

House & Home

THE MARKETING AND MANAGEMENT PUBLICATION OF THE HOUSING INDUSTRY

AUGUST 1968



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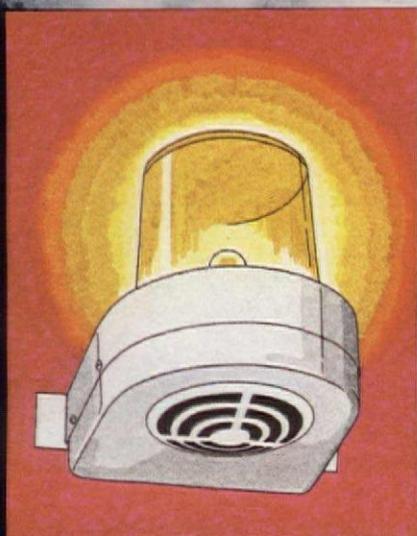
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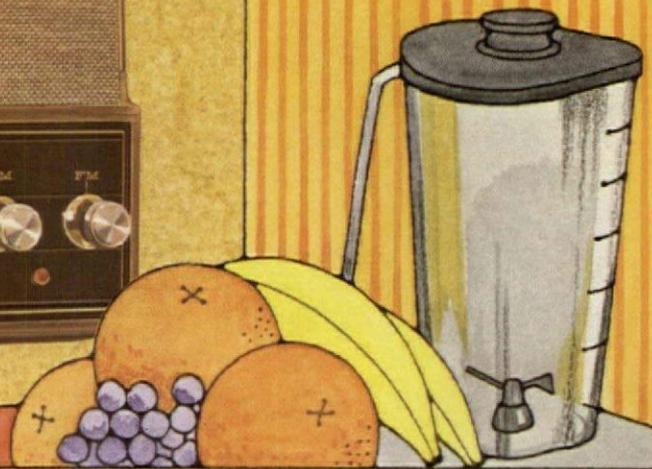
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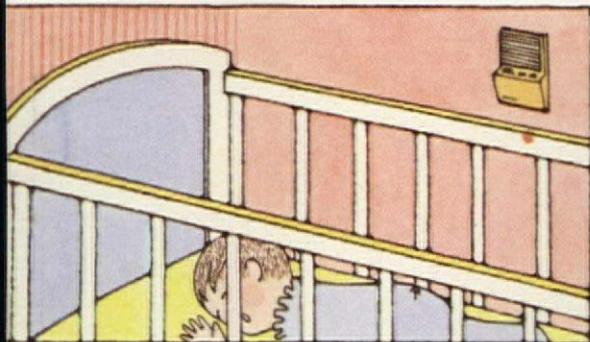
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AUGUST 1968

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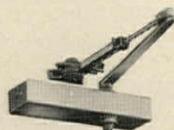
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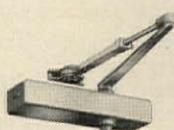
They may be ordered with hold-open arms where it is desired to hold the door in an open



REGULAR ARM



FUSIBLE-LINK ARM



HOLD-OPEN ARM

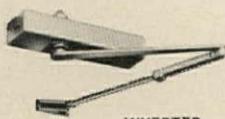


PARALLEL ARM

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You will find a number of more expensive door closers on the market. But you will find none better than Sleekline — the superb new closer from Kwikset.

New Sleekline Door Closers by Kwikset

Kwikset Sales and Service Company
Anaheim, California
A Subsidiary of Emhart Corporation

Chicago Sun-Times

*The Mob in real estate***Crime's corrupting hand is reaching for every segment of the industry**

The Mob did not grab hold overnight. It has been with us all along.

The Syndicate's appetite for real estate traces back through generations of hoodlums to the construction union racketeers of the 1930s—and beyond to the rocky farms of Sicily, where many of this nation's 5,000 organized criminals grew up.

The strong-arm penetration begun by the old crime hands is now being smoothly broadened by men in business suits—a sophisticated second generation of hoodlums who read *The Wall Street Journal* rather than comic books.

The Internal Revenue Service now reveals that 34 of 98 top mobsters have direct interests in real estate and construction.

Call it what you will—the Mob, Mafia or Cosa Nostra—organized crime has the muscle, the money (annual profit of \$10 billion) and the legal manpower to make trouble for any company.

"Today there isn't a company in real estate," says U.S. Attorney Robert Morgenthau of New York City, "that is either too big—or too small—for the Mob."

To the roots. Homebuilders have always insisted that the Mob was a problem for the other guy—the big city official, the union leader, the giant contractor.

The homebuilders are wrong.

The Mob's favorite target is the little guy—the homebuilder who forfeits his company to a loan shark, the banker who takes a bribe, and the laborer who hands over part of his pay to union racketeers.

Inexorably, the nation's 24 crime families, all loosely coordinated, have thrust the Mob's hand to the roots of the industry—the businessman at the local level (see the *Bill Riley story*, p. 7).

Crime's dimensions. These unspectacular crimes, which go on undetected day after day, obscure the Mob's impact.

But lawmen, who have watched the push into real estate for ten years, say the Mob is in "everything, everywhere." They point to these recent disclosures:

- In Miami the Mob controls \$100 million worth of real estate—more than any legitimate company.

- In Chicago Mob characters pulled the strings in a recent savings and loan bankruptcy operation. The area's assistant U.S. attorney, Lawrence Morrissey, now promises "new disclosures that will have a national impact."

- In New York a general investigation of 20 local hoodlums has mushroomed into a major study of the Mob and real estate. "All the paths," says an investigator, "led to real estate."

A story unreported. This criminal penetration of the building industry has been so efficient, and quiet, that it has gone

unnoticed by the business press.

Here then, for the first time, is a nationwide study of the Mob, the reasons it gravitates to the building and real estate industry and the tactics it favors.

Mob goal: legitimate business. For ten years Mob chiefs have been trying to "look legitimate," as District Attorney Aaron Koota of Brooklyn, N.Y., puts it.

A criminal in search of a respectable-looking corporation demands one thing above all—a money-making industry vulnerable to his corrupting tactics.

Regrettably, real estate and construction are ideal.

There is plenty of money to be made. And, most important, the moral climate in too many companies is attractively low. Says Ralph Salerno, retired rackets expert for the New York City police:

"When a builder grabs for the fast buck with a payoff or a shady deal, he too often shakes hands with the Mob. Once he shakes hands, the Mob never lets go."

The Mob's tactics. The Mob squeezes the real estate industry in four ways—through loan sharking, fraudulent S&L loans, kickbacks on pension-fund mortgages and labor union racketeering.

The case histories that follow illustrate these four methods. Some names are omitted, but keep in mind that these are factual accounts of real people.

There are more sophisticated Mob methods, in which racket profits are first deposited in Swiss banks and then invested in U.S. real estate through middle men. But the four practices described below are used much more often to victimize the average real estate company.

THE LOAN SHARK RACKET

This is the Mob's most effective tool—and its most vicious—for prying open building companies.

One contractor, who had just borrowed \$1 million for a building project, began to list his collateral. The hood cut him short: "Your body is your collateral."

That is the lesson that all loan shark victims learn. Take the case of Chicago's Chiagouris brothers:

Homebuilders George, Jack and Al Chiagouris had a chance to buy the Atlantic Hotel in the Loop at a bargain price of \$1 million in 1964. They needed \$50,000 in cash to close the deal.

After banks turned them away, a fellow builder, Sandor Caravello, referred them to Sam Mercurio, the director of the now-defunct Service S&L. Mercurio said he couldn't help, but he turned them over to Willie (The Beast) Messino, a loan shark.

On June 23, 1964, in builder Caravello's office, Messino made the \$50,000 loan at 40% interest, payable in \$1,500 weekly installments. After a few payments, a liquidation deal fell through, and the broth-

MOB BOSS Sam Battaglia heads for jail after conviction for extortion from a Chicago builder.



"We'll see if the S&Ls are victims of a new Mob bankruptcy racket"

ers borrowed \$100,000 more. Messino's demand: \$130,000 in 105 days.

But payments lagged, and the brothers were fined an arbitrary \$1,000 a day. Then they were told to pay \$10,000 every month until they could make a balloon payment of \$100,000.

The brothers all but abandoned their hotel plans. Now they had to scrape together enough cash to satisfy the sharks.

In May 1965, after paying about \$100,000 during the year, the brothers ran out of money. Messino and Mob pal George Bravos beat George and Jack until neither could stand. Then they kidnapped the brothers for a night. To buy their freedom, the brothers signed over part of a \$140,000 trust account (see photo below).

Two months later, further in arrears and fearing death, the three brothers told their story to lawmen.

Last year, after a long trial, four men were convicted: Messino got 10 to 30 years; Bravos, 5 to 20 years, Joseph Lombardi, 7 to 20 years and Mercurio, the erstwhile S&L director, 5 years probation.

Today, 50 months after they met Messino and company, the brothers are guarded 24 hours a day by six special policemen.

Instructors in crime. Even homebuilders who have never seen a loan shark can be hurt. In a recent case, a trusted employe embezzled \$500,000 during 14 months. By the time he confessed, the company was near bankruptcy.

The employe, lawmen say, denies that he was in debt to the Mob's loan sharks. But lawmen, who have traced the employe to known loan sharks, believe the mobsters even told him how to embezzle from the company.

The ex-employe won't talk. So the criminals will never come to trial in this case. They are free men—still in the money business.

(In New York City, Louis Schein, a partner in the multimillion-dollar Richmond Realty Co. has just been indicted for perjury for denying that John (Buster) Ardito beat him because of a \$5,000 loan. Ardito is a member of Vito Genovese's

Mob family in New York.)

Beyond the law. Says Charles Siragusa of the Illinois Crime Investigating Commission, who is writing a book about loan sharking:

"The juice racket [loan sharking] is flourishing here, and elsewhere—Los Angeles, Detroit, Miami, Toronto. It is almost impossible to prosecute a juice case successfully."

Indeed, until the federal truth-in-lending law was passed this year, only New York and Illinois had statutes specifically outlawing the loan shark.

FRAUDULENT S&L LENDING

Chicago lawmen say bad loans are the crux of a new bankruptcy racket. The target: savings and loan associations.

Law-enforcement agents say the racket works this way:

A Mob-controlled builder borrows an inflated amount, up to 110% of his land's value, from a corrupt S&L official. The lender gets a 10% commission, partly above the table and the rest below. After the Mob takes its cut, the builder still has money left to build.

But the builder sometimes declares bankruptcy himself before a project is finished. So the S&L is left holding the land and a bad loan.

After the S&L is ruined by such loans, the Mob moves to another.

New S&L scandal? Chicago has a long history of criminal penetration into smaller S&Ls on the city's fringes (NEWS, Aug. '63 et seq.). From Washington the Justice Dept.'s Henry Peterson now says:

"We are investigating S&Ls to determine whether they are the victims of a new bankruptcy racket."

Federal officials are reportedly continuing investigations of five suspect Chicago associations—Marshall, Service, Workman, Lawn and Apollo—that dealt with the Mob associates. And Chicago lawmen now say two new names may turn up.

KICKBACKS ON MORTGAGES

Union pension funds are a potential bon-

anza for homebuilding. For ten years the building industry has sought to persuade pension funds to buy mortgages.

The process was never easy; and new evidence suggests that the price of some labor-union mortgages may be cash kickbacks to the Mob.

A racket in New York. A special federal grand jury in New York has concentrated on the Brotherhood of Teamsters' Central States Southeast and Southwest Area Pension Fund, the largest union fund in the country.

Among those indicted in three kickback plots, involving mortgages for a motel, hospital and bowling alley, are Fund accountant David Wenger and three reputed Mob hoodlums—Peter De Feo, Edward Lanzieri and James (Jimmy Doyle) Plumeri.

In just one of the cases cited, four men are charged with taking \$42,000 in kickbacks to arrange an \$875,000 mortgage on a hospital in Fair Lawn, N.J.

The Teamster Fund is not the only one under investigation. Though no Mob names were disclosed, another New York indictment was returned against Frank Zulferino, president of Local 10, International Brotherhood of Production, Maintenance and Operating Employees. He is charged with accepting \$13,000 to arrange a mortgage for a Texas apartment project.

Says rackets expert Salerno:

"The ties between certain unions and Mob hoodlums have been common knowledge among builders for years."

Indeed, four years ago, brothers Ed and Charles Leser were convicted in Los Angeles for operating a union mortgage con game. Builders gave the Lesers earnest money for promised union mortgages after the brothers said they were friendly with certain mob hoodlums. Then the Lesers, who had never met the hoodlums, skipped town and never delivered the mortgages.

UNION RACKETEERING

This old-line Mob racket is based on one ingredient—fear.

Building contractors often cooperate with corrupt union officials to avoid labor trouble. And laborers, the big losers, go along out of fear for their jobs—and their lives.

In six days of testimony in June, the New York State Commission of Investigation presented what it called "a sordid picture of what happens when . . . [Mob] racketeers gain control of labor unions."

Electronic listening devices provided the key testimony linking the Mob—Carlo Gambino's chapter in Brooklyn—with the New York area's Mason Tenders Union. At one meeting audited by the commission, hoodlums planned to raid the treasury of one of the union's 10 locals and divide the take four ways.

That electronic evidence, though disclosed in the fact-finding hearings, would not be admissible at a trial.

A fine sense of payoff. Testimony disclosed that racketeers siphoned off money in five ways:

1. Contractors who had not signed wage



PAYOFF TO MOB HOODLUM. hidden in car, is made by homebuilders George (left) and Jack Chigouris, loan shark victims. This photo taken by lawman helped convict four Chicago mobsters.

contracts with the Mason Tenders Union nevertheless made payments for the union's pension and welfare funds.

"It was sort of a fine—a small fine," said Joseph A. Ferrara, who operates JBJ Construction Co. in Queens. He added:

"A lot of grief could be made for me and the other contractors on the job. And after all, I was getting benefit from not paying union-scale wages."

2. Other contractors were allowed to under-report gross salaries, and thereby reduce their payments to the union funds. In one year the books of 139 contractors were not even audited by the union.

Joseph V. Giffuni, president of Merit Contractors of Brooklyn, admitted that he failed to report \$447,500 in wages, thus shortchanging the funds \$50,000.

Another contractor, Robert Salerno of A.A. Salerno & Sons and Artisa Construction, owed \$4,400 to the pension and welfare funds. He paid only \$2,511 in two checks. One check, for \$1,500, was made out to cash and given to a union delegate, George (Blackie) D'Agostino. Testified Salerno:

"I don't remember the exact reason I did it that way. That is the way D'Agostino wanted it."

3. More than \$177,655 in false disability claims was paid by the Mason Tenders District Council from 1964 to 1966. And that, an investigator said, did not include false medical and dental payments.

Disability and death payments went to men recruited into the union at 80 years of age, to a convict who died in jail and to others who never worked as masons.

4. Shop stewards controlled gambling, loan sharking and shakedowns on some construction sites. Says the crime commission's counsel, Paul Kelly: "Even coffee-wagon drivers had to pay \$10 a week to sell on the site."

Loan sharking and gambling in just one local yielded \$20,000 a month.

Fear and threat. Testimony traced racketeering from 1959, yet through the years few laborers complained.

Asked why, Charles Graziano, unopposed as president of the district council for 30 years, replied:

"Maybe the workers were afraid—of creating friction."

With dots of perspiration on his brow, one would-be reformer, Frank X. Leto, said a muffled voice on the phone told him: "I'll blow your head off."

For the most part, building contractors were silent too. "Some were afraid," says Kelly, "but others were waiting in line to get in on special deals."

A CONCLUSION—AND A WARNING

This story of the Mob in building and real estate offers this warning: If the name of your town was not mentioned, do not assume that you are safe.

"The story of the Mob and its victims is the same all over the country," says Assistant District Attorney Irving Seidman of Brooklyn. "Only the names change."

—FRANK LALLI

NEWS continued on p. 10

On the run—a builder's family flees the Mob

Bill Riley and his family are in hiding—and for good reason.

A year ago Riley's testimony sent four mobsters to jail, including the boss of the Chicago Syndicate—Mr. Big himself.

The Mob would like to see Riley dead.

Only six years ago, Riley, at 36, was one of the nation's most promising builders. His specialty: suburban one-

Chicago Sun-Times



BILL RILEY

The Mob wishes he were dead

bedroom apartments for newlyweds.

He was on his way to riches. But he was straining his capital resources by tackling multimillion dollar projects.

Extortion bait. The undercapitalized Riley, who couldn't afford construction delays, was an ideal candidate for extortion.

In 1962, after Riley sank \$25,000 into plans for an apartment in suburban Northlake, Mayor Henry Neri demanded \$70,000 (\$100 a unit) to allow construction.

The Mayor wasn't alone. His associates included ranking mobsters in Chicago's crime family—The Outfit.

Enter, the Mob. Riley was summoned to the office of Nick Palermo, a plumber who reached his professional peak by installing gold-plated fixtures in the home of ex-Mob boss Anthony (Big Tuna) Accardo.

Riley was ushered in to meet Joseph (Joe Shine) Amabile, who said: "Neri takes orders from me. We [The Outfit, then headed by Sam Battaglia] own Northlake."

"Pay us the \$70,000," Amabile added, "and you can build the damn apartment upside down in the middle of the street. But it is our way—or no way."

Amabile made one more demand. Palermo's Melrose Park Plumbing Co. would get the apartment's \$500,000 plumbing subcontract. Riley agreed.

Hounded for cash. Before construction began, Riley padded legal expenses and handed over \$30,000 in four big installments. When building got under way in October Amabile de-

manded the remaining \$40,000. Riley didn't have the cash. But he knew that if he didn't pay, politicians or strike-prone plumbers could stop construction.

So he began paying \$500 a week by writing checks to dummy companies.

Questions from tax men. But Riley couldn't hide the disbursements of \$26,000 a year on company books. In 1964 the Internal Revenue Service confronted him with \$30,000 in canceled checks endorsed by Amabile and two politicians.*

Amabile offered a little advice: "Don't say a word or you won't walk the streets again. I know where your kids go to school and where your mother lives."

Riley feared Amabile more than he feared the law. Early in 1965, Riley pleaded the Fifth Amendment before a federal grand jury investigating The Outfit.

Mob encore. Trouble then erupted on a second project—an apartment near Lansing, Mich., that Riley wanted to build without the Mob.

Riley's construction superintendent, David Evans, who was in debt to loan sharks, had agreed to an inflated \$99,600 excavation contract with a dummy corporation formed by Amabile. The Mob cut: \$20,000.

So Riley was hooked again. This time hoodlums said that if Riley tried to get away he and his family risked broken limbs, blindness and death.

Convictions—and flight. Riley realized that the Mob would never relax its grip. In September 1965, in return for Federal protection, he decided to go to the law.

For seven days Riley talked to IRS and FBI agents. He repeated his tale to a federal grand jury investigating The Outfit in 1966. Then in two separate trials in 1967 (May 9 and October 27) seven men were convicted in a plot to extort \$109,000.

Mob boss Battaglia, who had masterminded the Lansing plot, got 15 years; Palermo, 15 years; Amabile, two 15-year terms; Mayor Neri, 12 years; Evans, 10 years and Aldermen Leo Shababy, 10 years, and Joe Drodz, 7 years.

Riley got a one-way escort out of town by federal agents.

Ever since, he, his wife and two children have been in hiding under federal protection. And the protection will continue for as long as Riley needs it.

It could be quite a while. The word is out—there is a price on Riley's head.

*The IRS had begun concentrating on Northlake while studying extortion of \$16,000 from the Perini Land Co. of Farmington, Mass. In 1965 IRS got convictions: Mobster Rocco Pranno, 15 years; Alderman Wayne Seidler, 5 years and building inspector Pete Anderson, 3 years.



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Ray Lapin—or, what next for Fanny May's White Knight?

He is one of those rarest of birds in Washington—the thinking liberal who made it as a capitalist before turning to public service.

Business success brought him respect for the past's practicalities, but he admired the theorists who probed the future. He surrounded himself with thinkers, for his credo was change.

Raymond H. Lapin has now been president of the Federal National Mortgage Assn. for a year. He has wrought wider changes in the mortgage agency's operation than had occurred since FNMA was reconstituted in its present form in 1954.

On his record, Lapin is now a candidate for Housing Secretary Robert Weaver's post—and perhaps for other posts if a Democratic administration is elected. Lapin's thinking and the effects of his changes on mortgaging and on his own career are now important to every builder and lender.

A new Fanny May. Lapin set up a free auction to permit FNMA to buy mortgages at competitive rates rather than at prices set artificially high by government fiat.

Lapin also submitted legislation to convert the semi-government agency to private status, a move virtually unprecedented in a Democratic administration. And he drafted plans for FNMA to sell securities based on pooled mortgages and for the government to insure not only those securities but any similar securities issued by private mortgage bankers who might like to adopt the new instrument.

Lapin has his critics and his enemies, particularly in the rural sections that feel themselves abused by his innovations. But Lapin's changes have enjoyed generally favorable reception, especially in the cities and in money centers.

The doer. Politically, his innovations have had an even more impressive effect. They have won him the reputation of a man who gets things done in Washington.

Lapin had brought to the capital a good record in private business: With a \$10,000 loan he founded Bankers Mortgage Co. of California and built it to a point where he could sell out to Transamerica Corp. for \$5 million, all in ten years (NEWS, Apr. '64 *et seq.*). Yet such records can pale quickly



THE FNMA SKIPPER . . . at sea

in the bear pit of Washington bureaucracy, where unwary giants have a surprising way of shrinking into dwarfs.

Lapin didn't. His admirers say he has accomplished more in a year than many leather-bottomed bureaucrats of his rank achieve in a lifetime. The unique aspect of his programs is not that they are new but that they are enacted. The FNMA auction is in operation; the spinoff will take place; the mortgage bond will be approved.

Guidelines for tomorrow. Such achievement inevitably raises the question of what next, for friends and foes alike now recognize that Lapin has made only a beginning. His ideas are winning wider respect;



. . . and ashore

depending on his own progress, they could have impact on the government's new policies in housing and even in wider areas.

Musing in his office or relaxing aboard his cruiser off Delaware, Lapin gives a hint of his ideas for tomorrow:

"We need housing subsidy programs, but we need them where they count. Not for middle-income or luxury housing. These groups no longer need subsidy.

"Let's put the priorities down, and then we can tackle them. I'd like to see the subsidies go where they are needed."

To old-line mortgage men who have built fortunes on FHA loans in the suburbs, anathema; to a new generation of political leaders struggling with the problems of the poor, a gospel.

Nor does Lapin stop with housing.

"Why not have the post office spin off from the budget, just as we've done? And others? There are entities that can do a good and efficient job on their own—and the government could then save substantial sums of money."

Such talk may sound like heresy to an entrenched bureaucracy that thinks of government change only in terms of growth.

The wider horizon. In spite of the Grand Old Party's magnificent case of summer euphoria, it is not inconceivable that another Democratic administration may be elected. There remain more Democrats than Republicans among American voters.

Democrat Lapin has excellent connections in the party, and the opportunity open to him in a new administration would be wide indeed. There is first of all the post of Secretary Weaver, who has announced that regardless of November's winner he will resign from the chair he has occupied for eight long years.

But for Lapin, a housing portfolio would probably be but a ladder rung. This would be particularly true in any post-Viet government that had to deal—and deal quickly and effectively, instead of in the bureaucratic ways of times past—with the larger problems of the cities, of mass transport, of poverty and of pollution.

The horizon is wide—and wide open—for the man who can get things done.

—ANDY MANDALA

The world's largest mortgage banking house sells out

The Lomas & Nettleton Financial Corp., the Dallas real estate holding company, is buying the mortgage servicing portfolios of the T.J. Bettes Cos. of Houston and California.

The price is reportedly more than \$10 million in cash.

Bettes' combined portfolios of \$1.5 billion make it the world's largest mortgage banker. The mortgage organization will now operate as a wholly owned subsidiary of its new parent and will take the name Lomas & Nettleton West Inc.

Lomas & Nettleton Financial already

owns the Lomas & Nettleton Co. of New Haven, Conn., a mortgage banking concern with \$800 million in servicing. Its chairman and chief executive, Albert N. Rohnstedt, will take over the same posts with Lomas & Nettleton West.

Everett Mattson, president of the Bettes companies, and virtually all of the mortgaging personnel except Chairman John Austen retain their posts. There will possibly be some melding of office operations in four cities where both Bettes and the L&N Co. maintain offices.

Banks figure in two other mortgage pur-

chase arrangements this month.

The First National of Denver has made an initial payment of \$2.5 million for Denver's Mortgage Investments Co. The company's president, C. A. Bacon, is also president of the Mortgage Bankers Association of America.

The Philadelphia National Bank has announced that it has paid \$10.5 million to complete the purchase of the Colonial Mortgage Service Co. and the Colonial Mortgage Service Co. of California from Sunasco Inc.

NEWS continued on p. 14

Can you sell luxury and still stay practical? Gerber can help.

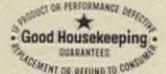
(Take for example the self-rimming
Luxoval with Crystalite™ trim.)

Luxurious fixtures bring to mind "luxurious" prices and difficult custom installations. Gerber's self-rimming Luxoval lavatory with Crystalite trim has only one thing in common with luxurious plumbing fixtures. And that's beauty.

The come-alive beauty of five contemporary colors, like Gerber's new Caribe Avocado. Plus the functional beauty of a deep, roomy lavatory like Gerber's Luxoval trimmed with sparkling Crystalite on triple chrome-plated brass.

Of course with the Gerber self-rimming Luxoval or Rotunda counter-top lavatory, you save the cost of a frame since only a rough cut is needed for installation. And it's a much faster installation.

So you see—Gerber can help. But of course, we can't lift a finger until we're asked. Write or call Gerber Plumbing Fixtures Corp. today. We could prove helpful on your very next job.



(Above and below) Luxoval vitreous china self-rim counter-top lavatory, 19" x 16", with Crystalite™ trim. (Far right) Rotunda vitreous china self-rim counter-top lavatory, 19" dia., with chrome centerset.

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Let-in corner bracing?



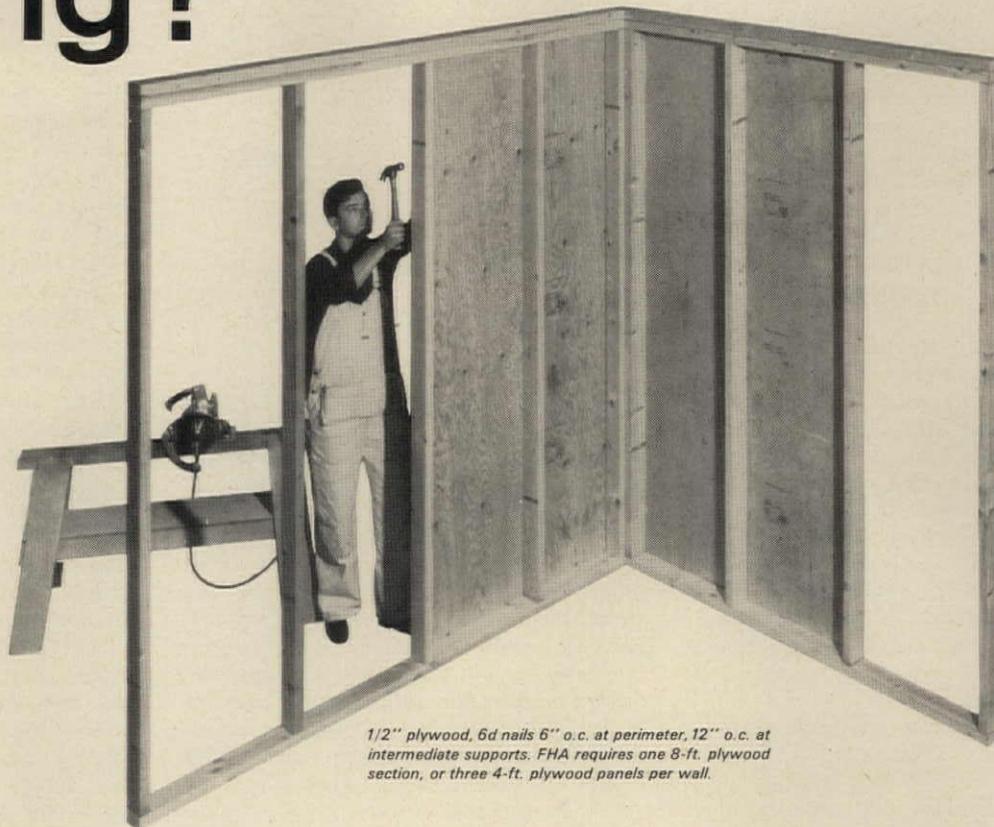
*1/2" fiberboard with let-in bracing, 1-1/2" roofing nails
4" o.c. at perimeter, 8" o.c. at intermediate supports.*

...heavy fiberboard?



*25/32" fiberboard or 1/2" high density fiberboard, 1-3/4" roofing nails
3" o.c. at perimeter, 6" o.c. at intermediate supports.*

...or plywood corner bracing?



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

Which costs least?

Which is easiest to install?

Which is strongest?

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

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

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

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

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

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(USA only)

Tax bill—best thing that's happened to housing all year

The surtax has turned interest rates around and promised housing and mortgaging a far stronger second half than they were expecting.

And the government has followed up with plans to pump more than \$600 million into mortgage lending. The Home Loan Bank Board freed the money by reducing liquidity requirements for savings-and-loan associations and savings banks.

Homebuilding's economists greeted the new surtax with caution, tending generally to minimize its benefits for the industry. Several said that, while interest rates might level, they would probably not decline. Most others conceded a likelihood of some reduction but said that it would be small and late in developing.

Yet the Federal National Mortgage Association's mortgage prices rose (and discounts fell) more than 2½ points during the four weeks immediately after passage of the tax bill. Mortgage discounts peaked out in the private market (see chart below), and general interest rates leveled.

Shelves were very nearly bare in the mortgage market, and mortgage bankers were actually out seeking loans from builders for Fanny May's third post-tax auction. Regional-bid figures disclosed that Philadelphia mortgage bankers had raised their bids 2 points in one week.

Prices in the private mortgage market fell 1 to 1½ points. "We're at 94½, working toward 95," said Walter Russell of the New York brokerage of Huntoon, Paige. "We've rounded the corner. Now the question is, how fast is the pace?"

How far how fast? The decline in general interest rates and in mortgage discounts may not be precipitous.

Says Harry Schwartz, research director for the Home Loan Bank Board:

"Mortgage rates will trend down this summer and autumn, but until the tax begins to have some real bite, rates can't come down too much."

But the point for the homebuilding industry was not the speed of any decline; it was the fact that a turnaround has been made. Only two months earlier President Johnson was warning of 10% mortgage money in the absence of a tax surcharge (NEWS, June).

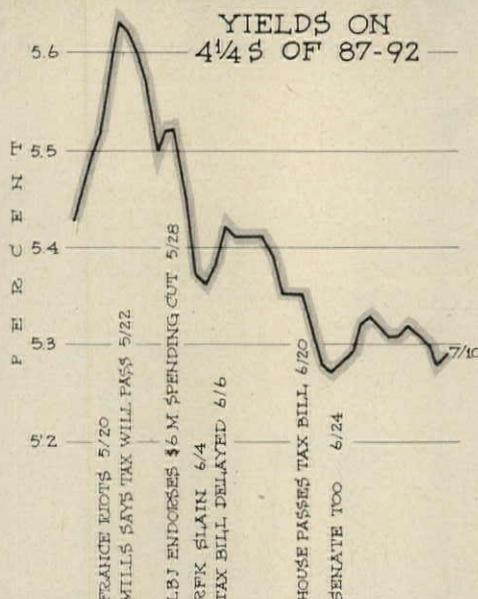
In quieting such fears, the tax brought a tremendous psychological lift to builders.

The extent of the tax bill's effect on bond rates was not generally appreciated. The chart above shows the decline in yields on the government's 4¼s of 1987-92, key indicator for long-term bond rates. Yields plummeted from 5.63 on May 22, the day Rep. Wilbur Mills indicated that the surtax was out of danger, to 5.27 on the day after House passage.

As early as May 25, Sidney Brown was saying in *The Commercial and Financial Chronicle*: "We may conclude that last week saw the end of an epochal rise in interest rates."

Bond rates usually lead mortgage rates, although tardily, and their influence is slower on the downside.

Credit markets. There was good reason



BOND INTEREST reacts to the 10% surtax bill.

for the decline in virtually all rates.

The \$10-billion tax increase and its ancillary cut of \$6 billion in federal spending would theoretically eliminate the Treasury's need to borrow \$16 billion in the nation's credit markets in fiscal 1969 (although the arithmetic does not work out quite that simply). This would not only ease pressure on bond interest; it would free much of the money for investment elsewhere—in mortgages, for example.

Economist Sidney Homer of the New York bond house of Salomon Brothers & Hutzler explained that the surtax would re-

duce the government's needs in the credit market to \$14 billion in the second half of 1968, down \$4 billion from the same period in 1967. He said that if the spending cuts are made more quickly than the rise in the government's non-controllable outlays, the Treasury's needs could be even lower.

Savings. The Nation's 6,100 S&Ls, the principal suppliers of mortgage money, suffered a far smaller loss of deposits than they had expected in the July reinvestment period. This success emboldened S&L lending officers, and by mid-July some mortgage bankers were reporting that they had been outbid on loans by aggressive S&Ls.

Said President Tom B. Scott Jr. of the U.S. Savings & Loan League:

"We have accumulated huge sums of cash and liquidity. Our borrowings are the lowest in years. Our forward commitments are entirely controllable. Our inflow of savings has been good and is expected to remain so."

Housing market. The National Association of Homebuilders upped its forecast to 1.4 million starts for 1968 after passage of the surtax, and Jim Walter Corp. of Tampa, a shell-house builder, estimated 1.5 million. Starts ran at an annual rate of 1.45 million through the first half.

The Bank of America said California would start 150,000 units, an impressive gain over the 114,000 in 1967.

Said Paul W. McCracken, University of Michigan professor who conducted a summer survey of consumer intentions:

"We're on the threshold of an era when starts must rise from the 1.5-million a year plateau to at least 2 million."

NEWS continued on p. 20

HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending July 19.

FNMA Auction Prices July 22 6¾%	FHA Sec. 203b— Discount paid by builder Min.-Down* 30-year immed. w Private mkt. 6¾%		Trend	FHA 207 Apts. Discount 6¾%	Conventional Loan Rates			Construction Loan Rates Interest+fees All lenders
	City	6¾%			75%	Savings banks, S&Ls 80%	Savings banks, S&Ls Over 80%	
90-day commitment Average 95.77 Accepted bid range 95.31-95.98	Atlanta	6-7	Down ½	a	7¾	7½	7¾	7½+2
	Boston	3	Up 1	a	7-7½	7½	a	7-7½
	Chicago	5-6	Up ¾	5	6½-7½	6¾-7	7	7½-8+1-2
	Cleveland	6-7	Steady	a	6¾-7¾	6¾	7+1-2	7½+1-2
	Dallas	6-7	Steady	5	7½-7¾	7¾	7¾-8	7½-8+1
	Denver	5-6	Steady	a	7-7½	7¾	7½-7¾	7½-8+1-2
	Detroit	6-7	Up 1½	6-6½	6¾-7	7	7+1-2	7½+1-2
	Honolulu	7-8	Up 1½	a	7¾	7¾-8	a	8+1-3
	Houston	5-7	Up ½	a	7½	7½	7¾	7½
	Los Angeles	5½-6	Down ½	a	7¾	7¾-8	a	7½+1½
180-day commitment 96.09 Accepted bid range 95.50-96.24	Miami	7½	Up ¾	a	7¾	7	7¾	7½+1-2
	Minn.-St. Paul	5-6	Up ½	a	7-7¾	7¾-7½	7½	7½-7¾+1-1½
	Newark	4-5	Up ½	6	7-7¾	7½	7	7¾+2
	New York	3	Down 2	3	7¼+1	7¼+1	7¼+1	7-7½+2-3
	Okla. City	5-7	Up 1	a	7	7+1	7	7¾+2
	Philadelphia	4	Down 1½	a	6¾-7	7	a	7¾+1
	San Francisco	5-6	Steady	a	7¾	7½	7½-8	7½+1½-2
	St. Louis	5-7	Steady	a	7¾-7½	7¾-7½	7½-7¾	7½-8+1-2
	Seattle	6	Steady	a	7¼-7¾	7½-7¾	7¾	7¾-7¾+1½-2
	Wash., D. C.	6	Weaker	6-7	7½	7½-7¾	7¾-8	7-7½+2

* Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.
 * Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.
 * Quotations refer to houses of typical average local quality.
 * 3% down on first \$15,000; 10% of next \$5,000; 20% of balance.
 Footnotes: a—no activity, b—limited activity, c—Net yield to investor of 6% mortgage plus extra fees, w—for comparable VA loans also.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank; Chicago, Robert H. Pease, pres., Draper & Kramer Inc., and Robert H. Wilson, pres., Percy Wilson Mortgage & Finance Corp.; Cleveland, David E. O'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene, pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, pres.,

Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres., Bank of Hawaii; Houston, Everett Mattson, pres., T. J. Bettes Co.; Los Angeles, Christian M. Gebhardt, vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Minneapolis-St. Paul, Walter C. Nelson, pres., Eberhardt Co.; Newark, William W. Curran, vice pres., Franklin Capital Corp.; New York, Sigfred L. Solem, Sr. vice pres., Dime Savings Bank; Oklahoma City, B. B. Bass, pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., First Pennsylvania Banking & Trust Co., and Robert Kardon, pres., Kardon Investment Co.; St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen, Sr., vice pres., Bankers Mortgage Co. of California; Seattle, Kirby D. Walker, vice pres., Continental, Inc.; Washington, James C. Latta, Sr. vice pres., Associated Mortgage Cos. Inc.

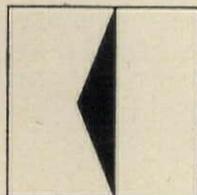
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Kardon Investment Company offers a wide variety of mortgage investment opportunities in many widely separated locations. If we don't have exactly what you want at the moment, we can usually get it for you promptly.

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Although yet prove it, doctors public health specialists are coming more to the conclusion that foreign particles in the air contribute to illnesses ranging from arthritis to lung cancer. And of course, smoke also responsible for cleaning bills, stains, damaged buildings and decaying metal and rubber mobiles.

Don't Hold Breath for Clean Air

From the Insider's Newsletter

include that federal clean-air standards must eventually be set.

But the Department of Health, Education and Welfare has barely begun to exercise its authority under the Clean Air Act to publish "criteria" on air pollution even though much of the data is available in scientific literature.

Air Pollution Called U.S. Problem

WASHINGTON, D.C. — (UPI) — Delegates to the National Conference on Air Pollution agreed that the responsibility of cleaning the nation's dirty air squarely on the shoulders of the federal government.

Almost 100 government and industry officials and representatives of the academic world attended the three-day conference which ended here Wednesday.

Delegates said the government also must appropriate billions of dollars to state and local governments to meet nationwide standards for clean air.

Johnson administration officials, who also addressed the conference, cautioned against overlooking the nation's air pollution problem.

THE MINNEAPOLIS STAR
Thursday, Aug. 21

Air Pollution on A Silent

Air pollution on those affected. The allergic reaction. Air and secretions in the nose.

DEATH IN OUR AIR

Once a problem, now a crisis, air pollution is sickening and killing thousands of Americans and poisoning both city and suburb. Unless we act, things will get worse.



Pollution Growing Threat

Here among the paper mill is pouring low townsmen. The has now infested even a few small towns. health of most Americans scores or obliterates

Although yet prove it, doctors and public health specialists are coming more to the conclusion that foreign particles in the air contribute to illnesses ranging from arthritis to lung cancer. And of course, smoke also responsible for cleaning bills, stains, damaged buildings and decaying metal and rubber mobiles.

Builders gain competitive buyers a sensible solution



DICK MEYERHARDT, Sales Manager, Levinson-Helman-Raisher, Inc., St. Louis
 "We build about 150 homes a year in the \$31,000 to \$45,000 range, and we put at least a frame for the Honeywell air cleaner in every one. As everywhere, I guess, there's concern about air pollution here, and I would say at least 50% of our clients seriously consider buying an air cleaner with the home. About 30 families specified it last year as 'original equipment' and I don't know how many may have bought later."



