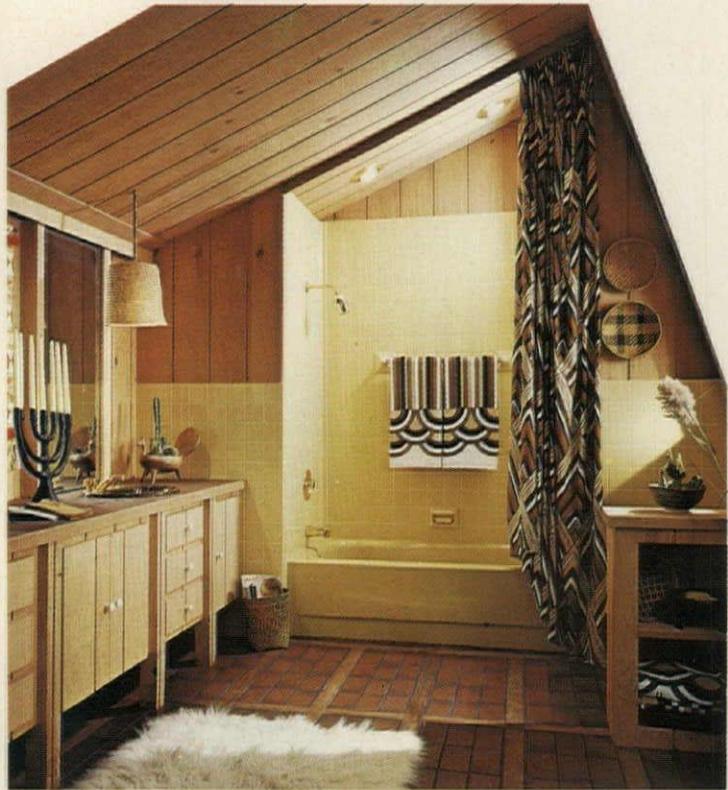


Redi-Set ceramic mosaics.

Even the edges of Redi-Set Systems 200 floor and wall sheets are pregrouted, eliminating all grouting on the job except around fixtures and where floor and wall meet. 2' x 2' sheets of 1" x 1" ceramic mosaic tiles; in 10 patterns; with harmonizing colored grout.



So give your prospects what they want a bathroom with the beauty and recognized low maintenance of ceramic tile; plus a new grout joint which is waterproof, stain- and mildew-resistant, and won't crack out. That's what they get with American Olean Redi-Set systems.



Redi-Set pregrouted ceramic tile. It's the natural thing to use.

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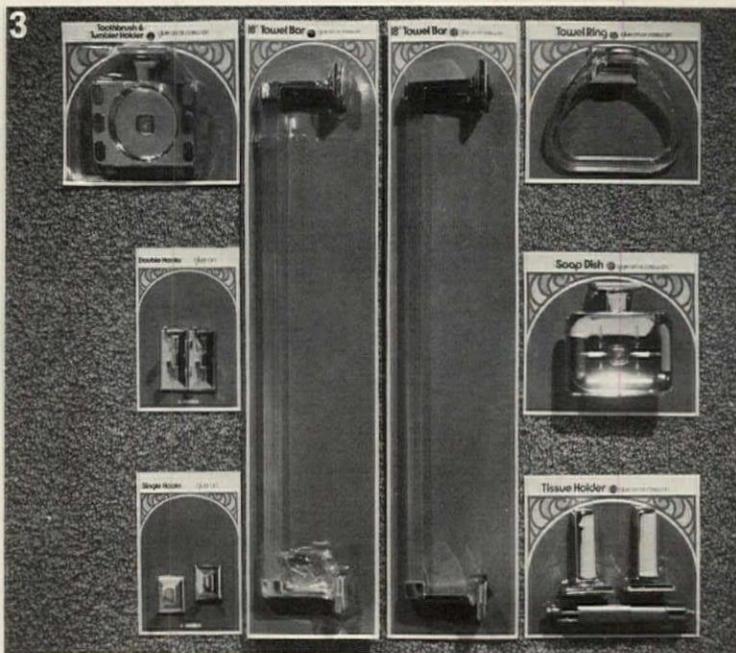
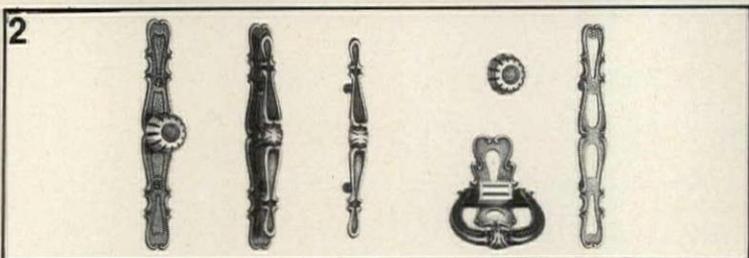
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**American
Olean**
A Division of National Gypsum Company



products: hardware

1. Decorative hardware line for doors, closets and cabinets includes fine vitreous china and Tasmania blackwood knobs. Porcelain pieces, in six classic patterns, will never graze or discolor. They come in 2 $\frac{3}{8}$ ", 2" or 1 $\frac{3}{8}$ " sizes with 22 karat gold-plated roses. Precision sanded blackwood knobs, in sizes from 1 $\frac{9}{32}$ " to

2 $\frac{1}{4}$ ", feature pewter roses and have nylon bushings and concealed fittings so no screws are visible. De Jong, Richmond Hill, N.Y. *Circle 360 on reader service card.*

2. Elegantly styled hardware line, "Baroness", is a decorative accent to any decor. Line includes a 6" pull, a

6 $\frac{3}{4}$ " pull, a 1 $\frac{1}{4}$ " diameter knob and a 2 $\frac{1}{2}$ " o.c. pendant. Backplate, for use with pulls or knob, measures 6 $\frac{3}{4}$ " overall. Matching hinges come in conventional and self-closing versions. Series is offered in Medieval brass and antique silver finishes. Hyer Hardware, Fullerton, Calif. *Circle 361 on reader service card.*

3. Bathroom hardware, guaranteed not to crack, peel or tarnish, is available in Mirra-gold or Mirra-chrome vacuum metalized finish. Easy-to-install line includes a towel ring and bars, tissue holder, hooks, shelf, toothbrush and tumbler holders and soap dish. Newell, Freeport, Ill. *Circle 362 on reader service card.*



TRI-MIRRA™...something new from the folks you didn't know one year ago...

Remember the ad we ran last year? The one that said: "Here's why you don't know us!" Funny thing, we can't run that ad anymore.

Because now, Zenith is well-known throughout the entire building industry. For quality, fast delivery and competitive pricing

on a full line of medicine cabinets for the bath.

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723 Secane Avenue, Primos, Pennsylvania 19018
(215) 748-3000

No matter how you color it - Temple's new textured hardboard siding looks great!

Temple's new textured primed panels solve many traditional siding problems—with a look that's tradition itself.

These panels make painting simple. Their rustic grain patterns look great under any of a rainbow of colors, and the factory-primed finish eliminates half the painting job entirely. You can even wait up to sixty days before applying the surface coat.

Because Temple textured siding is made entirely of wood fibers, it offers many of the advantages of wood, and some others besides. It will not split or crack during cutting or nailing, even when nails are driven

flush. Each panel is uniform, free from knotholes, and simple to install. It is warp resistant, with no resins to bake out in the sun.

Available in grooved or ungrooved panels, Temple siding can save you time and money on your next construction job. Judge it against the siding you're using now—for both quality and price. See your building supply dealer—you may be surprised at how economical it really is.



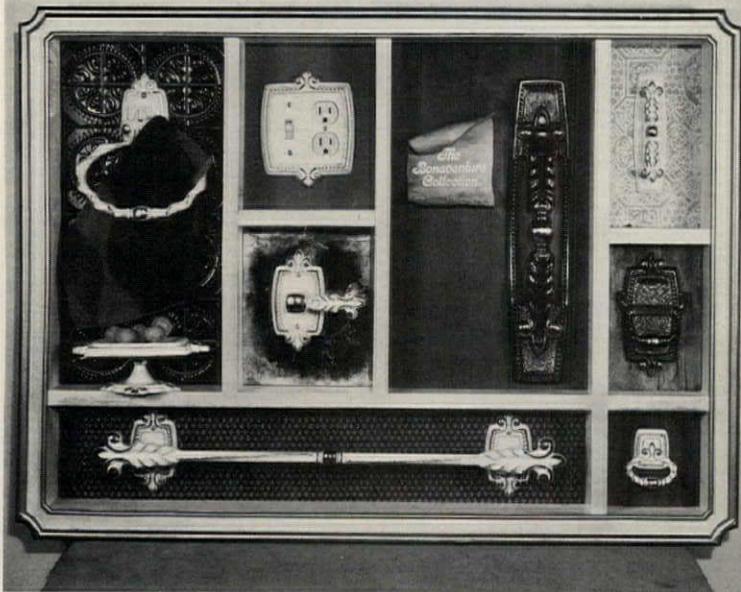
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DIBOLL, TEXAS 75941

CIRCLE 185 ON READER SERVICE CARD



4



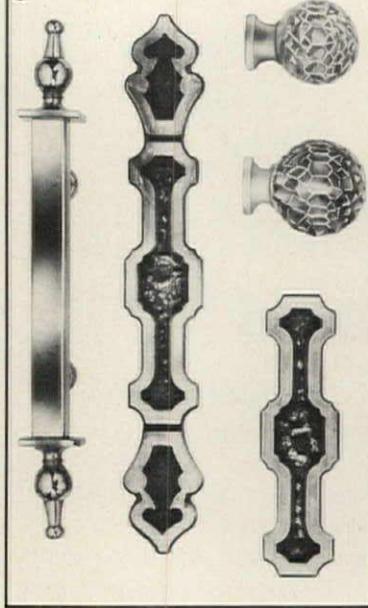
products: hardware

4. French-provincial-designed hardware, "Bonaventure", can be used in every room of the house. Over 40 different matching items include entry handles, switch and outlet plates, cabinetware, passage levers and a full line of bathroom accessories. The elegantly styled decorative series is available in a bronze or

white finish. Amerock, Rockford Ill. Circle 363 on reader service card.

5. Series of door pulls and handles, designed to restore old world elegance, comes in three distinct styles. The Marrakesh line is available in hand-finished antique brass, iron or copper. The Moorish style is offered

5



in the same finishes. Crystal pieces come in clear, smoke, red, blue and green with antique brass, polished brass or polished chrome bases. Harris Hardware, Brooklyn, N.Y. Circle 364 on reader service card.

6. Series of bathroom accessories, traditionally styled "Pilgrim" line, is

6



available in antique brass or pewter finishes. Towel ring and bars, hooks, toilet tissue holder, soap dishes for sink and bathtub and a tumbler and toothbrush holder are included in the group. Easy-to-install pieces are individually packaged. F.H. Lawson, Cincinnati, Ohio. Circle 365 on reader service card.

if space and cost limitations have you against the wall



with Climatrol heating and cooling

Climatrol Thru-the-Wall design concepts for heating and cooling can reduce your project expenditures in these important ways...