FRANK GRIMES, St. Louis County, Missouri
 "We build large homes, about half of them with double furnaces, air conditioning and Honeywell electronic air cleaning. Often, doctors recommend the air cleaner to our clients because they're allergic to the pollen or other air pollutants in this area."



BEN WELCH, Fort Worth, Texas
 "We build custom homes in the \$30,000 to \$70,000 range, and I'd say we install a Honeywell Electronic Air Cleaner in about 1/4 of them. There are more reasons all the time for people to buy one—pollen, less dusting, and now the talk about air pollution. I've lived in a house with a Honeywell air cleaner for 5 years, and I'm sold myself."



TOM DeCOLA, Minneapolis, Minn.
 "We build 12 to 15 homes a year ranging in price from \$35,000 to \$75,000. Up till now, most of our air cleaner sales have been to people who had children with allergies, but there's more interest generally now, with all the talk about air pollution. We're leaning toward a total comfort package including the air cleaner, especially in the higher-priced homes."

Chicago Sun-Times

Slow Suicide

THE AIR was so polluted over New York City last Thanksgiving Day that people with heart or lung diseases, respiratory ailments and even bad colds were warned to stay indoors. The danger could have been worse. It was a warm day and a holiday; less fuel was used for heating, and there...

STAR 1967 108 III

Pollution Preys Allergy Victims Wispy Strangler Strikes

By ROB WARDEN
Chicago Daily News Service
Pollution is a silent, wispy strangler that preys on people afflicted with respiratory allergy. The Allergy Foundation of America estimates that one person in 10 suffers from hay fever and-or asthma. Pollution both aggravates allergic asthma cases and is capable of producing a sort of synthetic asthma. Roy Patterson, head of the allergy and immunology department at Northwestern University Medical School, is more inclined to affect the...

State Air Pollution Law Urged

...ated they expect... promise.

MANHATTAN BUILDINGS POKED THROUGH EYE-STINGING SMOG LAYER AT 8:30 IN PM

The air pollution conditions ranged from Maine to the Carolinas but New York was the hardest hit.

SICK TOLD TO STAY INDOORS Polluted Air Covers N.Y.

Los Angeles and Smog Are Old Companions: Page 7B

NEW YORK, N.Y. — (AP) — The index of air pollution in the New York metropolitan area was about 3½ times the normal level as the sun rose through a dismal haze today. But the measurement showed a drop from the critical level reached Thursday night, and New Yorkers awaited relief today.

The smog would not be reported for a few days. A 10-day period of stagnant air in November 1963 was blamed for from 170 to 260 deaths.

The pollution, which began to increase Wednesday night, was attributed to a massive temperature inversion hanging over the middle Atlantic coast. The inversion occurs frequently in the late fall when warm air overrides an imprisons surface air.

Austin N. Heller, city commissioner of air pollution control, said an air pollution reading of 60.6, five times the average level of 12, registered at 8 p.m. yesterday, indicating an amount said may have been the highest in history.

It dropped to 18.5 predawn hours, and fell to 43.2 at the height of the commuter rush this morning when streets and highways were jammed with...

New York World-Telegram

The Sun

Death Rate Rose 400 in 15 Days BARE AIR POLLUTION TOLL

SMOG caused about 400 deaths in a 15-day midsummer period in New York City in 1963, according to a two-year statistical analysis that blamed the city's polluted air. New York has heaviest smog of any major U.S. city, with as much as 100 tons or more of soot fallout per square mile per month.

BID AND ASKED *** FINAL ***

edge by offering home to air pollution.



IRVING TOBOCMAN, Tobocman and Lawrence, Architects, Detroit, Michigan
"We specialize in the design of exclusive, custom homes—\$70,000 and up—and we include a Honeywell Electronic Air Cleaner in every one, for several reasons: First, it cuts the cleaning bills on the expensive furnishings that go into houses of that price. Secondly, there are often health considerations and we know the unit effectively removes pollen and other air pollution particles. We simply feel electronic air cleaning is a necessary part of the total comfort we try to design into our homes."



Honeywell Electronic Air Cleaner mounts easily in return air duct of forced air heating-cooling systems. Catches up to 95% of airborne dust and dirt, 99% of pollen passing through it.

Honeywell

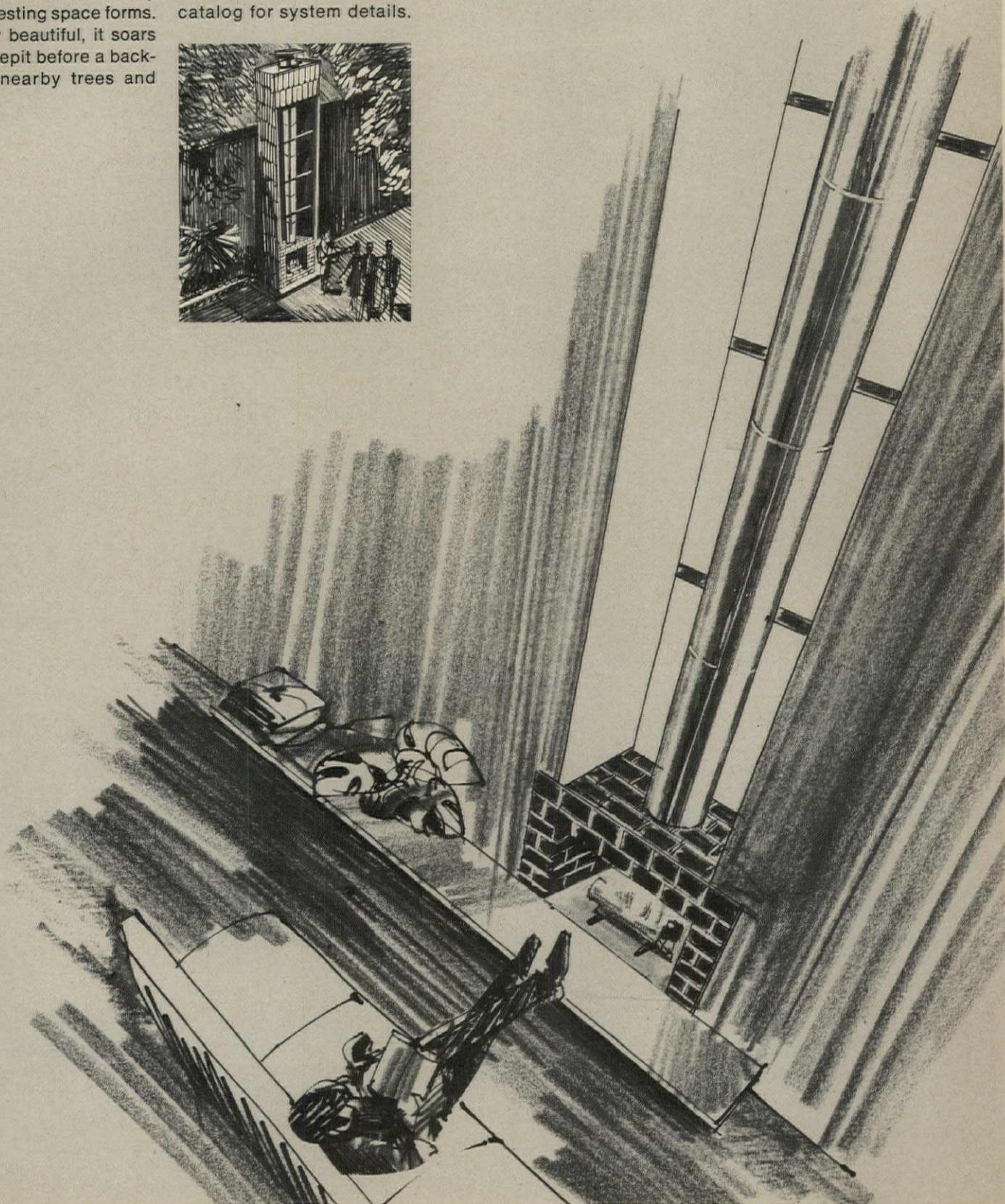
AUTOMATION

chimney innovation

Occasionally a new product will enhance innovation. The all-new Metalbestos Model SS all stainless steel chimney system is such a product. An imaginative glimpse brings rise to subsequent applications. The chimney becomes more than an exhaust vent . . . it lends inspiration to the use of lively and interesting space forms. Integrally beautiful, it soars from a firepit before a backdrop of nearby trees and

distant hills. Its slender silhouette is shaped in durable stainless steel. Special low-K insulation fills the 1-inch space between its double walls to provide 17 times the insulating value of brick. Further innovative possibilities exist through a range of six individual diameters. Write for the new Model SS catalog for system details.

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BETHLEHEM STEEL



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Sheet and Strip Sales, Bethlehem, Pa. 18016*

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on the latest thing in steel kitchen cabinets.*

Name _____

Firm _____

City _____

State _____ Zip _____

National Homes goes where the action is--into mobile homes

The nation's top-volume prefabricator is moving broadly into the mobile-home market in three ways:

- It has created its own mobile-home division and set a lofty target: sales of \$50 million within five years.

- It is revamping plants (in Thomson, Ga., and Tyler, Tex.) to handle expanded mobile-home production. Six new plants will be added by 1974.

- It plans to acquire Sportcraft Homes Inc., manufacturer of \$4,000-to-\$6,000 mobile homes that may qualify for FHA's experimental housing program (NEWS, May). Sportcraft, owned by the Roman Catholic Archdiocese of Austin, Tex., operates four plants. Production: 22 homes a day.

To lead the new division, National's Board Chairman James Price has hired Robert T. Meneely, former president of Guerdon Industries, and two of his lieutenants, Frank Reiter, head of purchasing, and Harvey Childs, a production expert.

School of hard Knox. National Homes of Lafayette, Ind., has been in mobile homes in a small way since 1959, when it became the first major prefabricator to purchase a mobile-home company. That company, Knox Homes of Thomson, Ga., has been operated as a wholly owned subsidiary.

But company officials concede that Knox has languished for years. During a series of management turnovers, the company has done little more than lose money. So far this



FROM THIS '50s big seller National has gone . . .



TO THIS 40 ft. mobile selling for \$6,500 . . .



AND THIS low-cost townhouse for inner cities.

year, for example, the Thomson plant shows a \$176,000 loss. Meanwhile most other mobile-home companies have boomed.

Mobiles up, prefabs down. The rise of mobiles in the 1960s has paralleled the decline of prefabricators, including giant National Homes (net worth: \$35 million).

Until 1959 National was a leader in low-cost housing. But since then, the company's mass market has shrunk, partly because mobile homes have stolen the lower-priced half.

Price, an outspoken opponent of mobiles for years, apparently has decided that it is better to join them than to fight them.

Stackup housing. Along with the push onto mobiles, Price wants to put more emphasis on "industrialized housing for the

needs of our nation's inner cities."

National will deliver 100 factory-built townhouses for a "model home development" to be built in Chicago as a showcase for the Democratic National Convention. (see p. 29). Ten of the units, which can be stacked three stories high, will be prominently displayed on State Street.

In meetings with Price, city officials have said there is a market for 6,000 units a year in Chicago's inner city. Price hopes to build a plant there by 1970. Says Price: "We expect officials to get excited about our industrialized housing after they see the Chicago effort in August."

—SUSAN WINER

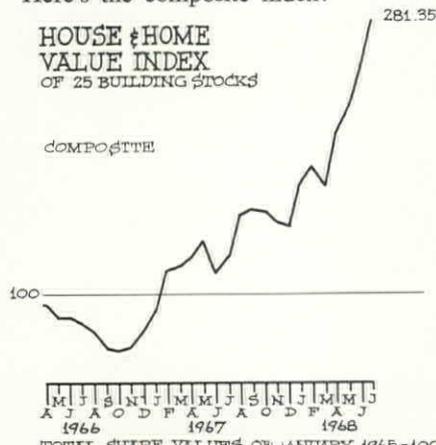
McGraw-Hill World News, Chicago

Housing's stocks climb 11% in month; builders lead way

HOUSE & HOME's average of 25 issues rose from 253.21 to 281.35 for the month ended July 8. Building companies had the best gain.

Sproul Homes led the way with an advance of 23½ points, to 42. The Los Angeles builder announced four acquisitions that will increase sales by \$65 million, or seven times Sproul's revenues last year.

Here's the composite index:



How the top five did in each category:

	July '67	June '68	July '68
Builders	156.77	312.48	367.81
Land develop.	218.52	410.56	467.44
Mortgage cos.	161.11	352.97	372.09
Mobile homes	89.87	410.81	443.65
S&Ls	89.27	139.46	153.74

HOUSING'S STOCK PRICES

COMPANY	July 8 Bid/Close	Chng. Prev. Month	COMPANY	July 8 Bid/Close	Chng. Prev. Month	COMPANY	July 8 Bid/Close	Chng. Prev. Month
BUILDING			FNMA.....	98	+ 6	Rouse Co.....	39	+ 3
Capital Bldg. (Can.).....	3.30	+ 75¢	First Mtg. Inv.....	24	+ 4 3/8	Tishman Realty e.....	52 1/2	+ 8 7/8
Christiana Oil b.....	6 1/2	- 1/8	Kissell Mtg. b.....	7 1/2	+ 3/4	MOBILE HOMES & PREFAB		
Cons. Bldg. (Can.).....	2.20	+ 50¢	Lomas & Net. Fin.....	7 1/2	+ 2 3/8	Con Chem. Co. b.....	26 1/2	- 7/8
Dev. Corp. Amer.....	5 1/2	- 1/8	MGIC b.....	129	+ 11 1/4	-Champion Homes b x.....	31 1/2	- 24
Edwards Indus.....	14 1/4	- 1 1/4	Mortg. Assoc.....	7 1/2	+ 3/4	-DMH (Detroit) b.....	16 1/4	+ 5/8
First Hartford Rty.....	9 1/4	+ 3/4	Palomar Mtg.....	5 1/2	+ 1/4	-Fleetwood.....	54 1/4	+ 1 3/4
First Nat. Rty. b.....	3 1/4	+ 3/8	SE Southeast Mtg. Inv.....	5 1/2	+ 1/8	-Guerdon b.....	38 1/2	+ 1 3/4
Frouge.....	6 1/2	+ 3/4	United Imp. & Inv. b.....	19 1/4	+ 2 1/8	Princess Homes.....	47	+ 15 1/4
-General Bldrs. b.....	8 1/2	+ 3/8	LAND DEVELOPMENT			Redman Indus. b.....	41 1/4	+ 1 3/4
-Kaufman & Bd. b.....	49 1/2	+ 5 1/2	All-State Properties.....	7 1/2	+ 5 3/8	Rex-Noreco.....	31 1/2	- 5 1/2
Key Co.....	9 1/2	+ 2 1/2	American Land.....	1 1/2	+ 3/8	-Skyline.....	117 1/2	+ 10
(Kavanagh-Smith)			-AMREP b.....	29 1/2	+ 5 1/2	Town & Country Mobile b.....	34 1/2	+ 3/4
Nationwide Homes.....	11 1/2	+ 6 3/8	Arvida.....	14	+ 1/4	Natl. Homes A. e.....	10 1/4	- 1 1/2
-Presidential Realty b.....	15 1/2	- 1/8	Atlantic Imp.....	19	+ 2	Schulz Homes.....	21 1/2	- 2
Sproul Homes.....	42	+ 23 1/2	Canaverl Int. b.....	7 1/4	+ 1/4	Swift Industries.....	8 1/4	+ 2 1/4
U.S. Home & Dev.....	16 1/2	+ 2 1/2	Crawford.....	5	+ 1/4			
-Jim Walter e.....	87 1/4	+ 14 1/4	Deltona Corp. b.....	34 1/4	+ 2 3/4			
-Del E. Webb e.....	11 1/4	+ 2 3/8	Disc Inc.....	4 1/2	- 3/8			
Western Orbis b.....	6 1/2	+ 1 1/8	Fla. Palm-Aire.....	6 1/4	+ 2			
(Lou Lesser Ent.)			Garden Land.....	5 1/4	+ 1/2			
S&Ls			-Gen. Devel. e.....	22 1/2	+ 4 3/8			
American Fin.....	25 1/2	- 5 1/4	-Gulf American b.....	16 1/2	+ 2 1/4			
Calif. Fin. e.....	8 1/4	+ 2 1/4	-Holly Corp. b.....	6 1/4	+ 3/8			
Empire Fin.....	19 1/4	+ 1 1/2	Horizon Land.....	19 1/2	+ 1 1/2			
Equitable S&L.....	18 1/4	+ 2 3/8	Languna Niguel.....	7 1/2	+ 1 1/4			
Far West Fin. e.....	18 1/2	+ 4 3/8	Major Realty.....	11 1/2	+ 1 1/4			
-Fin. Fed. e.....	26 1/2	+ 6 3/8	-McCulloch Oil b.....	37 1/4	.....		
-First Char. Fin. e.....	33 1/2	+ 1 1/8	So. Rty. & Util. b.....	7 1/2	.....		
First Fin. West.....	10 1/2	+ 2 1/2	Sunasco e.....	34	+ 16 1/2			
First Lincoln Fin.....	11 1/2	+ 2 1/4	DIVERSIFIED COMPANIES					
First Surety.....	11 1/2	+ 2 3/8	City Invest. e.....	63 1/2	+ 5 1/4			
First West Fin.....	4 1/4	+ 3/8	Cousins Props. x.....	35	- 26			
Gibraltar Fin. e.....	34 1/4	+ 3	Forest City Entr. b.....	17 1/2	+ 2 1/4			
-Great West Fin. e.....	22 1/4	+ 2 1/4	Investors Funding b a.....	17 1/4	.....		
Hawthorne Fin.....	12 1/4	+ 1 1/2						
-Imperial Corp. e.....	13	+ 2 1/2						
-Lytton Fin. e.....	9	+ 1 1/4						
Midwestern Fin. b.....	7 1/2	+ 3/8						
Trans-Cst. Inv.....	4 1/2	+ 1 1/8						
Trans World Fin. e.....	16 1/2	+ 3 3/8						
Union Fin.....	13 1/4	+ 1 1/2						
United Fin. Cal. e.....	20 1/2	+ 1 1/2						
Wesco Fin. e.....	24	+ 2 1/4						

a—stock newly added to table. b—closing price ASE. c—closing price NYSE. d—not traded on date quoted. e—closing price MSE. h—closing price PCSE. k—not available. —Computed in HOUSE & HOME's 25-stock value index. x—adjusted for 2-for-1 split. y—tender offer. (NA) not applicable.

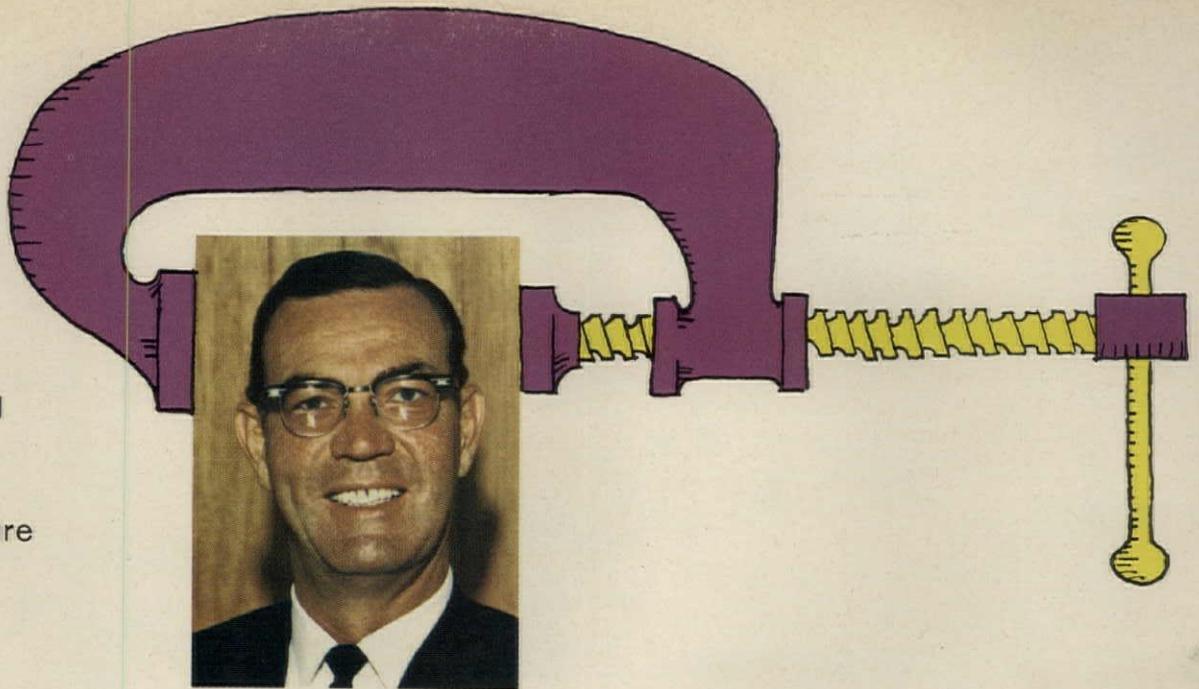
Sources: New York Hanseatic Corp., Gairdner & Co., National Assn. of Securities Dealers, Philip Beer of Russell & Saxe, American Stock Exchange, New York Stock Exchange, Midwest Stock Exchange, Pacific Coast Stock Exchange. Listings include only companies which derive a major part of their income from housing activity and are actively traded.

SHORT-TERM BUSINESS LOAN RATES

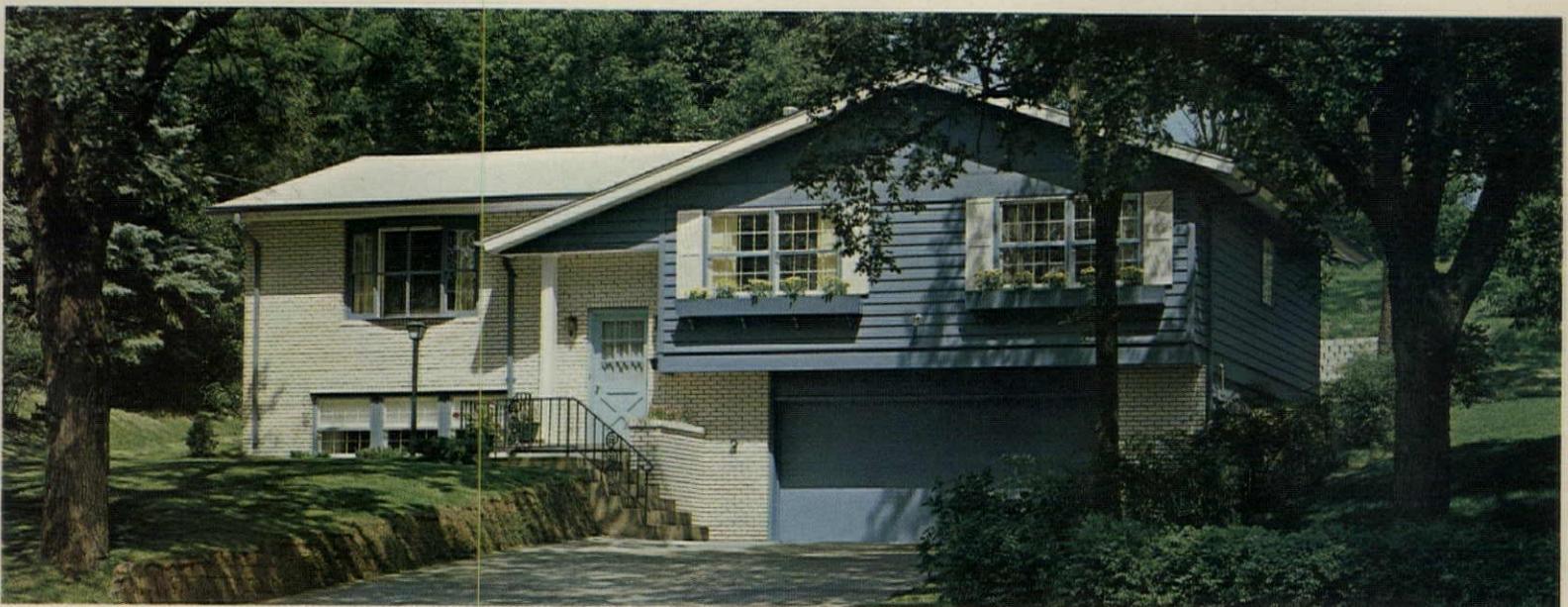
Average % per year	LOAN SIZE (000)	N.Y. City	7 other North-eastern	8 North Central cities	7 South-eastern cities	8 South-western cities	4 West Coast cities
	\$1-9.....	6.71	6.84	6.95	6.57	6.75	7.37
	10-99.....	6.65	7.00	6.83	6.43	6.54	7.00
	100-499.....	6.39	6.85	6.62	6.25	6.39	6.62
	500-999.....	6.15	6.62	6.36	6.01	6.27	6.33
	1,000 up.....	6.06	6.48	6.18	6.04	6.42	6.03

Feb. rates in Fed. Res Bulletin, April 1968. NEWS continued on p. 24

"Long hours designing plans and high labor costs in conventional building put the pressure on my time and my profits,"
says *Lloyd Hardy*.



"Now, with Kingsberry, I've eliminated my design time and cut on-site labor costs 50%!"



Kingsberry's "Benson," as built by Lloyd Hardy, Sioux City, Iowa

That's how one veteran builder used the Kingsberry package and our 100 designs to break the grip of his biggest problems. And he did it in a market of rising costs.

You can do the same with Kingsberry's advantages, *proved* in over 50,000 houses. Fast build-out. Tight cost control. Built-in curb appeal. Mr. Hardy now turns his money over twice as fast! And a prime advantage is Kingsberry's Sales Representatives, ready to put their training and experience to work on your problems... from market analysis to sales promotion.

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Mr. Robert H. Welsh, Director-Marketing / Kingsberry Homes / Department HH-8 / 5096 Peachtree Road / Chamblee, Georgia 30005 / (404) 457-4301.

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*with the intercom
that smells smoke
and barks at burglars*



Give the weekend browsers something special to remember about your model home. Demonstrate a Thomas AM/FM intercom system.

Show them how it picks up a child's breathing in another room. And how it answers the front door from any room station in the home. Finally, let loose with the fire, smoke, and burglar alarm system.

The Thomas radio intercom may not sell your home. But it could be the clincher. For more information, write: Residential Lighting Division, Thomas Industries Inc. 207 E. Broadway, Louisville, Ky. 40202.



THOMAS
INDUSTRIES

Thrown a zoning curve in the ninth, a builder rallies

The Livermore planning board threw the curve at California builder Hy Weisel.

The board switched zoning from five houses to 3.6 to the acre after he had bought 550 acres on the understanding he could build to the higher density.

That wasn't all. The new zoning package stipulated that residence footage—including garage and second-story space—could not exceed 25% of the lot.

What to do. Weisel, president of Proud Homes of San Jose, had a number of choices. He could have sold or fought, but instead he rolled with the punch.

An original plan for houses from 1,350 to 1,800 sq. ft., selling from \$18,500 to \$25,000, was abandoned. The units were replaced on the drawing boards by houses ranging from 1,100 to 1,350 sq. ft., selling from \$20,500 to \$22,500.

Weisel capitalized on the vacant 75% of each lot. He provided each house with shrubs, landscaping, a ten-year-old tree and a fence for the side and backyard. To make the smaller houses more marketable for middle-income buyers, he threw in complete carpeting and other niceties on a non-profit basis.

Result: 31 houses were sold in the first week after the project opened.

Livermore's rationale. "The whole point is not lot size," says planning director George Musso. "It's the city's desire to limit the number of people who will eventually live in the area. Depending on density, the population can vary from 250,000 to 500,000. We're trying to keep it down towards the lower end."

Musso also defends the controversial 25% residence limitation. He insists it can provide an incentive to a wider variety of housing for his Bay Area community.



BUILDER WEISEL
Turning a setback to advantage

"We tried to get away from rubber-stamp developments. We felt our old ordinances had been encouraging the wrong thing."

Subdividers now have the option of using some of the land for larger lots and homes, some for smaller. Lots can be as small as 2,500 sq. ft. for rowhouses.

The planning board feels that land is more important than the size of the house. "People can expand their house later on, but they can't add more land," warns Musso.

The new zoning permits expansion of a house to cover 30% of the lot after two years of occupancy.

Builders oppose such zoning. "Our ex-

perience shows that few homeowners expand a house," retorts Weisel. "Most people live in a house for three to five years, and then sell it and upgrade. About 20% stay and add on."

Builders in Livermore also insist that there is no market for the row houses envisioned by the commission.

Masud Mehran of Sunset Homes, who has been building in the Livermore area for 17 years, complained that "the Livermore planning commission does not understand the difference between New York townhouses or rowhouses, and the rural, middle-income townhouses they have provided for here." The latter, he says, translate into inexpensive housing while the former can mean luxury housing.

"You can't force the construction of certain types of housing by rule," he says.

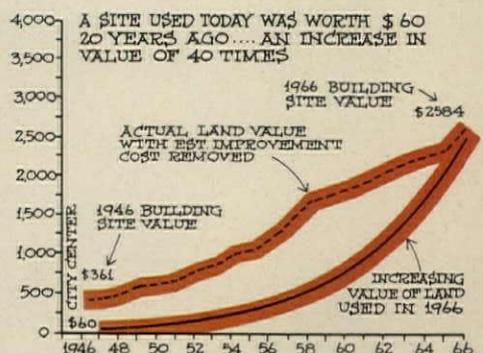
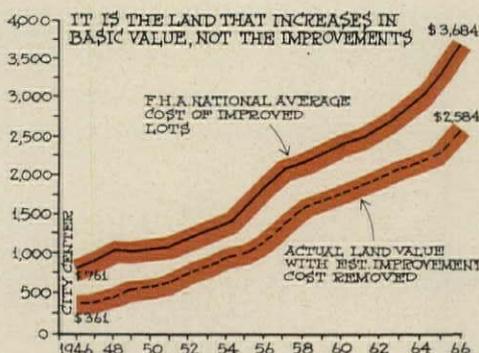
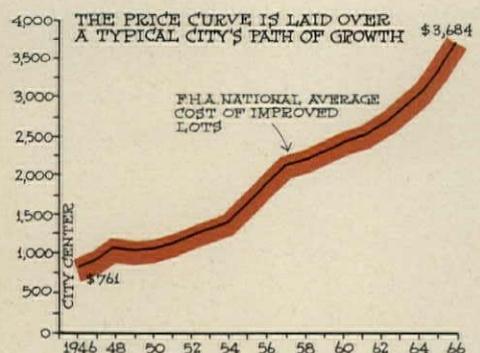
—MARGARET DROSSEL
McGraw-Hill World News, San Francisco

Two New England prefabbers combine forces in a merger

Acorn Structures of Concord, Mass., and Federal Industries of Canaan, Conn., have merged into a new corporate entity, Acorn Leisure House Corp., with headquarters in Concord.

Acorn Structures, which has manufactured year-round and vacation homes for 20 years, sells under the Weyerhaeuser Registered Home program. Federal's vacation homes have sold throughout New England for several years.

President John R. Bemis of Acorn Structures becomes president of Acorn Leisure House. Federal's President Arthur Milliken will direct distribution of the combined lines.



Inflation: The price of unused land has risen 40-fold in 20 years

The FHA's figures show that the average price of developed lots was \$761 in 1946 and \$3,684 in 1966, an increase of 480% (chart 1, above). The figures are for sites on which new single-family houses were built, and the building took place farther from city centers each year. New houses usually consumed new land.

Now Horizon Land Corp. of Tucson, Ariz., has had its statisticians separate the

value of this developed land from the cost of improvement (water, sewers, utilities). Improvement costs increased from \$400 in 1946 to \$1,100 in 1966 (chart 2). So the value of the developed land alone was \$361 in 1946, but by 1966 that had increased to \$2,584.

But what happened to land if it remained unimproved and unoccupied for 20 years? Horizon says the average cost of

an unimproved lot (3½ lots to an acre) went from \$60 in 1946 to \$2,584 in 1966—a 40-fold increase (chart 3).

What to do?
Buy land, Horizon says, particularly since the 1946 dollar represented only 56 cents in 1966 buying power. Horizon says that only real assets such as land can keep up with inflation.

NEWS continued on p. 29



Recreational areas with hard surfaces are built to take the awful beating kids hand out.

Unfortunately kids aren't built to take the beating hard surfaces hand out.

And if you use grass, the grass soon turns to dirt or dust or mud.

But now there is something else you can use. Something that wears like a hard surface but looks and feels like

grass. Something called AstroTurf®, a revolutionary nylon recreational surface that can take a beating but won't give one.

And because AstroTurf is made from nylon, it requires little or no maintenance. In fact, every time it rains, AstroTurf gets a cleaning.

You can use AstroTurf on playgrounds and terraces, on football

fields and baseball fields, on tennis courts and field house floors, on pool-side surfaces and patios, and just too many other places to mention here.

So the next time you specify a recreational surface that has to take an awful beating, make sure the people using it won't have to take an **AstroTurf**® awful beating too. Monsanto Recreational Surfaces



For more information, write to AstroTurf Recreational Surfaces, Monsanto Company, 800 N. Lindbergh Blvd., St. Louis, Missouri 63166. Or refer to Sweet's Architectural File, 36i Mo



The shangle

Nob Hill Club Apartments, Atlanta, Ga.
Architect: Cooper, Carry and Associates
Builder: Crow, Pope & Carter



Looks like a shake, lasts like a shingle. Our new Hallmark shingle really isn't a shingle, and it really isn't a shake either. It's the entirely new concept in roofing that combines the deep sculptured beauty of a wood shake and the lasting durability of the finest asphalt shingle. That's why it's sometimes referred to as the shangle. Hallmark can't give you the problems of wood, because it isn't wood. It won't rot, shrink, split or warp and it's fire safe. It's easier to apply. Adds lasting beauty to modern and traditional homes and garden apartments with mansard type roofs. The elegant Nob Hill Club Apartments, in Atlanta, Georgia, pictured here, uses Hallmark shingles in bronzed brown to add still another dimension to its new concept in luxury living. We'd like to show you how Hallmark shingles, in bronzed brown, pewter grey and golden tan, can add lasting curb appeal to your future homes and garden apartments. Write: Certain-teed Products Corporation, BA1, Ardmore, Pa. 19003.





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your customers
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A garage door of Alsynite/Structoglas is eye-catching and good looking. Helps you sell a house faster. Gives you additional talking points. Less maintenance. No painting. More usable living and play area with light transmitted evenly throughout the garage. Lightweight . . . no heavy lifting. Tougher than ordinary building materials. Resists fading and weathering. Won't shatter, dent or warp. With Alsynite/Structoglas you know you have the finest reinforced fiberglass available. It not only looks better . . . but lasts longer. You avoid call backs and complaints.

Buy from quality garage door manufacturers who use only Alsynite/Structoglas.



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Allied Products Corporation
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Phenix Manufacturing Company
Ro-Way Doors
Rowe Manufacturing Company
Weather-Tite Aristocrat Doors
Weather-Tite Division of the
Pacific Coast Company
Welbilt Doors
Welbilt-Vulcan Company
Windsor Door
Windsor Door Company



Gulf American's chairman resigns; company ends tiff with regulator

Leonard Rosen has resigned as chairman of Gulf American Corp. and the big land-sales company has chosen a replacement pledged to end a long dispute with the Florida Land Sales Board, a regulatory agency.

Says Bernard Herzfeld, the new chairman: "My energies will be directed toward cementing our relationship with the board through complete cooperation." He has been Gulf American's vice chairman and chief counsel.

Rosen, 52, who built Gulf American from scratch to \$350 million in assets in ten years, remains on the board and becomes a vice president. He and his brother Julius own 57% of the company's 9.6 million shares. The stock closed at 16¼ on the American Exchange the day of the resignation.

Florida's new regulatory agency suspended all lot sales at Gulf American's four Florida developments for 30 days last year after the company pleaded guilty to several charges of illegal sales practices (NEWS, Dec. '67). A state court nullified most of the board's other penalties against Gulf American, however, and the company filed several countersuits against the board.

The case disclosed numerous bizarre merchandising tactics used by Gulf American, including the sale of underwater lots and the switching of titles from one lot to another. In its heyday the company sold \$750,000 worth of land and collected \$280,000 in payments each working day. Its sales



GULF AMERICAN'S ROSEN
Out of the fight

force alone numbered 4,500, and solicitors ran a continent-wide telephone campaign from the company's Miami headquarters and used a private fleet of planes to fly prospects to inspect lots. Gulf American had nearly 6,000 employees and was the sixth largest publicly owned corporation in Florida.

Trouble began in 1967, when *The Wall Street Journal* published a secret land board report detailing the company's sales practices. The American Stock Exchange suspended trading in Gulf American common for two days (NEWS, Aug. '67), and the fight with the land board ensued. The company reported sharp declines in sales and earnings for the nine months ending on May 31. Net fell to \$2.9 million, or 30 cents a share, from \$11.5 million a year earlier. Sales and other operating income dropped to \$67.5 million from \$95.9 million.

Mayor brings prefabs to Chicago

Strong-willed Dick Daley huffed and puffed and blew down trade-union opposition to prefabricated housing in his city.

A factory to produce at least 2,000-low-cost units will be built this year. And the \$2-million construction cost will be shared equally by three groups—Chicago's financial institutions, construction companies (led by U.S. Gypsum) and trade unions.

Under Mayor Daley's plan,

Wide World Photo



CHICAGO'S DALEY
Stronger than unions

factory-built townhouses with appliances and land will sell for less than \$14,500. Daley says comparable conventional houses, with three and four bedrooms, would cost \$27,000.

The FHA will provide 30-year mortgages at 6¾% to keep monthly payments under \$100.

Trade-union opposition, which has barred prefabs from all other major cities, broke down under Daley's mixture of brass knuckles and big promises. One inside source says: "He whipped the unions into line. But he also promised full unionization at the factory."

Maryland official gets federal S&L position

Allan D. Housley, state supervisor of savings and loan associations in Maryland, has been appointed director of the Federal Savings & Loan Insurance Corp., a post left vacant by the death of Jerry R. Worthy.

NEWS continued on p. 37

Felicity Ensemble: big wall mirror with twin surface-mount reversible cabinets in eggshell white with lavish antique gold trim . . . Only one of over 100 elegant models in the new Grote line of bathroom cabinets and accessories.



Americana Ensemble: twin louvered cabinets flanking a big wall mirror, lovely in any setting. Reversible on the job for right or left door swing. May be finished in elegant wood tones or to match walls or woodwork.

Happiness is
"his and hers"
storage for those
intimate secrets

Leave it to Grote not only to base its product appeal on function and consummate styling, but also to level it at that fundamental human yearning for your own island of privacy, your own personal closet, be it in bedroom or bathroom, to store your intimate grooming aids, toiletries, perfumes, including your little secrets for improving your personal magnetism.

So, keyed to these emotional implications, Grote has come up with an impartial division of the wall closet space, with three times more storage than in the most popular size of conventional cabinets. And with a flattering wall mirror to make that compact bathroom or dressing room look many times larger.

Put the three together—"his" cabinet, and "hers," and the big wall mirror—and you have one of the sellings touches of opulence that a builder can add to a home or apartment to make somebody say "yes" weeks earlier. Send coupon for Grote's new catalog that gives you the formula for this sales wizardry.

THE **Grote** MANUFACTURING CO.
PO BOX 766-EN, MADISON, INDIANA 47250

Tell us more about those intimate secrets in bathroom cabinets. Send us your 32-page catalog of new decorator designs to sell a home or rent an apartment weeks earlier.

Firm Name _____

Street _____

City _____ State _____ Zip _____

Signed _____ Title _____

Here's the air conditioner builders said they wanted! York's new, compact, quiet factory-charged split system.

The Champion II is competitively priced—and has York quality engineering all the way!

York has found a way to build the "builders' air conditioner!" It's the Champion II split system—pre-charged for fast installation. It's compact and low, just 18 inches high. And York has engineered a simplified control system that eliminates costly, unnecessary call-backs. A simple restart button *outside* the unit cuts annoying service calls to a minimum.

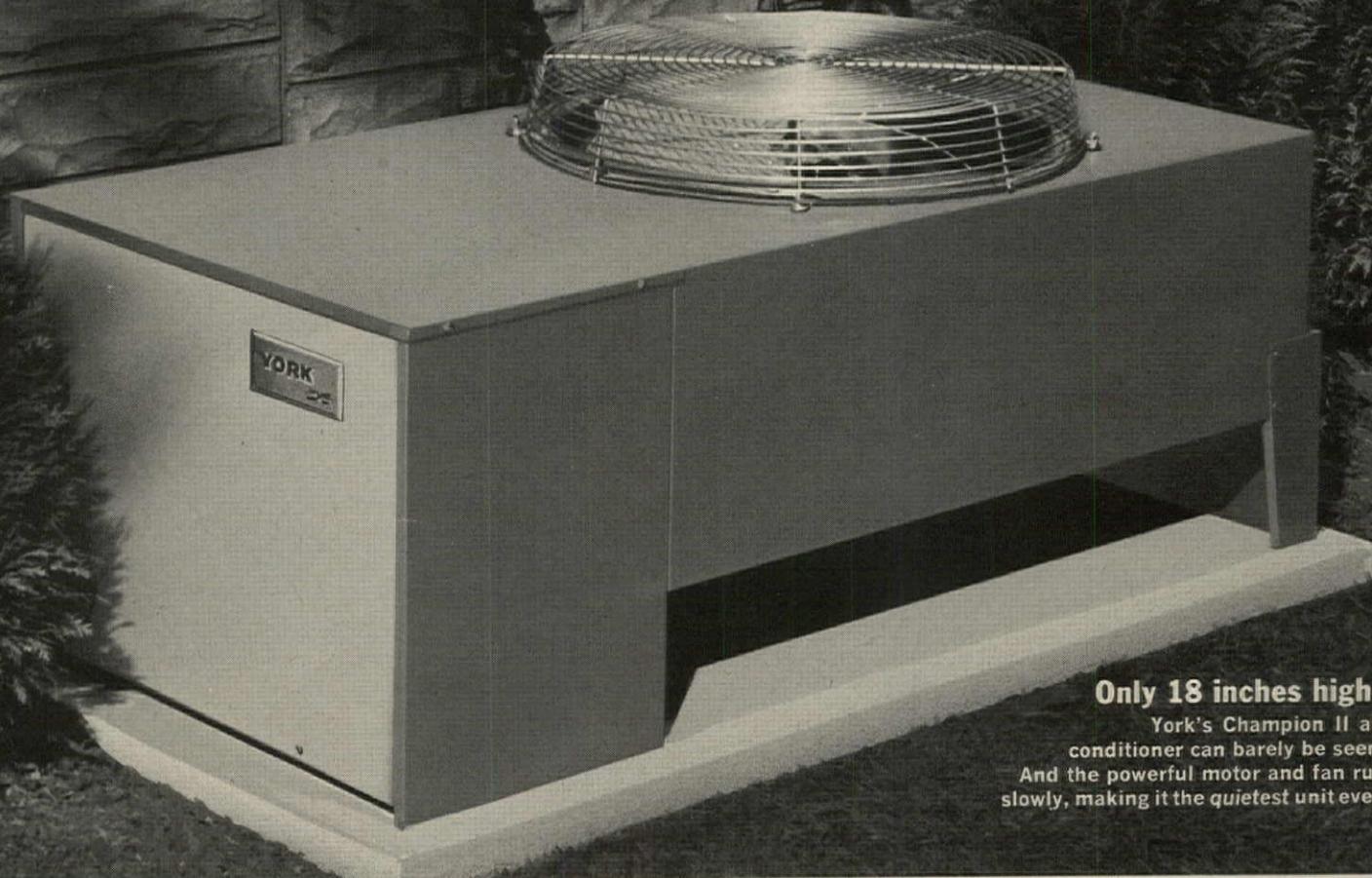
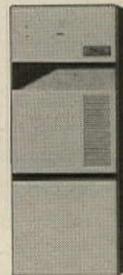
The York Champion II comes in 2, 2½, 3, 3½, 4 and 5-ton sizes; through-the-wall models for multi-unit dwellings available in

1½ and 2-ton sizes . . . giving you a complete range of sizes and types for any job.

Ask your York Authorized Contractor-Dealer for facts on the Champion II. Or write York Division of Borg-Warner Corporation, York, Pennsylvania 17405.

York found a better way to build an air conditioner

Matched Borg-Warner Furnaces give you a year around comfort system. Oil or gas-fired; complete ranges of capacities; designed to complement York air conditioning.



Only 18 inches high!

York's Champion II air conditioner can barely be seen. And the powerful motor and fan run slowly, making it the quietest unit ever.

YORK

DIVISION OF BORG-WARNER CORPORATION



Price Pfister is the first and only manufacturer to use indestructible ceramic in single handle faucets.



CERAMIC
VALVE PLATE

Other manufacturers may claim to offer maintenance-free single handle faucets, but only Price-Pfister has proven Flow-Matic to be maintenance-free by years of "on-the-job" use.

Price Pfister utilizes indestructible ceramic in the operating mechanism of our Flow-Matic valve cartridge. Ceramic defies wear, debris and foreign matter which attack metal parts and cause them to crystalize and corrode. Ceramic doesn't expand or contract, so Flow-Matic single handle water controlling devices always operate with fingertip ease. The surfaces within our ceramic mechanism maintain internal tolerances within 25 millionths of an inch, which means — no lubricants,

springs, or washers necessary, and no "O" rings that are subjected to friction. The use of this exotic material allows us to offer our exclusive full five year guarantee . . . including a labor allowance.

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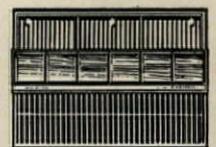
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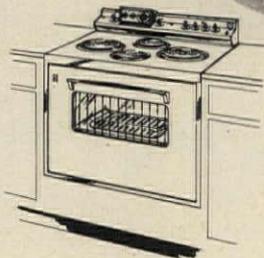
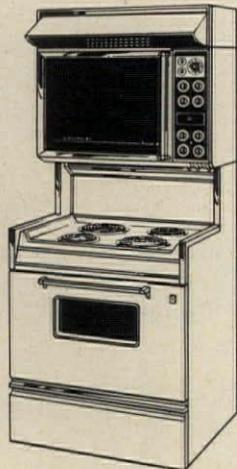
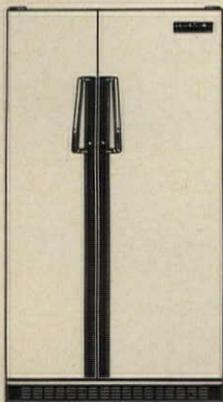
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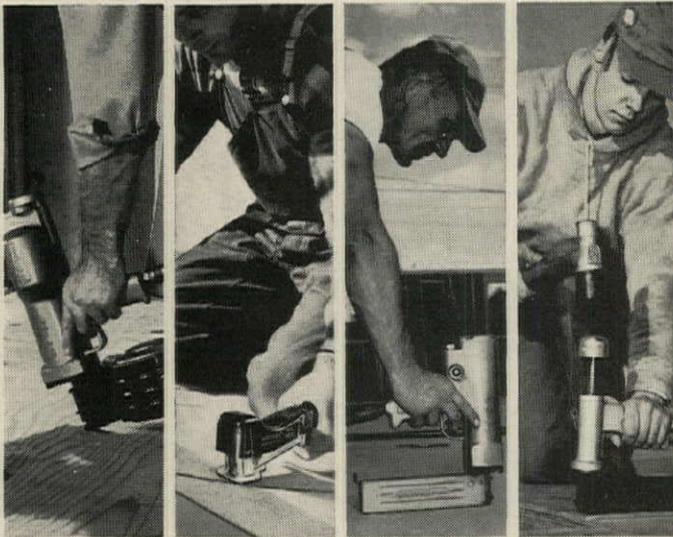
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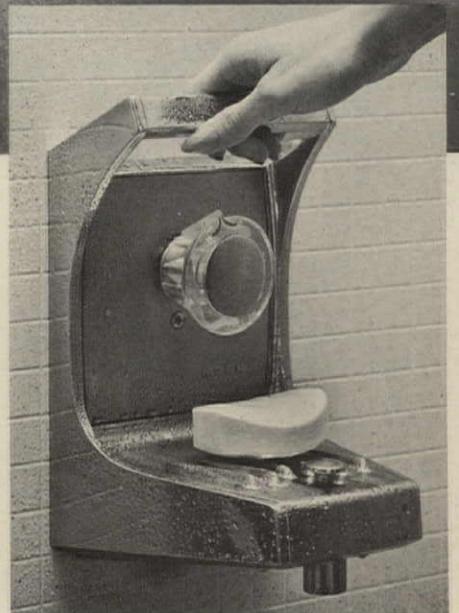
This one does. It's a Moen. It's single-handled.

It also works more smoothly, more quietly than any single-handle faucet we've ever tested. People react to that kind of quality.

They recognize the Moen name, too. Moen ads are being seen in four leading kitchen and building idea magazines.

We don't claim Moen faucets will sell your houses. Let's just say: when a woman sees a Moen, she wants to get her hand on one.

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B-689

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Howard Ahmanson is dead at 61; built, owned world's largest S&L

He began his career with but one idea—to take back the family insurance company from the stockholders who had seized it on his father's death in 1925.

"I was never one of those modern kids with a hate-your-father complex," Howard Fieldstead Ahmanson said later. "I admired—I adored—my dad."

Ahmanson was 20 and still a student at the University of Southern California when he started selling fire insurance. The great depression was about to flood the state with foreclosed homes and he learned of an obscure law requiring a new policy for each foreclosure.

"The worse things got the better they were for me," he said, "I felt like an undertaker."

At 30 Ahmanson was a millionaire. At 37 he bought back National American Insurance in Omaha.

That might have been enough for most men but, as Ahmanson explained, making money had become fun. Having won a fortune on California's housing bust he was ready to wager on a boom.

He paid \$162,000 in 1947 for an obscure savings association with less than \$1 million in assets. Before the mortgage profession awoke to the advantages of large-scale operation, he had bought up 18 more associations to form the first big S&L combine.

The next step was a working partnership with homebuilders. Ahmanson offered to share profits with them, and his Home S&L was soon getting the lion's share of the FHA-VA mortgages generated by a new postwar housing surge. He also bought large tracts of raw land and introduced the S&L industry to "mortgage manufacturing," the financing of the entire building operation from land purchase to construction loan to final mortgage (NEWS, Oct. '63).

The postwar rally stretched into a phenomenon that sociologists still describe as the westward tilt. Flooded by 1,000 im-

Irv Antler



CALIFORNIA'S AHMANSON
Always ahead of the market

migrants a day, California and its construction industry were soon building one of every five new homes in the United States. Home S&L gained assets of \$2.5 billion and spawned 36 branches. Ahmanson's holdings expanded to include the Ahmanson Bank and Trust, a second insurance company, a title company and the H. F. Ahmanson Co., set up primarily to handle his investments. Fortune magazine rated his net worth at \$200 to \$300 million.

Ahmanson was always ahead of the market. He never subscribed to the belief that the California tract-house boom would last forever; hence he switched Home S&L's lending into apartments long before the state developed its glut of single-family houses in 1965. When subdivisions slipped into insolvency by the dozens, he called their money squeeze "the best thing that ever happened to the industry. . . . It stopped the overbuilding. It was a good laxative."

He himself was a builder to the end. Home S&L is putting up three big apartment buildings in Los Angeles, and six months ago Ahmanson announced plans for a 40-story office block on Wilshire Boulevard. Cost: \$75 million.

Ahmanson died within an hour after a heart attack in Belgium, where he was motoring with his second wife, the former Caroline Leonetti of Los Angeles, and his son Howard Jr., a college student.

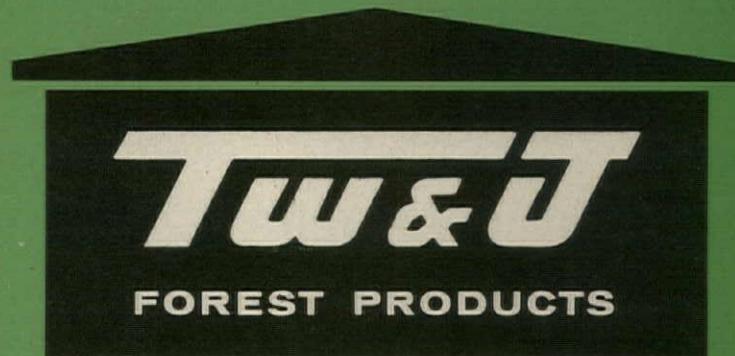
Met Life's Henry D. Miller Jr. dies

Henry D. Miller Jr., one of the nation's leading specialists in mortgage finance, died July 2 in Summit, N.J. He was 63.

As a vice president for mortgages, Miller led the way to progressive change in the Metropolitan Life Insurance Company's lending operations. He persuaded the Met to become the first major life company to finance land development on a large scale, and he devised the collateral trust indenture as a note that could be traded in place of the actual mortgages (NEWS, July '67).

The indenture was widely recognized as a solution to the investment community's struggle to simplify mortgage trading. The Met has purchased or committed for \$107 million in such notes, and the Federal National Mortgage Assn. has adopted features of the note as a basis for its proposed mortgage bonds.

HOUSE & HOME cited Miller as one of the housing industry's Top Performers of 1967 in recognition of his success in devising ways to bring new capital into homebuilding (NEWS, Dec. '67).



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LETTERS

Clean design or total bore?

H&H: We read with interest the article "How to clean up the busy-busy exterior" in the May issue. We believe your title is somewhat incomplete. It should have read "How to clean up the busy-busy exterior and create a total bore."

The above statement is not born of professional jealousy but rather of knowledge and experience gained in more than 20 years of successful house designing, building and selling in large developments. Many of our designs have had a place in your magazine. Furthermore, a major portion of all the houses built on Long Island, and in many other parts of the country, have been patterned after our designs.

We make these points purely as a basis for validating our criticism of the supposed "improvements" to the published designs. The redesigns shown contain not a single spark of the life or "joie de vivre" which is needed to stimulate mass purchases in today's highly competitive and media-educated market.

As proof of the fact that this particular article is disseminating very poor advice to builders struggling to increase their sales, you published, at the very end of the article, a picture of a house [inserted in letter at right] which you ridiculed and lampooned by farcical comment and drawings. It might prove interesting for you to learn that this house—created, designed and built by myself at Merrick, L.I., in 1961—was one of the most successful models built in the New York metropolitan area in recent years. Thousands of exact copies and variations of it have been built.

What this design has, and what all of your redesigns sorely lack, is a flair for living which is greatly appreciated by homeseekers anxious to add a little gaiety to their otherwise humdrum, pressured existence. It would seem to me that the editorial staff of HOUSE & HOME should more carefully research the effectiveness of various types of design in particular areas throughout our country before going on record with advice to already disadvantaged and harried builders.

Last, but not least, we earnestly believe it to be in the very poorest taste for your respected publication to indulge in public ridicule of any man's sincere creative efforts. GENE BALLIN, president Ballin Industrial Design & Development Corp. Hempstead, N.Y.

House & Home intended no personal ridicule in its treatment of designer Ballin's high ranch model and, in fact, was unaware of the designer's identity. The picture was first published in the U.S. Savings and Loan League's Construction Lending Guide with this comment: "Some facades, designed to satisfy market whims, seemingly try to include a little something for almost everybody. The result is design chaos."

We concur, and we would be remiss in our obligation to our readers were we to suggest such a design as a cure for sales problems. This model may indeed have sold well on Long Island, but that area has never been considered either a Mecca of fine architecture or a typical U.S. housing market.

If there is anything like a nationwide design trend in merchant-built housing, it is away from this kind of unrelated mixing of elements and towards the kind of simpler, cleaner design suggested by the article in our May issue.

Finally, while we agree that "joie de vivre" is, as Mr. Ballin suggests, an essential ingredient for a merchant-built house, we do not think that the best way to achieve it is to juggle facades and roof lines. Real joie de vivre, in the housing sense, is the result of an intelligent, exciting design concept that embraces all parts of the house—its plan, siting and appointing as well as its outer appearance.—ED

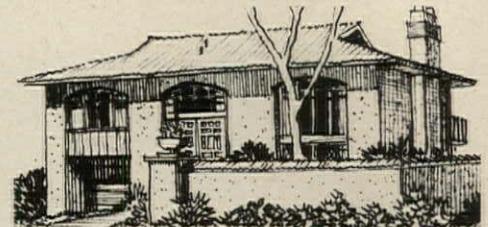
H&H: I wonder how many of your readers were challenged as I was by this "impossible" redesign presented in your May issue:

Richard Averill Smith



While I suspect architect George Hugh Tsuruoka was aware of the model's similarity to the bi-level entry on page 120, you made your point well.

Lest someone believe he cannot be helped by an architect, here is my "solution":



FRANK BOYER, architect
Davids, Pa.

Any other takers?—ED

Ed Rice's magic boxes

H&H: As architects intensely concerned with contributing to low-cost housing production, we were dismayed to read "FHA takes a hard second look at Ed Rice's magic boxes" [May].

The author's severely negative tone is an unfortunate contradiction of your excellent constructive report, "Stackup housing: What are its chances?" [Apr.].

It is our view that personal criticism of Mr. Rice is quite irrelevant to the far more profound issue at hand: Is the Unimont concept feasible? Can it be adapted to meet one of our nation's most pressing needs? There appears to have been little or no effort to evaluate the considerable technical and economic data refuting the author's conclusions.

We are not associated with Mr. Rice or Stressed Structures, but we have studied their technology in depth as it may apply to large high-rise, low-cost housing developments we are designing in San Francisco. After extensive research of all known construction methods, we have objectively concluded that the Unimont system is the potentially superior method!

The stated and implied views of the author may have extremely detrimental effects on the progress of these projects. In particular, his

Letters continued on p. 42

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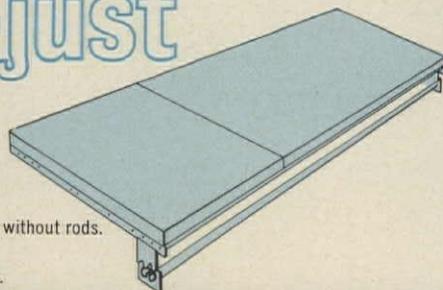
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Robert E. Smith
Robert E. Smith
Vice President and Manager



LETTERS

continued from p. 38

views are in error, or he neglected to mention, the following significant details:

1. The article said the Richmond Uniment cost \$24 per sq. ft. Since this was an experimental prototype, its cost was irrelevant. (What was the cost, for example, of G.E.'s first dishwasher?) What *is* relevant, is that as a result of this prototype, Stressed Structures is agreeing to construct more Uniments at a finished construction cost of \$14.50 per sq. ft.

2. The speed of construction wasn't mentioned. From start to finish it took five months, compared to our estimate of at least nine months using conventional methods.

3. The author implies there is doubt about the reliability of the Chem Stress cement and that it's a "laboratory curiosity". Actually, the tests and reports of the American Concrete Institute, which spell out the cement's characteristics, show that it *does* perform as claimed and *is* completely safe and reliable.

4. Finally and most importantly, we have seen that the Uniment system *works!* It quickly produces lightweight factory-assembled, high-density housing.

Every responsible citizen—particularly builders, architects and government officials—is keenly aware that low-cost housing technology is now in the critical stage.

There is no time for petty fault-finding. There is no time for a five-year research study. If we are to succeed in achieving dignity for millions of Americans, *encouragement* of imaginative technology will play a vital role.

In this context, it is our view that your article is misdirected, destructive and, in many respects, an inaccurate reflection of the inherent value of the refining of a concept.

ROBERT W. HAYES
BARRY G. SMITH
Hayes & Smith AIA
San Francisco

Readers Hayes and Smith hope to build a 360-unit high-rise building with the Uniment system for the San Francisco Redevelopment Agency.—ED

H&H: Recently our attention has been called to your article on Edward Rice and his Stressed Structures Inc. At various times during the article you used the initials "SSI".

Our client—Suspended Structures Inc. of San Francisco—has used the same initials since the formation of the corporation in 1964. The corporation is also involved in housing, with a primary interest in reducing costs by utilization of modular concepts and suspension of units.

As a result of the use of the initials SSI in your article, comments have been made which link Suspended Structures to the activities of Mr. Rice.

We recognize that there are legal problems in connection with the use of the initials which do not involve your publication. We request, however, that in the future you use the full name of Mr. Rice's corporation.

THOMAS M. JENKINS
Hanson Bridgett Marcus & Jenkins
San Francisco

The golf course boom

H&H: Thank you for the excellent coverage you gave my views [on golf course planning] in the June issue of your fine magazine. I would like to clarify some of the remarks you made concerning costs. The costs you quoted for a Florida course [totaling \$527,-

680] were not for a course "midway between a VW and a Rolls Royce". They were for an absolutely top golf course. In my estimation, unless you had to replace soil on the fairways, you should hardly ever have to pay more than this for the items mentioned. Indeed, we are at present doing a first-class championship course in Florida, including architectural fees and the moving of 200,000 yds. of dirt, for \$250,000. This figure does not include the clubhouse, but otherwise it is a turnkey job with a fully automatic irrigation system.

DESMOND MUIRHEAD, golf course architect
Desmond Muirhead & Gene Sarazen Inc.
Newport Beach, Calif.

H&H: My congratulations on your June issue. I was especially interested in the story on golf course developments. As an experienced developer and avid golfer of 40 years standing, I have the right to say that your writers and research people have done a truly outstanding job on the subject.

D. C. DAWKINS JR., president
National Lumber and Building Material
Dealers Assn.
Washington, D.C.

'Acid test of FHA'

H&H: Your article, "In a Washington slum—An acid test for nonprofit housing" [NEWS, Apr.] was in general an accurate reflection of the Clifton Terrace odyssey. It should be made clear, however, that contrary to possible interpretation of the article, we do not share FHA's disaffection with Martin K. Frank, our suspended packager. To the contrary, we have found Mr. Frank to be a very competent packager. The fact is that FHA used the Clifton Terrace project to force HDC to do what FHA didn't have any basis for doing.

I believe the record will show that of the 12,626 dwelling units gone to final closing under the 221d3 program since 1961, Mr. Frank was the packager on 2,500, or almost 20%, of them. These were in 11 of the 108 projects gone to final closing as of last month. Each of these 11 projects was brought in before construction deadline and below FHA cost estimates. You can see by these figures why we were reluctant to suspend Mr. Frank, still wish to employ him and question FHA's wisdom in preferring a vendetta to production—at the expense of poor people, the most volatile segment of our society.

Clifton Terrace is not only an acid test of nonprofit housing; we plan to make it an acid test of FHA.

CHANNING E. PHILLIPS, president
Housing Development Corp.
Washington, D.C.

Industrialization

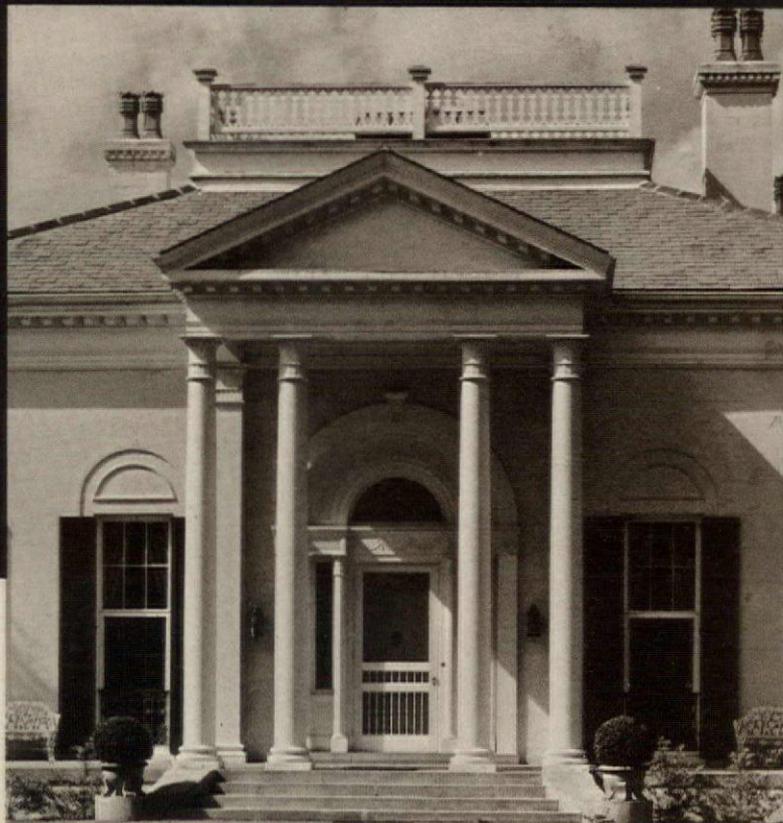
H&H: The housing industry should probably stop reacting to those who criticize its lack of responsiveness to the industrial age. Assuredly, you made the pertinent points in your editorial, "The song of the cuckoo" [June].

Perhaps the critics should also take a look in the mirror. They would, more often than not, see a member of that clique which, if nothing else, gives moral support to forces that prevent the housing industry from entering full tilt into industrialization.

The critics are right when they say that annual housing demand is much larger than the number of units being produced and that the median price of housing is too high for

Letters continued on p. 44

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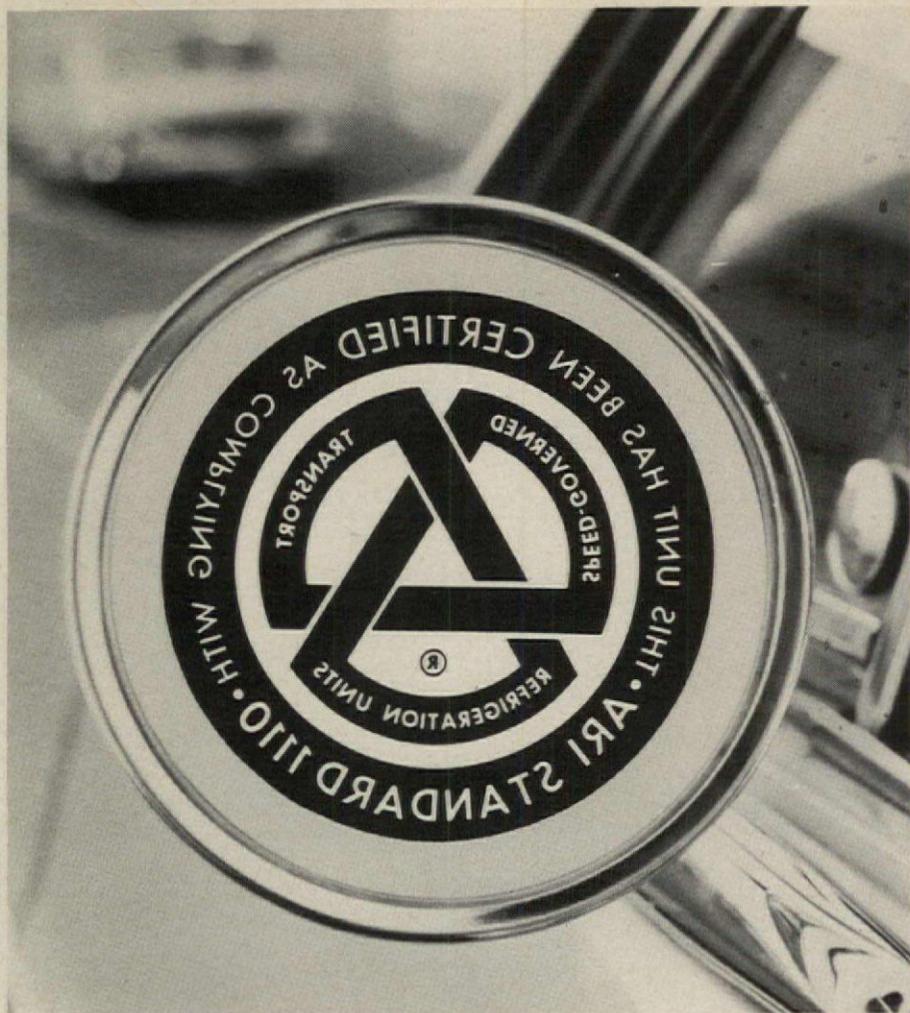
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LETTERS

continued from p. 42

the total market. They are somewhat right in their proposition that the housing industry could be further computerized and industrialized. They are mostly wrong when they infer that the housing industry itself resists modern management science and industrial technology and, hence, lower prices and/or innovative product concepts.

Under prevailing practices the housing industry is forced to produce for certain "allowed customer" segments of the total housing market; at least 50% of the housing market falls in the "non-allowed customer" segment. It is not the housing industry that determines the segmentation of the total market into these "allowed customer" and "non-allowed customer" categories. In the cold light of economic reality, the housing industry merely lives with the fact that zoning boards, governmental bureaus, mortgage people and individual citizens, who as potential neighbors of a new housing complex can rule on its values, really determine and control which segments of market demand the housing industry is allowed to build for and sell to. Present housing prices merely reflect the requirements of that strata of the housing market in which the "allowed customers" are found. They do not reflect resistance on the part of the housing industry to industrialization or modern technology.

As for the possibility that computers, automation and industrialization have further untold application to the housing industry, the critics should note that the tools of modern industrialization are beneficial only to the extent that they promote the more effective coordination of pertinent relationships.

Imagine that most accomplished computer, or "systems approach", trying to coordinate consumer demand for low-cost dwelling units on a busline close to a large industrial plant with an ideally situated land parcel that is being held for capital gains appreciation by a gentleman farmer—who, incidentally, is probably a civic leader in the front ranks of the critics of the housing industry.

Computerization, automation and industrialization are most effectively implemented when management can exert maximum control over all interacting processes. Until housing industry management can exert the same type of control over the design, production, marketing and transferral of new housing units that General Motors exercises over a new Chevrolet, further industrialization, and therefore meaningful price reductions, will remain a distant dream.

ROBERT E. HUFF, director of program control
The Rouse Co.
Baltimore, Md.

Misquoted stock price

H&H: Your favorable comment [News July] on the market performance of our stock concluded with the statement, "It closed the month [June] selling over the counter at \$18." Apparently you confused us with Continental Mortgage Insurance. Our shares of beneficial interest are traded on the New York Exchange and closed the month at \$63¾.

T. FRANK ARMSTRONG, treasurer
Continental Mortgage Investors
Boston

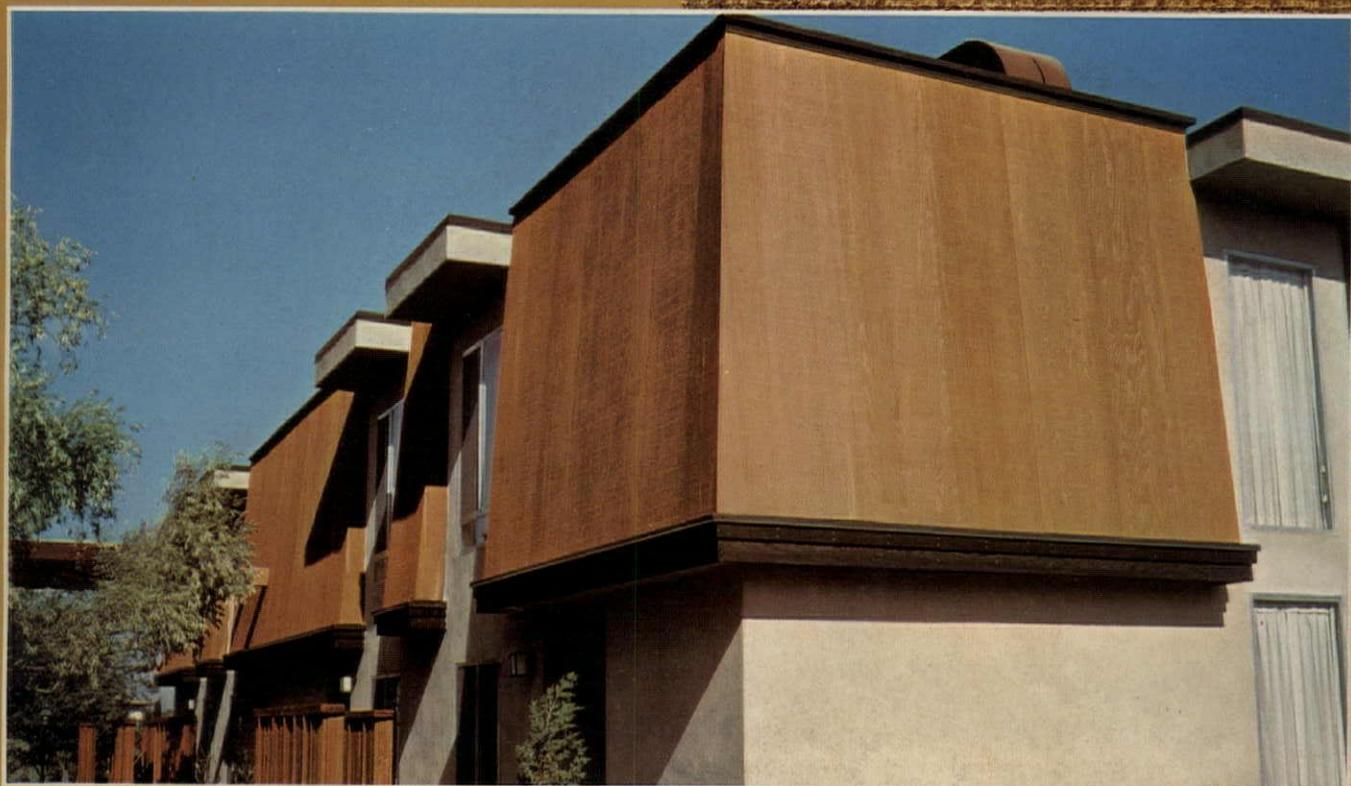
Credit where it's due

Our apologies to photographer Rene Laursen, who took the photo on our June cover, and to photographer Julius Shulman who was mistakenly credited with the picture.—Ed

Only for those who want to do it better...

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Apartment Complex, Sacramento, California, Designer: Buzz Garcia, AIBD

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Smallwood & Doench, Architects

Right!

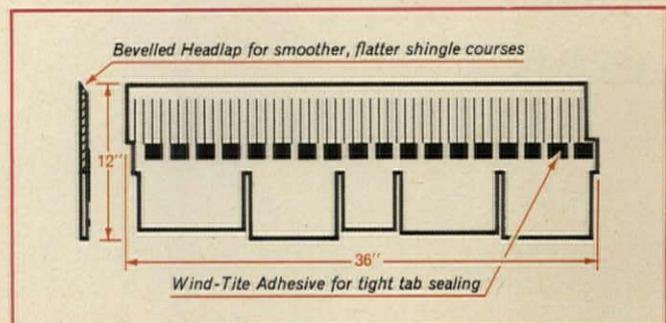
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Did you ever see anyone pass up a wall that's paneled with Weldwood? You bet you didn't.

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Then they'll reach out and touch it. They're thinking how great their furniture would look with all that real wood grain as a background. Then you can tell them that Weldwood® will last as long as the house. That all they'll have to do is wipe it with a damp cloth or a liquid furniture polish.

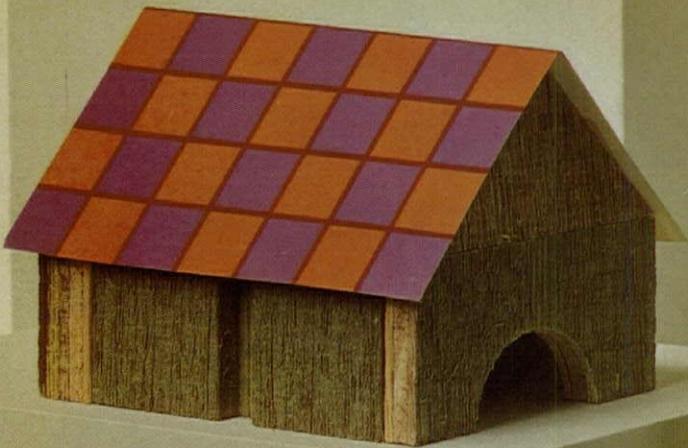
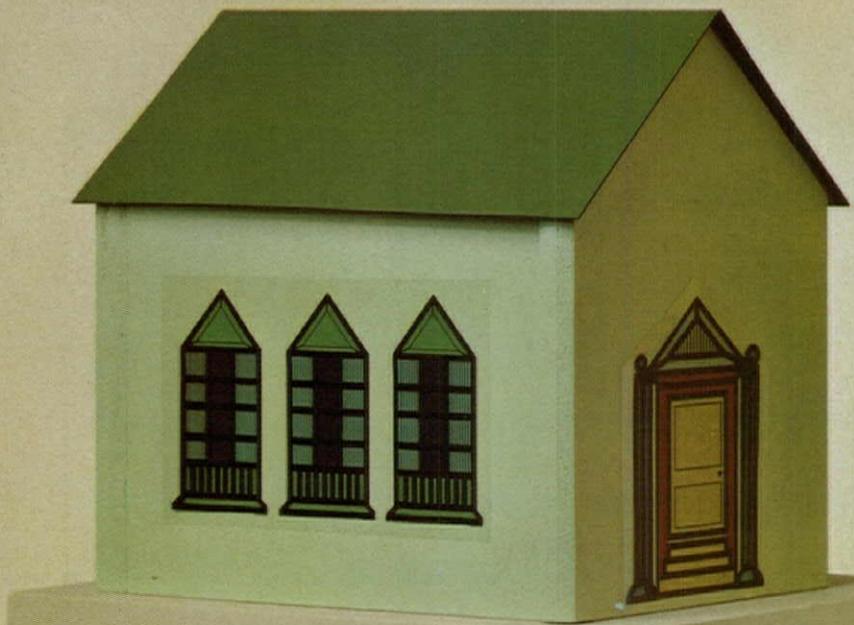
And all the time it's just standing there selling itself. Looking so rich it helps you sell the whole house.

You don't think Weldwood can do that? All right. Slosh on some paint or paper instead. The female half of your hot prospect will probably end up telling you what's wrong with your color scheme. That's OK. It'll give you something to think about on the way to your building supply dealer. The one who sells Weldwood.



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And it's free.

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EDITORIAL

*The Mafia in Homebuilding***When mobsters fish for a builder in trouble their bait is funny money—would you believe 120% interest**

On page 5 you will find the first news story ever put together on the Mob in our industry. The Mafia is the Mob; there is no other. Its two dozen "families" make up the skeleton of organized crime in the U.S.

The Mob has about \$10 billion in racket profits to put to work every year. From gambling alone, it nets perhaps as much as \$7 billion a year on a gross handle of \$20 billion. So the Mob is always on the lookout for a good investment, and to them an investment is good only if it pays from 40% to 120% per year. The money is plowed right back into spreading operations in loan sharking, prostitution, narcotics and numbers.

The Mob usually learns of lucrative investments by finding some sharpie who has figured out a new angle to tap somebody else's till. They don't just take a piece of the sharpie's action; they usually take all of it.

From the 1930s through the '50s, the Mob moved from straight crime into labor unions—where they still have considerable clout in some trades—and then into "legitimate" business. Their first, and still most widespread, moves in business were bankruptcy frauds. In the 1960s the Mob moved on to an s&l scheme, as our news story explains.

The Mob's biggest action, outside of gambling, is now loan sharking—or the "juice" racket. Some experts claim that everybody—including the IRS and the Justice Dept.—underestimates the Mob's take in "juice" every year. It probably exceeds \$1 billion per year net. Relatively speaking, narcotics and prostitution are small potatoes.

"Juice" is the Mob's greatest threat to our industry. And there are three reasons why the Mob views builders as likely victims:

1. The mix of the industry. There are roughly 50,000 homebuilders in the U.S., and some estimates have it that 30% of companies in the business one year are not operating the next. Those 15,000 builders don't leave the business because they all made a million. A good portion of them quit because they can't get the money to stay in business.

2. The profits to be had in retailing lots or locations.

Smart retailing of land is the very heart of big success in almost any building operation. A builder who knows his market well can make a great deal of money on house sales where lot value has skyrocketed because of the good planning and amenities he has put into his project.

3. The way local agencies often make builders do business. Because of the fantastic degree to which our industry is regulated by bureaucratic agencies, it has become almost a way of life in some areas to smooth the path for a project by crossing a palm with silver. This is especially true if the builder has a lot of high-priced equipment and tradesmen, sitting around idle waiting for a bureaucratic okay or if delays are stretching out his construction loans. The pay-offs become almost a part of his budget and a way of staying in business. And the moral climate of his business is ripe for the Mob.