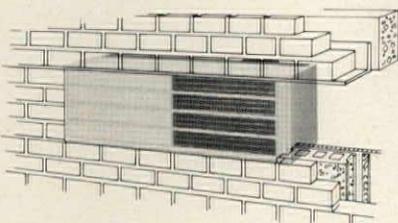
- savings...with no chimney costs
- savings...in on-site labor costs
- savings...with no-slab costs
- savings...on fire retardation code requirements
- savings...with on-site service, without unit removal
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- savings...with Climatrol's compact, 4 ft. size—needs no special equipment room
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Consider Climatrol's multitude of unique engineering adaptations before you start your next job. For 111 years we've been building products to heat and cool what you build. No matter what you build, where you build it, or the fuel you use, there's a Climatrol answer to your air conditioning needs...3696 different Climatrol models.

Ask the Climatrol man near you about our thru-the-wall units—split, package apartment or modular heating/cooling systems...gas or electric. Or write to Mueller Climatrol Corp, 255 Old New Brunswick Road, Piscataway, New Jersey 08854.

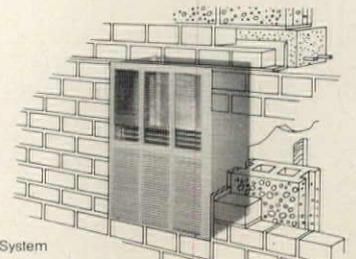
Package Apartment System

Modular Heating-Cooling System



Climatrol
Mueller Climatrol Corp

Split System



PLAZA ONE

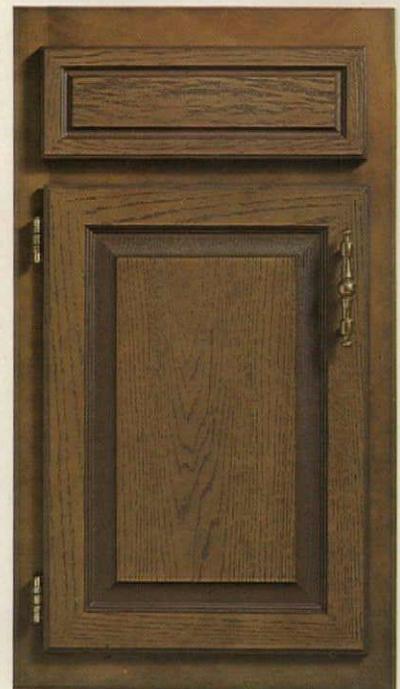


If you thought of everything you wanted in a cabinet—including the price range—chances are pretty good you'd be the second person to design PLAZA ONE. It has the handsome look of deep-grained oak; the durability found only in a man-made material like Durium; it won't warp or peel; practically eliminates service call-backs. Look in the Yellow Pages for your nearest distributor or write Kitchen Kompact, Inc., KK Plaza, Jeffersonville, Indiana 47130. See PLAZA ONE at NAHB booth #3245.

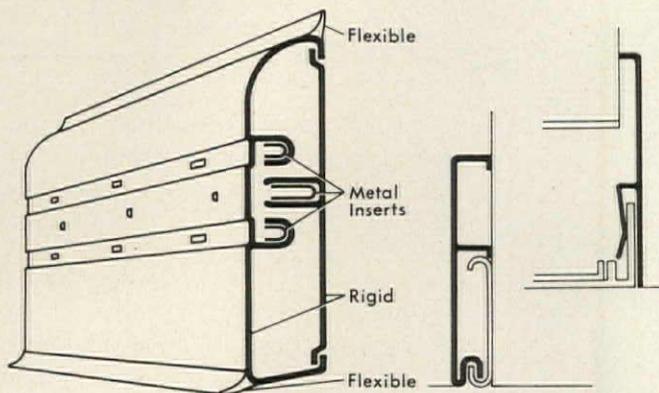
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Antique brass pull with matching self-closing hinge.



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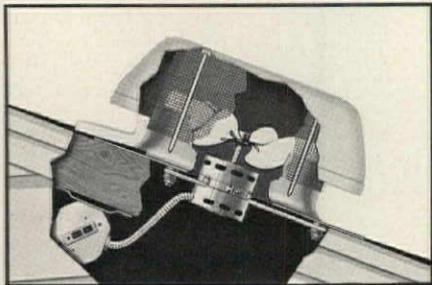


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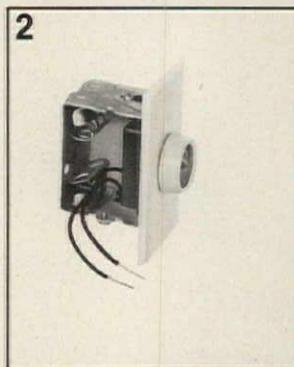
When attic temperature reaches 100° KOOL-O-MATIC's powerful fan automatically is activated to remove superheated attic air before it penetrates living areas to make air conditioning work harder, longer. And KOOL-O-MATIC goes on working in the winter to keep insulation dry, reduce heating costs, add years to life of the home.

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products: electrical

1. Built-in central cleaning system, "Rugrunner", makes house-cleaning easier. A lightweight hose fits into strategically located wall inlets. Dirt is transported to a central dust collector and deposited in a disposable bag. The system has a Black and Decker power source. Wal-Vac, Grand Rapids, Mich. *Circle 366 on reader service card.*

2. Compact dimmer device, Trimatron™, is half the depth of conventional units. Thin enough to be quickly and easily installed in any wall system, dimmer features a full range of light levels with clockwise rotary action for brightness control. Designed to fit single gang switch boxes, unit is UL-listed. Leviton, Little Neck, N.Y. *Circle 367 on reader service card.*

3. Tape-on wall switch provides easily installed additional electrical controls in less than 30 minutes. "Surface Tape" wire and a plastic state transformer (power source), thin two-conductor, self-adhesive "Surface Tape" wire and a plastic touch-button switch. Transformer steps current down to 2-volt level. Switchpack, Del Mar, Calif. *Circle 368 on reader service card.*

4. Ground fault interrupters are now required on all outdoor receptacles and all circuits serving non-permanent swimming pool equipment. Easily installed in load centers or panel boards by an electrician, the device cuts power the instant a fault is recorded, preventing a potential shock. ITE Imperial, Spring House, Pa. *Circle 369 on reader service card.*

“Wood detail is important in my Hawaiian homes. And for my entryways, I use Nord doors.”



Hawaiian builder Roy Morimoto and Nord's Voyager Cadiz entry door.

Honolulu builder Roy Morimoto got his start as a carpenter. He still designs and does most of the wood detailing in his houses. And when it comes to his entryways, he uses Nord doors.

**Reasons:
Appearance, quality, price.**

“A fine entry is the feature that first attracts people to a house. If they like the looks of the outside of the package, they'll want to open it and investigate further.”

Morimoto has used Nord doors on a wide variety of homes. He picked the Voyager Cadiz to dress up the small guest house

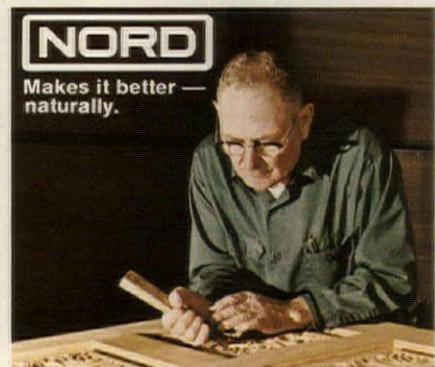
pictured above. At the same time, he's using a pair of Nord doors for the double entry of a \$265,000 five-bedroom home that's under construction.

“Nord doors hold their form. They don't twist or warp. And this can be a problem in Hawaii because of the high humidity.”

Nord's philosophy.

For over 25 years, the Nord family has been combining fine wood and old-world craftsmanship with modern technology. Builders, like Morimoto, know they can count on Nord for select Western woods, rich detail, quality production, and “commodity” prices.

For full-color literature on Nord carved entry doors, write “doors” on your letterhead and mail it to E. A. Nord Company, Everett, WA 98206.



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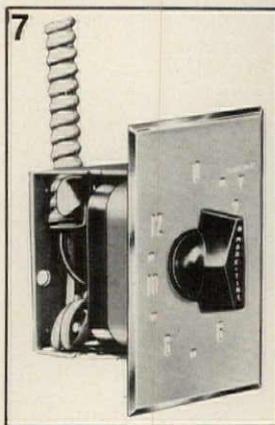
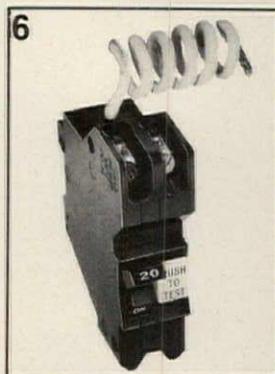
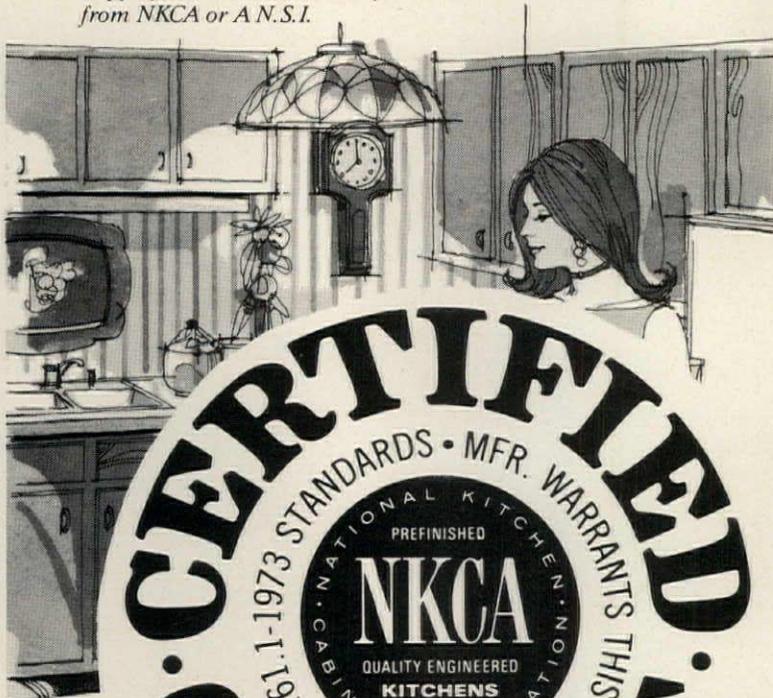
Cabinets bearing this seal meet or exceed ANSI A161.1/1973 "Minimum Construction and Performance Standards for Kitchen Cabinets."* Certified Manufacturers are tested twice a year by unannounced plant pick-up of cabinets and testing to insure their compliance with this standard which is required by the Minimum Property Standards. Delays in approval and rejection by H.U.D. field personnel can result from the use of uncertified cabinets. Your responsibility ends and the manufacturer's begins when you order or specify certified cabinets.