This is not to say that bureaucratic agencies of some city governments start off crooked—they don't. All it takes is one crooked politician on the make, and before long certain areas of city administration have turned crooked.

How can you tell that the Mob is moving in? The first warning sign is the guy who says he can get you the loan (that your bank won't give you) if you're willing to pay just a little more interest. You may be talking to the Mob. The second warning sign is very often a "labor consultant", who tells you that for a monthly retainer he can solve your labor problems. One of the nation's biggest builders unwittingly paid tribute to the Mob in this way for ten years.

Finally, if you get in real trouble and take a funny money loan from the Mob, they either "juice" you to death or take over your business. You become a "pencil" for the Mob—you sign the papers, and they take all the profits.

It isn't easy to face up to the fact that some areas of your business may not be conducted in a completely honest fashion. Nor is it easy to face up to the reality of organized crime. But face up we must. Every payoff adds to the cost of construction, and no payoff goes into a mortgage—or becomes a legitimate profit for anybody.

—RICHARD W. O'NEILL

Will conservative markets buy housing like this?

Builder Del Webb thinks so: He turned 90 acres of Oakbrook—a plush Chicago suburb—over to a top California architect, and came up with a townhouse project that's selling way ahead of schedule

One successful project doesn't necessarily signify a trend. But Briarwood Lakes's record—41 sales in two months at prices that start at \$65,000—suggests that at least some buyers are looking for more than just the typical house on typical subdivision land.

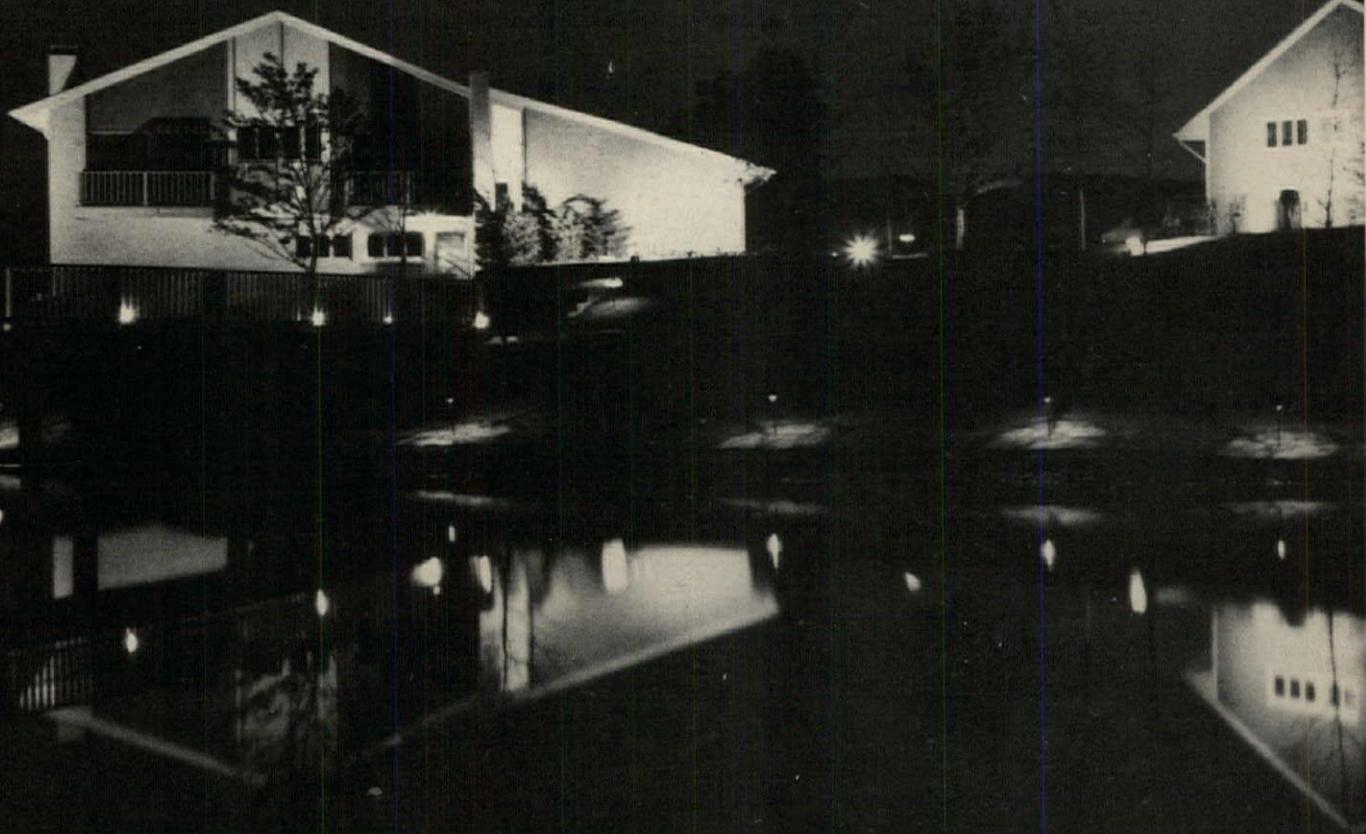
Briarwood Lakes is certainly atypical — particularly for the Midwest. Although its houses are attached (in groups of two and three), its density—two and a half units per acre—is definitely in the detached-house category. The lots are clustered. And the houses themselves are broken into levels in a most un-Chicago-like manner.

While Briarwood Lakes is not—strictly speaking—California architecture, its atmosphere strongly reflects the kind of excitement that California architects are bringing to merchant-built housing. Architect Richard Leitch (H&H, Feb. '67) and asso-

ciate William Walker have turned a piece of farmland and a single stream into an area of lakes, islands and peninsulas. To fit the rolling terrain, they designed a variety of uphill and downhill townhouses with high ceilings, balconies and open staircases. And to dramatize the project's features, they built a handsome bridge from the sales office to the model area (cover and p. 58).

The results have more than justified the effort.

"At least 10,000 people have been through the project since it opened," says William Doss, manager of residential development of Oakbrook Development Co. (a joint venture of Del E. Webb Corp. and Paul Butler, owner of Oakbrook's 4,000 acres). "We've had to shorten our timetable from three years to two. And five of our buyers moved out of detached houses selling for \$150,000 and up. We've really got something here."





SCHOOL

0 100 200 FT



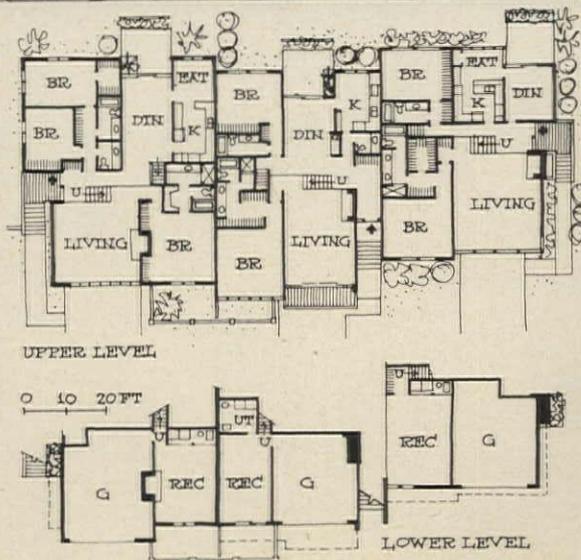
continued

A bridge leads visitors from the sales office into an eight-house model area

When the project's 211 units are sold out the bridge will be removed; until then it is a dramatic gateway to a landscaped cul-de-sac (not all the planting was completed when the photo at right was taken) around which the models, shown below and at right, are grouped. The basic price range is \$65,000 to \$75,000 (about \$20,000 represents land), and the average buyer spends another \$8,200 on extras and changes.



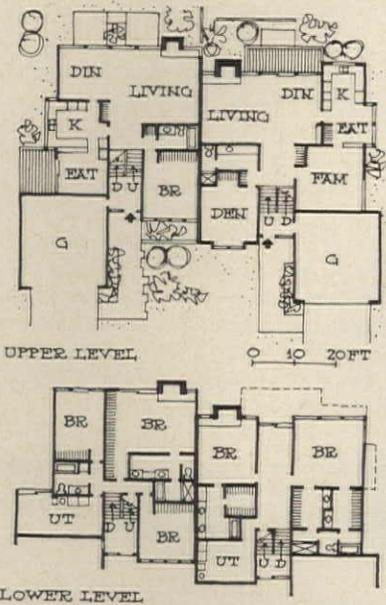
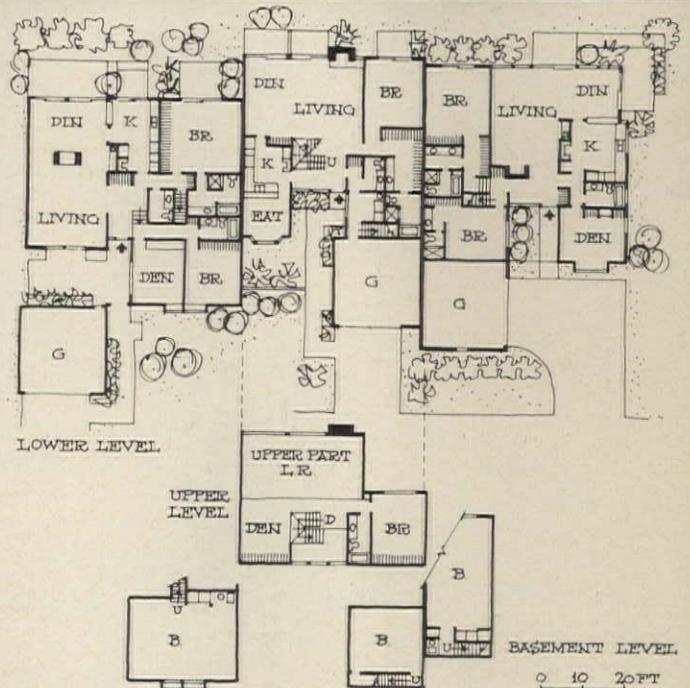
Photos: Julius Shulman



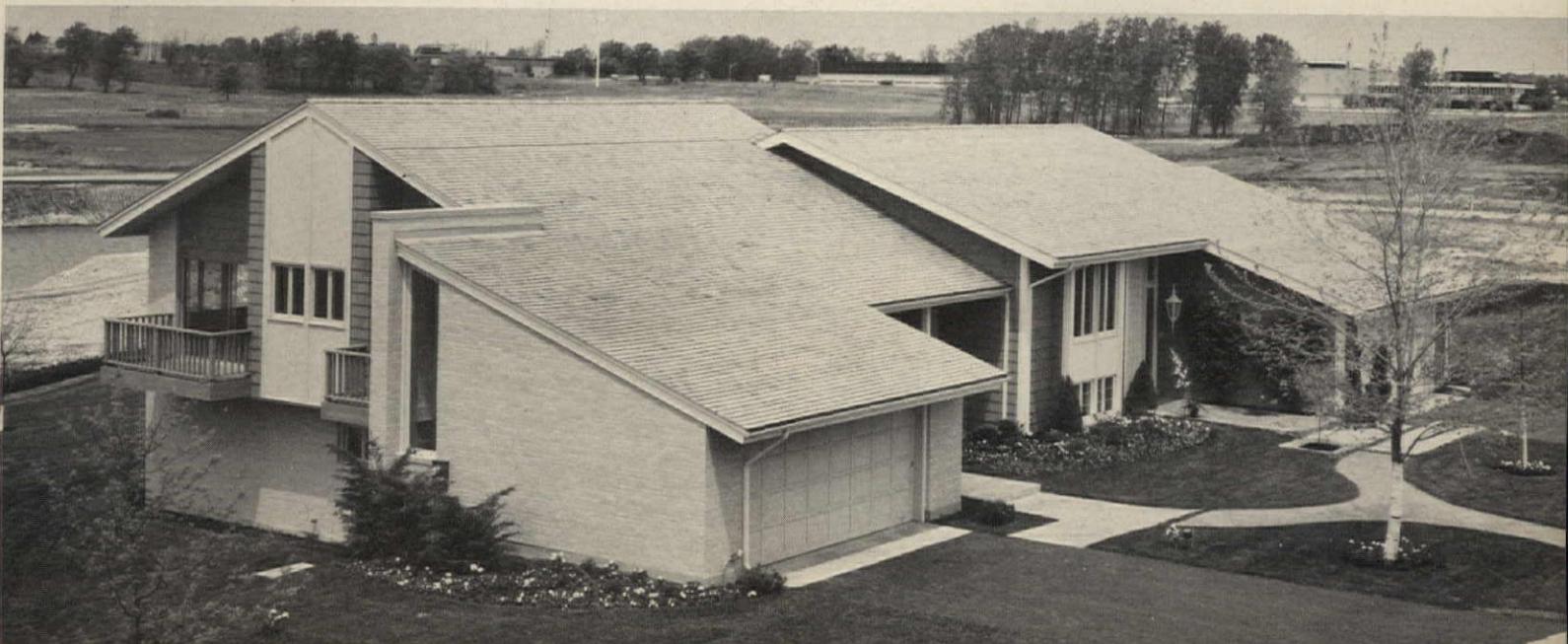
Uphill models have their garages tucked into the lower level. This is a three-house cluster; the entrances of the two end units are in their side elevations, while the middle unit's entrance is between two masonry fin walls. Says architect Richard Leitch: "We didn't try to use California exterior design. There was too much at stake here to risk doing something far out. Before we started we drove all over the Chicago suburbs, including the single-family areas of Oakbrook, taking pictures of houses in this price bracket. We studied things like window treatments, use of brick, etc., then worked the best of them into our designs. And we used two-car garages, although local people said this market didn't need them."



Flat-site models include the project's smallest model—2,300 sq. ft.—on the right of the group. These are the only models that have basements, and their plans are the most nearly conventional—by Chicago standards—in the project. Four of the eight houses in the model area could be furnished with three bedrooms. But since young children are not allowed in the project, in each case the third bedroom is furnished as a study. "So far," says manager William Doss, "there has been no such thing as a 'most popular' model. All have sold equally well. But a Spanish decorating scheme in one model has been unusually popular."



Downhill models have their living areas on the upper level and bedrooms below. This two-house group includes the project's biggest model (on the right in photo, *below*, and drawing, *left*) with 2,900 sq. ft. of area. The photo shows the nature of the terrain architect Leitch had to deal with. It is low and rolling, with average grade differences of about four feet—"just right for split-level models," says Leitch. "And when we dredged the lakes we used the fill to create more rolling land. This makes a much more interesting environment than flat land would, and also makes the project look less crowded."



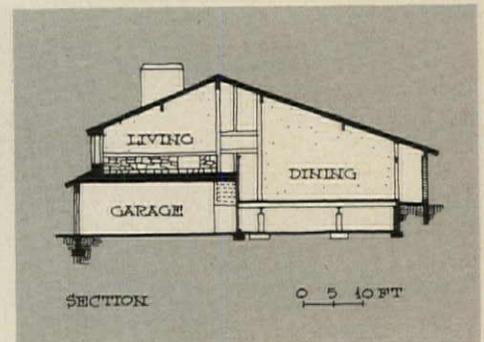
It's inside the houses that California excitement comes on strong

In some Briarwood models it starts at the entrance with walled courts like the one pictured at right. And all models have such dramatic features as cathedral ceilings, glassed gables and free-standing fireplaces.

"We want to create elegance," says Leitch, "and we also want to make the houses look as big as possible. A lot of our buyers are moving out of detached houses and are used to living in 3,000 or 4,000 sq. ft. of space."



Photos: Julius Shulman



Varied levels are a key part of Leitch's designs for the uphill and downhill models. These pictures and the drawing above are of an end unit in an uphill group: The living room at left is half a story above the entrance level, while the dining room shown below is at the entry level. This multilevel construction, coupled with the high ceilings, caused some initial problems because it is new to the area. Carpenters had trouble laying out the framing, and wallboard crews had to learn how to handle long lengths of board on the high ceiling peaks.





Interior decor walks a line between the elegance demanded by a high-income market and the attention-getting splashiness typical of California models (H&H, May). The living room shown above is in the largest downhill model; it has a balcony beyond the glass doors at right. Contrasting styles of free-standing chimneys include light cut stone and synthetic marble (*below*) and dark brick (*right*); both are in flat-site houses. The room shown at bottom right is a third bedroom furnished as a study. The louvered shutters at rear cover a window.



How major housing companies fared in latest 12 months

BALANCE SHEET AND INCOME STATEMENT ITEMS.

which may not coincide with latest 12 months

1967 rank	1966 rank	Year to	Revenue (000)	Per cent change	Net Income (000)	Per cent change	Income per share	Common Equity (000)	Preferred long-term debt (000)		
MERCHANT BUILDERS											
1		Jim Walter Corp.*	5	Feb. '68	217,509	+31	9,615	+34	3.13	.....	.....
2		Kaufman & Broad	3	Feb. '68	47,276	+6	1,875	+7	1.27	7,728	10,750
3		Deane Brothers (Occidental Pet.)	4	Dec. '67	29,270	-15.5	(89)	NA	0.68	10,508	64,481
4		Key Company (Kavanaugh-Smith)	9	Oct. '67	12,627	+26	276	+279	0.52	2,581	1,085
5		Sproul Homes	7	Jan. '68	9,770	-23	235	(loss in '67)	0.20	1,680	1,740
6		Development Corp. of America	10	Dec. '67	8,064	+5	166	+102	0.23	1,481	960
7		U.S. Home & Development	a	Feb. '68	7,775	+49	365	+244	0.70	1,441	2,080
8		Capital Building Industries	8	Dec. '67	5,889	-36	138	-57	0.01	1,320	3,229
9		Christiana Oil Nine months to Mar. '68	b	Mar. '68	5,226	-20	100	-70	0.04	12,229	7,003
MOBILE HOMES											
1		Skyline		May '68	107,683	+54.4	4,476	+105	3.60	NA	NA
2		Divco-Wayne (Boise Cascade)		Dec. '67	103,458	-5	3,971	+2½	2.00	NA	NA
3		Guerdon Industries	a	Apr. '68	83,300	+11	2,644	+280	0.76	NA	NA
4		Redman Industries	a	Mar. '68	52,629	+10	1,356	+3050	0.98	7,253	2,269
5		Champion Home Builders	a	Feb. '68	50,211	+54	823	+34	1.02	5,548	2,202
6		Fleetwood Enterprises	a	Apr. '68	48,852	+54.2	1,642	+121.6	1.45	4,782	.....
7		Conchemco	a	Oct. '67	46,719	-1.28	1,201	-25	1.28	16,100	4,561
8		DMH Corp.	a	Dec. '67	40,771	+18.6	29	+16	0.03	5,228	2,529
9		Princess Homes	a	Dec. '67	13,397	-3	548	+5	1.18	3,034	450
10		Town & Country	a	Oct. '67	12,857	+2.4	607	-6.6	.93	2,158	.....
PREFABRICATION COMPANIES											
1		National Homes	1	Dec. '67	54,947	-20	368	+418	0.08	35,133	19,568
2		Scholz Homes	4	Dec. '67	9,108	-17	420	+428	0.46	2,703	670
3		Continental Homes	7	Mar. '68	5,752	+39	317	+87	0.74	1,648	.....
4		Nationwide Homes	a	Mar. '68	1,935	+11.5	279	+16.8	0.47	2,898	1,282
5		Techbuilt	9	Dec. '67	1,081	+2.75	18	-52	NA	44	308
LAND DEVELOPERS											
1		Gulf American	1	Nov. '67	133,236	-16	16,459	-22	1.75	96,306	54,946
2		General Development	4	Dec. '67	54,098	+30	6,504	+61	0.86	58,901	41,835
3		Deltona	6	Dec. '67	26,648	+30	1,946	+12	1.52	14,397	27,224
4		McCulloch Oil	5	Dec. '67	24,905	+5	4,026	+32	0.93	20,943	17,098
5		AMREP (American Rity & Pet.)	9	Apr. '68	18,630	+52.1	3,870	+69.3	1.24	NA	NA
6		Horizon Industries	7	Feb. '68	17,145	-5	3,941	+100	1.14	9,137	14,512
7		Crawford Corp.	12	Dec. '67	6,997	+10¼	387	+37	0.55	5,476	.....
8		So. Rity & Utilities	14	Sept. '67	6,593	+396	1,232	+409	0.91	8,572	8,058
9		Holly Corp.	15	Jan. '68	5,473	-7	1,726	+89	0.08	6,576	5,714
10		Arvida Corp.	8	Dec. '67	5,040	+80	1,060	+56.7	0.18	67,299	25,142
11		Canaveral International	17	Mar. '68	4,201	-16	443	-59	0.77	4,808	2,021
12		Laguna Niguel 6 mos. to Jan. '68	18	Jan. '68	4,977	+249	814	+344	0.42	(338)	17,479
REALTY & DIVERSIFIED											
1		Del Webb Corp.	b	Dec. '67	151,165	-9	1,051	+38	0.16	23,461	109,370
2		Forest City Enterprises	b	Dec. '67	54,924	+13	1,522	+34	0.65	20,640	46,507
3		Tishman Realty & Const.	b	Sept. '67	30,808	+25	3,203	-21	1.93	18,769	93,946
4		General Builders	b	Dec. '67	16,936	-14	129	NA	0.10	4,779	8,121
5		Cousins Properties	b	Dec. '67	9,859	+23.3	888	+25	2.68	3,918	8,867
6		Presidential Realty	b	Jan. '68	9,063	+9	1,475	(loss in '67)	0.88	3,194	42,675
7		First Hartford Realty	b	Mar. '68	3,531	+32	762	+39	1.30	NA	NA
8		Edwards Industries	b	Mar. '68	1,389	+38	242	+92	0.87	1,852	1,116

*Not figured in industry averages.

()—(Loss)

NA—Not available or not reported by company.

a—Company added to chart this year.

b—Company changed from one category to another during year.

c—Excludes loss on unconsolidated subsidiary and special debit of \$1.34 million, equal to \$1.14 a share.

d—Before an extraordinary credit of 34 cents a share.

e—Before an extraordinary gain of \$38,300.

f—Excludes \$14.46 million sales of 50%-owned Marco Island Development Co.

g—Before extra gain of \$72,800.

h—Excludes gain of \$302,000 on the sale of a subsidiary, equal to 4 cents a share.

Data based on each company's fiscal year,
reported in previous columns.

Invested Capital (000)	Total Assets (000)	Institutional owners No.	sh (000)
.....	.....	23	781
18,478	33,439	7	302
74,989	103,247	70	6,460
3,666	8,611	NA	NA
3,420	7,292	None	...
2,441	5,173	NA	NA
3,521	4,854	NA	NA
4,549	6,863	NA	NA
19,232	25,008	None	...
NA	NA	1	9
NA	NA	55	1,149
NA	NA	None	...
9,522	15,296	2	25
7,750	14,746	1	4
4,782	10,407	2	30
20,661	24,858	1	1
7,757	16,018	None	...
3,484	5,289	None	...
2,158	3,999	1	0.6
54,701	61,457	4	131
3,373	9,846	2	23
1,648	2,976	NA	NA
4,180	4,991	NA	NA
352	497	NA	NA
151,252	351,510	1	9
100,736	188,337	4	579
41,621	64,181	2	16
38,041	59,751	6	86
NA	NA	1	39
23,649	45,474	None	...
5,476	9,074	NA	NA
16,630	19,169	None	...
12,290	17,261	None	...
92,441	103,236	3	22
6,829	10,592	None	...
17,141	21,231	None	...
132,831	193,444	None	...
67,147	86,207	None	...
112,715	169,183	None	...
12,900	20,720	None	...
12,785	15,641	NA	NA
45,869	51,937	None	...
NA	NA	NA	NA
2,968	5,766	NA	NA

i—After gain on sale of property and depreciation.
q—As reported by Standard & Poor's.

This chart of corporate progress shows . . .

Why publicly owned companies are drawing money into housing

Again HOUSE & HOME presents its annual report on housing's publicly held corporations—the companies by which Wall Street judges the whole industry. This year's analyst and author is uniquely qualified to judge both the companies' performance and the investment community's reaction. He is Kenneth D. Campbell, former



CAMPBELL

H&H news editor and now a writer and field analyst with Standard & Poor's, the investment advisory service.

The profit statements of housing's operating companies for 1967 tell a story of growing maturity and consistency, of confidence that any new credit crunch will be less fearsome than that of 1966. For while combined sales of the 43 companies surveyed by HOUSE & HOME rose only 7.6% to \$1.38 billion in their latest fiscal year, profit margins widened and earnings rose by 28.4% to \$70.4 million.

The chart at left shows that sales and earnings gains were widespread. Prefabrication companies, squeezed hardest by tight money in 1966, increased their profits 124% in 1967. Net income rose 36.6% for merchant builders, 74.1% for diversified companies and 63.2% among mobile home manufacturers. Land developers, whose earnings were affected the least by 1966, raised their profits only 7.6%.

The strength of this 1967 recovery has convinced both investors and giant industrial corporations that they can no longer dismiss homebuilding companies with the curt judgement, "Builders go bankrupt" (H&H, June '66). Moreover, the worst post-war mortgage credit crisis has now demonstrated forcibly that conservatively financed and aggressively managed building and land development companies can withstand recurring bouts with tight money better than the broad-based materials companies selling to a cross section of the housing and construction industry. Tight-money 1966 caused scarcely a ripple in the favorable earnings comparisons of such housing operatives as Levitt & Sons, Kaufman & Broad and Cousins Properties.

This consistency, plus economic forces pointing to rapid growth in housing demand over the next five years, has brought a dramatic improvement in the long-range

view of housing held by Wall Street's money managers and individual investors. As a result they are directing new flows of equity capital—the commodity housing needs most—into the industry through two major channels: purchase of housing stocks and direct equity investment in operating housing companies.

The stock route. Clear evidence of this new investor interest appears in the phenomenal rise of housing stock prices during 1967. They leaped by 90%, from January to January, on H&H's index of 25 issues covering all sections of homebuilding.

And price-earnings ratios, a measure of investor appraisal of future earning powers, have set records almost across the board. Merchant builder Kaufman & Broad sold at 7 times earnings two years ago; today the P-E ratio is a lofty 30.

Mutual funds, pension funds and other institutional investors have joined the rush into building stocks, nearly tripling their holdings of five institutional favorites in the past year. The current institutional holdings of this quintet—Boise Cascade, Jim Walter, General Development, Kaufman & Broad, and National Homes, which rank in that order—amount to 2,942,000 shares, up 192% from mid-1967, according to Standard & Poor's survey of holdings by more than 2,000 institutions.

Direct investment. Homebuilding is also getting a generous infusion of new equity capital from major corporations that are buying building companies. Boise Cascade, a building materials and paper producer, emerged as housing's biggest corporation last year through acquisition of six companies (see p. 67).

International Telephone & Telegraph became the second largest by purchasing Levitt & Sons early this year. American Standard acquired Los Angeles builder Bill Lyon. And Jim Walter expanded its shell-home sales to \$38.2 million last year.

Not all direct investment comes through outright purchase, however. Early this year five materials producers joined three financial institutions to form Builders Resources Corp. as a private company. Builders Resources is starting out with \$8 million to provide builders with 80% of the equity money for new projects in return for 50% of the profit (NEWS, May).

The confidence of the new equity investors is supported in large part by the evidence of growing sophistication in the management of capital. To see how public companies widened profit margins and increased return on equity, turn the page.

Profit margins: Despite inflationary pressure, builders are finding new ways to cut unit costs

Profits rebounded sharply last year.

Four of the five building-industry groups widened their profit margins (table, right), and the fifth group, land developers, held its own with a high 12.5% after-tax margin.

The merchant-builder group increased its average profit margin to 2.3% from 1.7%. Six of the nine companies surveyed widened their spreads. Jim Walter posted the best margin, 6.0%, based on estimates from company reports.* Top honors among the independent builders went to U.S. Home & Development of Freehold, N.J., which carried 4.7% of its \$7.8 million sales through to net income.

Lower costs. The leaders usually prospered by reducing costs instead of raising prices, although price increases did occur.

In the fiscal year ending February 29, U.S. Home reduced its total costs (excluding only interest and depreciation) from 96.0% to 89.5% of total sales. Interest expense declined from 4.8% to 3.3% of total house costs. With the widening of margins, U.S. Home profits rose 244% on a 48% increase in sales.

Both Kaufman & Broad and Key Co. (formerly Kavanagh-Smith of Greensboro, N.C.) reported dramatic reductions in their cost of goods sold (an account including direct land, labor and material costs). These costs dropped both as a percentage of sales and in actual dollar amounts. Since the two companies now follow the NAHB uniform accounts classification and make unit sales known, their results reveal the cost ratios achieved by successful large-volume merchant builders.

For Key, the cost of goods sold declined from 82.1% to 77.8% of sales. That means that Key's markup over direct costs automatically rose from 21.8% to 28.5% in the company's determination of selling prices. Key's sales and cost dollars were broken down like this on a per-unit basis for fiscal 1967 (ending October 31):

COST PER UNIT—KEY CO.

	1966		1967	
	Amount	%	Amount	%
House sales.....	\$18,675	95.5	\$19,320	98.1
No. of units.....	551		641	
Other sales.....	875	4.5	370	1.9
Total.....	\$19,550	100.0	\$19,690	100.0
Cost of sales.....	16,035	82.1	15,315	77.8
Finance expense.....	1,470	7.5	1,460	7.4
Marketing expense.....	885	4.5	1,035	5.3
Gen. & admin.....	865	4.4	1,070	5.4
Pretax profit.....	\$ 295	1.5	810	4.1

The Key way. President Paul Schnable Jr. explains that Key cut costs in four ways:

1. When Schnable took over the com-

* The Jim Walter figures were not included in the computation of the merchant-builder averages.

pany in 1966, virtually every one of 400 houses on hand was a custom design. He and Chairman W. Griswold Smith reduced this conglomeration to 15 basic models.

2. Key standardized components and measurements. Examples: All houses are now 25' wide, all have a 5-in-1 roof pitch, and a wide variety of optional windows has been reduced to two or three designs.

3. Key began scheduling work of its subcontractors at least 90 days forward, enabling the subs to compute personnel and materials requirements in advance. Productivity increased, and Key renegotiated labor contracts, winning a lower labor cost per unit in return for assuring unions of a longer work period in each year.

4. Key raised unit volume by 17% in fiscal 1967, spreading the general and administrative burden over more units. Schnable predicts Key will increase dollar volume to at least \$17 million this year, a 34% gain, and will show another slight decrease in the unit cost of goods sold. And, he adds, if mortgage discounts ease, profits could advance even more.

The K&B way. Kaufman & Broad, which sells in Los Angeles, Phoenix, Chicago and Detroit, slashed its cost of goods from 81.3% to 78.2% of total sales, widening its markups from 22.8% to 27.9% in pricing its units.

The difficulty of achieving such low cost-of-goods percentages—anything below 80%—is illustrated by figures for Levitt & Sons, generally considered an extremely efficient builder. Levitt's cost-of-goods ratio never dropped below 80.3% in its last five years as an independent company and its markup over direct costs never rose above 24.5%.

The K&B sales breakdown for fiscal 1967 (ending November 30) provides slightly more detail on financing costs; otherwise the following accounts are quite comparable to those of Key Co.:

COST PER UNIT—KAUFMAN & BROAD

	1966		1967	
	Amount	%	Amount	%
Sales.....	\$18,190	100.0	\$18,240	100.0
No. of units.....	2,383		2,450	
Cost of sales.....	14,790	81.3	14,270	78.2
Customer finance.....	365	2.0	510	2.8
Net interest.....	260	1.4	300	1.6
Marketing expen.....	900	4.9	1,205	6.6
Gen. & admin.....	810	4.4	730	4.0
Pretax profit.....	1,065	5.9	1,245	6.8

The K&B purchasing department has always shown an uncanny ability to buy wisely. Last year the company also managed to reduce its expenses for labor, and K&B's access to the national money markets enabled it to avoid costly construction loans.

PROFIT MARGINS

Net income as a percent of sales

Company 1967-8 1966-7

MERCHANT BUILDERS

*Jim Walter Corp. (building)	6.0e	4.9e
U.S. Home & Development	4.7	2.0
Kaufman & Broad	3.9	3.5
Sproul Homes	2.6	def.
Key Co. (Kavanagh-Smith)	2.2	0.7
Devel. Corp. of America	2.1	1.1
Christiana Oil	2.1	10.4
Capital Building Industries	0.2	0.3
Deane Brothers	def.	1.2
GROUP AVERAGE	2.3	1.7

MOBILE HOMES

Town & Country	4.7	5.2
Skyline Corp.	4.2	3.1
Princess Homes	3.9	3.8
Divco-Wayne (Boise Cascade)	3.8	3.5
Fleetwood Enterprises	3.4	2.3
Guerdon Industries	3.2	1.5
Redman Industries	2.6	0.9
Conchemco	2.5	3.4
Champion Home Builders	1.7	1.2
DMH Corp.	0.1	def.
GROUP AVERAGE	3.1	2.1

PREFABBERS

Nationwide Homes	14.4	13.8
Continental Homes	5.5	4.6
Scholz Homes	4.6	0.7
Techbuilt	1.7	3.6
National Homes	0.7	0.01
GROUP AVERAGE	1.6	0.4

LAND DEVELOPERS

Canaveral Intl.	24.2	15.5
So. Realty & Utilities	18.7	27.2
AMREP Corp.	20.8	18.8
McCulloch Oil	16.2	12.2
Gulf American Corp.	12.8	15.4
Horizon Corp.	12.7	10.0
General Development	12.0	9.7
Holly Corp.	10.9	11.7
Deltona Corp.	6.5a	5.6
Arvida Corp.	5.7	6.2
Crawford Corp.	5.4	0.2
Laguna Niguel	def.	1.5
GROUP AVERAGE	12.5	12.5

REALTY AND DIVERSIFIED

First Hartford Realty	21.6	def.
Presidential Realty	15.9b	def.
Cousins Properties	9.0	8.9
Tishman Realty & Const.	7.2	10.3
Edwards Industries	3.4	2.4
Forest City Enterprises	2.7	2.2
General Builders	0.8	def.
Del Webb Corp.	0.7	def.
GROUP AVERAGE	3.1	1.8

a—Excludes sales at 50%-owned Marco Island Development

b—Includes gain on sale of properties

e—Estimated from company prospectuses

*—Not computed in averages

Return on equity: A new sophistication appears in the refined techniques of managing leverage

As many housing companies learned to their chagrin in the credit squeeze of 1966, leverage can be a severe handicap when fixed charges erase the earnings available to common stockholders.

But operating a housing company without some leverage—that is, some long-term debt or other senior capital—is usually impractical because of capital requirements during the long lead time necessary for construction. In fact, only three of 43 companies surveyed by H&H rely entirely on equity.

Management's task is to blend long-term debt and common equity so as to earn a maximum return on equity with a minimum risk. Such factors as profit margins and capital turnover also affect the final outcome, but the principal test is a successful manipulation of leverage. Several lessons emerged from housing company operations last year.

The tables at right report the leverage factor for each company at the beginning and end of the latest fiscal year. The leverage factor is the percentage of common equity in total invested capital, defined as the total of common and preferred stock and long-term debt, excluding current maturities. This factor is merely a simpler way of expressing the debt-equity ratio used in prior H&H surveys. For this analysis, construction loans are classed as current liabilities under the assumption they will be extended if not liquidated during the year.

A winner and a loser. A small 34% equity base for U.S. Home & Development worked to the company's advantage, and a year without problems resulted. The company posted the largest return on equity, 33.9%, among merchant builders. Although U.S. Home added to its construction loans during the period, common equity had risen to 39% of capital when the fiscal year ended February 29.

In sharp contrast was the experience of another building company that started with a 19% equity base, the Deane Brothers subsidiary of Occidental Petroleum. Despite a strong fourth quarter that nearly wiped out earlier losses, Deane reported a loss of \$89,000 on sales of \$29.3 million in calendar 1967. The loss, plus an \$11.5 million increase in long-term debt to \$35.6 million, trimmed the company's equity base even further by year end—from 19% down to 15% of Deane's capital.

Deane has sustained its far-flung operations (assets amount to \$103.8 million) on its ability to draw loans and advances

from its parent. At year-end this half-debt, half-equity type of financing amounted to \$28.9 million, up \$6.6 million in 12 months.

Debentures as a tool. Such merchant builders as Key Co. and the Development Corporation of America concentrated on building their equity bases by reducing their long-term borrowings or holding them level. Kaufman & Broad, the builder with the largest equity base (70%) going into the year, confidently stepped up its borrowing by selling \$5 million worth of convertible debentures.

The debenture route permitted K&B to sell its issue at the remarkably low interest of 5½% and to pay an underwriting commission of only 2.5%. The proceeds of \$4,875,000 went to reduce short-term debt, and net income of \$1.76 million raised the company's equity to \$7.7 million. This in turn let K&B arrange a \$12 million line of unsecured bank credit with Detroit's Bank of Commerce, half in the form of a five-year term loan, so that equity declined to 40% of capital by the end of the year.

A big gain for Scholz. Mobile-home and prefabrication companies varied their capital structures but little last year. An exception was Scholz Homes, which had an 18.4% return on equity that permitted a 20% reduction in long-term debt and an increase in the equity base to 80% of total capital.

Realty and diversified companies continued to operate with a high degree of leverage and few sizable changes in capital structure. Since their long-term debt is usually secured by apartments, commercial buildings and other revenue-producing property, the risk from high leverage is minimized. Presidential Realty, with its 4% equity base, returned 80.2% on its equity, highest among the companies surveyed. First Hartford Realty, which had the second highest leverage factor, also had the second highest return on equity. Cousins Properties, an Atlanta realty and building company, increased its debt through some innovative financing (*see p. 67*), but an even larger addition to equity from a strong profit showing reduced its leverage factor.

Canaveral International reported the highest return on equity among land developers—30%. Canaveral's forte has been an above-average turnover of inventories and assets (*see following page*), permitting it to make the largest increase in its equity from an average 57% to 71% of total capital.

RETURN ON EQUITY

Net income as % of common equity

Company	% Return	Leverage*	
		Beg. of year	End of year
MERCHANT BUILDERS			
U.S. Home & Devel.	33.9	34	39
Kaufman & Broad	27.8	70	42
Sproul Homes	20.6	42	48
Devel. Corp. of America	12.6	53	55
Key Co. (Kavanagh-Smith)	11.6	65	70
Christiana Oil	1.6	61	60
Capital Building Industries	1.1	56	29
Deane Brothers	def.	19	15
GROUP AVERAGE	8.0	36	31
MOBILE HOMES			
Skyline Corp.	49.0	100	NA
Fleetwood Enterprises	48.0	100	100
Town & Country	34.8	100	100
Guerdon Industries	33.2	58	NA
Redman Industries	23.2	70	76
Princess Homes	20.0	82	87
Divco-Wayne (Boise Cas.)	18.3	69	NA
Champion Home Builders	16.3	67	72
Conchemco	7.7	77	78
DMH Corp.	0.4	86	68
GROUP AVERAGE	21.7	71	79
PREFABBERS			
Techbuilt	72.0	11	13
Continental Homes	23.7	100	100
Scholz Homes	18.4	73	80
Nationwide Homes	10.4	67	69
National Homes	1.1	64	64
GROUP AVERAGE	2.9	63	66
LAND DEVELOPERS			
Canaveral Intl.	30.0	57	71
Horizon Corp.	23.1	39	39
AMREP Corp.	25.4	87	NA
Gulf American Corp.	21.3	60	64
McCulloch Oil	20.9	59	55
So. Realty & Utilities	20.1	48	52
General Development	12.6	55	59
Deltona Corp.	12.2	42	35
Holly Corp.	11.5	39	54
Crawford Corp.	7.6	91	100
Arvida Corp.	1.6	70	73
Laguna Niguel	def.	1	def.
GROUP AVERAGE	14.2	57	58
REALTY AND DIVERSIFIED			
Presidential Realty	80.2	4	7
First Hartford Realty	31.9	11	NA
Cousins Properties	27.9	27	31
Tishman Realty & Const.	19.5	18	17
Edwards Industries	13.1	62	62
Forest City Enterprises	7.8	34	31
Del Webb Corp.	4.7	16	18
General Builders	2.8	33	37
GROUP AVERAGE	12.8	19	20

Based on common stockholders' equity at beginning of fiscal year. Invested capital includes equity, preferred stock, and long-term debt.

*Leverage factor is common equity as a % of invested capital.

Return on invested capital: Managers strive to speed turnover of assets and inventories

The table at right reveals the unmistakable relationship between a company's asset and inventory turnover and its return on total invested and borrowed capital.

The company with the highest return on capital in each division usually reports the highest turnover ratios; if not, it posts ratios well above average.

Take Skyline Corp. of Elkhart, Ind., the largest mobile-homes maker. It earned 49% on its capital last year by turning assets into sales 8.03 times and inventories into sales 62 times. Those are not only the best turnover ratios for mobile-home companies. They are tops for all 43 companies in this survey. Skyline hasn't any long-term debt, so this performance also enables it to report an extremely high return on stockholder equity.

Another mobile-homes maker with rapid turnover, Fleetwood Enterprises, avoids inventory by building mobile homes and travel trailers only on orders. Such a policy requires a strong sales effort to keep new orders arriving and minimize plant downtime. Fleetwood solves this problem by concentrating on the lower end of the price line, from \$3,500 to \$7,000, where sales and inventory can be turned most rapidly because of greater demand.

Merchant builders. Kaufman & Broad, a builder, succeeds with much the same approach, although its asset turnover is much lower. Its assets on hand to start 1967 were turned into sales 1.69 times—the highest ratio in the builder category. Inventory was turned 2 times, a rate somewhat lower than the company's 2.5 average in recent years but still strong for the division.

Kaufman & Broad relies on four operating policies to maintain its advantage:

- It makes no heavy investments in land, buying lots only when they are needed for houses.

- It precludes heavy commitments to unsold inventory by matching production and sales so closely that 95% of its houses are sold before completion.

- It relies on FHA-VA financing to escape the costly—and risky—investment in second mortgages that is common for many builders, particularly in California.

- It avoids heavy purchases of fixed assets by relying heavily on subcontractors. President Eli Broad operated a \$44.7-million business with less than \$1 million of fixed assets.

Joint venturing. Several diversified real estate companies have moved deeply into joint venturing to increase assets (and earning power) without adding to invested

capital either through extra debt or equity contributions. Forest City Enterprises of Cleveland and Cousins Properties of Atlanta, both posting above-average returns on capital, are excellent examples.

Joint ventures will permit Forest City to continue expanding operations beyond its Cleveland base. The company took a 50% interest in an 1,100-acre tract near Buffalo last year for residential-commercial development. It will also build 350 apartment units in joint ventures this year, along with 379 wholly owned units.

Cousins increased the assets of its joint-venture projects 6½ times last year, to \$17.4 million, and proposes to expand that to \$40 million in 1968. The company says this "technique of growth" lets it expand rapidly while holding within a self-imposed ratio of 3-to-1 between debt and equity.

Cousins acts as work partner in a typical deal, controlling management and operations in return for half equity. The company's five active joint ventures had a cash investment of only \$66,477 last Dec. 31.

President Thomas G. Cousins says financial partners are becoming easier to find.

"There has been a dramatic change in the thinking of money managers across the country," he explains.

"Financial institutions and investors have turned to real estate as a hedge against inflation and to improve yields. This trend, coupled with our company's ability to undertake larger and more diverse developments, has broadened the base for the joint-venture program."

A rich opportunity. Cousins says few companies are capable of acting as development partners in large joint ventures attractive to institutions. He adds:

"We have observed that opportunity increases rather sharply at each level of growth. The marketplace abounds with such opportunities."

Cousins has five joint ventures going with Fidelity Mutual Life of Philadelphia: an apartment-and-golf course complex and an office building in Atlanta, and office-building, air-rights and redevelopment projects in Burlington, Vt. Investor David Rockefeller, the Citizens & Southern Bank in Atlanta and the Southern Railway have agreed to join Cousins for two projects this year.

"Thanks to joint venturing, the supply of equity capital appears secured for the foreseeable future," says Cousins.

To insure long-term financing for its housing operations, the company has worked out one of the industry's most unusual arrangements. For details, see the facing page.

RETURN ON CAPITAL

Net income as % of invested capital*

Company	% Return	Turnover ratios †	
		Total Assets	Avg. Invent.
MERCHANT BUILDERS			
Kaufman & Broad	19.5	1.69	2.07
U.S. Home & Devel.	11.4	1.24	2.74
Sproul Homes	8.5	1.32	2.66
Key Co. (Kavanagh-Smith)	7.5	1.60	1.96
Devel. Corp. of Amer.	6.7	1.54	3.27
Capital Bldg. Indus.	0.6	1.14	6.03
Christiana Oil	1.0	0.33	1.14
Deane Brothers	def.	0.34	0.62
GROUP AVERAGE	2.9	0.74	1.35
MOBILE HOMES			
Skyline Corp.	49.0	8.03	62.00
Fleetwood Enterprises	48.0	6.76	27.00
Town & Country	34.8	4.10	12.50
Guerdon Industries	19.4	4.30	15.80
Princess Homes	16.5	3.21	9.85
Redman Industries	16.4	4.20	17.15
Divco-Wayne (Boise Cas.)	12.7	2.24	6.95
Champion Home Builders	10.9	3.56	8.26
Conchemco	5.9	1.90	7.00
DMH Corp.	0.4	3.12	12.91
GROUP AVERAGE	16.2	3.71	10.41
PREFABBERS			
Continental Homes	23.7	2.52	8.95
Scholz Homes	13.5	1.00	1.58
Techbuilt	8.2	3.42	16.28
Nationwide Homes	7.0	0.41	12.10
National Homes	0.7	0.93	4.45
GROUP AVERAGE	1.9	1.01	3.77
LAND DEVELOPERS			
AMREP Corp.	22.1	0.61	3.28
Canaveral Intl.	17.2	0.47	5.38
Gulf American Corp.	12.7	0.40	3.00
McCulloch Oil	12.3	0.55	10.06
So. Realty & Utilities	9.6	0.45	1.31
Horizon Corp.	8.9	0.73	1.05
Crawford Corp.	6.9	0.69	1.42
General Development	6.8	0.31	1.18
Deltona Corp.	5.2	0.60	2.20
Holly Corp.	4.4	0.29	1.70
Arvida Corp.	1.1	0.18	3.01
Laguna Niguel	def.	0.09	0.60
GROUP AVERAGE	8.1	0.37	2.10
REALTY AND DIVERSIFIED			
Edwards Industries	8.2	1.49	3.16
Cousins Properties	7.5	0.66	1.18
Tishman Realty & Const.	3.5	0.60	NA
First Hartford Realty	3.4	0.14	NA
Presidential Realty	3.2	0.18	NA
Forest City Enterprises	2.7	0.78	14.45
General Builders	0.9	0.63	1.85
Del Webb Corp.	0.8	0.78	11.30
GROUP AVERAGE	2.4	0.55	NA

† Turnover ratios are number of times assets at beginning of year and average inventories were converted to sales in latest fiscal years.

* Based on invested capital and total assets at beginning of latest fiscal year. Invested capital includes common equity, preferred stock, and long-term debt. NA—Not available or not applicable.

New champ: Six purchases make Boise Cascade the housing industry's largest conglomerate

An aggressive move into housing has enabled this materials producer from Boise, Idaho, to report combined sales of \$172.1 million to the shelter market—the highest in the industry.

Boise's operations now extend from land development to house and apartment construction to mobile homes and urban renewal. Its housing sales are well above the \$123 million reported by Levitt & Sons, now a subsidiary of International Telephone & Telegraph.

Boise acquired the second-largest mobile maker, Divco-Wayne, in January 1968. And Divco's figures are included in Boise's 1967 results, adding \$103.5 million in sales and \$3.97 million in profit. That's what vaulted BC into the lead.

Prefabbers and builders. Boise's sales to other housing markets totaled \$68.6 million. Its prefab division, Kingsberry Homes, increased sales of homes and apartments by 18%, to 5,019 units (*table, right*), and plant expansions will increase the com-

pany's annual production capacity to 9,000.

Boise's homebuilders are Perma-Bilt in the San Francisco area and the R.A. Watt Co. in Los Angeles. Watt, a joint venture that became a full subsidiary at year's end, earned \$526,000 on \$24.5 million in sales in the 39 weeks ending July 27, 1967. The full-year results for Watt and Perma-Bilt have not been disclosed.

Land developers. Boise acquired three developers during the year—U.S. Land, Lake Arrowhead Development and Pacific Cascade Land—and also activated an urban renewal department.

For all of its 1967 acquisitions, Boise gave 3,052,284 shares of common (including potential conversions). At the year's average share price of \$33.94, Boise's entry into housing was worth \$107 million, and that is \$177 million at current prices.

Those purchases, along with IT&T's acquisition of Levitt for \$59.7 million, easily represent the largest direct investment in the housing industry in one year.

New under the sun: Cousins Properties comes up with better ways to arrange long-term financing

Two new debt devices illustrate the growing sophistication of housing's young managers toward long-term financing.

Both were designed by President Thomas G. Cousins and his financial staff. Their object: to attract long-term capital while avoiding the drawbacks of traditional financing methods.

Tom Cousins decided long ago that insurance companies were his best source of long-term capital. But he wanted to use bond financing, and the companies' real estate departments were oriented toward mortgages.

So Cousins made a key decision: Deal with the bond departments. He took them two proposals.

The 20-year bond-note plan. One new method involves a 5- and 15-year bond and note package. Cousins likens the combination to a construction loan for which he has arranged a long-term take-out.

During the first five years Cousins will issue \$5 million worth of 90- and 120-day commercial paper at 5¾%, rolling over these notes as they fall due. A letter of credit from a bank supports the paper. As collateral, Cousins pledges a 15-year note that an insurance company has agreed to buy in five years, or in January 1973.

During the next 15 years the insurance

company buys the note, which Cousins has now converted into a 15-year secured bond at 6½%. Cousins uses the proceeds to retire the commercial paper.

The 6% secured bond. The company's other method is to sell a 6% bond to an insurance company. The bond, due in 1980, is secured by collateral held by a bank trustee.

The collateral may be preferred stock or raw land at two-thirds of value; Cousins can decide which, depending on land needs. This is a welcome advantage for a company whose requirements fluctuate widely.

The bond provides long-term funds for land development, enabling Cousins to avoid the traditional short-term land loan.

Cousins had wanted to do its land financing with insurance companies, but it had learned that they avoided land-development loans because of cumbersome paperwork.

Once again Cousins found a solution in the companies' bond department. They were perfectly willing to buy a bond secured by stock or land.

Cousins initially bought stock with the \$1.4 million in bond proceeds, the advantage being that 85% of the dividends from preferreds are exempt from corporation income taxes. But when funds for land development are needed, the stocks will be sold and raw land will be substituted.

BOISE'S GROWTH

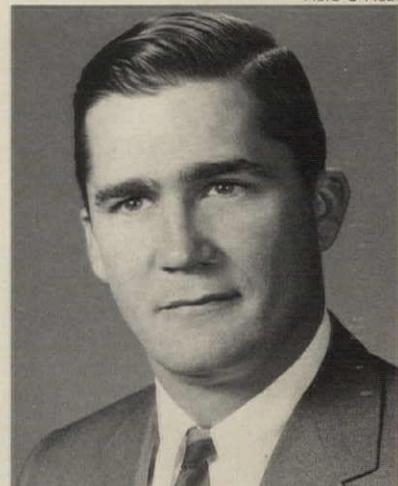
Production statistics

	1967	1966
Single-family		
On-site	1,297	
Manufactured	4,352	3,827
Apartments		
On-site	486	
Manufactured	667	415
Mobile homes	13,854	
Travel trailers	6,600	
Industrial (th.sq.ft.)	700	

1967 acquisitions

	Price	
	Convertible preferred	Common
Divco-Wayne	805,164	386,111
Perma-Bilt	107,000	346,706
U.S. Land		400,000
Lake Arrowhead Dev.		299,250
R.A. Watt (50% interest) and others		233,822
Total common		1,665,889
Common reserved for pfd.		1,386,395
Total		3,052,284

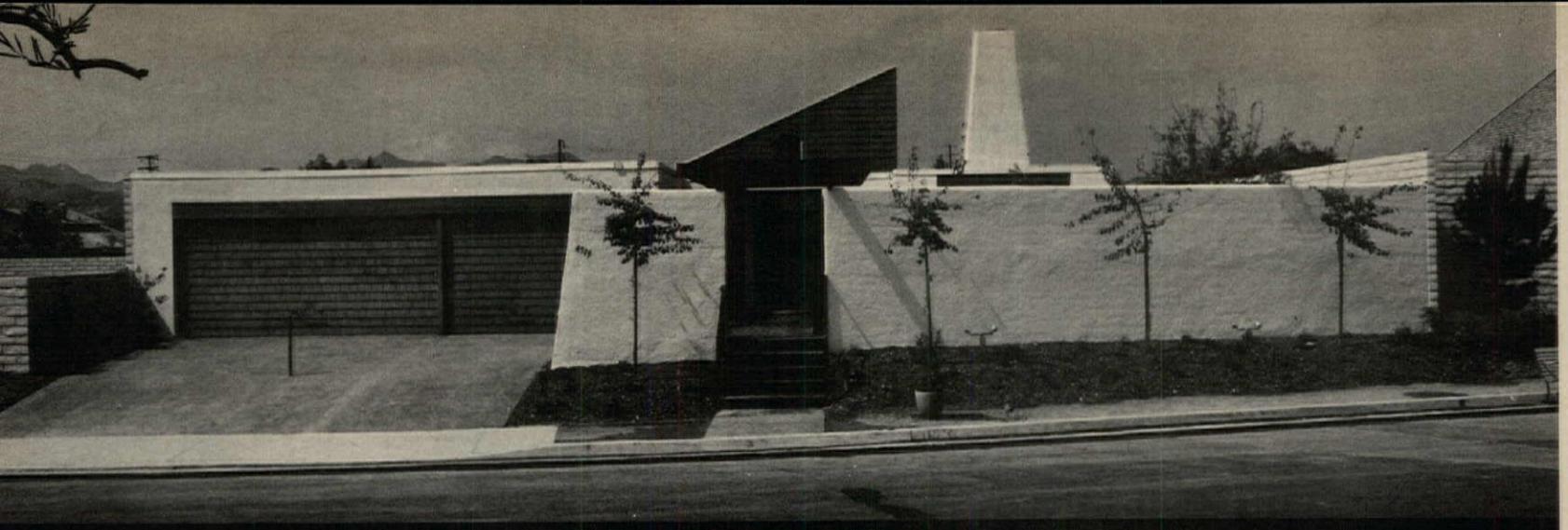
Herb O'Neal



THOMAS G. COUSINS
President



CECIL D. CONLEE
Financial Vice President





Nine merchant-built award winners

Cited in the 1968 Homes for Better Living program, the houses at left reinforce what architects and builders have known for a long time—namely, that most design innovation starts in the Far West.

Of the nine award winners, seven are from California, one from Washington and one from Arizona.

Eighty-eight merchant-built houses were entered in the annual program sponsored by the American Institute of Architects, *HOUSE & HOME* and *American Home* magazine. The winners range in price from \$18,250 to \$115,000. Some are production models designed for repetition in one or more subdivisions. Others are one-of-a-kind houses that make the most of special locations. And, significantly, four winners are examples of the walled-lot house—a recent innovation that has already rolled up impressive sales records.

For a close look at the winners, see the next 14 pages.

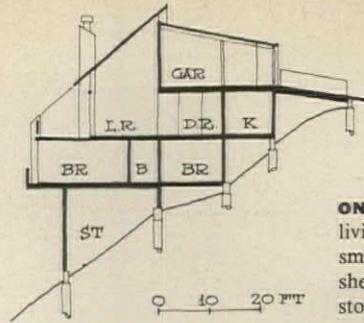


THE JURY (left to right): architect John L. Schmidt of the U.S. Savings & Loan League, chairman; builder Otto Papparazzo, architect K. Zane Yost, Building Editor (and architect) Alan Borg of *American Home*, architect A. Robert Fisher, architect Gene Leedy, *HOUSE & HOME* Senior Editor James Gallagher.

FIRST HONOR AWARD

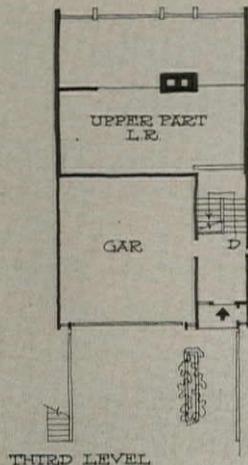
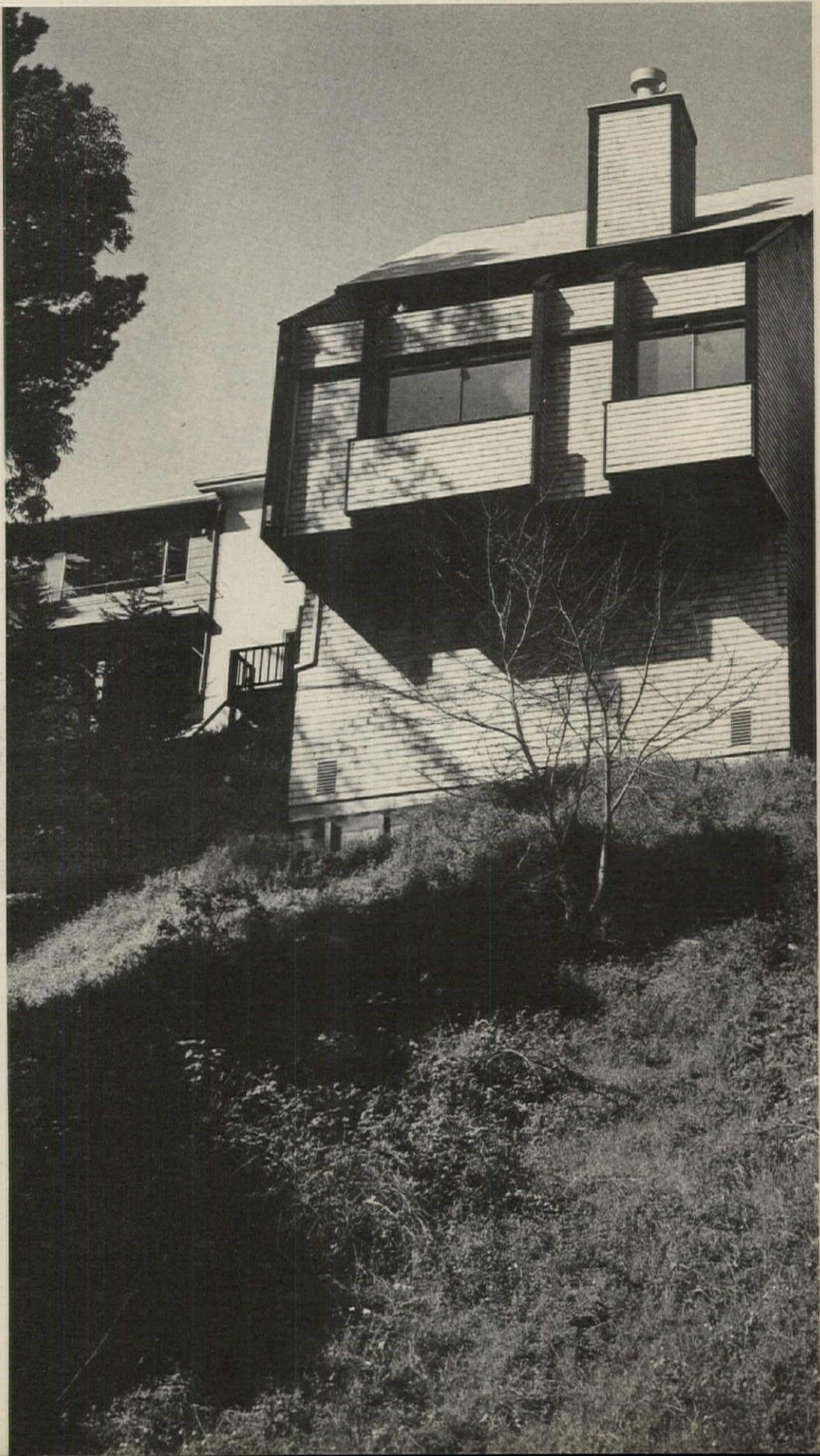
BUILDER: William Asbell
 ARCHITECT: Jonathan Bulkley; Ronald Bogley and Takeshi Yamamoto, associates
 LOCATION: San Francisco
 PRICE: \$65,000

This pair of hillside houses was designed to fit two narrow (33') problem lots. The sites were considered unbuildable—and thus unsalable—for years because of the precipitous slope (63%) and unstable soil—10' to 15' of fill covered the original grade. For each house, ten concrete piles were driven 22' to bearing sand, then topped by a grade beam foundation. The two plans (one is shown below) are mirror images of each other. Their three floors step down the hill from a street-level entrance.

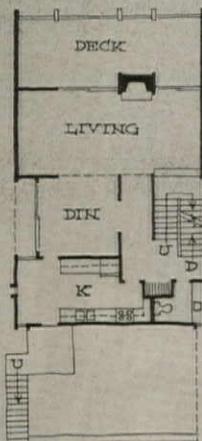


ON DOWNHILL SIDE (below) large living-room deck (26'x10') and small bedroom balconies break up sheer wall that rises almost four stories from foundation.

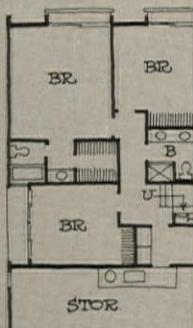
Photos: Joshua Freiwald



THIRD LEVEL



SECOND LEVEL



FIRST LEVEL 0 10 20 FT

ON UPHILL SIDE (*right*) bridges from street to top-floor garages and entries were necessary because site had no usable level area. Clerestories help light living rooms.



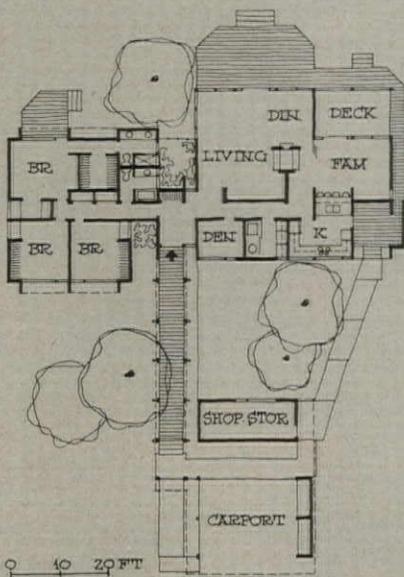
TWO-STORY LIVING ROOM is full 26' width of house and opens to rear deck. Stairway landing (*left*) overlooks room, and bookshelves (*below*) line one end.



HONORABLE MENTION

BUILDER: *O.E. McConnachie*
 ARCHITECT: *Ridenour & Cochran*
 LOCATION: *Kirkland, Wash.*
 PRICE: *\$37,000*

Much of the design of this house grows out of its site—a beautifully wooded lot. Decks on two sides are cantilevered just above the ground so the house seems to float over the natural cover, and there are no perimeter foundations to injure the roots of nearby trees. Exterior walls are a combination of prefinished and rough-sawn plywood panels that blend into the site. And the plan is offset and stretched out to fit among the biggest and best trees. This last feature brings an added benefit: an unusually well-zoned plan. Living and sleeping areas are completely separated by the entry foyer, and the carport and shop are more than 30' from the main house.



COVERED ENTRY DECK starts at storage shed, right center. Garage, right foreground, was sited at front of lot to reduce driveway paving.



REAR DECK (*below*) is cantilevered. One end (*right*) is set into corner of house and carpeted to form outdoor extension of family room.



Photos: Charles R. Pearson



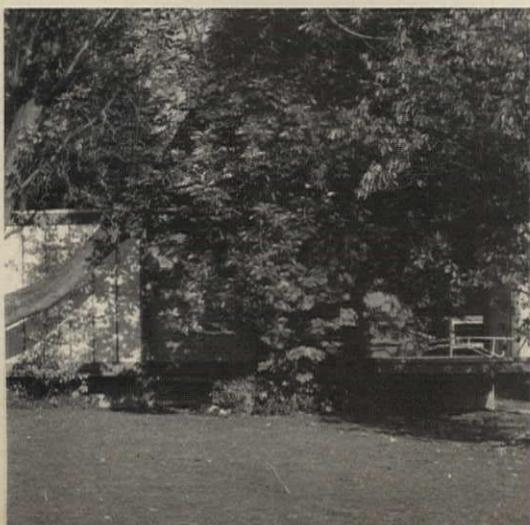
THREE-WAY FIREPLACE, seen here from family room, also opens into dining and living rooms. All major traffic areas have brick-tile floors.



STUDY ALCOVE with built-in desk is separated from master bedroom by spur wall. Similar desks are built into the other two bedrooms.



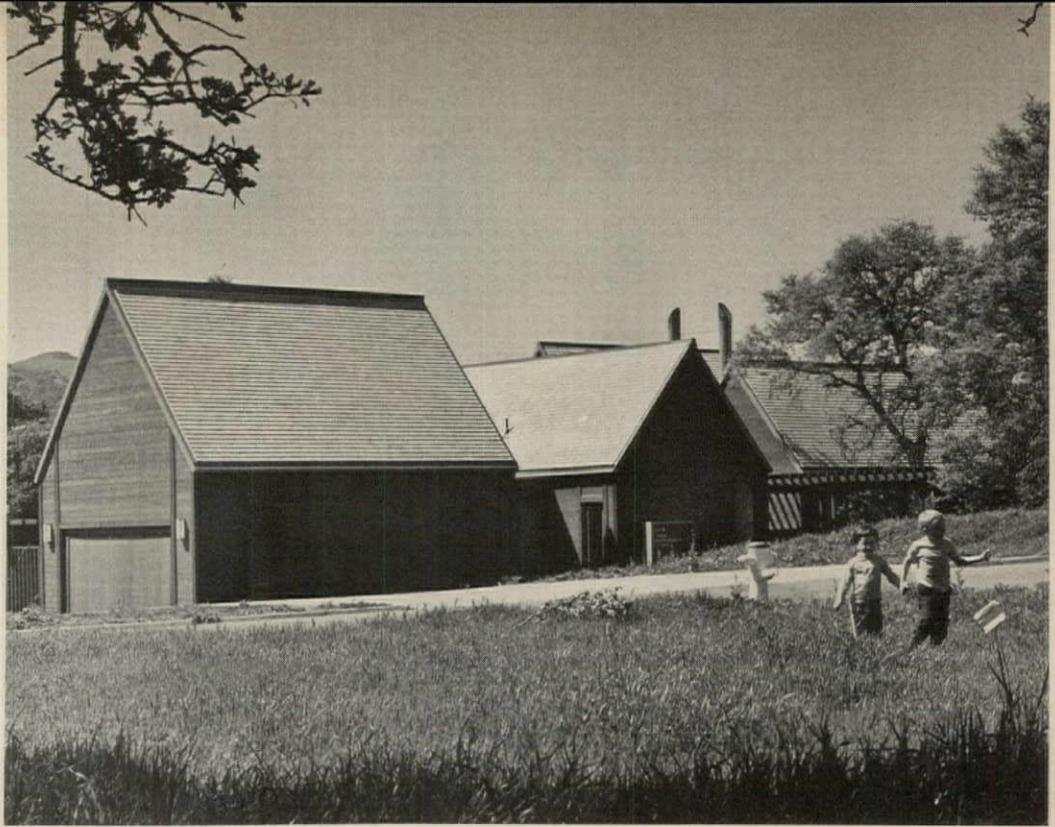
LIVING ROOM gets light, airy feeling from glassed corner, open ceiling and glass gable (*below*).



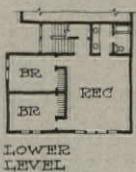
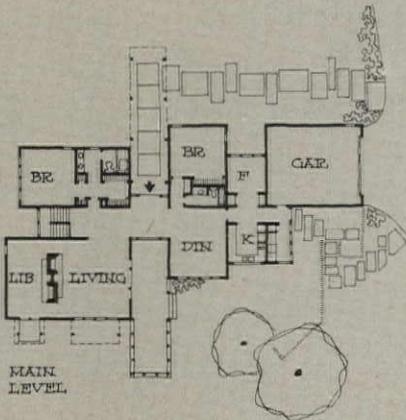
**FIRST
HONOR
AWARD**

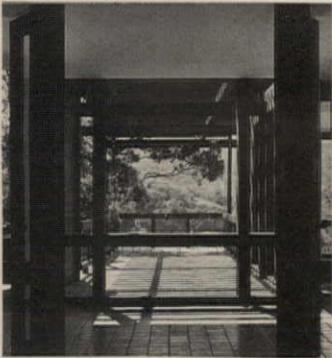
BUILDER: *Silver Construction Corp.*
 ARCHITECT: *Mackinlay/Winnacker & Associates*
 LOCATION: *Walnut Creek, Calif.*
 PRICE: *\$115,000*

This is one of four architect-designed houses built to set the tone for a small (42 lots on 62 acres), exclusive subdivision. Opened early this year, the models have helped sell seven house-and-lot packages, each priced over \$100,000. High peaked roofs define the major zones in this house and from the outside give the feeling of a small group of buildings. This clustering helps prevent the size of the house (3,800 sq. ft.) from overpowering the site.



Photos: Tom Walters



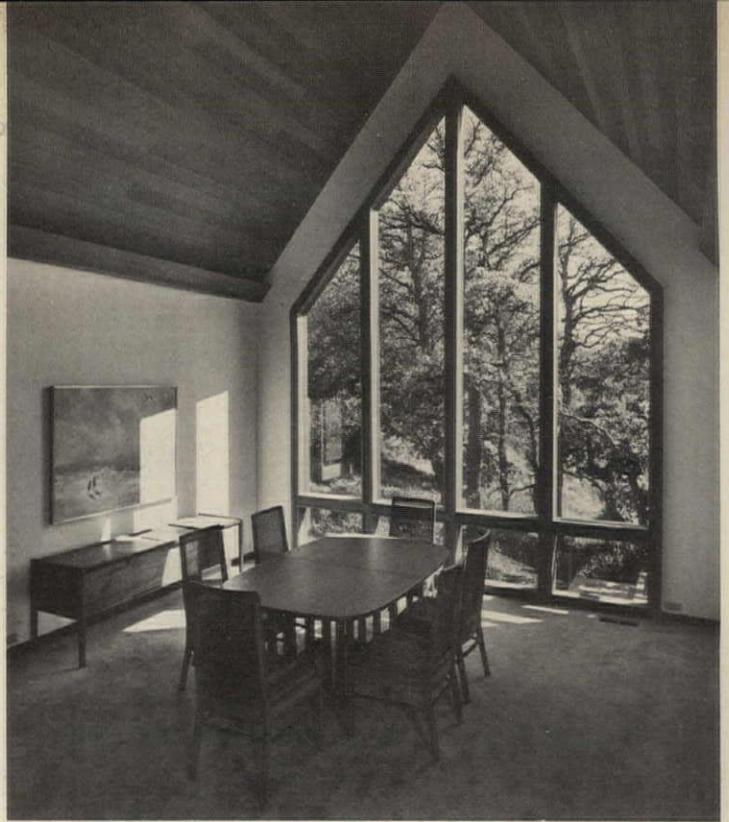


ENTRY FOYER, seen from front door (*above*) and living room (*right*), is a flat-roofed connecting link between adult and family areas.



FRONT VIEW (*left*) shows how bulk of the house was minimized by putting each of the four main areas under its own gable roof.

DINING ROOM (*right*) has fully glassed gable wall facing rear of the site. Trees have been trimmed to provide a controlled view.



TWO-STORY SECTION (*left*) utilizes slope at rear of site. Living room and library are on top floor, children's sleeping area below.



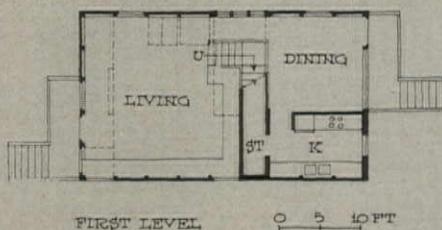
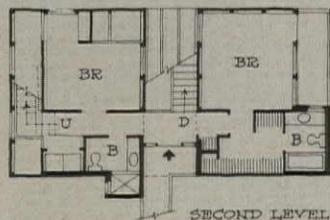
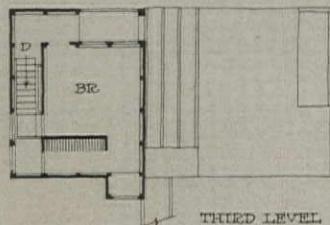
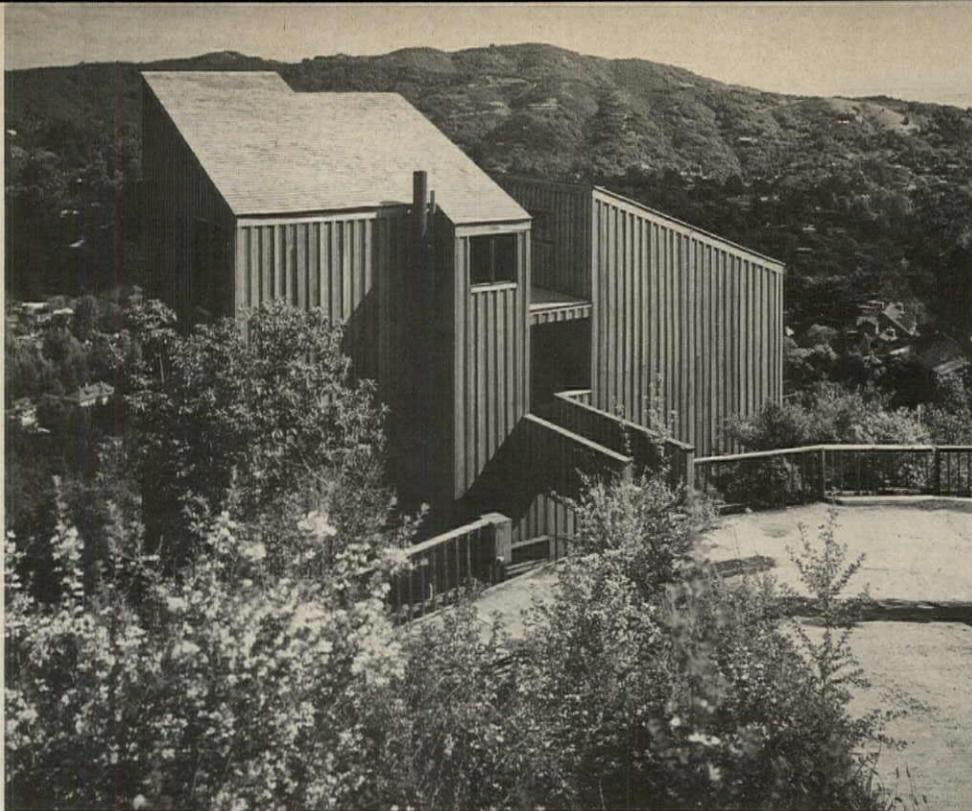
LIVING ROOM (*right*) shares its soaring ceiling with a study at one end (*above*). Rooms are separated by free-standing fireplace wall.



**AWARD
OF
MERIT**

BUILDER: *Hayco Inc.*
 ARCHITECT: *AGORA Architects & Planners*
John Wiebenson, partner in charge
 LOCATION: *Mill Valley, Calif.*
 PRICE: *\$47,000*

This is a one-of-a-kind house, designed to appeal to the small, affluent segment of the housing market that looks for individuality. It was sold upon completion. A pair of towers, connected by a glass-roofed stairwell, rises out of the living-dining-kitchen level (plan, below). On the highest level is a totally private bedroom that looks out above the treetops. Exterior walls are redwood boards; interiors are 2" Douglas fir.



ENTRANCE BRIDGE from parking area leads into the stairwell that connects house segments.

Photos: Joshua Freiwald



GREENHOUSE ROOF over stairway also brings light to living and dining rooms on either side.

TALLER TOWER, with three levels, looks even higher because of vertical boards and battens.

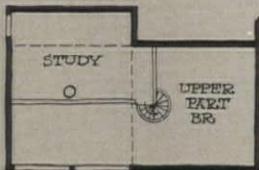


INFORMAL LIVING ROOM has built-in seating, diagonal-board walls that need little maintenance.

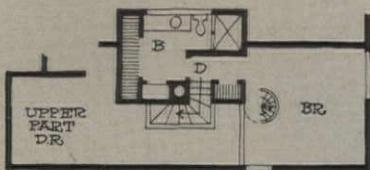
HONORABLE MENTION

BUILDER: Lawrence C. Olin
 ARCHITECT: Walz & MacLeod
 LOCATION: Muir Beach, Calif.
 PRICE: \$50,000

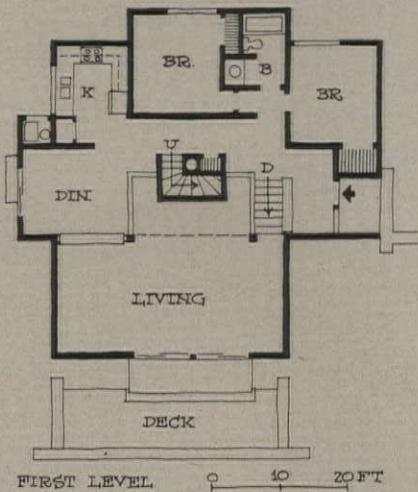
The heart of this house is a central light shaft 35' high. Sunlight from the Southeast enters the top of the shaft and is directed into the center of the house (plan, below)—an important feature in a location that has many foggy days. The house is planned as both a first and second home. Framing and finishing are of rough structural wood, details are simple, and an exterior of vertical redwood siding and cedar shingles should keep maintenance to a minimum.



THIRD LEVEL



SECOND LEVEL

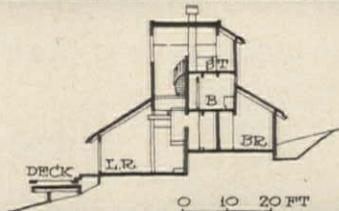


FIRST LEVEL 0 10 20 FT

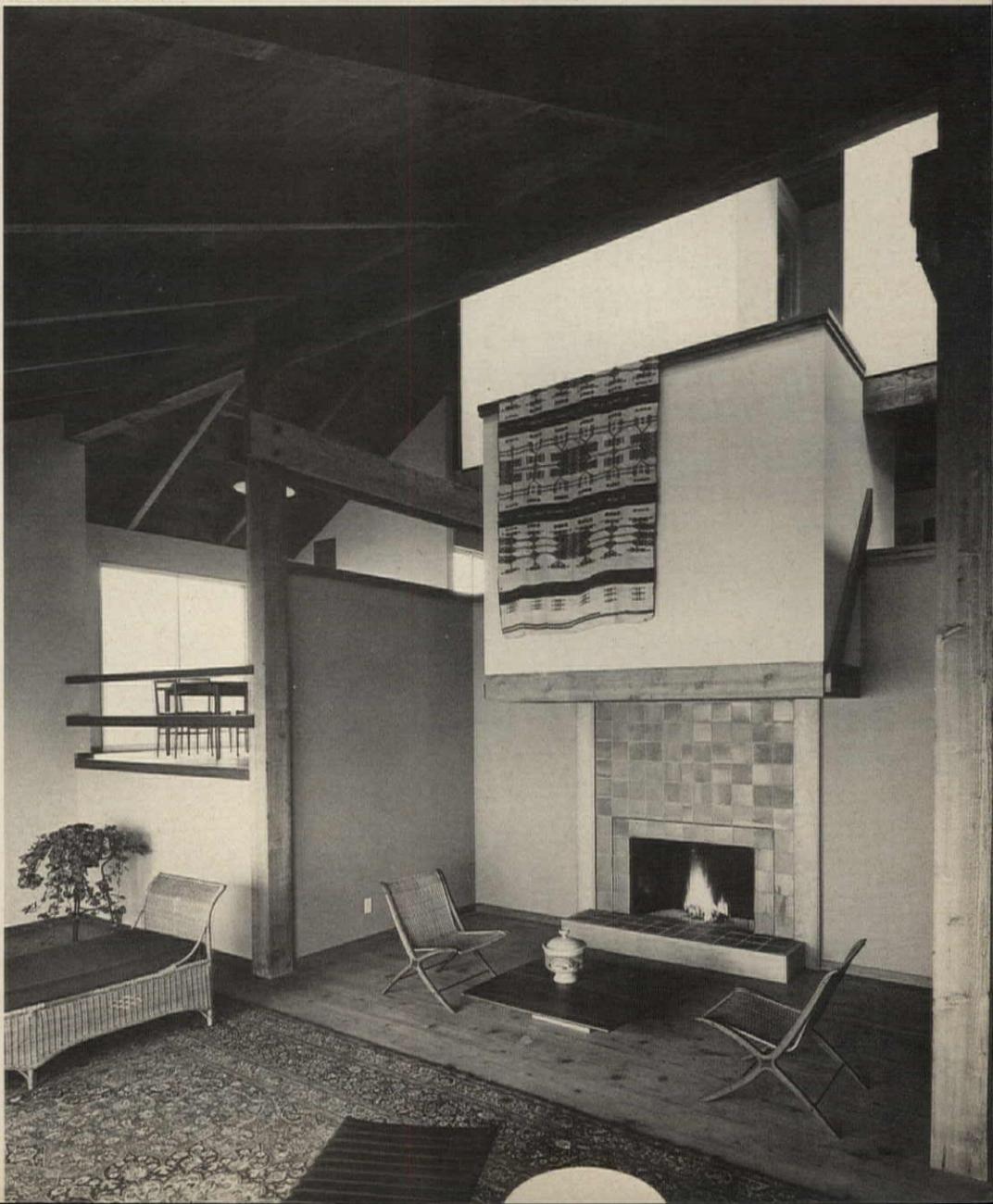
Photos: Ricco-Mazzuchi Photography



ROUGH EXTERIOR blends in well with rugged terrain. Decks and landscaping are not yet completed.