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*Copy of Standards available for \$2.00
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products: electrical

5. Vinyl raceway (above sink) is designed for convenient, economical surface installation of electrical wiring. System, which can be fastened mechanically or with adhesives to any type wall, provides for conveniently spaced outlets. Raceway will not support combustion and can be painted as desired. Johnsonite, Middlefield, Ohio. Circle 370 on reader service card.

6. Ground Fault Interrupter, Stablok[®], protects against electrical shock by constantly monitoring balance of current. If a ground fault occurs, unit immediately breaks the circuit. Installed in load centers or panelboards, GFI also acts as a conventional circuit breaker. Federal Pacific Electric, Newark, N.J. Circle 371 on reader service card.

7. Wall-box timer switch reduces use of electricity and saves on wear of equipment. The "Mark Time", available in timing ranges from 60 seconds to 12 hours, can be used to control heaters, ventilating fans or lights. Easily installed in any gem box, unit can be mounted with toggle switches and/or outlets. M.H. Rhodes, Avon, Conn. Circle 423 on reader service card.

8. Centralized cleaning system features a vacuum producing power unit separate from the dirt canister, allowing installation flexibility. Dirt canister can be located in a place convenient for emptying and servicing, while power unit can be remotely mounted so that noise is not heard. Vacu-Maid, Ponca City, Okla. Circle 372 on reader service card.



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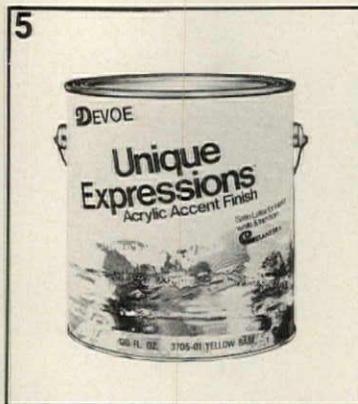
SAFETY, because Corlglas tubs and showers are constructed of a special fire-retardant compound that has been rigidly tested and approved by an independent testing company.

FAST DELIVERY from Corl's four plant locations in Indiana, Georgia, North Carolina and Texas.

Interested in hearing more? Drop us a line and we'll be happy to tell you more. Write: Corl Corporation, 500 Commerce Building, Fort Wayne, Indiana 46802.



corl corporation
the people who make ideas work



products: coatings/adhesives

1. A line of products for home care consists of five easy-to-apply substances. All-purpose asphalt paint is for protecting any wood or metal surface. Super foundation coat can be applied to concrete, brick masonry surface as a water-proofing agent. Fibrous roof coating, suitable for any surface except shingles, forms an impenetrable weather seal. Super roof cement fills large cracks and holes in roofs of all materials. Super fibrated aluminum roof coating is designed to be used on large metal roofs. Brewer, Newton, Ohio. *Circle 381 on reader service card.*

2. All-purpose construction adhesive, "Liquid Nails", is a waterproof substance formulated of virgin rubber. Suitable for bonding all types of prefinished panels to most common

building materials, "Liquid Nails" retains adhesion and flexing properties for years. Easy-to-use material requires no mixing and is freeze- and thaw-stable. Packaged in 11 oz. cartridges, the substance emits no offensive odor. Macco Adhesives, Glidden, SMC, Wickliffe, Ohio. *Circle 382 on reader service card.*

3. Plywood construction adhesive is designed to bond interior and exterior panels to wood studs, concrete, drywall and masonry. "Scotch-Grip Brand Construction Mastic" is water, heat and dead load creep resistant. It remains firm and flexible. Bond strength increases for a few days after assembly. Adhesive comes in cartridges, five-gallon pails and 55-gallon drums. 3M, St. Paul, Minn. *Circle 383 on reader service card.*

4. Acrylic emulsion Rhoplex® is designed for formulation of high-solids latex caulks with low shrinkage and good adhesion. Caulks prepared with Rhoplex® offer low odor, good flexibility, high pigment loading capability and outstanding water and ultraviolet light resistance. The emulsion may also be used in glazing compounds, putties and adhesive products. Rohm & Haas, Philadelphia. *Circle 384 on reader service card.*

5. Latex interior paint line is a collection of more than 100 dramatic accent colors designed to blend with today's decors. Substance, which applies easily with a minimum of preparation and needs little clean-up, is fast drying, scrubble and resists fading. Devoe, Celanese, Louisville, Ky. *Circle 385 on reader service card.*

6. "Barn Board Stain" simulates the look of weather-beaten old wood. Ideal for the antique or colonial effect, transparent stain accents variations and irregularities on the wood surface. Stain may be used on all exterior and interior wood. Available in pint, quart and gallon containers, it is most effective when used on rough-sawn lumber for vertical siding. Samuel Cabot, Boston, Mass. *Circle 386 on reader service card.*

7. Two polyurethane finishes round out a line of wood coating products. Both clear satin and clear gloss finish come in gallons, quarts, pints and half pints. Line also includes Wood Finish in 15 colors, Antique Oil Finish, Americolor Finishes and Finishing Waxes. MiniWax, Clifton, N.J. *Circle 387 on reader service card.*

Builders benefit from a strong distributor network.

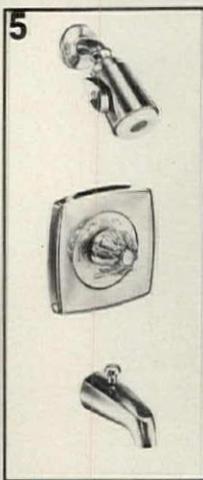
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products: bathrooms

1. Surface-mounted corner cabinets, "Avanti", used in combination with various size wall mirrors, offer a wide range of installation possibilities. Available in silver or gold finish, the reversible cabinets come in three styles: a white and gold paneled door version, a louvered front design and the mirrored-door model shown, which provides three-way viewing. Units are constructed with doors angled to blend with the wall mirror making storage area invisible until opened. Monarch Metal, Elk Grove Village, Ill. *Circle 319 on reader service card.*

2. Mirror and cabinet ensemble is designed for use in elegantly styled bathrooms. Decorative mirrors, with Baroque solid wood frames in gold or white/gold finishes, provide

three-way viewing. Easy-to-intall surface-mounted cabinets include three adjustable bulb-edge glass shelves and a plate glass mirror. Center mirror is available in five different sizes. Zenith, Primos, Pa. *Circle 320 on reader service card.*

3. Traditionally styled vanity, "Classic", features all wood construction. Shown with a white marble, center bowl top, the vanity is 21" deep. Available in 60", 48", 36", 30" and 24" widths, the unit has Lisbon walnut finish. A matching linen cabinet is also offered. Perma-bilt, Torrance, Calif. *Circle 321 on reader service card.*

4. Luxury bathtub, "Mark Seven", is a two-piece tub and deck ensemble molded of cast marble. Matching ac-

cessory pieces form a step around the entire perimeter. Cast marble, formulated of ground marble and polyester resins, provides a high gloss surface impervious to household stains and chemicals. Material will not chip or crack under normal use. Tub features a safety ribbed bottom and comfort contoured arm rests. Available in a wide range of neutral and marbled decorative colors, the unit accepts standard plumbing fittings. Molded Marble, Menomonee Falls, Wis. *Circle 322 on reader service card.*

5. Single-handle shower fitting, "Hydro-Poise", features an anti-scald pressure balancing valve. Any sudden drain on supply lines automatically adjusts the balancing valve to maintain water temperature

within 1° of original setting. The unit comes as a tub and shower fitting or as a shower fitting only. Decorative lucite or lever handle is available along with a full selection of shower heads. Chicago Faucet, Des Plaines, Ill. *Circle 323 on reader service card.*

6. Decorative bathroom cabinet ensemble, "Capistrano", is shown with optional twin swag lights. Mirror frames, styled with old world European elegance, are available in white and gold, antique gold or antique pewter finishes. Cabinets, which can be recessed or surface-mounted, are color coordinated with frame. Twin storage units feature adjustable glass shelves and magnetic catches. Mirrors are plate glass. Miami-Carey, Monroe, Ohio. *Circle 324 on reader service card.*

“Our residents are happier with Maytags and we have a lot less headaches,” reports Mr. Botnick.



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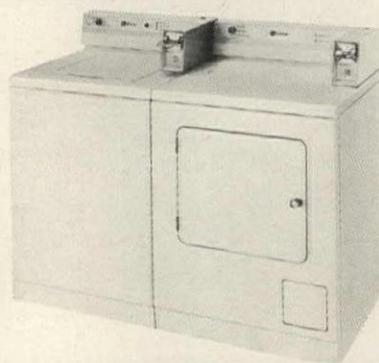
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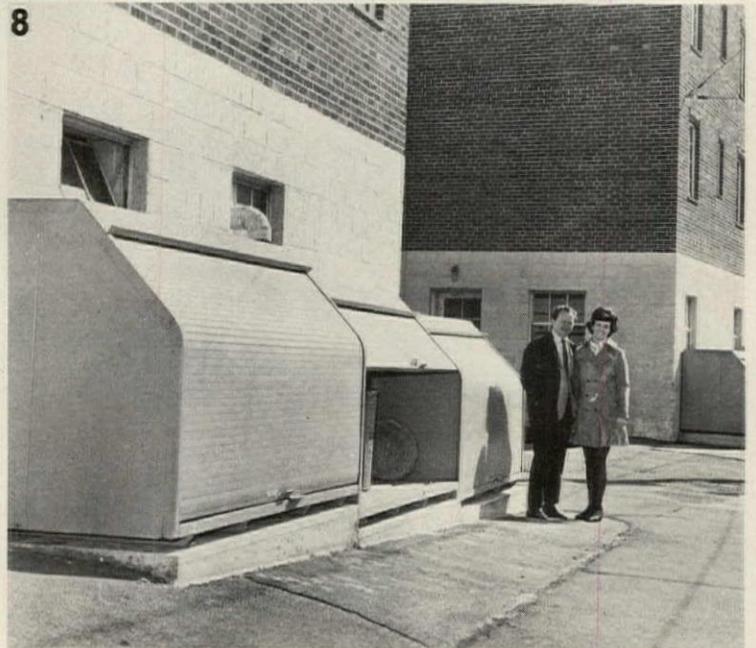
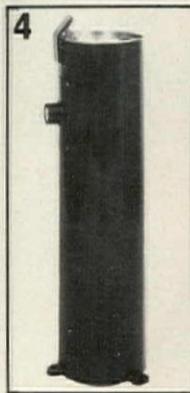
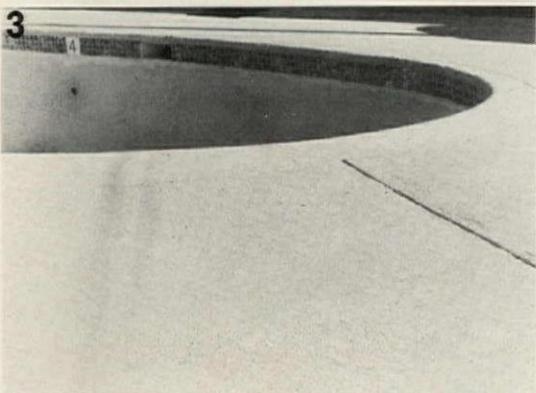
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products: outdoor

1. Easy-to-erect, multi-purpose shelter is precut and predrilled. Constructed of aluminum, unit is coated with a wood-like brown enamel finish and embossed for a woodgrain effect. Measuring 20'x22', shelter is shipped KD and comes complete with all necessary hardware. T.J. Bottom, Fenton, Mo. *Circle 373 on reader service card.*

2. Modular passenger shelter helps make waiting for transportation comfortable. Strong durable unit, of extruded aluminum with clear acrylic or Lexan[®] panels, is available with optional front wind screen, aluminum bench, map/schedule holder, lighting and heating. Vandal-resistant modules snap together. Melrose, Passaic, N.J. *Circle 374 on reader service card.*

3. Swimming pool deck coating is cool to the touch even in the hottest weather. The cementitious mixture of silica, acrylic resins and a bonding catalyst can be applied to almost any type surface and spread paper thin. Material, which comes in four decorative colors, will not chip, peel or flake off. Super Deck, Phoenix, Ariz. *Circle 375 on reader service card.*

4. Vandal-proof drinking fountain for outdoor use is constructed of heavy-duty steel. Bubbler is locked to the receptacle and protected by a guard. Access panel is reinforced and locked to the fountain. Push-button valve is surrounded by a steel sleeve. Undercoated unit is surface mounted by three mounting feet. Western Drinking Fountain, Glen Riddle, Pa. *Circle 376 on reader service card.*

5. Concrete surfacing material, "Epoxy-Rok", is for indoor or outdoor use. It prevents spalling and is impervious to salt and ice damage while providing an attractive surface. Material is slip resistant and is highly resistant to chemicals and abrasion. It comes in a wide range of colors. Hallemite, Montvale, N.J. *Circle 377 on reader service card.*

6. Fiber glass building panels, used for patio roofs and decorative fencing, are translucent, offering privacy, protection and light at the same time. Weather-resistant, color-impregnated panels are available in two styles: a white background with broad and narrow stripes in either warm or cool tones. Filon, Vistron, Hawthorne, Calif. *Circle 378 on reader service card.*

7. Utility storehouse, constructed of aluminum with a baked enamel finish, features easy-gliding, wide, double-sliding doors. Available in sizes ranging from 6'x4' through 10'x10', the satin-white storehouse has a full width drain gutter, rigid supports and bracing and a key lock for added security. Cabanarama, Hialeah, Fla. *Circle 379 on reader service card.*

8. Trash container storage system "Tee-M" is sanitary and secure. Galvanized steel units feature rolling-door curtains made up of midget slats that operate on counter balance springs. Mounted on concrete slabs, cabinet, with a corrosion-resistant primer-coat and drainage and ventilation provisions, resists vandalism. J.G. Wislon, Norfolk, Va. *Circle 380 on reader service card.*

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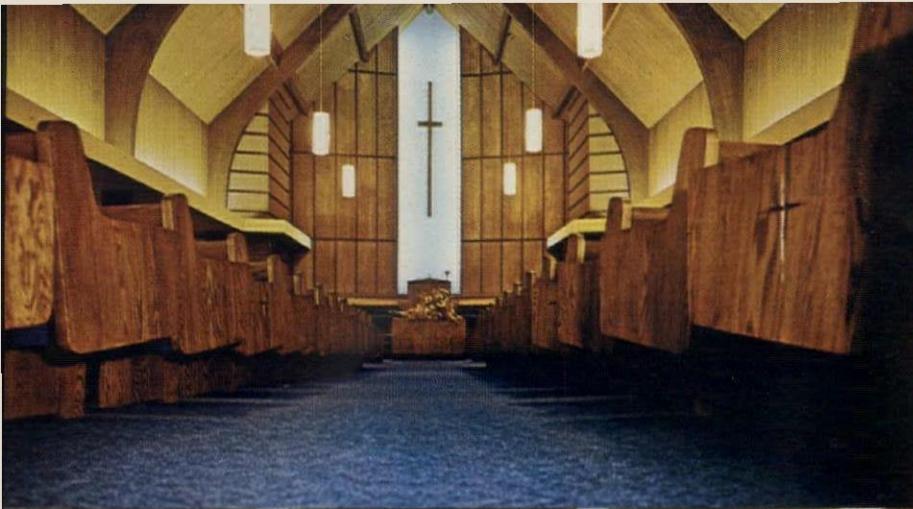
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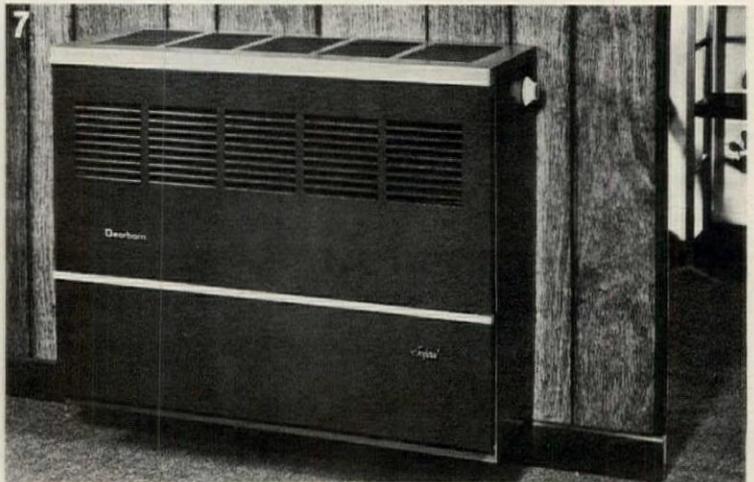
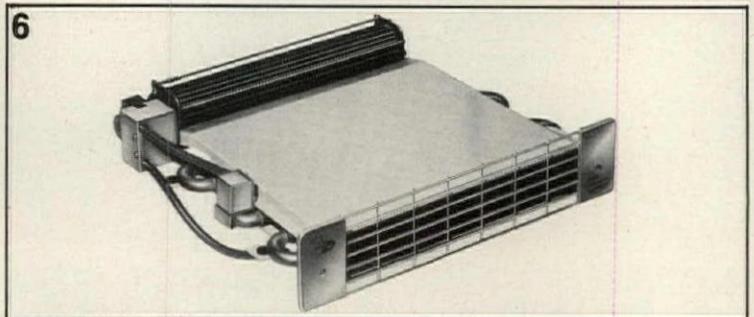
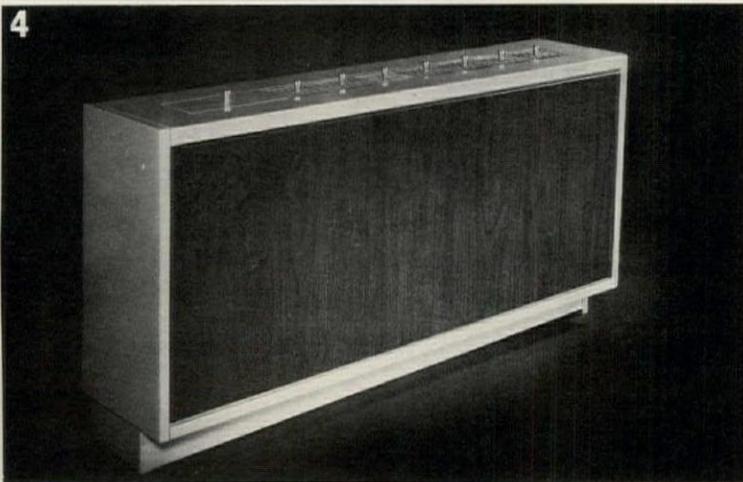
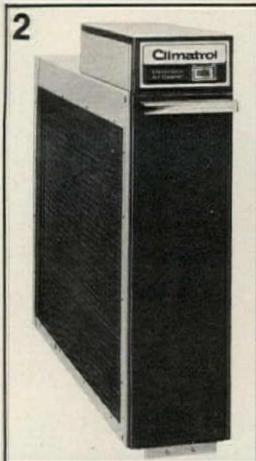
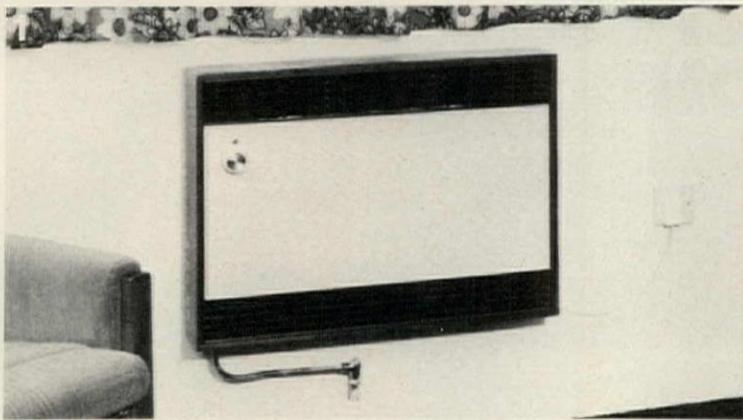
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products: interior environment

1. Low-cost heating unit, "Warmplan 250", can be used individually or in a series as part of a system. The fan-assisted, sealed-ventilation gas convactor can be operated by remote control or at the appliance itself. Compact unit features an over-heat control and a fail-safe device. Thermostatically and time-clock-controlled models are offered. Robinson-Willey, Liverpool, England. *Circle 395 on reader service card.*

2. Electronic air cleaner is designed for return air duct installation at the furnace, air handler or air conditioner. Easy-to-install unit is for up-flow, horizontal or counterflow applications. Cleaner can be mounted vertically or horizontally. Mueller Climatrol, Milwaukee, Wis. *Circle 396 on reader service card.*

3. Thru-The-Wall electronic air cleaner is designed for use with a single central air grille. Unit is installed through the wall or ceiling and connected to the furnace and/or air conditioner. Attractive flush mounted grille is then installed on the front. Electro-Air, Emerson, McKees Rock, Pa. *Circle 397 on reader service card.*

4. Packaged terminal air conditioners are self-contained through-the-wall units that provide heating, cooling and dehumidifying. Operated by color coded pushbuttons and controlled by a dial thermostat, units come in a range of capacities. Prewired components and controls are mounted on one chassis. Raywall, TPI, Johnson City, Tenn. *Circle 398 on reader service card.*

5. Low capacity condenser has been added to a line of elliptical air-cooled units. The new 14,000 BTU model is designed to meet the cooling needs of smaller apartments. Seven other units, in cooling capacities ranging from 1½ to 5 tons, complete the series. Low-silhouette condenser features top air discharge. Attractive grills protect condenser coil and fan. Galvanized cabinets have a baked enamel finish. Carrier, Syracuse, N.Y. *Circle 399 on reader service card.*

6. "Twin-flo" hydronic heater is designed for use where space for a conventional heater is limited. Kick-space model shown is available in a 4"x18"x14" size which provides the equivalent output of 9' of baseboard heat and a slightly larger unit equal

to 15' or 20'. Forced air heater, ideal for kitchens or bathrooms, is controlled by a remotely mounted switch. A console model for larger areas supplies over 16,000 BTUH. Beacon-Morris, Boston, Mass. *Circle 400 on reader service card.*