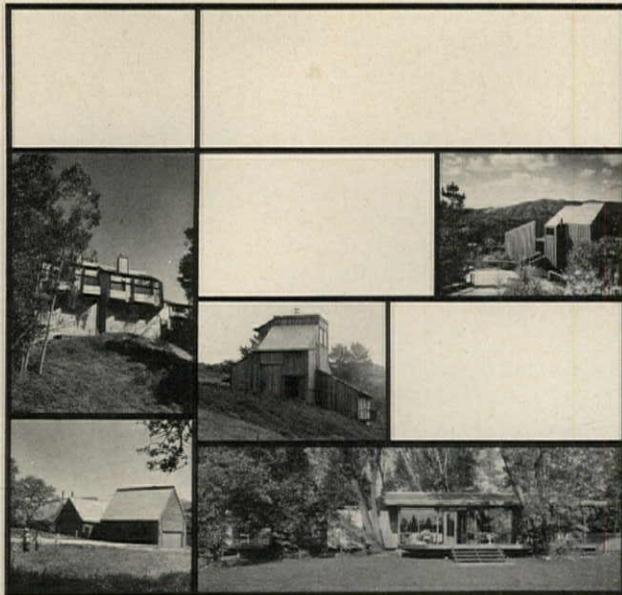
INGLENOOK at rear of the living room gets reflected light from upper wall (section, right).



FIRST HONOR AWARD

BUILDER: *Harlan Lee & Associates,
American-Hawaiian Land Co.*
ARCHITECT: *Robert E. Jones, Edwin K. Hom*
LOCATION: *Westlake Village, Calif.*
PRICE: *\$38,950*

Here's a good example of what the completely walled lot can do for indoor-outdoor living. There are patios on three sides of the house, and every room opens into at least one of them. The kitchen and family room adjoin the pool area; the living room has a separate front patio; three smaller bedrooms open to a rear terrace; and the master bedroom and dining room face into a large atrium. The project has six models (H&H, Sept., '67).



What do the four blank spaces have in common?

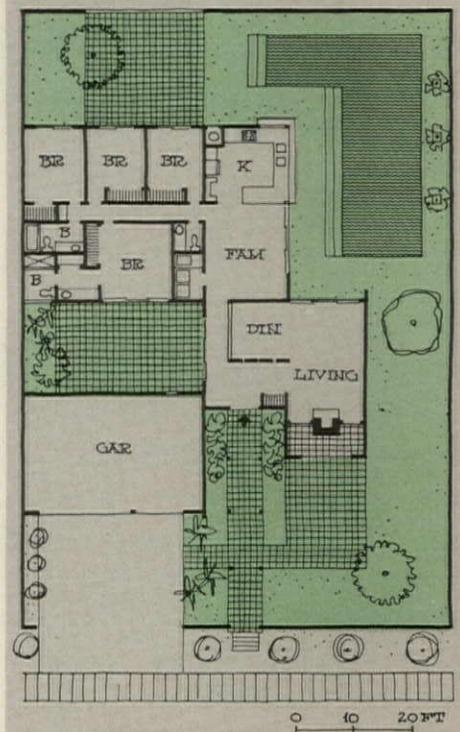
Each represents an award-winning house whose lot is either partly or completely walled. And each house is built with one side right on the lot line so that land normally wasted in setbacks can be put into usable patios.

The result, as you'll see at right and on the following four pages, is a quantity of private outdoor space that completely changes the quality of the house. Once the site is walled, it is a natural step to orient all rooms to the outdoors. In these houses, every main indoor area has its own adjoining outdoor area. In effect, the whole lot becomes the house.

This more efficient use of the lot has an additional benefit. It permits tighter grouping of the houses, and the land thus saved can be consolidated into recreation areas and greenbelts.

All four houses have sold well at prices that range from under \$20,000 to nearly \$40,000. And they raise a very interesting question:

If the popularity of the walled-lot house continues to grow on the innovation-minded West Coast, how long will it be before builders in other areas discover that the success of this kind of design depends not so much on climate as on the way people like to live?





STREET VIEW shows entrance gate in wall at center. Special zoning was required for reduced side and front setbacks.

Photos: Julius Shulman



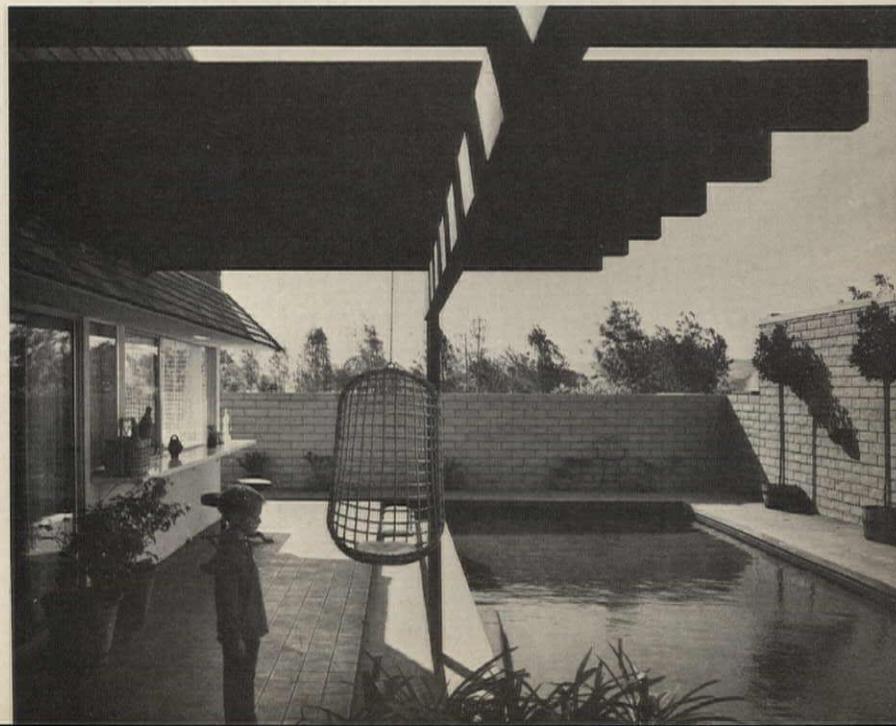
DINING AREA, right, and entry hall, left, both face into a patio. Glass doors on the right side of the patio lead into the master bedroom.



ENTRANCE WALK is covered by heavy wood trellis. Sliding glass doors beside fireplace, right, are shielded by angled walls.



KITCHEN-FAMILY AREA (above) is oriented to the L-shaped swimming pool (right). A dining bar projects outside kitchen windows.



**AWARD
OF
MERIT**

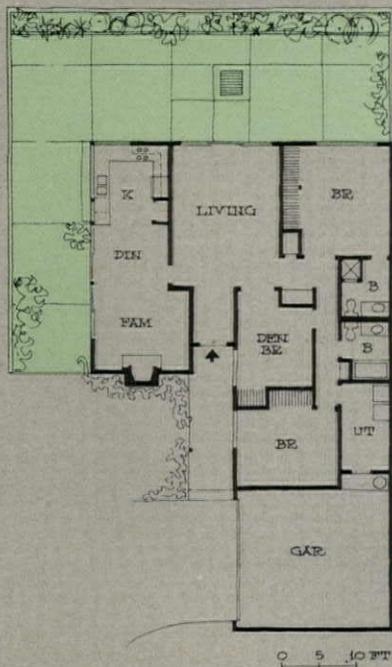
BUILDER: *Donald L. Bren Co.*
 ARCHITECT: *Edward C. Malone*
 LOCATION: *Valencia, Calif.*
 PRICE: *\$24,495*

From the street, the siting of this house looks completely conventional. Actually, it and its neighbors are built right to the lot line on one side. The result is a 10'-wide yard on the other side which, together with the rear yard, provides an unusual amount of outdoor living for a 4,000-sq.-ft. lot. All living areas and the master bedroom open to courts walled to the height of window tops. Baths and utility rooms are on the windowless side of the house.

Photos: Julius Shulman



STREET VIEW shows setback entrance beside two-car garage. All 22 lots allocated to this model were sold out in five months.



LIVING ROOM (right) looks out onto large rear terrace. The 7' wall at rear of lot is visible beyond swimming pool.



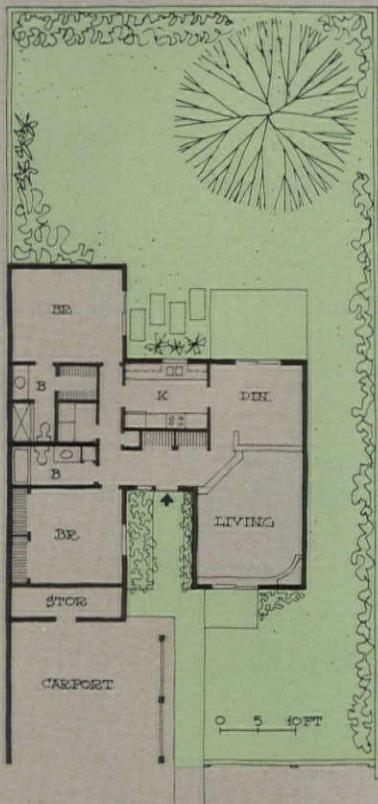
INDOOR-OUTDOOR KITCHEN has sheltered eating bar, wraparound windows. Dining and family rooms adjoin kitchen (plan, left).



HONORABLE MENTION

BUILDER: *Inland Constructors*
 ARCHITECT: *Bennie M. Gonzales Associates*
 LOCATION: *Litchfield Park, Ariz.*
 PRICE: *\$18,250*

Recently selected by *HOUSE & HOME* as a trend-setting model (Feb. '68), this house has accounted for a third of its project's sales since January. Six-foot-high front and rear walls and 9' side walls give privacy to every inch of the small (50' x 100') lot, and the openness of the double carports keeps the street elevation from looking like a prison. The mortar-washed, cement-block construction and dark-stained, heavy timbers are traditional in the area.

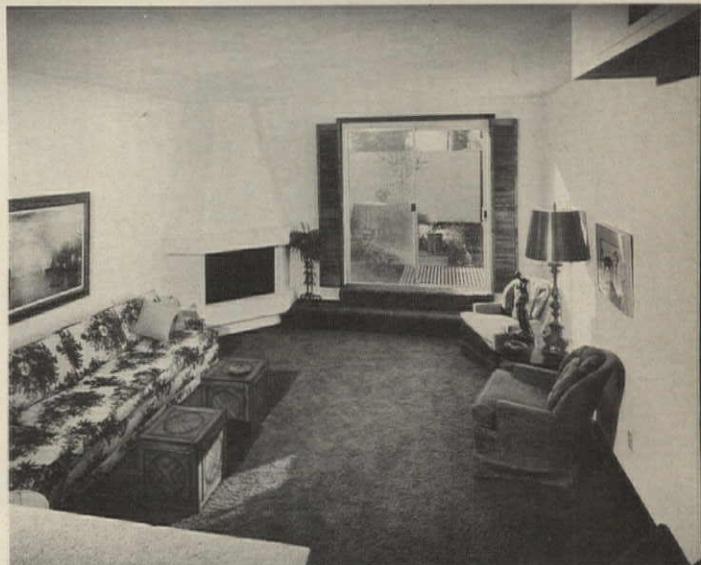


Photos: Neil Koppes



STREET ELEVATION has only a narrow strip of planting between wall and sidewalk. The 40-acre project will have 225 houses.

CORNER FIREPLACE permits maximum flexibility in furniture placement. Sliding glass door opens to walled front patio (*below*).



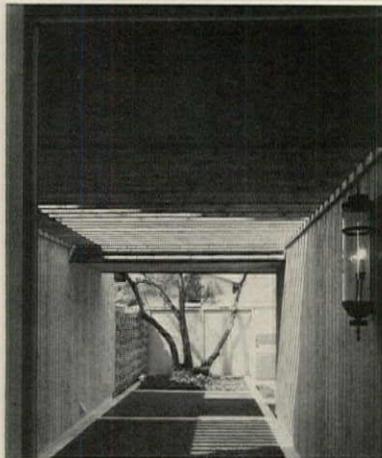
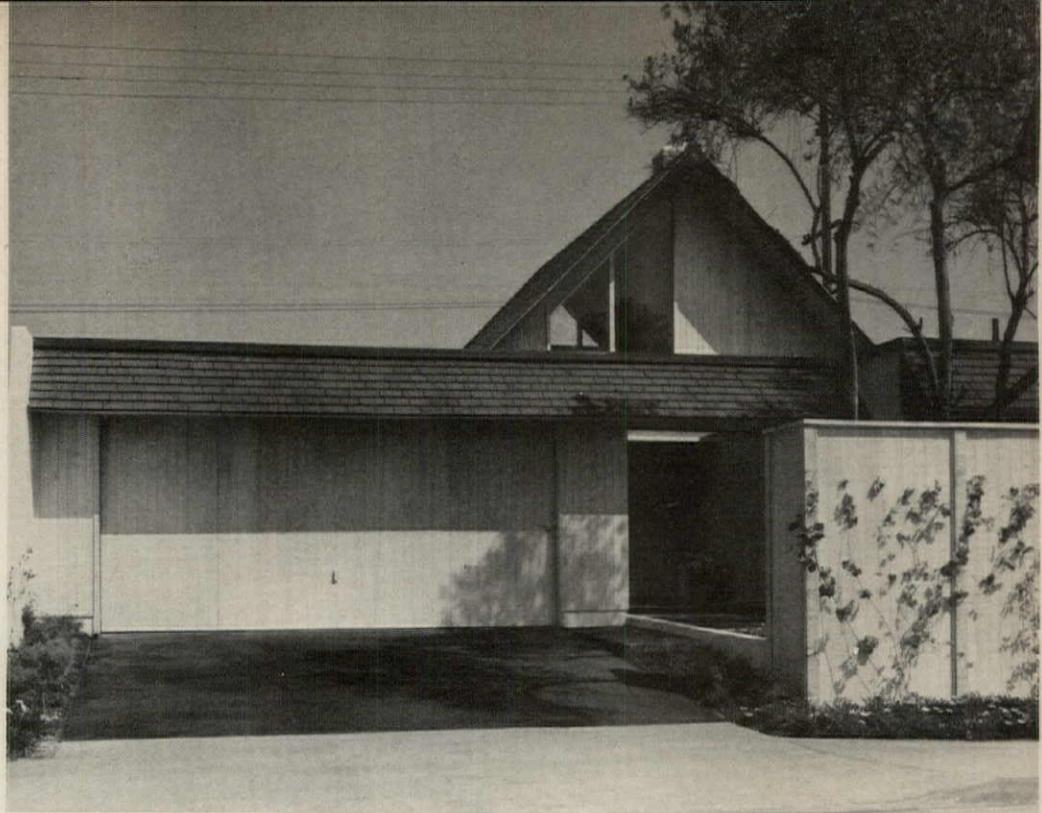
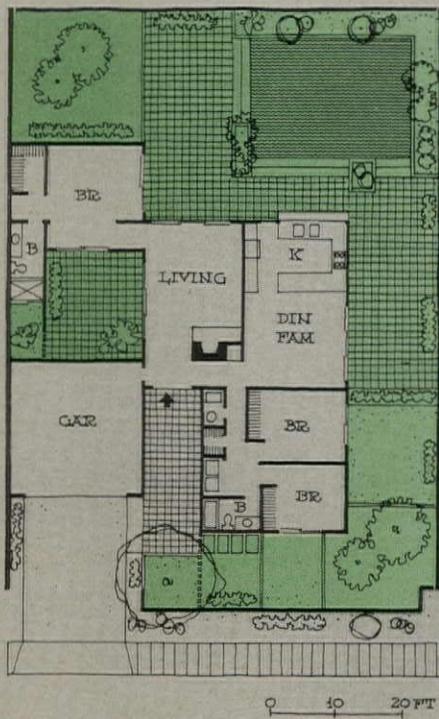
ENTRY COURTYARD with wood walkway can be made completely private from the street by closing gate in the front wall.



HONORABLE MENTION

BUILDER: Deane Brothers Inc.
 ARCHITECTS: Robert E. Jones, Edwin K. Hom
 LOCATION: Huntington Beach, Calif.
 PRICE: \$30,995

This house was the fastest seller in one of the country's earliest walled-lot subdivisions (H&H, Feb.). Inside, much of its excitement stems from the contrast of the normal-height rooms with the soaring space of the living room in the center of the house. Outside, walled patios on three sides are the strongest feature. A Z-shaped floor plan (below) permits all rooms to look out on one of the landscaped courts or the atrium.



STREET SIDE has 6'-high wall on lot line to screen the entry and front patio. Mansard roof ties garage to house visually.

REAR YARD (right) is faced by kitchen, living room and master bedroom. Two other bedrooms are towards front of house.

ENTRYWAY (left) is a sheltered walk between house and garage, leads into the two-story, 15' x 21' living room (below).





Photos: Stanley Ring



LIVING ROOM (right) has completely glassed gable wall. Sliding glass doors at left open to atrium shared with the master bedroom.



How to design garden apartments that will attract—and keep—long-term tenants

As every apartment owner knows, keeping tenants is just as important as getting them in the first place. Too many moveouts mean income lost on empty apartments, money spent on fix-ups and redecorating, and expensive managerial time and effort put into getting new tenants. So the questions of how to attract long-term renters and then how to persuade them to stay are crucial.

You'll find some new answers to these questions in a study just published by the Urban Land Institute: "Apartment Communities—The Next Big Market."* The authors, Carl Norcross, former executive editor of *HOUSE & HOME* and now a marketing consultant, and John Hysom, a market analyst, analyzed four Kansas City garden-apartment projects joint-ventured by J.C. Nichols Co. (which also helped to finance the study). The projects:

Georgetown, currently a 378-unit, 30-acre project designed by Linscott, Kiene & Haylett and built by Ernest J. Straub. Georgetown will eventually have 650 units (*H&H*, Apr. '68).

Kenilworth, a 246-unit project on 17

acres, built by Max Okun and designed by Boyle & Wilson (*H&H*, Oct. '66).

Mission Valley, an 88-unit, five-acre project, also by Okun and Boyle & Wilson (*H&H*, Oct. '65).

The Chateau, a 38-unit project on 2½ acres, built and run by James Garland.

All four projects opened in 1964. All are in Johnson County, one of the country's top six counties in income level. (Until a few years ago Johnson County was considered single-family-house territory, and 90% of its apartments have been built since 1960.) All four have rents slightly higher than the norm for the county, which in turn is \$30 to \$60 higher than the median for other Kansas City counties. All are unusually well designed and well equipped. And all have been so successful that many other apartment builders have been attracted to the area.

Norcross and Hysom interviewed Miller Nichols, president of J.C. Nichols Co., the three builders, plus apartment managers. Then they asked 200 tenants—100 at Georgetown, 50 at Kenilworth, 30 at Mission Valley and 20 at The Chateau—their reasons for choosing and staying in their present projects and apartments.

The study shows that most of the ten-

ants have been paying rent for at least five years, and 42% of them plan to continue living in apartments for quite some time. Norcross calls these people "confirmed" or "hard-core renters."

"The hard-core renter," says Norcross, "is likely to be either a middle-aged married man or a divorced or widowed woman, probably with children, who has enough money to be able to afford a larger unit, who has owned a home before and wants nothing further to do with outside maintenance, and who plans to stay where he [or she] is for the next five years."

To attract this desirable—and profitable—type of tenant, says Norcross, you must start with good research into your local market, then design the project to include an attractive environment, large, well-planned units, and better recreational facilities than any now existing in the area.

"These three essentials," says Norcross, "will make your project such a 'good buy'—even at slightly higher rents—that you will attract a broad new group of tenants which will include just the right proportion of the permanent type of tenant you are seeking: the 'hard-core renter.'"

Below are some of the highlights of the study and Norcross' conclusions.

Create an attractive garden-community environment

"Environment," says Norcross, "consists of all the things a person can see, hear or smell—everything that surrounds him. Such features as land planning, landscaping, attractive architecture, open space and recreational facilities, provide such a pleasant atmosphere that they become the primary motivation for new tenants."

The study shows environment to be the leading factor in attracting tenants. At Georgetown, both men and women rated environment as their main reason for selecting the project. At the other three projects, men again ranked environment first, while women ranked it second (after the apartment itself).

Environment is not, Norcross points out, the same thing as location. Georgetown

tenants listed location fifth among their reasons for selecting the project initially (it is way out of town), but moved it up to fourth place among the reasons for renewing their leases.

Says Norcross: "Georgetown, with its excellent environment, in a very real sense created its own good location."

Earlier studies, says Norcross, indicated that apartment renters paid less attention to a good environment than did single-family-house people. "This might have been true because the projects studied had little to offer in the way of environment. What *this* study shows is that when there is an outstanding environment—as there is at all four of the projects studied—tenants do appreciate it, and it is a factor in persuad-

ing them to rent," says Norcross.

Since few sites today have enough natural beauty to provide a top-grade environment, really good land planning is vital.

'Open space is a major feature of a good apartment land plan'

The four projects range in density from 12.6 to 16.6 per acre. But all four have well-planned open areas woven throughout the project and near the community recreational areas. Says Norcross, "Developers who are debating how much density they should have in a new project should be aware that with a slightly lower density than they may be planning, they can charge higher rents and end up with the same gross rental—and at the same time,

hold their tenants longer."

Buildings should be arranged on the site so that all units look out into the open spaces rather than across to other units. This can be done, as it was at Mission Valley, by placing the buildings around the perimeter of a small site and leaving the central area open. Or it can be done, as it was at Georgetown, by concentrating the units in clusters surrounded by open space.

"People want the feeling of openness," says Norcross, "and room to breathe. Projects that have open space and connecting greenbelts will draw renters away from apartment projects that are too crowded.

"Wherever possible, the site should be preserved in its natural state. Mission Valley was planned to save most existing trees, so it had natural beauty the day it opened. At Kenilworth, trees were saved, and small ponds, streams and waterfalls were added."

Sloping or uneven land should not be

leveled off but used to create ground-level rooms with patios on both high and low sides, offering better living for the tenants and bringing higher rents to the owner.

'Design is more important for apartments than for houses'

The reason, says Norcross, is that the apartment owner must "sell" his apartments to tenants year after year, while the single-family builder has to sell his house only once.

The design of the buildings need not be of any particular style. Both Georgetown and The Chateau are traditional. But if contemporary design is used, it should not be cold. Both Mission Valley and Kenilworth are contemporary, but they have warm exterior colors and finishes.

"The scale of the buildings is also important," says Norcross. "The term 'garden apartments' is loosely applied even to medium-rise elevator buildings that have some sort of green area. The true garden com-

munity is closer in scale to single-family housing. 'Warm,' 'friendly,' and 'inviting' are words you should be concerned about."

'Plan your land to handle automobiles efficiently—and esthetically'

"Parked cars can ruin an otherwise good environment," says Norcross, "Many projects look fine when there are no parked cars around, but they look terrible at night and on weekends when tenants are all at home."

Not only should cars not intrude visibly into the community, they should not be a noise factor. Place them behind units and near kitchen areas, says Norcross, rather than close to bedrooms. And screens of trees or bushes can block engine noise.

"In planning for the future," says Norcross, "be sure to include *enough* parking for guests and recreational areas as well as for units. And remember, the day is already here when each unit should have two parking spaces—or even more. . . ."

Offer spacious units that are comparable to single-family houses

"Today's apartment dwellers," says Norcross, "are coming from larger houses, so they want . . . larger rooms for their furniture, more storage space."

By way of confirmation, more than half of the tenants in the survey came from single-family houses: the rate at Georgetown, for example, is 52%, and at The Chateau it is 65%. And the median value of homes previously owned by tenants in all four projects is \$32,500.

The survey shows further that 70% of the units at the four projects have women occupants. And the women in the three smaller projects rated apartment size and layout as their first reason for selecting their apartments.

"Women consider the apartment itself important in choosing a project," says Norcross, "because they tend to spend more time in the apartment. So the design of the interiors is as important as any other factor in planning a project."

The well-designed unit, says Norcross, should include the following: good-sized rooms in a well-thought-out plan; up-to-date kitchen and bath(s); ample storage space; sound conditioning; individual controls for heating and cooling—all things that are taken for granted in single-family houses.

The developer who looks to the future should also include extras like sunken living rooms or beamed ceilings, says Norcross. "Since such features can often spell the difference between the success and fail-

ure of a project today, you must create interiors for ten years in the future or they will become obsolete."

'The right mix of apartment sizes will attract the right mix of tenants'

At Kenilworth, 72% of the units have two bedrooms or more; the survey shows a 37.8% turnover rate for one year. The Chateau has an even higher mix of larger units—92%—and a turnover rate of only 28.9%. Conclusion: Larger apartments attract families who move out less frequently.

A low rate of turnover, however, is not always the ultimate goal, and a developer may not be able to depend entirely on the long-term tenant.

"Only through a careful study of his market can an owner know what his competition is and how he should design his mix of units," says Norcross. For instance, both Georgetown and Mission Valley have a large proportion of small units and a high rate of turnover, yet both are considered highly successful. Mission Valley was a small prototype for Kenilworth; it was rented out in three months and provided builder Okun with a waiting list of 60 would-be tenants for similar units in Kenilworth.

Georgetown, too, was something of an experiment because of its location. Ernest Straub wanted to attract the pioneering young adults to his project quickly so that a community would be established that would attract the more cautious long-term

older families. As the later phases of Georgetown go up, the mix will shift slightly to the larger units.

'Make the rooms as large as is economically possible'

Tenants who were asked what features of the apartment itself led them to select it, put size at the top of the list. (Almost 70% of The Chateau's units have 1,260 sq. ft. or more; Kenilworth has 20 units with 1,455 sq. ft. or more; and Georgetown has one townhouse unit of 2,590 sq. ft. and another of 2,940 sq. ft.)

Such larger units can offer more of the features available in single-family homes: separate dining rooms, or at least well-defined dining areas, more and bigger closets, and storage areas for all the things families bring from single-family houses.

Says Norcross: "Today people will even move from one apartment to another to get more space or larger storage areas." And he notes these additional apartment features that are important to tenants:

Patios. They rank second only to the size of the apartment, the survey showed.

Fireplaces. The survey put them in third place among apartment features. And, says Norcross, tenants sometimes change units just to get a fireplace.

Kitchens and baths. They must be large enough and modern enough, says Norcross, so that "they will not be disadvantaged by the more modern facilities that will be in tomorrow's projects."

continued



KENILWORTH'S environment is rustic in theme (*left*) as shown by the stone walls, stairs, and fountains around the outdoor pool and the wood shingled walls and roofs of the apartment buildings beyond. The L-



shaped indoor pool (*right*) in a large corner room of the clubhouse is heated and lighted for winter use. High windows at rear flank the stone fireplace wall of the club lounge and overlook the pool area.

Provide the right range of recreational facilities

"There is a national trend," says Norcross, "towards more recreation and leisure-time activities in all types of housing developments."

Each of the Kansas City projects has recreational facilities for its tenants; the type and range is based on the size of the development and the long-term value to both tenants and owners. And since the four projects are quite different in their range of facilities, they provided a broad base for investigating tenants' reactions to leisure-time programs and activities.

The Chateau, for instance, is too small to have its own club (although residents have the use of a nearby pool and party room), so residents were not asked to rate the importance of club facilities.

Georgetown, on the other hand, has indoor and outdoor pools, exercise gyms, sauna baths, billiard tables, a cocktail bar and lounge, card rooms, a reading room, color TV, tennis and volleyball courts, shuffleboard decks, horseshoe pits, plus a weekly schedule of parties.

Georgetown residents, not surprisingly, rated recreation high among their reasons for choosing the project—right after environment and the apartment itself. And since the club facilities are such an integral part of the environment, these are stronger votes than they would appear.

'There is no longer doubt about the value of a pool in attracting tenants'

The survey shows that tenants at the three larger projects are making good use of the outdoor pools all summer. The heaviest

users are young single adults, younger wives and, of course, children. About a fourth of the tenants swim as frequently as four times a week in summer.

Since outdoor pools in northern climates get only about three months' use, both Georgetown and Kenilworth also have indoor pools. As might be expected, they are used less in winter than outdoor pools in summer. This is especially true among wives, possibly because so many work in the winter months. However, although few people swim as frequently as four times a week in winter, more than a third of the tenants questioned manage to get into the indoor pool at least once every other week.

An interesting note: Some tenants felt the floor space taken up by an indoor pool was wasted and suggested a dance floor instead. So, for his next project, Max Okun plans to build an outdoor pool that can be converted to winter use by means of sliding glass doors.

'The club is well worth its cost as a long-range investment'

"Just as the swimming pool is now accepted as standard," says Norcross, "so will the year-round club soon be standard in large new projects."

The Kenilworth club cost Max Okun \$304,357, or \$1,237 for each of the 246 units. Operating costs are \$1,400 a month, debt service \$1,530 a month. So Okun figures his costs per unit at \$143 a year or \$12 a month. However, he uses space in the club for his management and sales

offices. This might cost \$300 a month to rent elsewhere, so Okun reduces his per-unit cost to \$10.69 a month.

Significantly, says Norcross, most Kenilworth tenants thought their rents must be at least \$20 a month higher because of the club. And even so, two-thirds of them said they wouldn't be happy with a more modest club.

Says Okun: "It [the club] helps get renters in the beginning and helps you stay competitive. You will not be handicapped if a rival project comes along with a club."

He adds that any project with 120 units or more can support some sort of club, and that \$800 per unit is not too much to spend for a project of that size.

The Georgetown club is the most impressive of all. Its total cost, including \$45,000 for the pools and \$15,000 for the tennis, volleyball and shuffleboard courts, was \$395,000. This works out to \$1,004 per unit as the project now stands, \$609 when all 650 units are completed. Operating costs are \$1,600 a month, debt-service costs \$2,060 a month. So the monthly costs per unit are \$9 now, and will eventually drop to \$5.63. And if management and sales space in the Georgetown club is figured at \$500 a month, costs drop to \$8 a month per unit now, \$4.87 when the project is finished.

Yet Georgetown residents thought their club must be adding at least \$15 a month to their rents. Even so, 71% of them said they felt they are getting as much if not more value from the club as they had expected; 68% said the club satisfied their



GEORGETOWN'S traditional design theme is evident in the club's paneled party room (left) with its beamed ceiling and bar. This room also has a fireplace and is used for cocktail parties, dinner groups,



dancing and receptions. Behind the outdoor pool (right) and surrounding sun decks is the clubhouse. Its Georgian style echoes the design of the apartment buildings, some of which can be seen in the background.

needs for a private social club, 65% have made friends there, and 46% would no longer be satisfied with a lesser club.

"An attractive club house," says Norcross, "becomes a valuable sales tool in attracting new tenants. The club can be worth several thousand dollars a year alone in advertising value."

Georgetown's residents like to take their guests to the club to show it off, and many tenants first became interested in Georgetown through seeing the club with a resi-

dent friend. And of course Georgetown's sales people always take prospects through the club area.

Because Georgetown's club house facilities are so extensive, tenants were questioned at length about their use of them. As might be expected, younger adults use the club frequently—especially in summer. And although many older tenants probably can afford outside clubs for activities like golf, they nevertheless use the club fairly often in summer.

In winter both older and younger people make frequent use of the club, particularly the bar, lounges, card rooms, billiard tables, etc. Many tenants of all ages attend the weekly parties, and 39% say they now go outside less for socializing and recreation.

"And make no mistake," says Norcross, "As one developer in an area builds a year-round club house of some size, there will be competitive pressure on others to do the same."

Manage and maintain the project so that tenants stay happy

"Providing an attractive project does not complete the owner's responsibility to the tenant," says Norcross. "He must do his best to maintain a good community for his tenants to live in."

Physical maintenance, of course, includes the upkeep of buildings and grounds. It also includes efficient services and prompt repairs. Says Norcross, "Good service will do much to keep hard-core renters content."

Maintenance, however, is also psychological. An intelligent management philosophy starts at the beginning, welcoming new tenants and making them feel at home, and is continuous.

An absolute essential is some sort of reliable two-way communication system. This can be personal contact, as in a small project like The Chateau; it can be a newsletter and bulletin board in a large project like Georgetown; or it can be an open-door policy at the management office on the site, with frequent visits to tenants to

see how they are getting along—and what their complaints might be.

Management philosophy should be spelled out so that both tenants and new managers know exactly what the rules are. But it should also remain somewhat flexible so that legitimate complaints about current rules or policies can be changed quickly, thus making tenants feel that management has their best interests in mind.

The last portion of the study deals with turnover rates and costs. Records were kept on 216 moveouts from the four projects for the full year ending June 30, 1967, with 151 tenants listing their reasons for leaving. Of these, 62% were either leaving the city or being transferred elsewhere. (Kansas City is a branch-office town, and little could be done to lower this figure.)

However, 23% were leaving to purchase their own homes. Not surprisingly, the turnover rate at Mission Valley, with its high mix of small units and modest recreational facilities, was 46.6%, and 27.3%

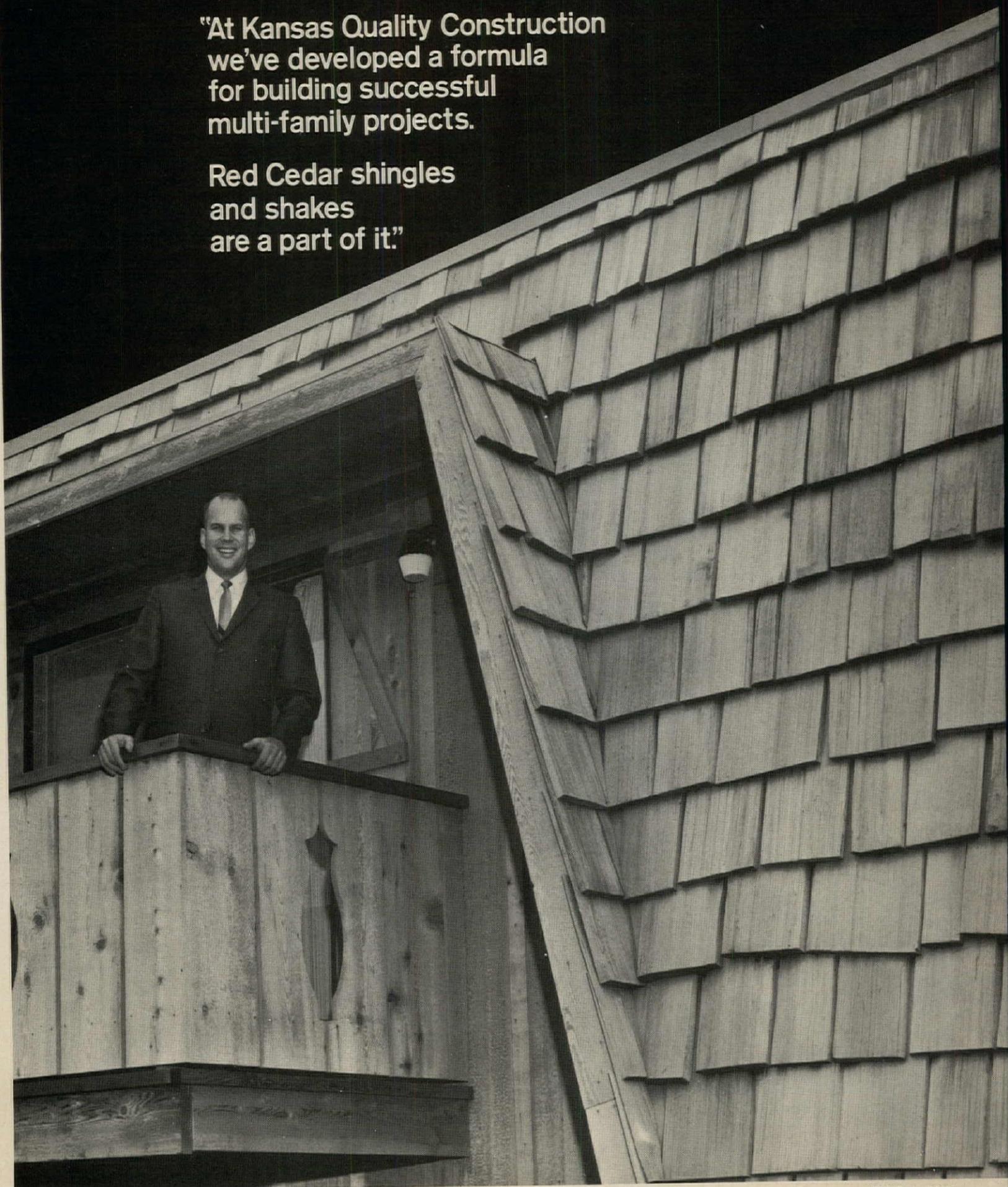
of the moveouts left to buy houses. On the other hand, Georgetown, which also has a mix of smaller units but many recreational facilities, had a lower turnover rate—41.6%—and only 6.5% were leaving to buy a home of their own.

Turnover costs at Mission Valley were 7.3% of annual rent; at Georgetown, 6.4%. This seemingly small difference can mean thousands of dollars a year. In hypothetical cost studies on turnover, Norcross shows that a 20% reduction could result in savings of \$12,500 per year.

"The lesson from Kansas City," concludes Norcross, "is that there is a new market for well-planned apartment communities. And when better designed and planned apartments of quality construction have amenities considerably better than [those that] exist at competing projects, they will attract a broad new group of renters, hold a more stable class of tenant longer and be a better long-term investment."

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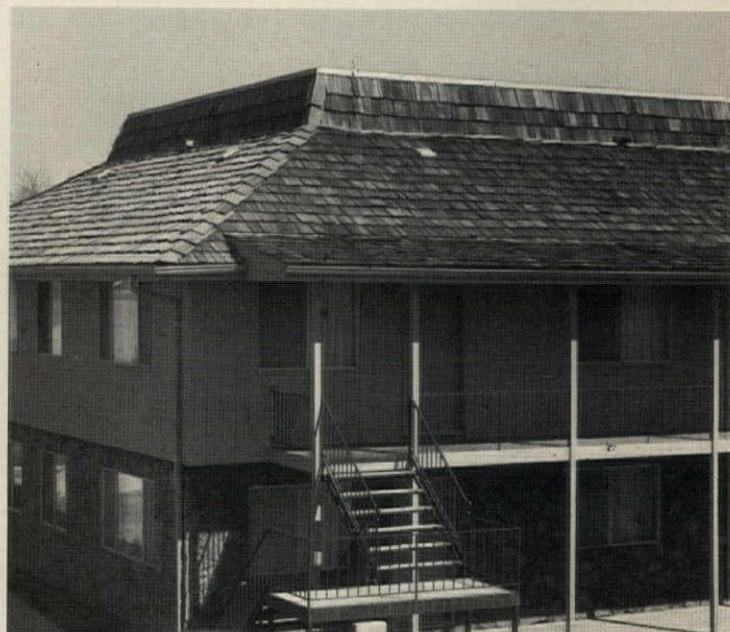




Camelot Village, 462 units, Omaha, Nebraska



Stratford Park, 225 units, Boulder, Colorado



Stoneridge Apartments, 106 units, Gladstone, Missouri

Every year for the past five years, Jack Bertoglio's Kansas Quality Construction, Inc., has doubled its gross sales and net profit—an accomplishment that today represents a worth of \$25 million.