7. Restyled vented heaters are attractive as well as functional. Leather-grained metal front panels are a striking contrast to the copper-tone finished unit. "Imperial Sure-Vent" shown is a 10,000 to 30,000 BTUH unit. Also redesigned are the "Baronet II" and "Baronet II Circulator". All models operate on natural or LP gas and feature thermostatic temperature controls, safety pilot lights and easy-to-see dial controls. Dearborn Stove, Dallas, Tex. *Circle 401 on reader service card.*

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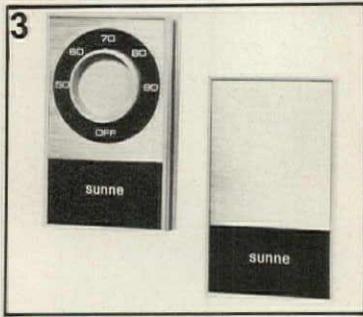
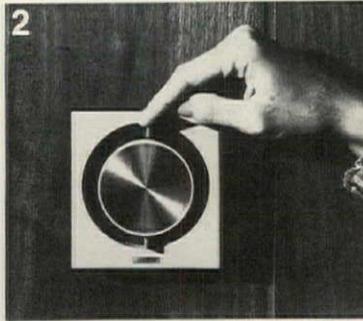
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products: interior environment

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2. Electric furnace control responds to changing climatic conditions. It generates the right amount of heat to maintain a constant room temperature. System consists of a wall-mounted sensing instrument and a control circuit board in the furnace. Mears, Beaverton, Ore. *Circle 389 on reader service card.*

3. Thermostat for line voltage control of resistance electric heating features a locking cover that must be removed for set point adjustment. Available in single pole and double line break models, unit is tan and gold with a dark brown accent. Sunne Controls, Portland, Ore. *Circle 390 on reader service card.*

4. All-Year® comfort system combines heating and cooling in one air-cooled gas-operated unit. Individual chilling and heating systems within the unit share circulating water-line. Models range from 3-5 ton cooling and 100,000 to 180,000 BTUH input heating. Arkla, Shreveport, La. *Circle 391 on reader service card.*



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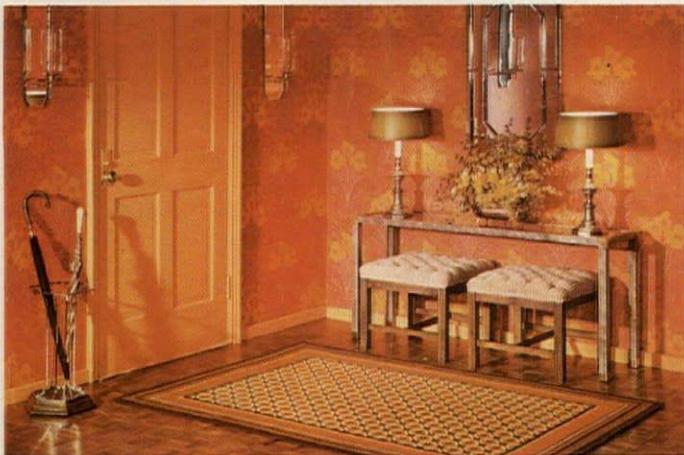


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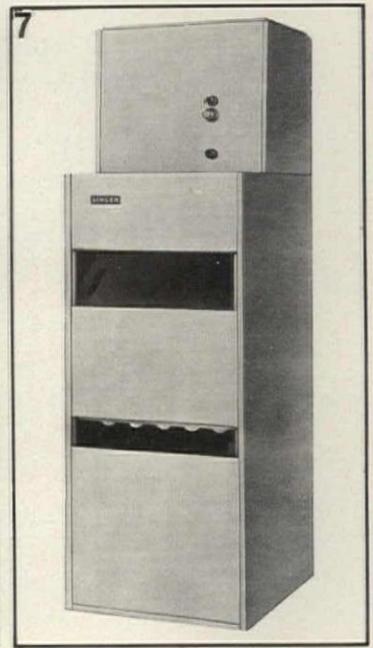
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products: interior environment

5. Through-the-wall air conditioner features a high efficiency rating which means a lower operating cost. Model shown is available in capacities ranging from 19,500 to 33,700 BTU per hour. It has an oversized condenser coil, a filter dryer, an anti-ice device and sixway air flow control. Unit is of heavy-duty steel.

Friedrich, San Antonio, Tex. *Circle 392 on reader service card.*

6. Cooling/dehumidifying coil for central home conditioning systems, "Flattop", fits on top of the furnace. Coil, which measures 7 1/4" in height, is connected to a Champion III condenser located outside the house.

Easy-to-maintain, space-saving unit features a special saw-tooth coil design. Narrow drain troughs carry the water so no pan is needed. York, Borg Warner, York, Pa. *Circle 393 on reader service card.*

7. Gas-fired furnace is monitored by a thermostat that activates the man-

ifold control as heat is required. Unit, with a vertically designed heat exchanger, features a limit control that prevents overheating by cutting off fuel supply. Offered with direct, multi-speed or belt drive blowers, furnace has glass-lined steel cabinet. Singer, Somerville, N.J. *Circle 394 on reader service card.*



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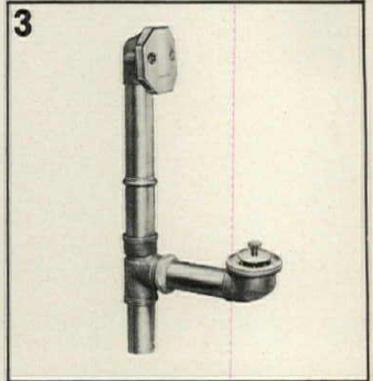
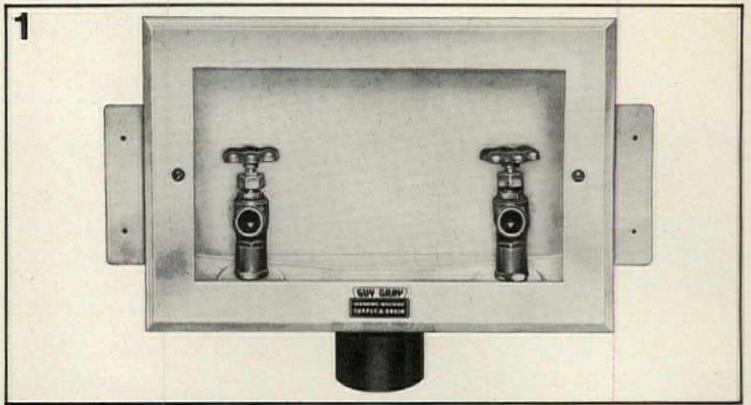
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FOCAL POINT INC.

1760 South Roswell Road
Route 3
Marietta, Georgia 30060
404-971-7172

CIRCLE 137 ON READER SERVICE CARD



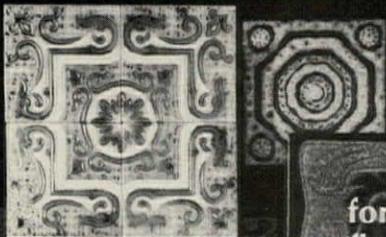
products: plumbing/pipes

1. **Washing machine supply and drain** has plastic couplings for use with 1 1/2" or 2" PVC or ABS plastic pipe. Cabinet measures 9 1/2" x 14" and fits a rough wall opening 8 1/2" x 12 3/4" x 4". Made of enamel on steel, model shown does not require additional fittings. Guy Gray Manufacturing, Paducah, Ky. *Circle 402 on reader service card.*

3. **Bath drain**, with solid brass stopper, is opened by an effortless lift and turn. Easy-to-install unit features easy cleaning and maintenance since there are no obstructions or linkage inside. Heavy-gauge overflow tube adjusts to fit all size tubs. Union Brass, St. Paul, Minn. *Circle 404 on reader service card.*

2. **Submersible cast-iron sump pump** is designed to handle debris up to 3/8" in diameter. One-quarter hp unit can be used as a medium duty pump in slab construction, cisterns and water transfer. Models are equipped with automatic thermal overload protection with an automatic reset. Capacities are 3,300 GPH at 5' and 2,300 GPH at 10'. Kenco, Lorain, Ohio. *Circle 403 on reader service card.*

4. **Factory-applied pipe coating**, "Thermacor", is a polyurethane insulation that helps control corrosion. Moistureproof, thermal-resistant urethane bonds well to all piping materials including steel, iron, copper, plastic galvanized, aluminum and asbestos cement. It can be used on pipes with diameters to 48". Joint molding kits are provided. Thermacor Process, Ft. Worth, Tex. *Circle 405 on reader service card.*



for graceful, exotic
floors and walls...
**Quamagra's
new Faience Tiles**

These are special, our new Faience Tiles. They don't need salesmanship — they sell on sight. We've been creating new tile patterns and colors for almost 20 years but new Faience Tiles surpass our previous efforts. Two sizes: 8" x 8" x 3/8" and 6" x 6" x 1/4". Bold, modular patterns can be achieved by combining 2-4 tiles.

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(213) 875-1690



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Timberline's woodlike texture comes in 6 authentic shades. All with that rich, varied shadowing that

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GAF Corporation
Building Products Division Dept. HH-14
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BRUSH UP ON WHAT'S NEW IN FASTENING

Come in and test drive the latest in pneumatic fastening systems for building construction. You'll find it a profitable experience.

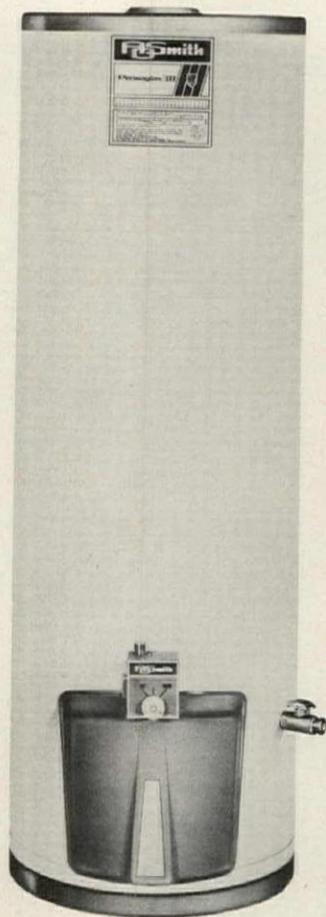
senco fastening
systems

NAHB • BOOTH 124

Astrophall ■ Houston ■ Jan. 20-24

P.S. If you can't attend the show, we'll bring our fastening systems to you, write or call: **Senco Products, Inc., 8485 Broadwell Rd., Cincinnati, Ohio 45244 • 513/561-4500**

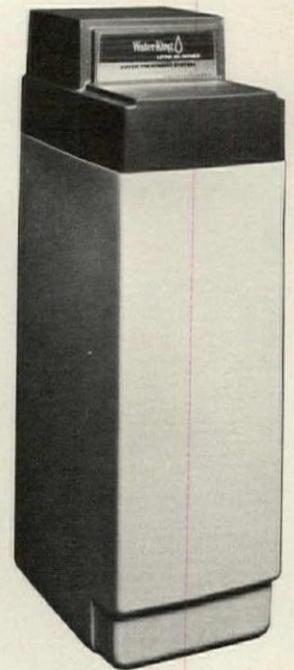
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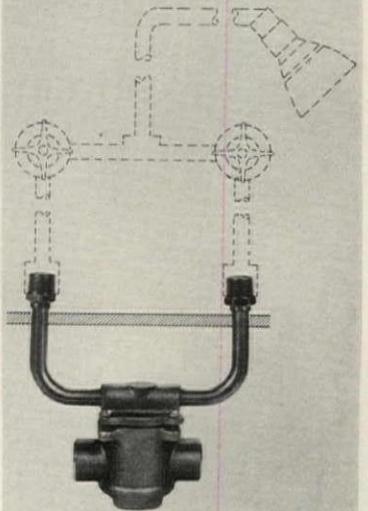
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6



8



products: plumbing/pipes

5. Automatic gas water heater changes speeds to meet hot water needs. Glass-lined unit features a two-tone baked enamel exterior finish over bonderized undercoat. It is available in 30, 40, 50, 65 and 75 gal. capacities. Water heater carries a ten-year guaranty against leakage. A.O. Smith, Kankakee, Ill. Circle 406 on reader service card.

6. Water softener, "Water King", comes in stylized, rugged, rectangular cabinet measuring 14" wide x 22" deep x 45" high. Two-tone beige, molded-in exterior finish cannot rust, chip or peel. A brass valve controls automatic five-cycle operation: backwash, brine, slow rinse, fast rinse and service. Sta-Rite Industries, Delavan, Wis. Circle 407 on reader service card.

7. Outdoor garden hose faucet won't freeze or burst and need not be turned off in winter. Water-flow valve, controlled by an elongated stem, is inside building where it's warm. Heavy red brass faucet is available in a range of lengths. Mansfield Sanitary, Perrysville, Ohio. Circle 408 on reader service card.

8. Pressure-equalizing shower control compensates for drops in cold water pressure resulting from a faucet being turned on elsewhere in the house. The unit maintains temperature by retarding the pressure flow of hot water, operating on a pressure balance rather than thermostatic control. It can be installed in existing shower/baths. Powers Regulator, Skokie, Ill. Circle 409 on reader service card.



THE 4-WHEEL-DRIVE CLUB CAB



Dodge—and only Dodge—has it.

The Dodge Club Cab is one of the most useful innovations in pickup truck engineering in years. A pickup with 34 extra cubic feet of storage space behind the seat where you can keep all those things—or people—that you don't want to leave lying around in the back of the truck. The Club Cab is the only truck of its kind in the pickup field.

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The four-wheel-drive Club Cab. It's a big improvement on a big improvement.

EXTRA CARE IN ENGINEERING MAKES A DIFFERENCE.

**DODGE TRUCKS.
DEPEND ON 'EM.**

Build in quality with our complements.



And beauty. And value. And more. What we make for you is the better choice. Even by your tough standards. You want the best you can get . . . at a price. You get it with Miami-Carey. Built in.

The new standards

Our redesigned range hoods are like a whole new line. At the top, this finest RH6000. All have the look, the color selecting, the quiet. Being Miami-Carey, all have the quality.

For stylish accents

In Antique Brass or Pewter. In several series of bright chrome. Miami-Carey bath accessories are stylish accents to the beauty of your baths.



New side-light cabinets

Go in beautifully, simply. And in styles to complement the most popular decorating motifs: Contemporary, Provincial and Early American. Three of many new models.



The comfort combination

For the extra comfort touches, add one with warmth, light, quiet ventilation for the bath. Your choice of styles and combinations. Provide more sales appeal for your homes . . . at the flick of a switch.

There's more to the Miami-Carey product line story, much more. Framed and Unframed Mirrors, Chimes, Washroom Equipment and Decorator Lights. We'll be glad to send you complete catalogs.

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a Jim Walter company

CIRCLE 114 ON READER SERVICE CARD

Simplified Sliding Hardware Selector

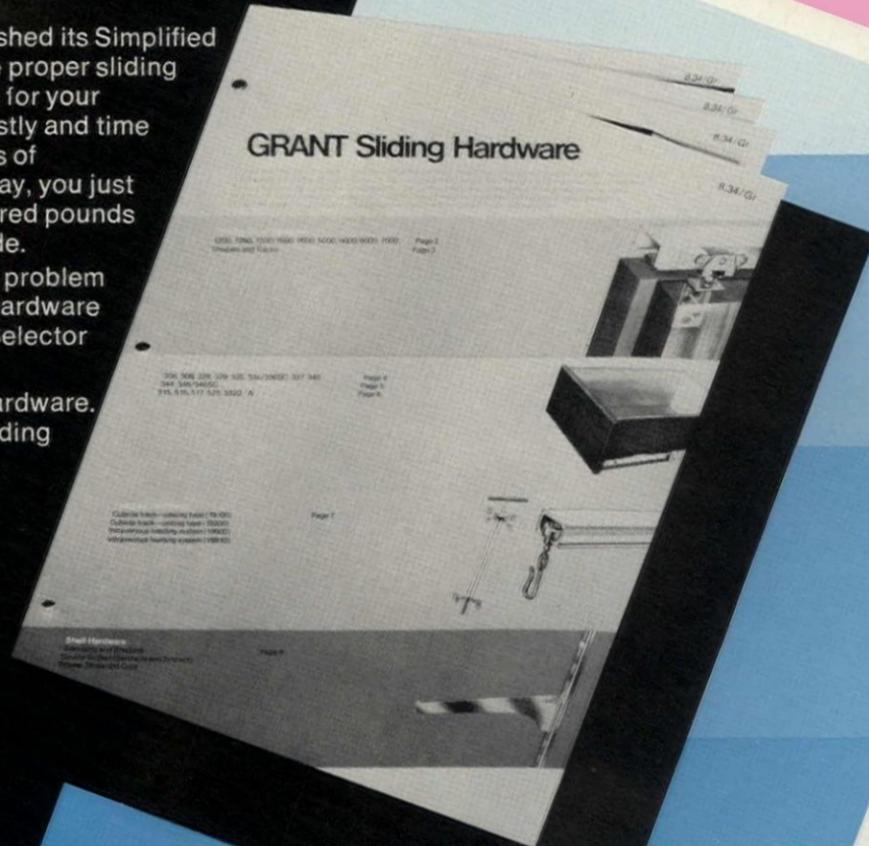
Before Grant Hardware Company published its Simplified Sliding Hardware Selector, choosing the proper sliding door, drawer, shelf and hospital hardware for your applications was probably a somewhat costly and time consuming job. After all, with the thousands of components used in all types of building today, you just can't memorize what is best to use for a hundred pounds of sliding doors or for an economic drawer slide.

Grant, a leader in this business, has solved this problem once and for all with its new Simplified Sliding Hardware Selector. Whatever your application, the Grant Selector puts the proper hardware right at your fingertips.

Never again waste a moment looking for sliding hardware. Write today for your copy of the Grant Simplified Sliding Hardware Selector.

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A Division of Buildex Incorporated
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CIRCLE 115 ON READER SERVICE CARD

NEW Two-Way

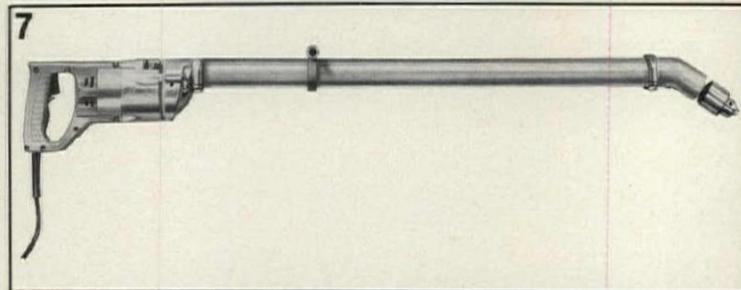
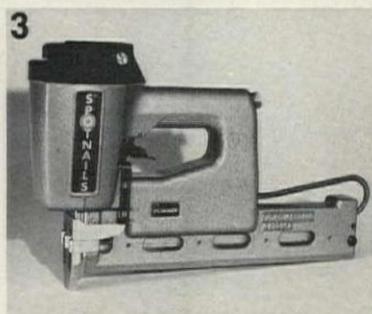
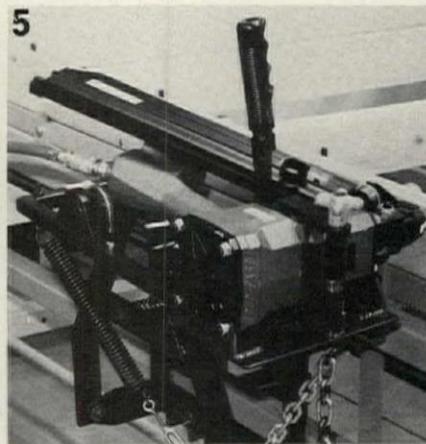


The Premiere Custom Line Roman Bath has twin adjustable recessed Whirlpool heads under built-in armrests, and a third centered at one end of the tub to massage back, neck and shoulders. Face the other direction for equally comfortable reverse whirlpool action. All plumbing contained inside 3' x 6' module. Write for complete catalog and price list.

JACUZZI RESEARCH, INC.
1440 San Pablo Ave., Berkeley, Calif. 94702
(415) 526-0334



CIRCLE 116 ON READER SERVICE CARD



products: tools/equipment

1. Compact Uni-Loader, "Model 1816," featuring 4-wheel hydrostatic drive, is an easy-to-handle piece of equipment. Machine can make 360° skid turns for maneuvering in close quarters and can travel through 36" wide openings. Unit accepts 35" or 44" utility buckets and pallet forks. J.I. Case, Racine, Wis. *Circle 410 on reader service card.*

2. Electric screw-driver line, Scru-gun®, offers a full range of machines. Positive clutch models, in 600 to 2,500 rpm, offer operator-controlled torque. Depth-sensitive units in 2,500 and 3,500 rpm are ideal where preset depths are essential. Adjustable clutch screw-drivers provide for preset uniform torque. Black & Decker, Towson, Md. *Circle 411 on reader service card.*

3. Heavy-duty stapler can be easily converted into a rapid cycling tool that drives 360 staples per minute by the simple turn of a screw. Quick-clear flip-clips make it easy to remove unit's front plate and reduce down time. Lightweight, easy-to-handle tool measures 10³/₁₆" high and 4" wide. Spotnails, Rolling Meadows, Ill. *Circle 412 on reader service card.*

4. Cordless electric screwdriver is capable of driving 80 one-inch screws into pine without recharging. Housing is constructed of impact resistant Cyolac plastic. Unit comes with a UL-listed charger, two slotted bits, two Phillips bits and two drills for predrilling. Tool is fitted with a forward/reverse/off switch. Disston, Pittsburgh, Pa. *Circle 413 on reader service card.*

5. Cradle-type nailer carrier enables the Duo-Fast "C-137" pneumatic nailer to be table-mounted for wall assembly work. The only modification required is the addition of a new safety tip. Carrier, with controlled counterbalance, provides for two nailing positions on the plate. Duo-Fast Fastener, Franklin Park, Ill. *Circle 414 on reader service card.*

6. Automatic finish nailer, "SNE-II", drives 1½" to 2½" true brad head finishing nails. It easily countersinks full 2½" nails into hard wood or can be adjusted to flush drive painted head Senco nails. The lightweight, balanced tool is easy to operate and maintain. A tapered body and 30° tilted magazine make it maneuverable. Senco, Cincinnati, Ohio. *Circle 415 on reader service card.*

7. Drills can be converted to reach up to 30" using a 33° Angle Drill Kit. The 33° angle drive unit, 30" extension tube drive shaft, with hex socket on both ends and two clamping collars, fits all Milwaukee D-Handle drills. Weighing only 4½ lbs, the extension permits easy drilling of ceiling joists. Milwaukee Electric Tool, Brookfield, Wis. *Circle 416 on reader service card.*

8. Rough terrain lift trucks, "Pioneer 50 & 40", are designed to handle 4,000 and 5,000 lb loads in close quarter operation. Compact machines have a tight outside turning radius. Models come with standard or four-stage uprights. Four cylinder engines can be gas, LPG or diesel powered. Hyster, Portland, Ore. *Circle 417 on reader service card.*

Ozite's® carpet of Herculon® took a ribbing from Open Pit®...



but had the last laugh.