Much of this success is due to a "total package" concept of multi-family building that covers everything from site selection-development and comprehensive investment analysis to actual construction and management.

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of each operation has to suit the client perfectly. And that includes the materials used. As Bertoglio says, "We *must* associate ourselves with architecturally pleasing, maintenance-free materials."

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Photo: Del Ankers

NAHB's research-house program shifts from the suburbs to the city. Result:

Vest-pocket urban renewal at \$8.35 a sq. ft.

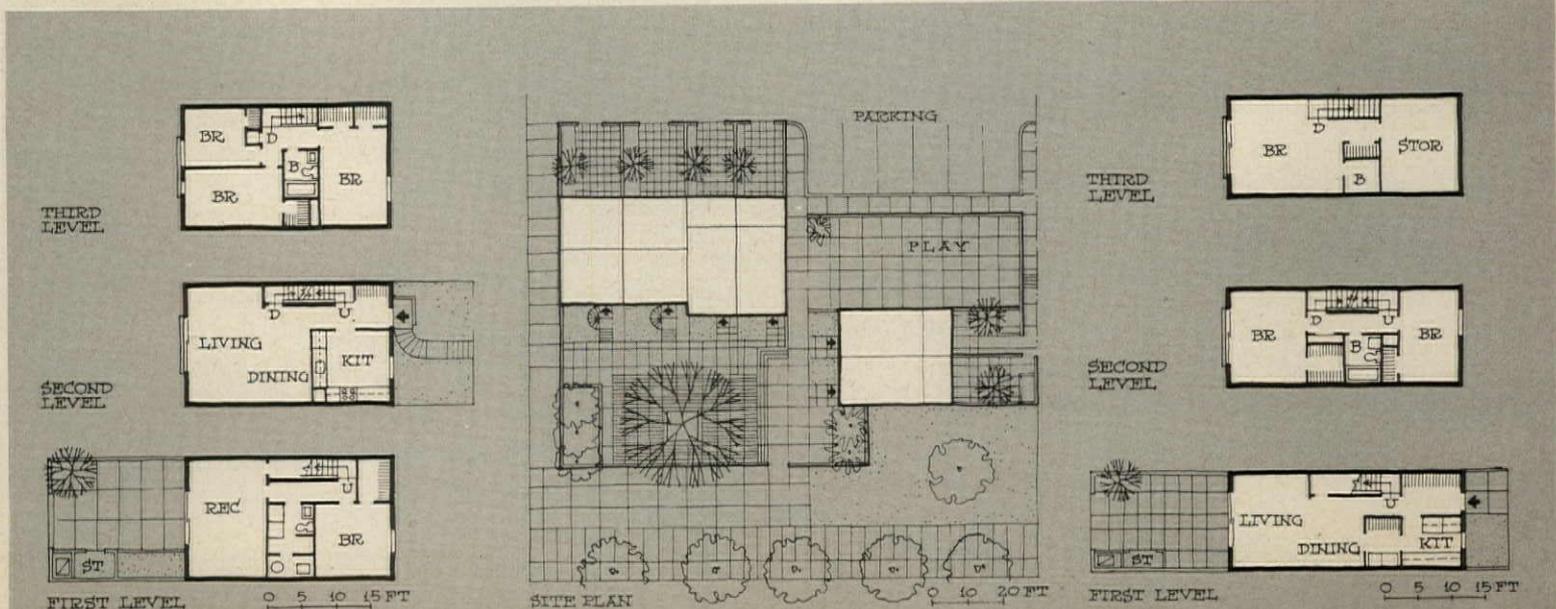
Nothing about these six Washington, D.C., townhouses is dramatically new to the building industry. But everything about them is dramatically new to the National Association of Home Builders, whose Research Foundation built the experimental cluster.

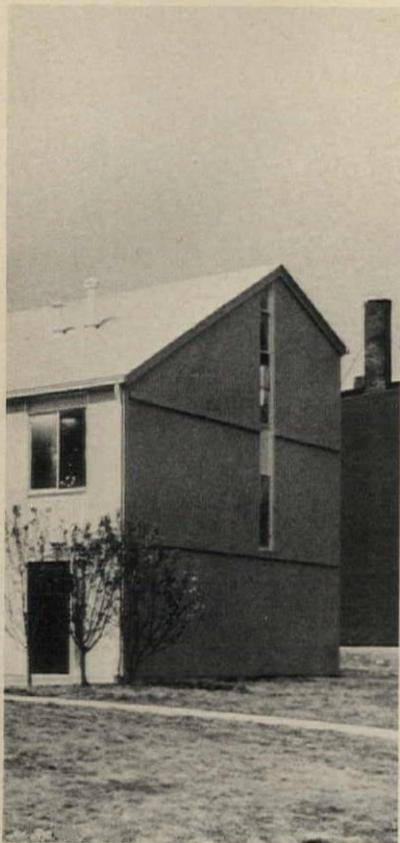
All previous NAHB research projects have been single-family, detached, wood-framed houses on conventional sites in suburban settings. They sold for average or above-average prices and were loaded with new building products and materials. This project is a tight group of townhouses built of precast concrete panels on less than a half acre in a hard-core slum neighborhood. It is priced for families with moderate incomes and is significantly devoid of new

products and materials. Sole co-sponsor is Portland Cement Assn.

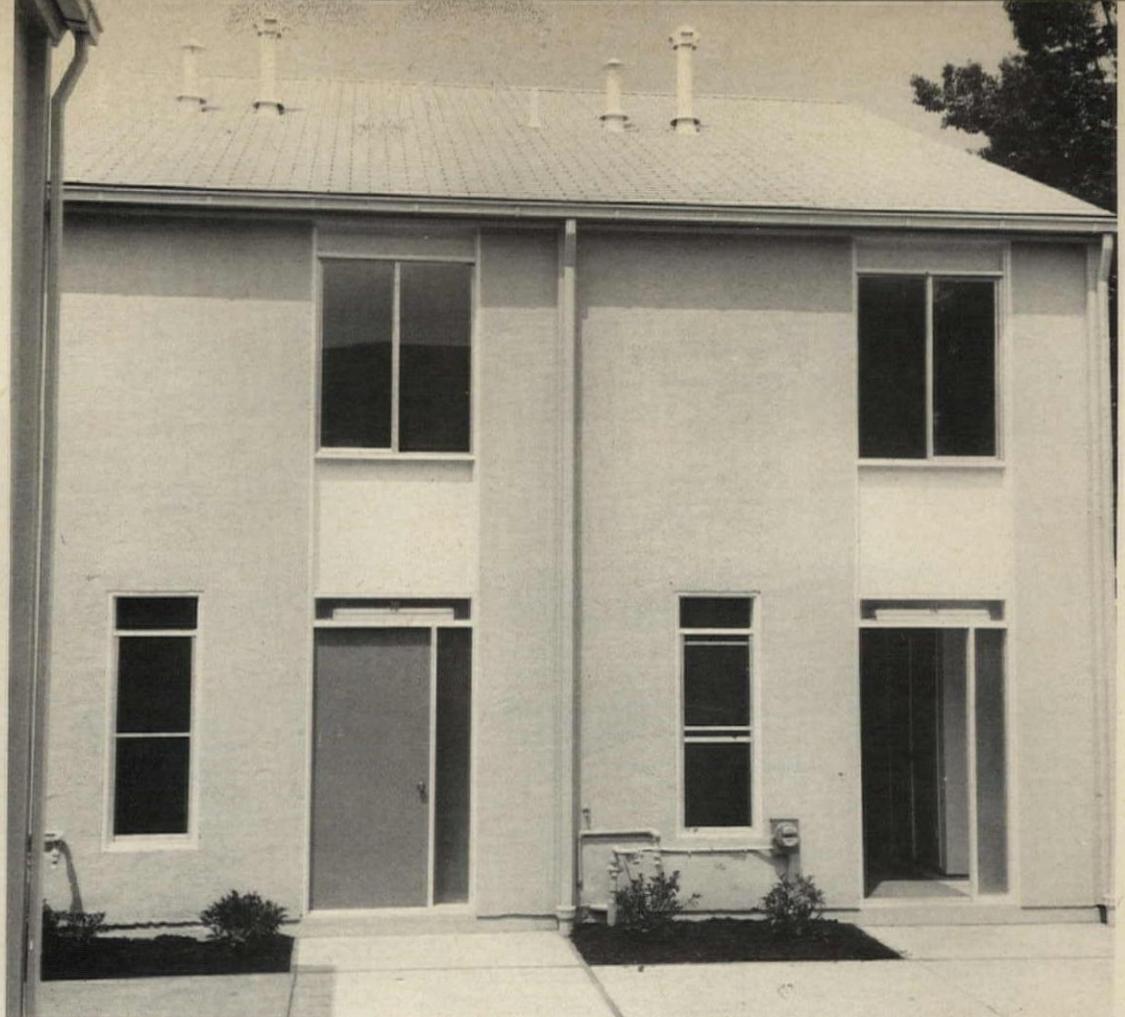
NAHB's objective: to give homebuilders a completely engineered system for tackling the urban renewal market. It used a precaster's stock-size panels for walls, floors and roofs; joined them with conventional weld plates; filled the seams with drywall cement inside, elastomeric caulking outside; and applied paint directly to the concrete for finished surfaces inside and out.

The \$8.35 cost figure—for construction only—might be lower in higher-volume projects. And the selling prices—\$15,000 for 1,300 sq. ft., \$19,000 for 1,700 sq. ft.—are based on a land cost of \$1,215 per unit.





TOWNHOUSE CLUSTER on six Washington, D.C., building lots is in scale with surrounding three- to five-story slum buildings. Grading and varied setbacks add visual interest to the six three-story living units, two of which have second-level entries, at far left.



MODULAR FACADE is designed in 2' increments determined by stock-width precast concrete panels. Window and door units are 2' and 4' wide; panels are 2' to 8'.

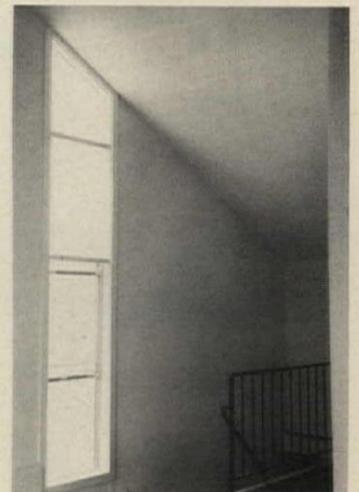
Photos: H&H Staff

REAR PATIOS, shown under construction at right, will have individual privacy walls. Offstreet parking area for six cars can be seen in background. One unit, in foreground, has basement garage.

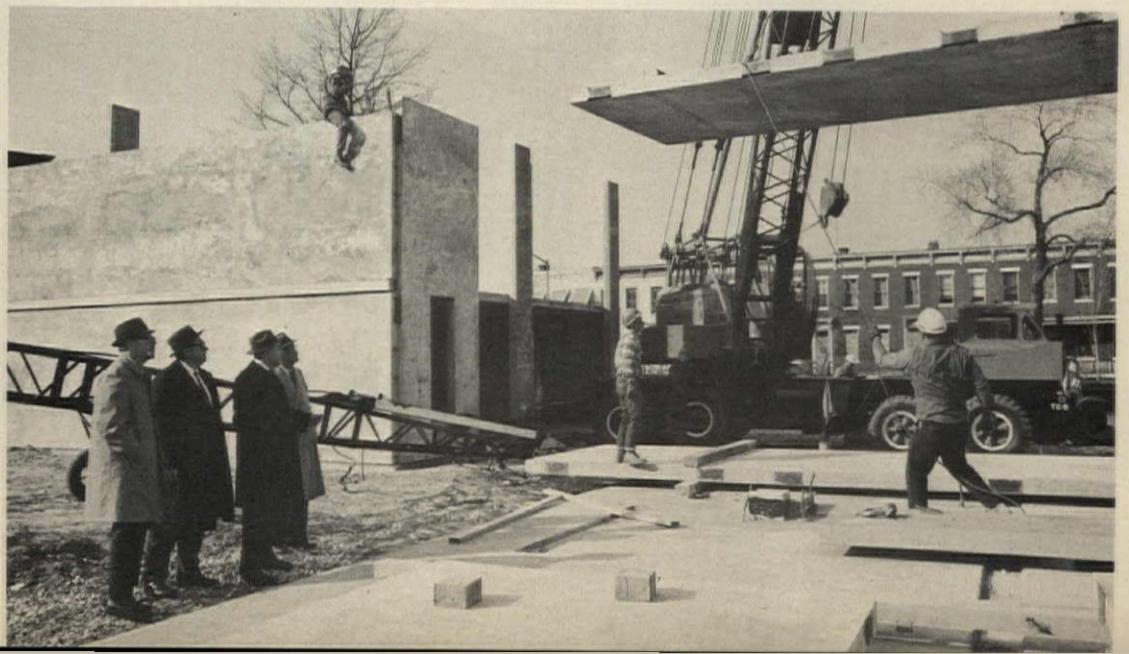


PLANS give NAHB townhouse buyers different-sized living units—14' and 18' wide—and a children's play area. Units contain up to four bedrooms, roughed-in second bathrooms and ample closets.

PRECAST PANELS used by NAHB are made with lightweight aggregate and joined by cast-in weld plates. Weights range from 95 to 110 lbs. per cu. ft., thickness is 6", and only roof panels require added thermal insulation. Shells for the six living units were completed in ten working days.



SLOPING CEILING on third floor of each townhouse is formed by exposed concrete roof panels.



Technology continued on p. 94

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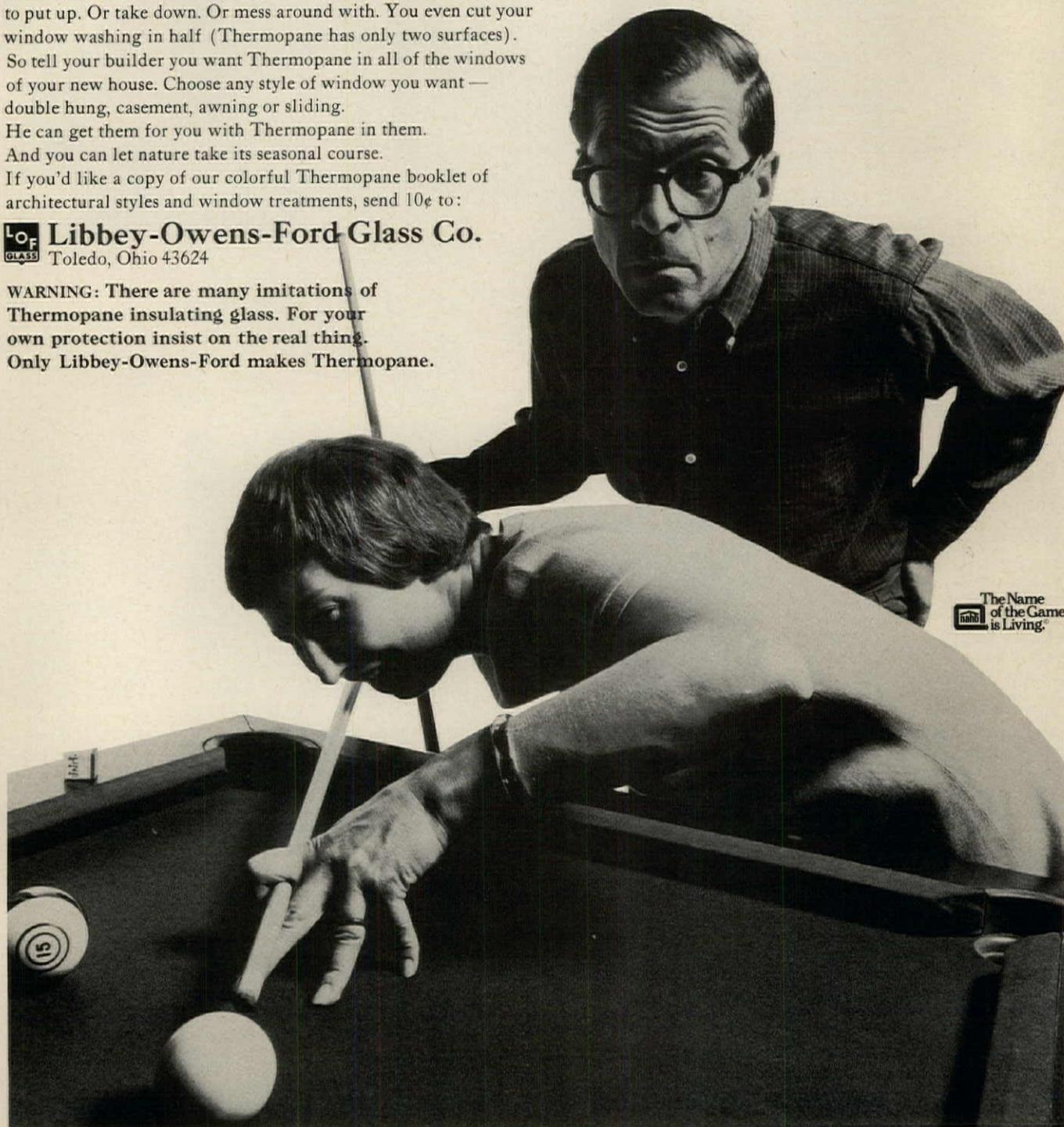
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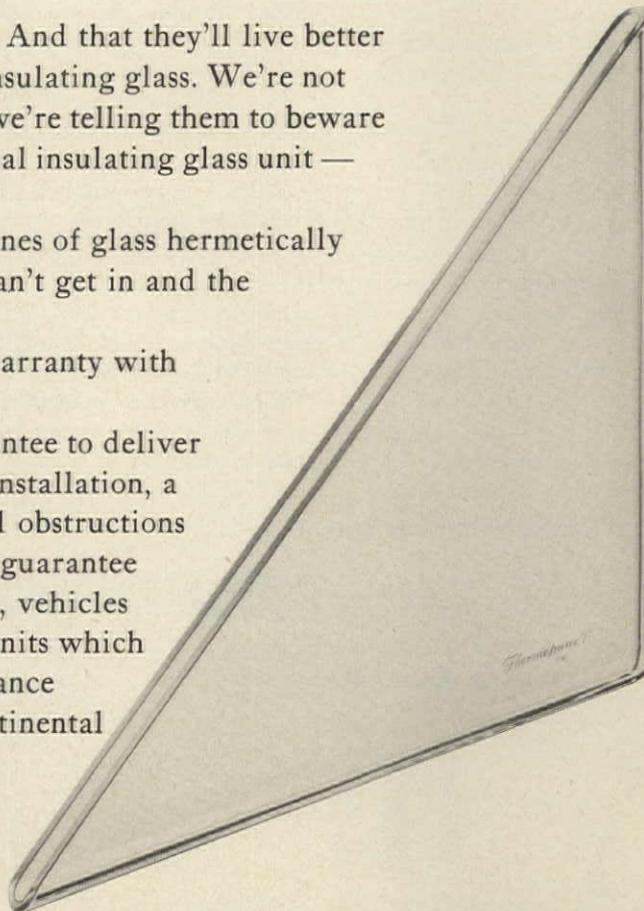
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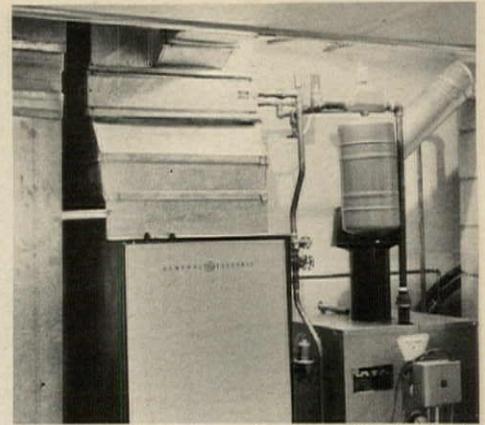
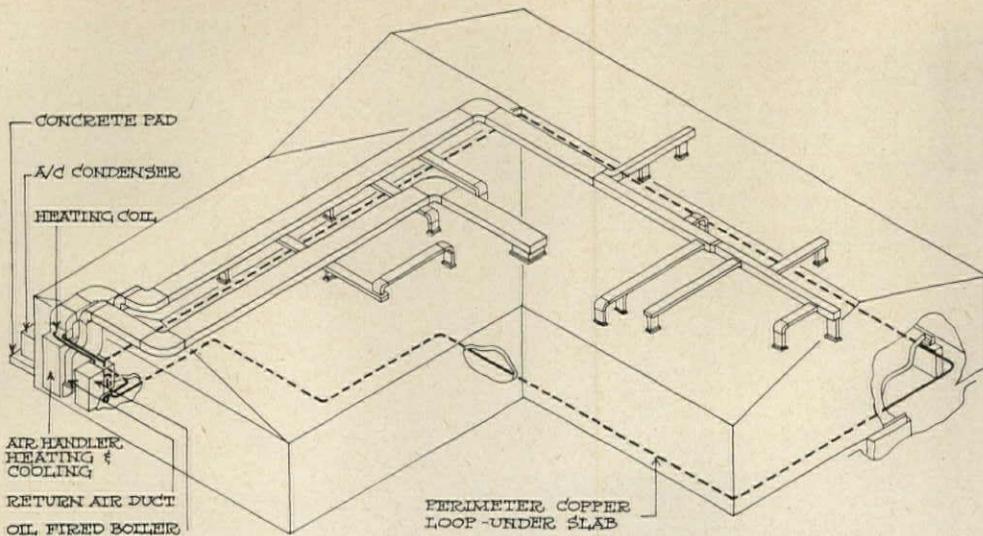
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AIR-WATER SYSTEM (layout, left) in Levitt house combines copper tube under slab with overhead ducts. Equipment (left to right above) includes blower, heating/cooling coils and boiler.

New from Bill Levitt:

Here's a more efficient way to heat and cool slab houses

It's more efficient because it combines the advantages of two systems: forced air and hot water. Levitt & Sons is switching to the dual setup from an all-forced-air system because it is more flexible and costs less to install.

Levitt engineer John Liebl, who designed the new "air-water system," cites five reasons for its flexibility:

1. Any fuel can be used.
2. Output can easily be adjusted to allow for varying exposures to sun and wind, thus minimizing problems of house orientation.
3. House design can be changed without extensive refiguring of material requirements for the heating/cooling system.
4. Under-slab drainage conditions have little effect on the buried part of the system because it has no joints.
5. All components are standard and available from several manufacturers.

The new system will be installed in 600 new slab houses at Levitt's Monmouth

Heights at Marlboro project in New Jersey this year.

The all-forced-air system, installed in earlier Monmouth Heights houses, delivers heated or chilled air through overhead ducts and through asbestos-cement pipe buried under the slab. In the new system, the asbestos-cement pipe is replaced by copper tubing— $\frac{1}{2}$ " normally, $\frac{3}{4}$ " in long runs—buried 18" inside the slab's perimeter. A conventional boiler circulates hot water through the tubing and through a fan/coil unit that supplies warm air to the overhead ducts. In summer the same fan/coil circulates chilled air.

Cost savings lie mainly in reduced labor. Says Monmouth Heights Production Administrator Ralph Perillo: "There's no significant difference in equipment cost, but with the air-water system we pour seven slabs in the time it used to take to pour five." Main reason: Formerly it took six hours to dig trenches, lay pipe and install

floor registers for a 2,000-sq.-ft. house; now it takes two men just ten minutes to unroll copper tube on top of a polyethylene vapor barrier (*below*). Other labor savers:

1. Handling and storage are easier because copper tube is less bulky than asbestos-cement pipe.
2. Slabs can be poured and smoothed more rapidly because there are no floor registers.
3. Unskilled labor can lay the tubing because there are no under-slab joints to seal.

"Switching to the air-water system has also given us better heating performance," says Liebl. For example, testing showed a maximum temperature differential between ceiling and slab of only 6°F.

Homeowners apparently like the system. Levitt made experimental installations in 12 houses in 1964, and hasn't had a single callback. And in answer to a Levitt survey, all 12 owners said they'd like to have the system in their next house.



UNDER-SLAB TUBING is installed by two-man crew. First man unrolls a one-house supply—contained in a single coil, which eliminates joints—while



second man anchors tube to compacted soil. Boiler connection (*center*) will be made above slab. Absence of registers speeds pouring (*right*).



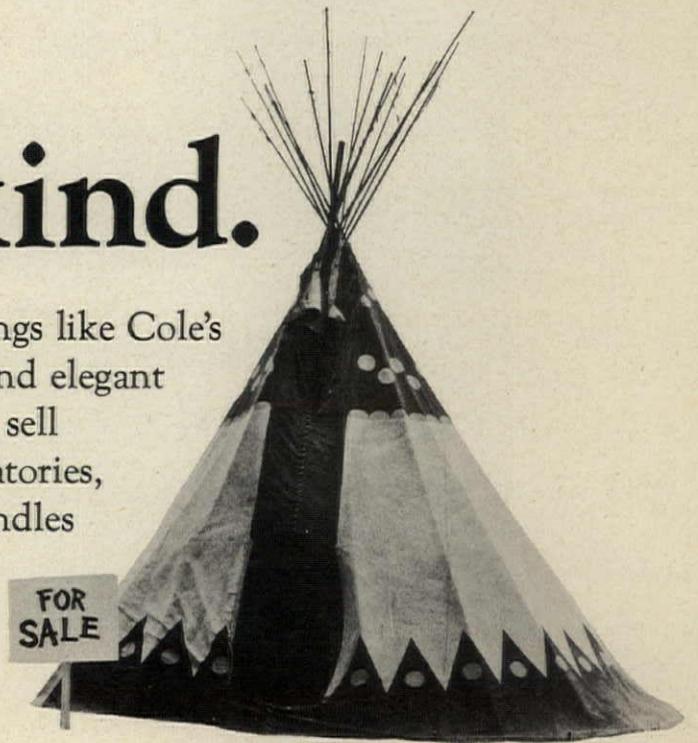
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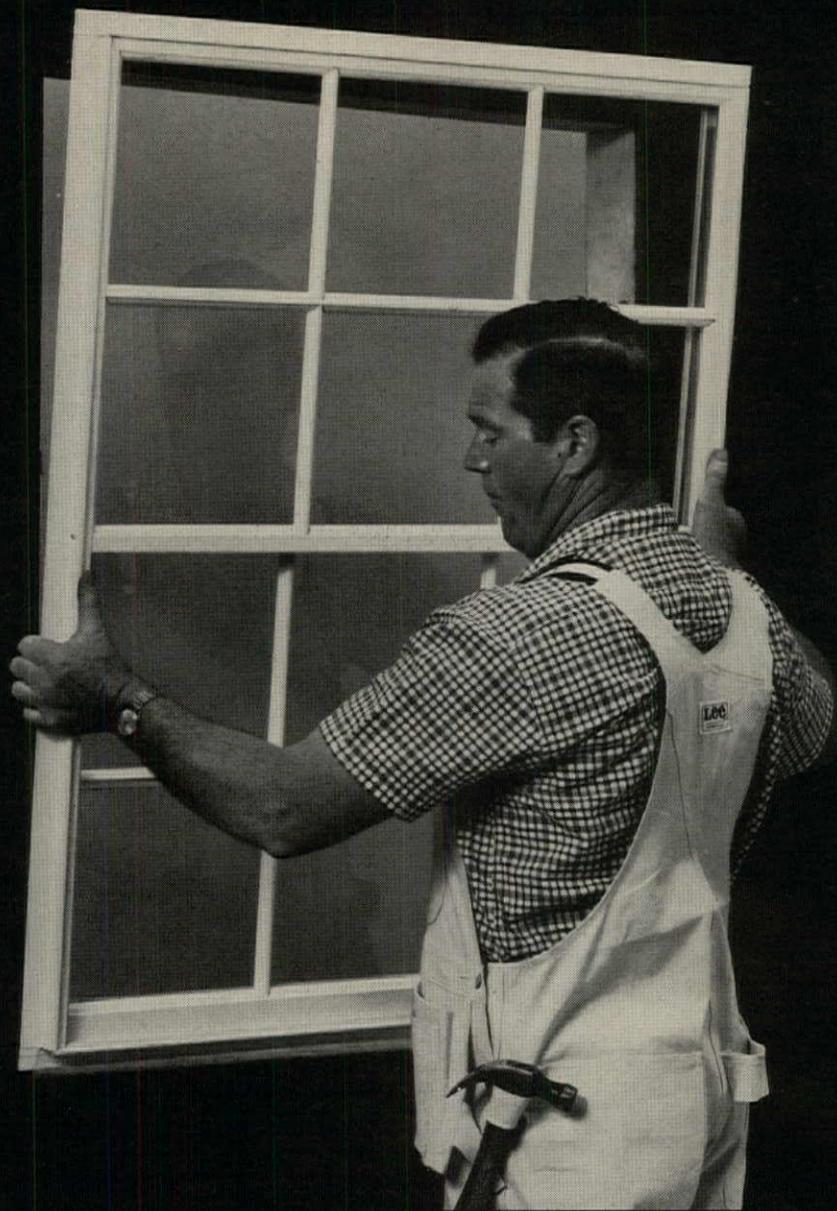
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Fastening furring strip to joists



Fitting channel over furring



Securing beam with finishing nails

Hand-hewn beams of real wood cost no more than imitations

At the same East Coast lumberyard where simulated-wood beams range in price from \$2 to \$2.75 a lineal ft., the red cedar beams shown above cost from \$2.10 (natural finish) to \$2.30 (ebony finish).

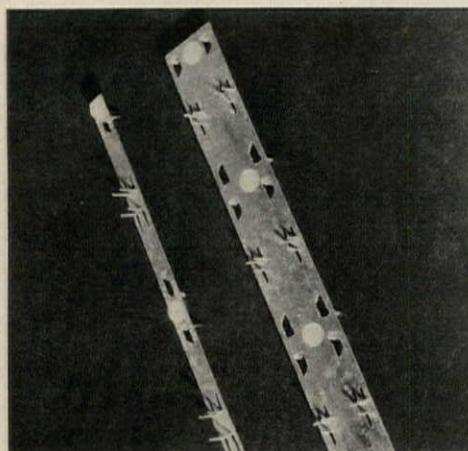
Manufactured by Westchester Timber in Newark, N.J., these channeled beams solve problems familiar to any builder who

wants the look of real wood. Solid beams are expensive, hard to come by and even harder to install. These beams have none of those drawbacks but at the same time look authentic.

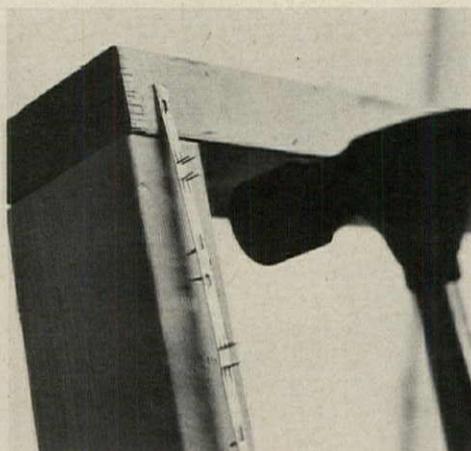
The beams are easy to install because they are manufactured with a factory-routed channel that fits over a prefastened

furring strip (*photos*) and although they are heavier than plastic or foam—a 14'-long 4x6 beam weighs 28 lbs.—they can be installed by one man.

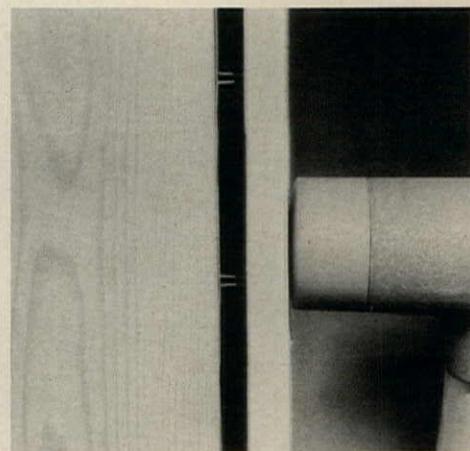
Available also in a 2x6 size for walls, the beams come in standard lengths of 8' through 24'. Westchester Timber, Newark. Circle 275 on Reader Service card



Single and double fasteners



Mounting fastener on stud



Attaching panel to fastener

Blind-fastening strips cut finishing work for wall-panel installers

The strips do away with two paneling jobs—puttying and touching up nail holes—because they do away entirely with exposed nail heads.

One side of the strips, which are 22" long and made of galvanized steel, is stamped with clusters of prongs spaced 2" apart; the other side is studded with nail-like prongs

(*photo, left*). Panel installation is as easy as one, two:

1. The nail prongs are driven into wood partition studs with an ordinary hammer (*photo, center*).

2. The paneling—prefinished plywood or composition board as thin as $\frac{3}{16}$ "—is driven onto the outward-facing prongs with a rub-

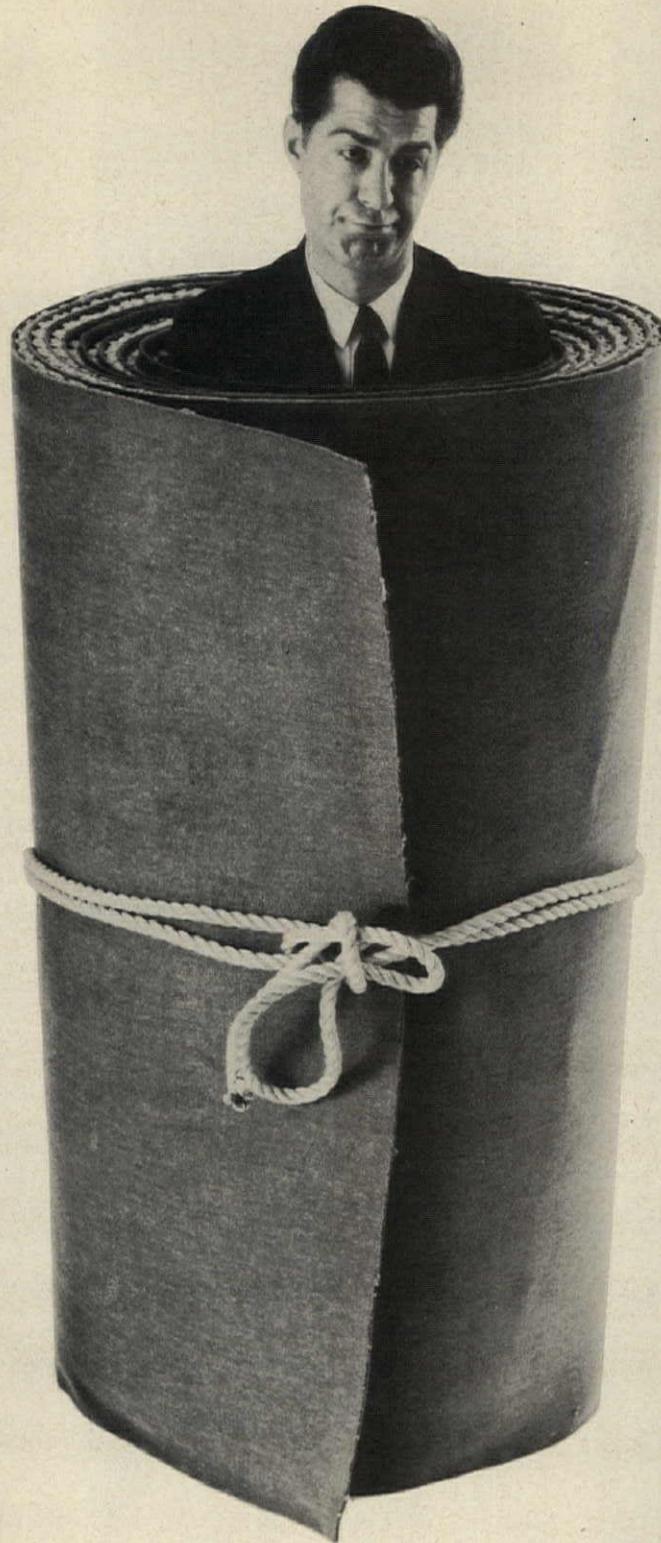
ber mallet (*photo, right*).

Wall panels are held evenly by the completely concealed strips. And to simplify butt jointing, a double-width strip is used that overlaps panels.

Trade name: Invis-I-Nail. Automated Building Components, Miami. Circle 200 on Reader Service card

New products continued on p. 100

Carpeting without an Oak Floor can put you in a sales bind



It's hard to change things when you build homes with carpeting laid *directly* over concrete or other subfloor.

If the carpet color isn't right, your homes can stay unsold a long time while interest piles up. If prospective buyers

want to use accent or area rugs in all or some rooms, there go some more sales.

Doesn't it make good sense to give the owner some choice in her floor coverings by providing a permanent solid Oak floor? Then she can go the rug or carpet route

... in colors to match her room furnishings and personal taste.

If she decides to use wall-to-wall, she'll still have a beautiful lifetime floor when the carpeting is damaged or wears out in a few years. Think it over.

don't compromise on quality ... specify **OAK FLOORS**

NATIONAL OAK FLOORING MANUFACTURERS' ASSOCIATION

814 Sterick Building, Memphis, Tenn. 38103



NEW PRODUCTS

start on p. 98



CALORIC is the latest manufacturer (July) to offer a self-cleaning gas oven (two models are shown above). The self-cleaning feature is available in 30" and 36" free-standing and double-decker models. Additional units will be introduced, and Caloric's president says about two-thirds of the company's production will be self-cleaning oven ranges by the end of this year. Circle 276 on Reader Service card

Self-cleaning gas ovens: This could be the year they come of age

As evidence, industry sources note that although gas self-cleaning ovens were unknown until last year, three manufacturers now have models on the market (photos, left) and at least eight more are waiting in the wings.

Item: Sears, Roebuck (Kenmore) is test-marketing a self-cleaner in Detroit and will make it available nationally in the fall.

Item: The Norge Division of Fedders introduced 30" and 36" free-standing units in Indianapolis last month and is aiming for national distribution by early 1969.

Item: Tappan began market testing this month and plans full production of some models by late fall.

Item: Hardwick will bring out free-standing and eye-level units this fall. Eye-level units will have self-cleaning in both upper and lower ovens.

Item: Magic Chef—licensed for the self-cleaning system developed by the American Gas Assn.—will introduce a free-standing 30" model in January and plans to follow it with an eye-level unit (self-cleaning in lower oven only) in the spring.

Item: Philco-Ford—apparently attracted by the prospect of a self-cleaning gas range that can compete with the electric self-cleaners—is the second manufacturer to be licensed for the AGA system. Note: Philco-Ford does not currently manufacture gas ranges.

With the exception of Norge and Hardwick, the manufacturers listed above (plus Roper, Caloric and Modern Maid) use what is called a pyrolytic system. Like the electric self-cleaners, they rely on high temperatures—from 850°F to 1,000°F—to reduce food waste to a fine ash that can be wiped clean. The process usually takes about two hours.

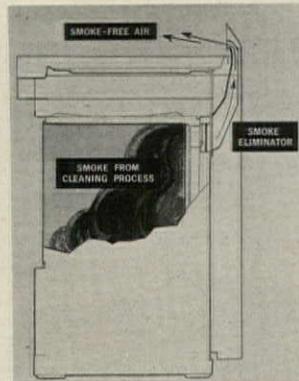
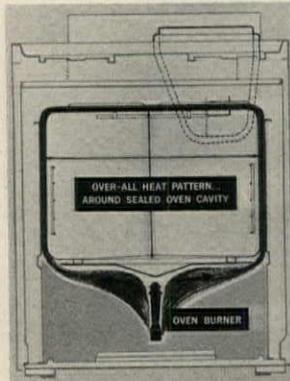
Norge and Hardwick prefer a catalytic system—one dependent on a chemical catalyst that is mixed into the porcelain-enamel coating of the oven-liner panels. The catalytic process takes place continually when oven temperatures range, as they do in normal cooking, from 300° to 500°.