Ozite's "Hobnail" carpet with pile of HERCULON* olefin fiber can laugh off most anything. Including a batch of juicy spareribs, topped with rich, tangy Open Pit® barbecue sauce.

The stain resistance of HERCULON, coupled with uncommon resistance to abrasion and fading, gives you the ideal carpet for any commercial installation.

Ozite's "Hobnail" carpet of HERCULON had the last laugh on stains. It'll keep your clients smiling, too.

For detailed information on HERCULON, see Sweet's **S** Light Construction, Architectural and Interior Design files. Or, write Fibers Merchandising, Dept. 322, Hercules Incorporated, Wilmington, Delaware 19899 for a free 24-page booklet.

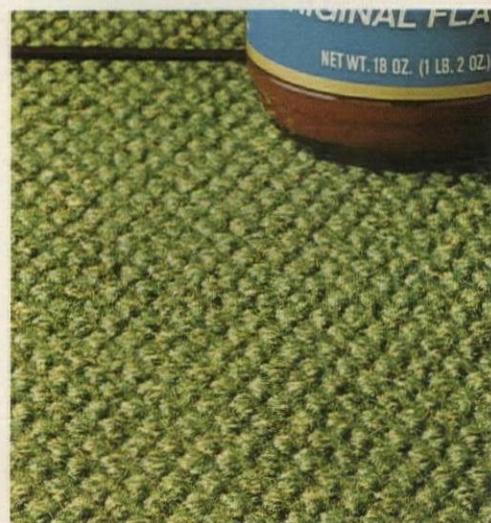


HERCULES
*Hercules registered trademark.

Specify carpet of stain resistant Herculon®

OPEN PIT® is a registered trademark of General Foods Corporation.

CIRCLE 120 ON READER SERVICE CARD



H&H JANUARY 1974 217

This advertisement is not an offering. No offering is made except by a Prospectus filed with the Department of Law of the State of New York and the Bureau of Securities, Department of Law and Public Safety of the State of New Jersey. Neither the Attorney General of the State of New York nor the Bureau of Securities of the State of New Jersey has passed on or endorsed the merits of this offering.

NEW ISSUE

November 26, 1973

\$14,450,000

JMB Income Properties, Ltd.-1973

(an Illinois limited partnership)

14,450 Limited Partnership Interests

Minimum Purchase—5 Interests

Price \$1,000 Per Interest

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Merrill Lynch, Pierce, Fenner & Smith

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Now you can offer real brick for new housing, apartments, and remodeling with revolutionary new Brickette[®] panels by Panel Brick Mfg. Co. Lightweight genuine kiln-fired Brickette[®] panels can be installed in a fraction of the time and manpower it takes to lay conventional brick . . . and in nearly any weather! We offer factory training for installers. Each panel is interlocked to achieve a running bond pattern. Defies even the most critical eye! Available in 12 color combinations to blend beautifully with any interior or exterior motif. Panels are FHA and BOCA approved and are in wide use in housing and apartment construction in major market areas. Write or call now for a free color brochure.

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2208 W. Second Street
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502-684-7268



products: tools/equipment

5. Lawn and garden tractor with roll-over protection meets OSHA requirements. The 19½ hp "Pow'r Max" features a tubular steel ROPS with a plate steel roof. Structure, measuring 60" long, 35" wide and 57" high, is welded and bolted to the tractor. Vehicle is available with a full range of options. Simplicity, Allis-Chalmers, Milwaukee, Wis. *Circle 422 on reader service card.*

6. Double insulated electric saw weighs only 12 lbs yet generates 2¾ hp. The 7¼" tool has an impact-resistant, compact body constructed of glass-filled polycarbonate. Unit features a comfort-contoured handle, a transparent chip shield, beveled blade guard and a sawdust ejection system. Stanley, New Britain, Conn. *Circle 424 on reader service card.*

7. Pneumatic power shears cuts mild steel, aluminum, copper, lead, and zinc, plastics, fiber glass, plywood and plastic laminates. Weighing only 2.2 lbs, tool delivers 2,700 strokes per minute with a double scissor action. It cuts straight or complex configurations on round, flat or curved surfaces. Dotco, Hicksville, Ohio. *Circle 425 on reader service card.*

8. "High-lift" fork lift "9000" has capacities to 3,500 lbs and can reach to 40½". Vehicle with 4-wheel drive is rugged and stable enough for rough terrain use. Masts tilt 19° forward and 15° back. Chassis frame side tilts 15° right or left. Operator's compartment allows maximum working visibility. Safety guard is standard. International Harvester, Chicago. *Circle 426 on reader service card.*

One name says it all

Briggs

This year more than ever, find more of what you're looking for at Briggs.

The CONSERVER two-piece water closet.

Briggs has taken the water-saver idea and really made it work.

New and redesigned Briggs' water heaters... a complete line to choose from. Gas and electric. Residential and commercial.

Porcelain-on-steel bathtubs, lavs and steel sinks... manufactured in our new modern Knoxville steel plumbingware plant.

And you have the "beautiful bath" complements of Briggs' famous chinaware.

Altogether, they are the "better than ever"

reasons for you to choose Briggs.

Product diversity. Complete lines.

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Yes, one name says it all.

What a beautiful idea!



Briggs



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a Jim Walter company

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O'DOME FIBERGLASS HOME SHAPED FOR THE 70's.



Dealerships are now available for O'Dome, the exciting and successful year round vacation home that sells for the price of a car. The O'Dome has 510 square feet of living space and features tough, durable fiberglass and urethane foam construction, providing excellent insulation and maintenance-free living. Low-cost shipping anywhere. Prospective dealers must be able to demonstrate an

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U.S. Patent No.'s.
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See us at the NAHB Show in Houston

CIRCLE 123 ON READER SERVICE CARD

Specify Alsons... the shower system that's a feature.



Alsons
PERSONAL SHOWERS

Alsons Personal Shower Systems give you a feature to sell... make your bathrooms more attractive... and give your buyers something extra... all for a modest cost. New designs include hand showers with push button water-savings control in systems to fit every bath need, design and decor. Write Alsons, The Personal Shower Specialists, for color Catalog No. 183.

alsons
CORPORATION

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Covina, California 91723
Canada: Waltec Industries, Ltd.

See us at the NAHB Show in Houston

LITERATURE

Vinyl wall coverings brochure comprises eight pages of questions and answers about tearing, cleanability, mildew resistance and fire ratings. Test results are provided as well as a suggested specification standard. L.E. Carpenter, New York City.
CIRCLE 438 ON READER SERVICE CARD

Home security systems folder presents a line of master control units and optional accessories. Specifications are included in four full-color pages. Thomas, Louisville, Ky.
CIRCLE 439 ON READER SERVICE CARD

Wood trusses manual is a guide to good practice in the manufacture of metal connector plates and the fabrication, handling, delivery and installation of trussed rafters. The handbook can be obtained by sending \$1.50 per copy plus 30¢ handling and postage to Truss Plate Institute, Suite 205, 919 18th St., N.W., Washington, D.C. 20006.

Electric duct heater brochure includes unit prices. Electrical, mechanical and installation specifications and application information are presented in 36 pages. The catalog is illustrated with charts, graphs and diagrams. Federal Pacific Electric, Clifton, N.J.
CIRCLE 440 ON READER SERVICE CARD

Insulating products—masonry fill, styrene foam and a wall insulating system—are discussed. Technical data, specifications and general descriptions are provided in 12 pages. Also: illustrations, charts, black and white photographs, list of sales offices. Grace Construction Products, Cambridge, Mass.
CIRCLE 441 ON READER SERVICE CARD

Aluminum railing systems, their components and accessories are discussed in detail. Black and white photographs of actual installations, cross-section diagrams and other illustrations accompany text and specs. Railtec, Gardena, Calif.
CIRCLE 442 ON READER SERVICE CARD

Insulation handbook includes chapters on heat transfer, thermal insulation, fireproofing, acoustics and acoustical insulation. Products and characteristics, installation procedures and uses in partition, wall and ceiling systems are also covered. The 55-page booklet presents charts of various test results, illustrations, photographs and detailed text. It is available for \$1.50 from Dept. 160-HH-L, United States Gypsum Co. 101 S. Wacker Dr., Chicago, Ill. 60606.

Plastic products for concrete work are featured in a 12-page booklet of scale drawings, text descriptions and specifications. Information is included on waterstops, chamfer strips, control joints, concrete placement equipment and new types of

architectural form liners. Application suggestions and instructions for use are included for many products. Greenstreak Plastic Products, St. Louis, Mo.
CIRCLE 445 ON READER SERVICE CARD

Heat diffusers for large expanses of glass wall are described in a four-page folder. The binder-hole-punched literature includes illustrations, photographs and specifications in chart form. Leigh, Coopersville, Mich.
CIRCLE 447 ON READER SERVICE CARD

National Design Specifications for Stress Grade Lumber and its Fastenings is referenced by the national model building codes and regulatory agencies. The fundamental wood design reference includes new information for glue laminated timber, new allowable loads for multiple fasteners and allowable stresses for some previously unlisted species. A supplement to the booklet contains allowable unit stress tables for structural lumber. National Forest Products Assn., Washington, D.C.
CIRCLE 448 ON READER SERVICE CARD

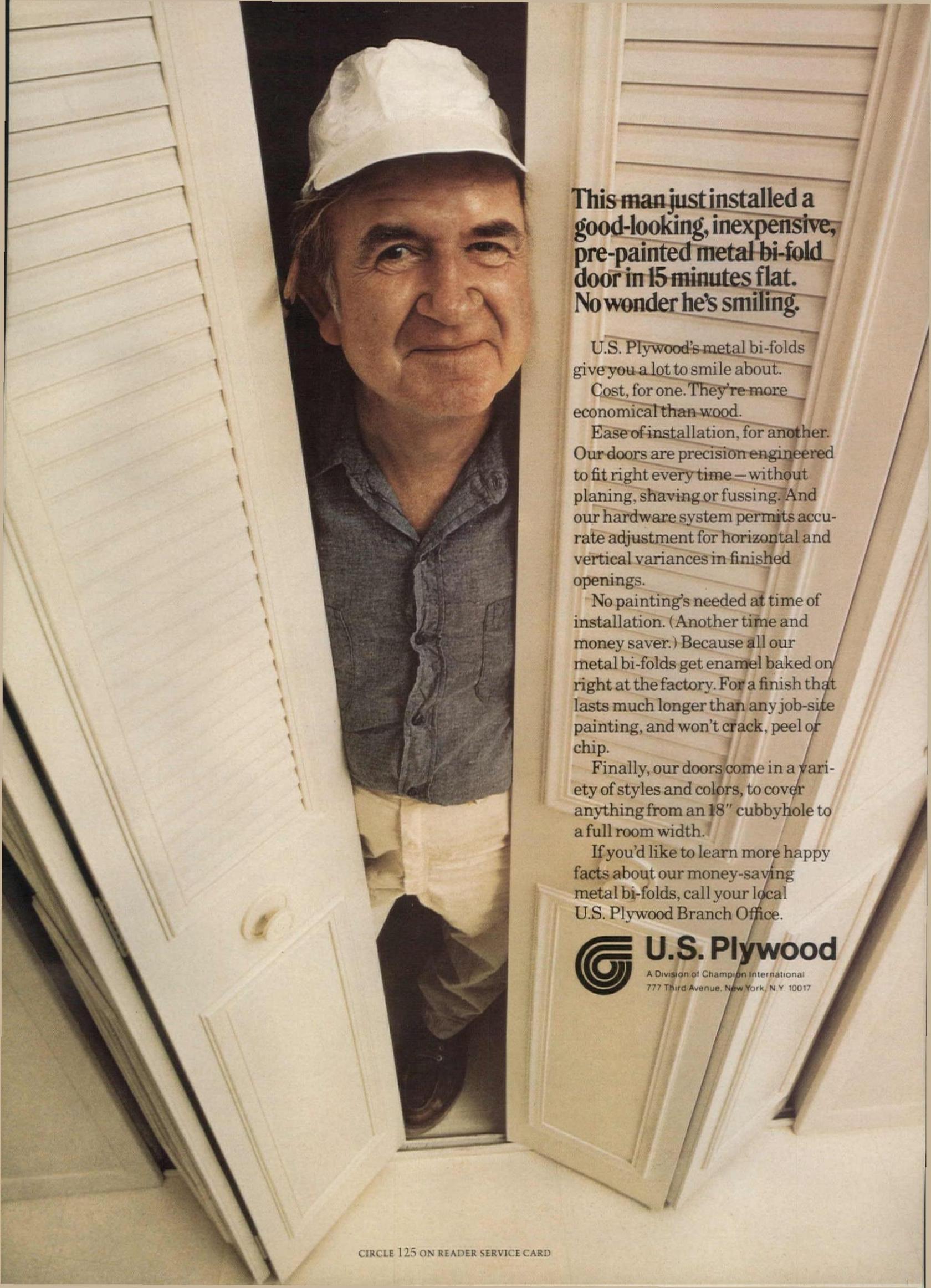
Plumbing fittings are shown in a 76-page catalog. Including over 400 illustrations, the booklet features a full line of residential and institutional faucets and fixtures. Book is indexed numerically and topically. Chicago Faucet, Des Plaines, Ill.
CIRCLE 446 ON READER SERVICE CARD

Bathroom cabinetry, lighting and mirrors are featured in a full-color 32-page catalog. Photographs of room settings, text descriptions and charts of specifications are included. Hole-punched for binder filing. Monarch, Elk Grove Village, Ill.
CIRCLE 449 ON READER SERVICE CARD

Wood doors are shown in full-color photographs accompanied by specifications and short text descriptions. Cutaway illustrations are also included. Mohawk, South Bend, Ind.
CIRCLE 443 ON READER SERVICE CARD

Steel doors and frames catalog comprises information on prefinished, heavy duty, galvanized steel, glass and fire doors and their frames. Specifications, color representations of prefinishes, size and design information are also included. Amweld, Niles, Ohio.
CIRCLE 451 ON READER SERVICE CARD

Products for manufactured housing—siding and paneling for exteriors and interiors—are shown in 14 full-color pages. Descriptive text and photographs of applications complement a full page of specifications, codes, physical properties, characteristics, performance and installation information. Close-up illustrations show representations of available textures, colors and finishes. Masonite, Chicago.
CIRCLE 452 ON READER SERVICE CARD



This man just installed a good-looking, inexpensive, pre-painted metal bi-fold door in 15 minutes flat. No wonder he's smiling.

U.S. Plywood's metal bi-folds give you a lot to smile about.

Cost, for one. They're more economical than wood.

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No painting's needed at time of installation. (Another time and money saver.) Because all our metal bi-folds get enamel baked on right at the factory. For a finish that lasts much longer than any job-site painting, and won't crack, peel or chip.

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If you'd like to learn more happy facts about our money-saving metal bi-folds, call your local U.S. Plywood Branch Office.



U.S. Plywood

A Division of Champion International
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Classified Advertising

The market-place for the housing and light construction industry
POSITIONS VACANT **POSITIONS VACANT**

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ATTN: Tom Brown,
Vice-President

Construction Specialists Nationwide
 —All fees paid. Division President
 —Single-family multi-project \$60K+. Executive VP—Multi-family/commercial, \$50K+. VP Operations—Head division, \$40K+. Construction VP—Manage 9 state area, \$35K+. Plant Manager—Sectional/modular-doors/shutters, \$35K+. Many others needed now. Vance Employment Service, 917 Barfield Building, Amarillo, TX 79101. 806/372-3456.

V.P. SALES AND MARKETING GULF COAST REAL ESTATE DEVELOPMENT

Real estate development subsidiary of NYSE-listed company has an immediate requirement for a Vice President of Sales and Marketing to organize and implement full marketing program of 2,000-acre planned residential community development on Mississippi Gulf Coast. Experience must include proven management of both residential sales (preferably multi-family as well as single family projects) and a successful lot sales program. Send detailed resume of experience to:
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SINGING RIVER PROPERTIES, INC.
Golfing Green Drive RR #3
Ocean Springs, Miss. 39564

Housing Position—Phd Rank and salary commensurate with experience and budget. Twelve months appointment. Available January 1, 1974. Qualifications: College teaching experience, research and publications, potential for approval by graduate council for directing doctoral dissertations. Responsibilities: advising, contribution to and further development of Interdisciplinary Doctoral identified research projects, teach graduate and undergraduate courses. Limited opportunity for outside consulting. Send resume by Feb. 1st, 1974 to: Dr. Robbie G. Blakemore, Crafts and Interior Design, College of Home Economics, University of Tennessee, Knoxville, Tennessee 37916—An equal opportunity employer.

SELLING OPPORTUNITY AVAILABLE

Bathroom Accessories Mfrer. needs reps. calling on building material outlets. Write Sales Mgr., 11438 Lambert, El Monte, Ca. 91732.

ANNOUNCING AN EXPANDED SERVICE FOR YOU

Starting with our January, 1974 issue, House & Home will expand its regular Job/Land Market department into a Classified Section format, to be located in the back of the publication.

This new service will create a market-place where you can reach your peers — 400,000 House & Home readers in every phase of housing and light construction — with three types of low cost classified advertising under headings such as the following:

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Positions Vacant
 Positions Wanted
 Sales Opportunity Available
 Sales Opportunity Wanted
 Employment Agencies
 Employment Services
 Per Inch\$83.50

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Professional Card Rate

Consulting Services
 Sub-Contractors
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 One inch minimum size—
 6-T: \$49.05 12-T: \$46.75

Classified Rate

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 Materials Wanted
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 Plants/Properties for Sale
 Business Opportunities
 Financial Opportunities
 Per Inch\$55.00

The above categories will be available in both Display and Non-Displayed styles:

Display Advertising is sold in units up to a page in size and can contain photos and/or artwork. Copy can be submitted as finished art, in film form, or can be set in type with borders. (The latter service performed by House & Home at no extra charge.)

BUSINESS OPPORTUNITY

On your lot, custom and modular home building, seeks merger with building or related organization for

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(NON-DISPLAYED)

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(Please type or print clearly)

NAME
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 CITY & STATE
 ZIP CODE

Use my name and address
 Payment enclosed \$.....
 Number of insertions
 Use Box No. Bill Me

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1/74

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To work as good as they look.



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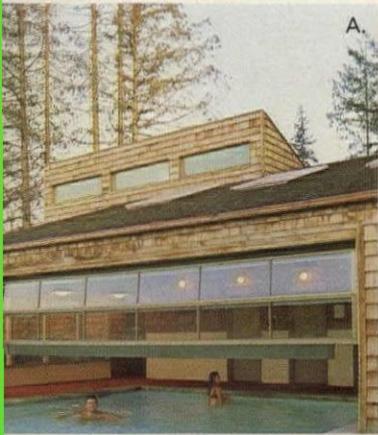
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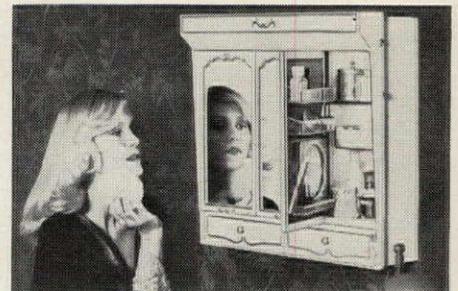
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PRODUCT NEWS:

Beauty Cabinets- A new concept

The BEAUTY CABINET by AlliBert is a new way to give a touch of class to the common bathroom or powder room.

AlliBert, a long-established French company new to America, has more ideas and fresh concepts than the bath industry has seen since mirrors were invented. The BEAUTY CABINETS are beautiful inside and out. The inside of the doors have storage shelves; there are space-saving containers and drawers. Beautifully compact, with three adjustable mirrors (for side and back views) as well as a magnifying mirror, the BEAUTY CABINETS also have the electrical outlet inside for convenience in use and storage of electric razors, hair combs, etc. PLUS, there is an added child-safe locked compartment.



The style above, the POMPADOUR, has the classic French influence in the fashionable white with gold trim — so popular in today's bath. Note the extra storage area in the two convenient drawers beneath the mirrors.



The look of the above PRESTIGE Beauty Cabinet is straightforward and contemporary. Its clean, modern lines are accented by stainless steel trim. Mirrored doors open smoothly to the touch — a feature found only in the AlliBert Beauty Cabinet.

The company has used modern materials effectively inside and out. The quality engineered plastic interior has cleverly organized storage drawers, compartmentalized trays, a covered toothbrush holder, and even adjustable balcony shelves inside the doors.

The high impact polystyrene exterior of these Beauty Cabinets will not corrode or dent — and they install easily. These new products are well worth looking at and into. For more information on these and other cabinets, contact the manufacturer ALLIBERT INC., 15 Columbus Circle, New York, N.Y. 10023.

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