One problem plaguing manufacturers interested in the catalytic system has been the limited availability of a catalyst (made now by DuPont and Ferro). But two other manufacturers—Crown Stove Works and Gray & Dudley—are evidently leaning toward this type of system and are aiming for production in 1969.

One reason may be the difference in cost: While pyrolytic cleaners add from \$60 to \$100 to the cost of a model, catalytic ovens could add considerably less.



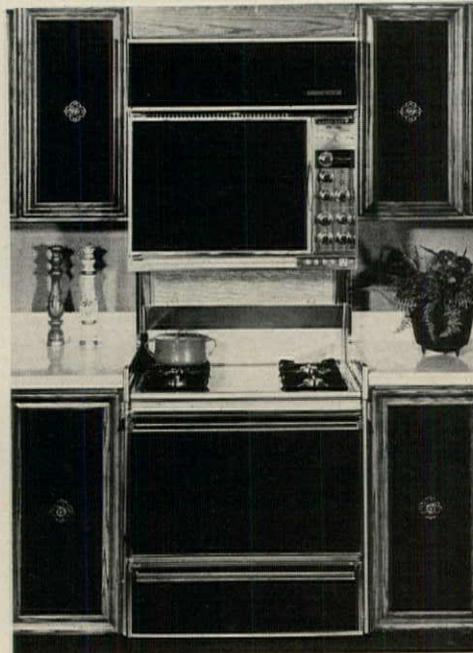
ROPER introduced its gas self-cleaner (left) in June. Unlike Caloric and Modern Maid, Roper uses a double-wall cleaning system (center): Heat from the oven burner circulates between



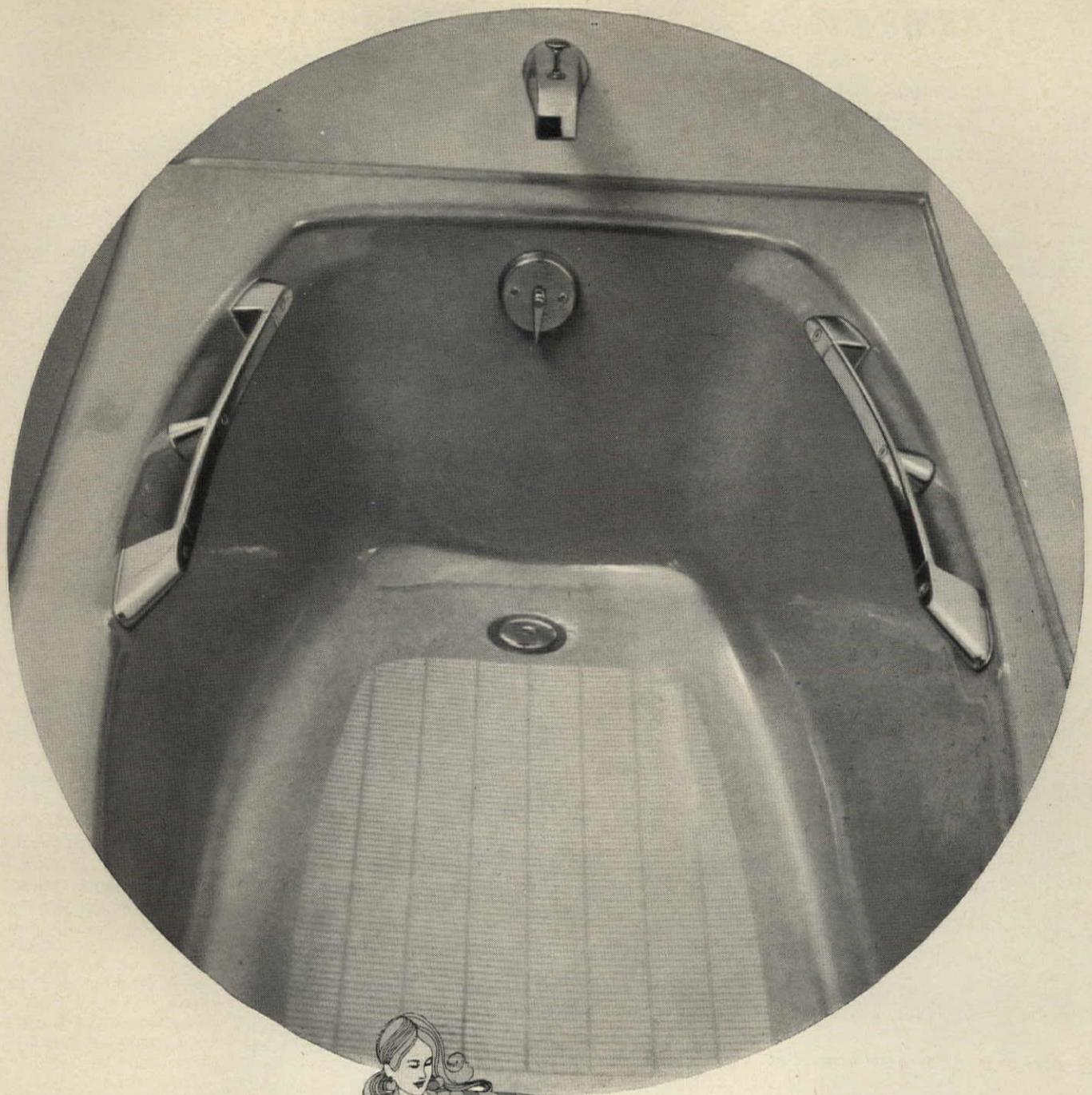
the walls and around the outside of the oven cavity rather than inside it. A smoke eliminator (right) absorbs smoke and odors during cleaning. Circle 277 on Reader Service card



MODERN MAID became the first gas-range manufacturer to offer self-cleaning when it introduced the slide-in model shown above last year. The firm recently started marketing a second model—the eye-level, double-oven range shown at right. Circle 278 on Reader Service card



New products continued on p. 102



**THE
BOLD
LOOK
OF
KOHLER**



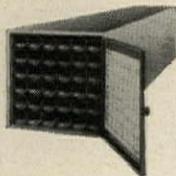
Bold designing achieves a new bathtub: the Guardian. For residential or commercial use—wherever safety is a consideration—the new Guardian bathtub is an ideal choice. Its built-in features are particularly helpful to the elderly and infirm: sturdy grip rails, slip-resistant Safeguard® bottom. Roomy, relaxing, the five-foot Guardian is available in all Kohler pastels, including popular Avocado and new Harvest Gold. Quick to install: straight-front design facilitates recess tiling-in. Note: New trellis Safeguard pattern on tub bottom helps keep wet feet from slipping.

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Circle 69 on Reader Service card

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SHOWN: Basketweave Pattern in offices of Kenyon & Eckhardt Adv. Agency installed by Space Design Grp.

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Please send details on Thai-Teak Custom Flooring.
 Please have your representative call on me.

NAME _____

ADDRESS _____

Circle 70 on Reader Service card

NEW PRODUCTS

start on p. 98

Coatings and adhesives



Water-repellant sealant with silicone is designed to be used above grade. The clear liquid prevents water penetration of brick, stone, masonry and concrete, and may be brushed or sprayed on (photo). X-Pando, Long Island City, N.Y. Circle 225 on Reader Service card



Latex coating recommended for a wide variety of materials is 100% acrylic. Water-thinned, it is said to go on in half the time it takes to apply oil-base paints and dries in 20 to 30 minutes. In choice of colors. Weatherbest, North Tonawanda, N.Y.

Circle 226 on Reader Service card



Fire-retardant paint for interior walls and ceilings delays flame spread so fire can be extinguished. The washable paint can be brushed or sprayed on, comes in white or choice of 40 colors, and dries in 30 minutes. Pratt & Lambert, Buffalo, N.Y.

Circle 227 on Reader Service card



All-purpose aerosol adhesive designed for plumbing, heating and air-conditioning trades adheres to many materials, including aluminum, galvanized metal, fiberglass, plastic and styrofoam. Illinois Bronze Powder and Paint, Lake Zurich, Ill. Circle 228 on Reader Service card

New products continued on p. 108

Circle 71 on Reader Service card ➔

The nice part about Continental Uni-Structure homes is that you don't have to worry yourself sick over them.

They're completely factory-built, including GE kitchen appliances.

They're delivered to your foundation site in two or four sections (depending on the model).

Our men deliver and join the sections together in two or three days.

And then all you have to do is connect utilities, landscape and you're done.

You don't have to worry about sub-contractors, undependable workers, changes in construction costs, difficulties in financing or even weather problems.

Next time you build a house, maybe you shouldn't build it at all.

Have it built by Continental.



Continental Homes, Inc.

HH-8

Attn: Robert L. Cooper, Sales Manager
P.O. Box 1800, Roanoke, Va. 24008
Phone (703) 334-3331 or 334-3641

Please send me details on the Continental Uni-Structure line, and information on how I can become a dealer.

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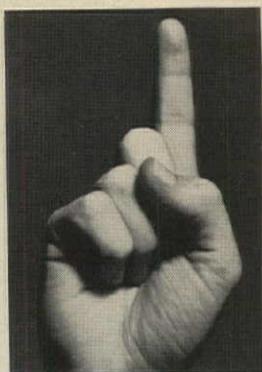
Company _____ Phone _____

Address _____

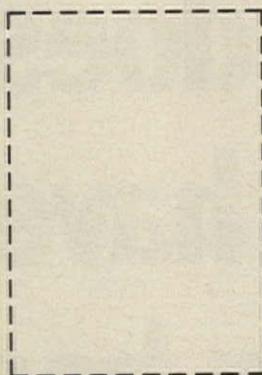
City _____ State _____ ZIP _____

**Where does it say
you have to
eat your heart out
in the building business
to make money.**





It's no fun being No.1



if there's no No.2

Imagine not having a rival. No one to keep you on your toes. No reason to try harder. No reason to get better.

And a lot of reasons for being smug and lazy . . . and, maybe, to raise your prices from time to time.

Pity your poor customers. With no choice, they'd be right at your mercy.

You'd still be No. 1. But, only because there was no competition.

That's why it's so strange to hear some of the armchair economists, often in the name of "consumer protection," make proposals that, far from encouraging competition, *actually would tend to restrict it.*

For instance, they think the government should limit the amount of advertising a company can do because it gives the big company too much of an advantage over the little company.

Forgetting that advertising is a major tool with which smaller companies work to **grow big**. The weapon with which Avis takes on Hertz, and VW challenges Detroit.

Restrict advertising and you restrict competition.

Restrict competition and you strike directly at the heart of our free choice economy . . . the economy that has produced so much for us all and for the rest of the world.

Granted, any economy needs some regulation. But, let's make sure that regulation doesn't turn into strangulation.

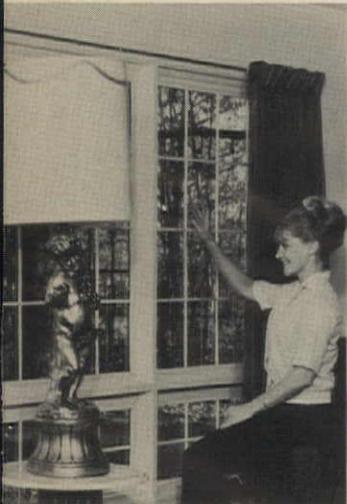
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Malta Casement Windows add design appeal to homes of every type

There's something special about a Malta Casement Window—



Malta Vent-View Windows combine convenience and beauty



Malta Wood Rolling Patio Doors complement fine home design

about the dignity of its tall, rectangular proportions when used in formal dining room, living room or master bedroom. And in the same home, cheery informality is easily achieved with colorful draping for family rooms, kitchens or children's bedrooms. It's a versatile window unit for every taste—for every architectural design. In bow or other groupings, it's great.

Malta quality is evident. Malta Casement Windows are made of carefully selected Ponderosa Pine, fully weatherstripped and expertly milled. Strong extension hinges allow windows to swing wide without sagging. Goldtone roto-operators open windows without effort. Windows can be cleaned from inside — both sides. Insulating glass, white vinyl boot glazed, is a popular quality option. All windows are exterior primed at the factory.

The Malta full line includes casement, vent, double hung, glide, bow, picture groupings, basement windows and the new wood rolling patio door. Send for complete catalog data. It's the guaranteed quality line. Snap-in wood grids, in rectangular or diamond patterns, are provided for distinctive home styling.

Malta

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Circle 92 on Reader Service card

106E3

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Crush all smokes
dead out

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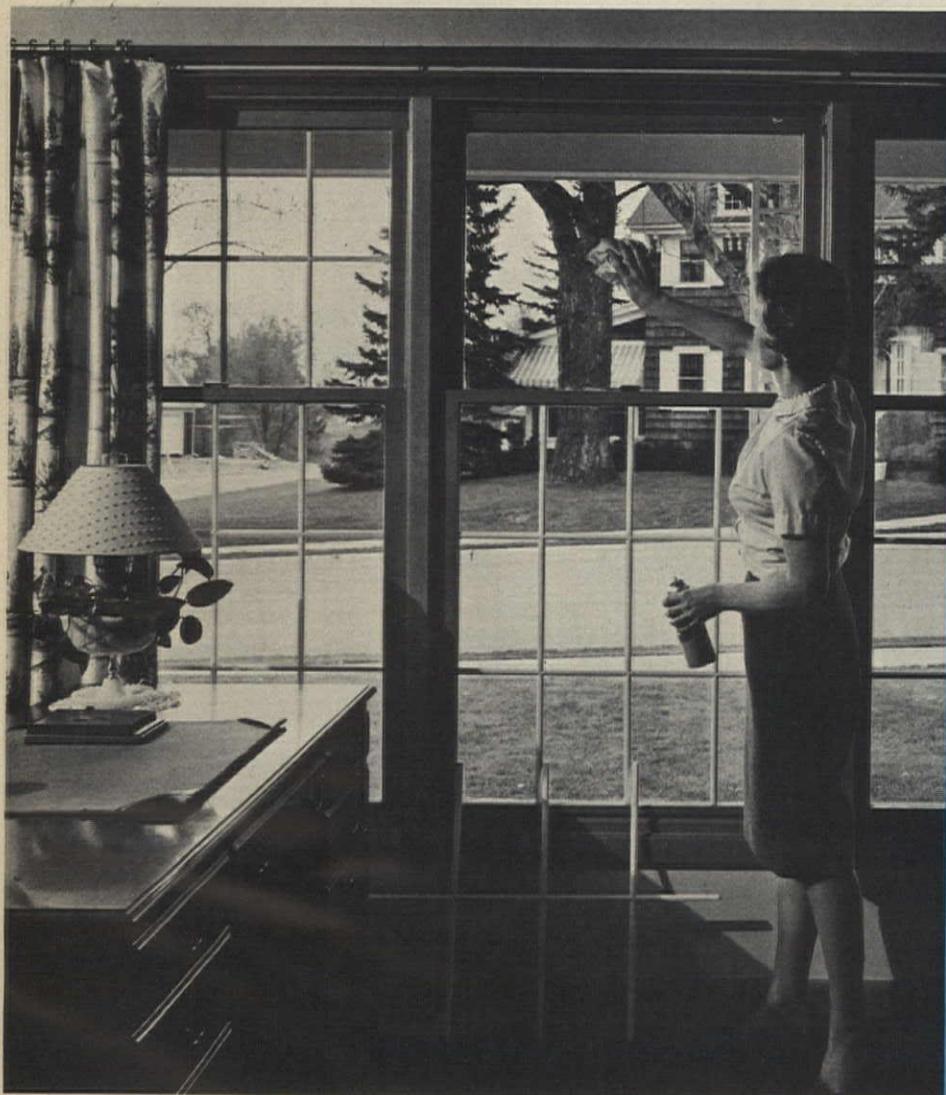
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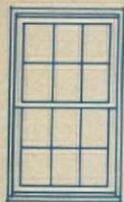


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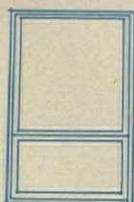
C 100's also offer: factory-priming on exterior surfaces; optional insulating glass with vinyl glazing; pre-installed storms, screens, grilles and inside stops; and removable sash.



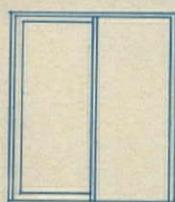
Double-Hung
Windows



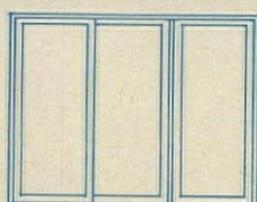
Casement
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Awning
Windows



Slider Windows



Patio Doors

Manufactured by **CARADCO, INC.** Dubuque, Iowa
Subsidiary: Caradco Eastern, Inc., Pemberton, New Jersey

Caradco Windows and Patio Door products are further detailed in Sweets Light Construction $\frac{6B}{Ca}$, Arch. File $\frac{19c}{Ca}$ and Canadian file $\frac{8wmw}{Car}$ or write direct to factory

Outdoor features of Decorative Concrete mean increased sales for your homes

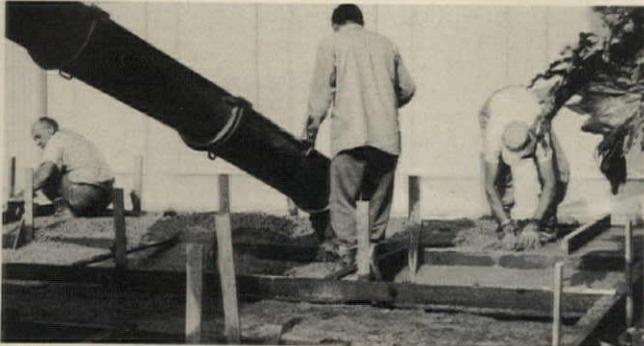


Concrete Contractor: Lloyd Massey, Orange Coast Concrete Contractors, Newport Beach, Calif.
Landscape Architect: Richard Beeson

Decorative concrete features are providing additional sales impact for home builders across the country. They're an easy method of adding a special touch to the exterior setting of your homes. With more and more home buyers interested in outdoor living, the creative use of these basic features can be the deciding factor in the final purchase. Read on the opposite page how this attractive driveway was built combining an exposed aggregate finish with ribbons of brick.

Here's how it was done

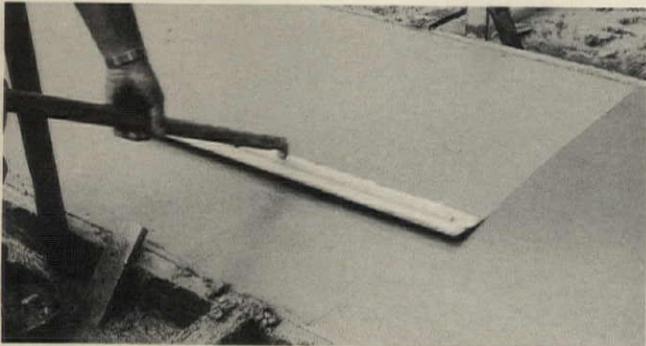
These on-the-job photos show how the attractive driveway on the opposite page was built.



1. When forming is completed, concrete is delivered to the site by ready mix truck. As concrete is discharged, one man positions the chute while two others begin screeding immediately.



5. An edging tool is then used to secure the aggregate at the edges. This is final step before concrete sets up enough to begin the hosing and brushing operations.



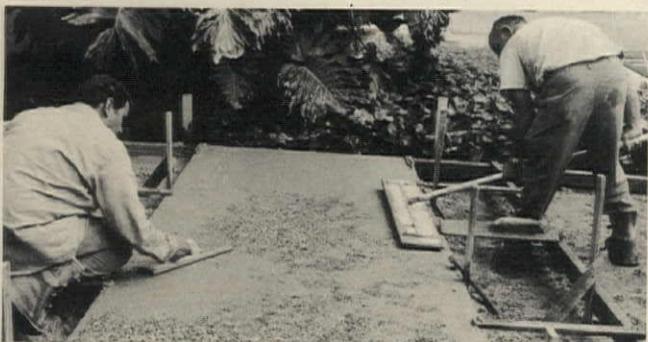
2. After screeding and tamping, the surface is smoothed with wooden floats. Final smoothing is done with this bull float. The surface is then ready for the aggregate to be seeded.



6. Medium-bristle push brooms are used for major brushing. The man with the hose touches up areas missed by the large brooms. This is the final step in producing the exposed aggregate finish.



3. Colorful aggregate of uniform size (¼- to ½-inch on this job) is seeded from shovel. In background two finishers have already begun tamping in aggregate with wooden hand floats.



4. As aggregate embedment is completed along the edges one finisher uses a wood bull float to cover the center. Floating is continued until all aggregate is completely embedded.

Forms were removed the following day and the ribbons of brick laid in a mortar bed over 4 inches of concrete. Curing of the concrete may be done using a variety of non-staining materials such as water-tight paper, polyethylene film or a sprayed-on membrane compound.

Summary of labor and materials:

Concrete work: 61 man-hrs., including 16 of forming
Area: 949 sq. ft.

Concrete: 4" thick

Amount of concrete: 12 yds.

Aggregate surface: 16 sacks of Mexican Pebbles



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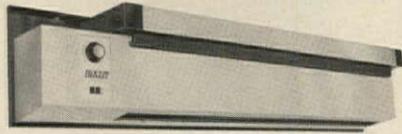
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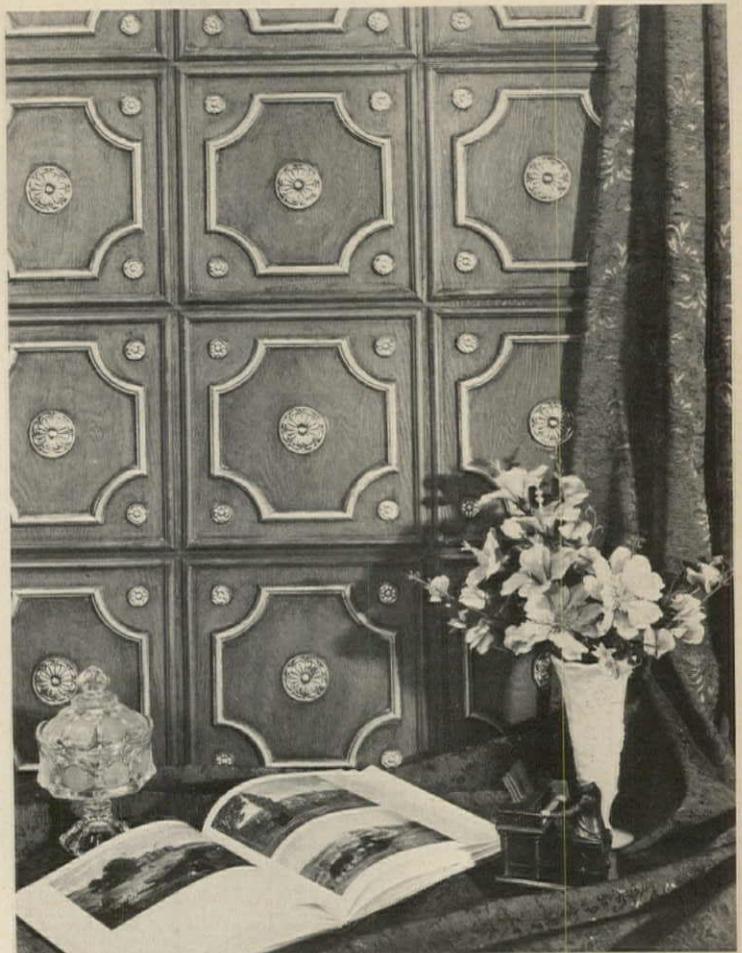
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Circle 72 on Reader Service card

NEW PRODUCTS

start on p. 98

Interiors



Imitation wood panels that look hand-carved are actually self-sticking vinyl that goes up in minutes. User peels off backing paper, presses panels to wall. Six 1'x2' panels decorate 12 sq. ft. Decro-Wall, Elmsford, N.Y. Circle 215 on Reader Service card



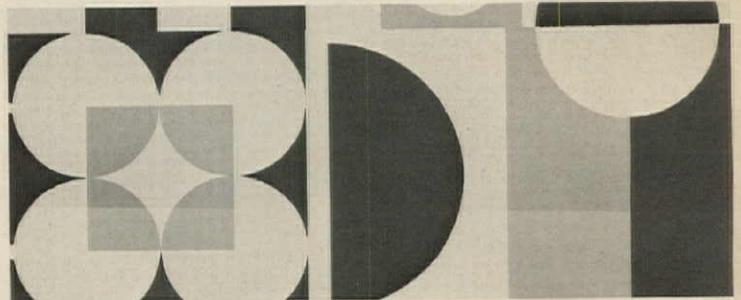
built-in roman bath

by **Jacuzzi**
WHIRLPOOL BATH

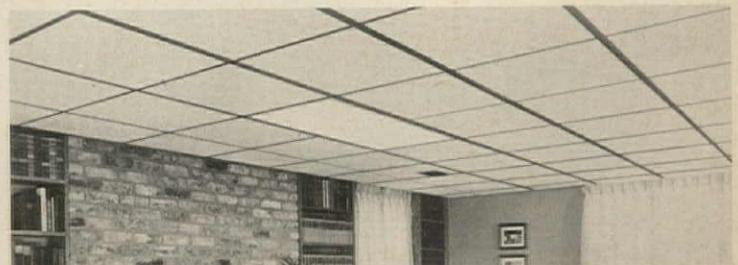
Jacuzzi builds its famous Whirlpool Bath right into a 5 or 6 foot colored, contoured tub. And it installs like any other tub. Your next project is sure to be a faster seller when you include Roman luxury by Jacuzzi. Write us for details.

JACUZZI RESEARCH, INC.

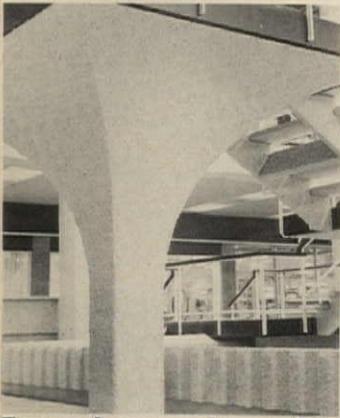
Dept. BA, 1440 San Pablo Ave., Berkeley, Calif. 94702



Geometric blend of squares, circles and rectangles marks a vinyl wall covering in choice of two color combinations: orange, purple, green, aqua and pink; or black, grey and white. United Wallpaper, Chicago. Circle 219 on Reader Service card



Walnut-grained metal grid snaps on to add interest to suspended ceilings and complement wood-grained paneling. It's available in 10' wall moldings and main runners, as well as in 2' and 4' cross tees. Conwed, St. Paul, Minn. Circle 220 on Reader Service card



Exposed-aggregate matrix bonds with five times the strength of concrete, sets fast to prevent slumping and cures in less than 24 hours. It conforms to any shape and can be applied to interior or exterior walls or columns. Marbleoid, North Bergen, N.J. Circle 216 on Reader Service card



Imitation slate for all interior surfaces, including walls and floors, has the deep configurations and three-dimensional look of real slate. The material is 1/4" to 3/4" thick, comes in avocado, rust, charcoal, ebony or white. Poly-Krystalon, Houston. Circle 217 on Reader Service card



Vinyl wall covering that looks like travertine is offered in choice of 15 colors, including rose quartz and shell. Suggested for light-commercial interiors, it is available in three weights and will not chip or crack. General Tire, New York City. Circle 218 on Reader Service card



Cedar closet panels—composed entirely of compressed cedar flakes—are easy to install. Panels can be cut to fit, nail directly to studs or over existing walls, need no finishing. They are 1/4" thick. Giles & Kendall, Huntsville, Ala. Circle 221 on Reader Service card

New products continued on p. 110

New elegance in kitchen design with the beauty of fine furniture adds value and distinction to homes



New addition to variety of styles to make it easy for you to create customer-pleasing kitchens

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UNITED CABINET CORPORATION

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With the big-mouth 146, you make extra-wide prints, or multiples of smaller sizes, at speeds up to 9 fpm. It exposes them clearly, develops them sharply, spews them out the back for easy stacking. And copies cost only 1¢ per sq. ft!

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ASSET MANAGEMENT SERVICES

NEW PRODUCTS
start on p. 98

Kitchens



Versatile oak cabinets have raised panels that can be removed and replaced with substitute facings. Other features: antique-brass fittings, adjustable shelves, lazy susans. Raygold Industries, Lindenhurst, N.Y. Circle 260 on Reader Service card



Built-in spice chest with 25-container capacity has black-glass door to protect spices from light and heat. Designed to fit between kitchen countertop and cabinets, the chest measures 11"x15", recesses between studs. Distinctive Appliances, Los Angeles. Circle 266 on Reader Service card



Washer and dryer have chrome-plated frame around front panels that accepts thin panels of wood or vinyl-clad steel (see woodgrained fronts above). Other features include a permanent-press cycle. Whirlpool, Benton Harbor, Mich. Circle 267 on Reader Service card



Free-standing electric range—40" wide—has self-cleaning master oven (its companion doubles as a warming oven), rotisserie, meat thermometer and two-unit grill. In avocado, white and coppertone. General Electric, Louisville, Ky. Circle 261 on Reader Service card



Eye-level gas range bakes, broils and keeps food warm in both upper and lower ovens. The lower oven comes apart for cleaning: oven door, door seals, rack runners and oven liner can all be removed. Magic Chef, Cleveland, Tenn.
Circle 263 on Reader Service card



Undercounter dishwasher with 12-place-setting capacity is designed to load easily from the front. Its manufacturer claims extra-powerful rinsing action, and a filtering system to remove all food particles. Mullins Mfg., Salem, Ohio.
Circle 264 on Reader Service card



Wall and base cabinets in walnut-toned birch feature carved door and drawer panels, antique brass hardware, and one-piece hardwood veneers on exposed faces. Also: adjustable shelves and nylon roller catches. Brammer Mfg., Davenport, Iowa.
Circle 269 on Reader Service card



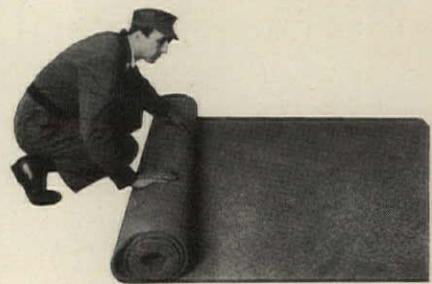
Storage cabinet incorporates six roll-out shelves that simplify storage and retrieval of canned goods, etc. A kit offered by the manufacturer permits field installation in any cabinet where the shelves are not standard. Kemper, Richmond, Ind.
Circle 268 on Reader Service card



Double-oven gas range with six-burner cooking capacity and waist-level broiler incorporates cook-and-keep-warm system and automatic meat probe. Available in autumn gold, antique copper, olive and white. Caloric, Topton, Pa. Circle 262 on Reader Service card

New products continued on p. 112

Why builders roll out the carpet



for Harris BondWood®

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Floors



Imported ceramic tiles from Italy are hand-painted in brilliantly colored designs, then heavily glazed to withstand traffic. Tiles are 7 $\frac{7}{8}$ " square, weigh 4 $\frac{1}{4}$ lbs. per sq. ft. Giovanni Bellini, New York City. Circle 210 on Reader Service card



Cushioned-vinyl flooring has a design of boldly patterned woodcuts in choice of two wood tones—maple or walnut. The flooring is 6' wide, and has a clear felt backing for above-grade installation. Congoleum-Nairn, Kearny, N.J. Circle 212 on Reader Service card



Sheet-vinyl floor covering with thick foam interlayer and asbestos backing is available in 6' widths. The pattern above—one of three offered—incorporates hundreds of tiny chips in choice of eight colors. GAF-Ruberoid, New York City. Circle 211 on Reader Service card

New literature starts on p. 114



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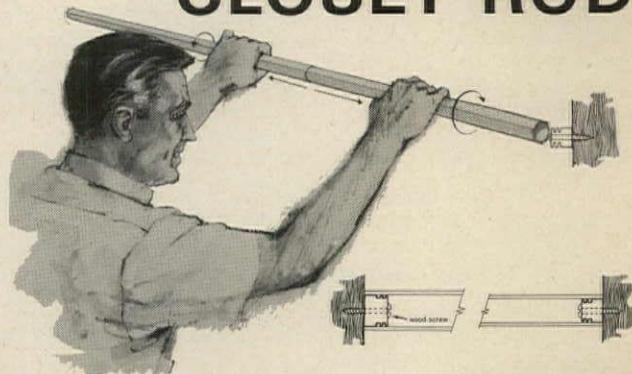
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The low competitive price and the fast installation are money-saving advantages builders welcome.

Available for all closets up to twelve feet. See your Hager dealer for range of sizes and prices.

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Circle 79 on Reader Service card

why Duraflake rates the "best seller list"

Woodworkers
and Fabricators demand
Duraflake for:

1. Counter tops
2. Shelves
3. Sink tops
4. Bar fixtures
5. Dinette sets
6. Table tops
7. Cabinets
8. Wall cases
9. Stock cabinets
10. Tool benches
11. Drafting tables
12. Case work
13. Sewing tables
14. Sewing cabinets
15. Vanities
16. Desks
17. Pool tables
18. Card tables
19. Bed headboards
20. Table structure
21. Cabinet and drawer parts
22. Show cases
23. Chair components
24. Table tennis tops
25. ...



Quality manufacturers demand Duraflake for dinette sets



Cabinet makers choose Duraflake for accurate workability

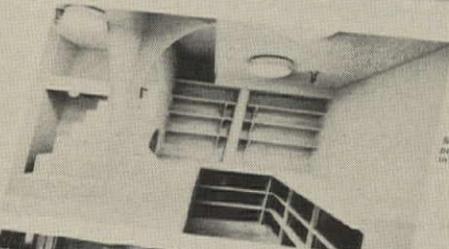


Super smooth Duraflake is ideal for table top covers

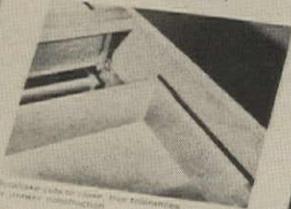


Ward-free Duraflake makes the most dependable sink tops

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27. ...
28. ...
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30. Buffets
31. Credenzas
32. Chalkboards
33. Kitchen cabinets
34. Consoles
35. Sectional floors
36. Radio-TV cabinets
37. Laboratory furniture
38. Piano parts
39. Organ parts
40. Signs (exterior-interior)



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Duraflake used to cover four entrances for jewelry production



High speed production line chair manufacturing is based on Duraflake



Duraflake provides uniform smoothness for table tennis tops

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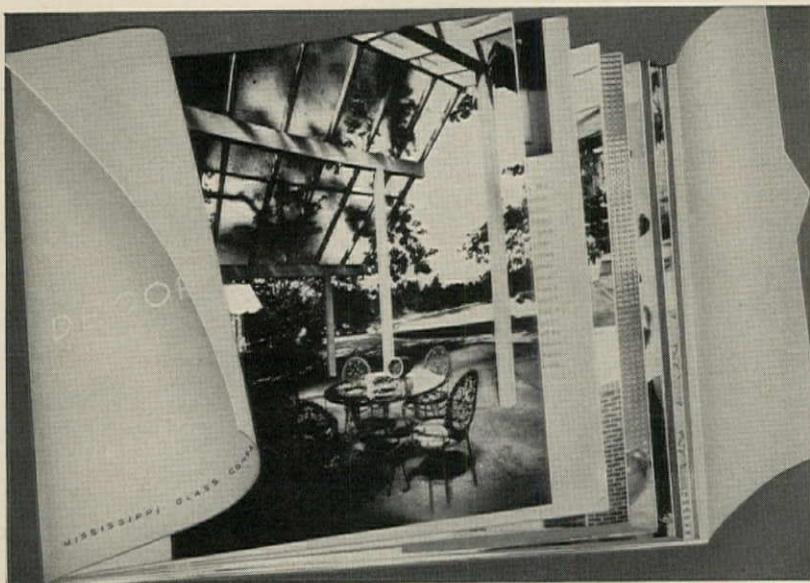
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NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card p. 105

WATERPROOFING SYSTEMS. Extensive product and specification data are presented in a 12-page manual—along with application details. Sections on selection of materials, standard practices and techniques are also included. Celotex, Tampa, Fla. *Circle 300 on Reader Service card*

PACKAGED BATHROOMS. Eight-page booklet shows components inside four-piece shell of fiberglass-reinforced polyester: molded-in tub or shower receptor, toilet, lavatory, trim, supply and waste fittings, medicine cabinet and mirror, lighting, all accessory hardware and factory-installed vinyl floor covering. Two models are accompanied by cross-section diagrams and installation photos. Crane, Chicago. *Circle 301 on Reader Service card*

HARDWOOD PLYWOOD. Where to buy hardwood plywood is the subject of a 20-page directory that lists 66 mills in 23 states, along with the appropriate contact at each. Noted: the species manufactured, faces available, manufacturing details, and specialty items available. Hardwood Plywood Manufacturers Assn., Arlington, Va. *Circle 302 on Reader Service card*

OPEN-PLAN DESIGNS. Plank-and-beam construction is the theme of a four-color idea booklet for builders and architects. Nineteen interiors featuring wood beams and decking are shown in the eight-page booklet. Western Wood Products Assn., Portland, Ore. *Circle 303 on Reader Service card*

PAINTING. Sixteen-page manual compares roller, brush and spray methods, lists recommended roller cover for 50 specialty coatings. E Z Paints, Milwaukee. *Circle 304 on Reader Service card*

LOW-VOLTAGE EQUIPMENT. A 244-page catalog lists prices, ratings, weights and ordering directions for a wide range of products, including load centers, safety switches, enclosed circuit breakers, ballasts, wiring devices and outdoor lighting. General Electric, Plainville, Conn. *Circle 305 on Reader Service card*

BATHROOM CABINETS. Four-color brochure displays manufacturer's mirrored bathroom cabinets and hanging mirrors. Included: product features and dimensions. Permaneer, St. Louis. *Circle 306 on Reader Service card*

CEDAR SHAKES AND PANELS. The many uses and textures of shake and shingle panels are illustrated in an eight-page brochure that also includes application recommendations. All photos are in full color. Shakertown, Cleveland, Ohio. *Circle 307 on Reader Service card*

ELECTRIC HEATING AND AIR CONDITIONING. Full-line catalog describes and displays more than 200 products including electric furnaces; air-conditioning equipment; air cleaners; thermostats and controls; and baseboard, ceiling and wall-mounted heaters. Twelve pages, with photos, ratings, sizes and installation drawings. Berko Electric Mfg., Michigan City, Ind. *Circle 308 on Reader Service card*

MASONRY-WALL REINFORCEMENT. Specification sheet describes basic uses and limitations of truss-design, horizontal joint reinforcing in masonry walls. Packaging, finishes, grades, shapes and sizes are discussed and illustrated. Dur-O-wal National, Cedar Rapids, Iowa. *Circle 315 on Reader Service card*

New literature continued on p. 117



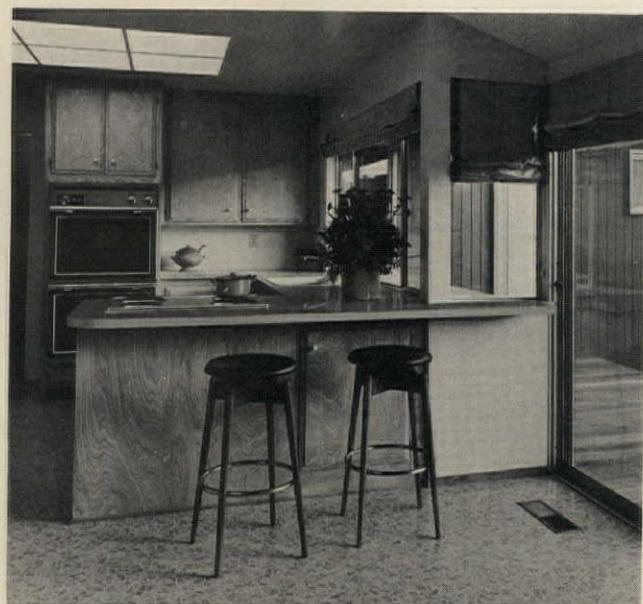
600 homes are being built in Silvercreek subdivision at Pinole, California (near San Francisco). At left is James L. Ellis and at the right Boyd T. Stephens, partners in the development of Silvercreek.

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 Our architects liked the quality.
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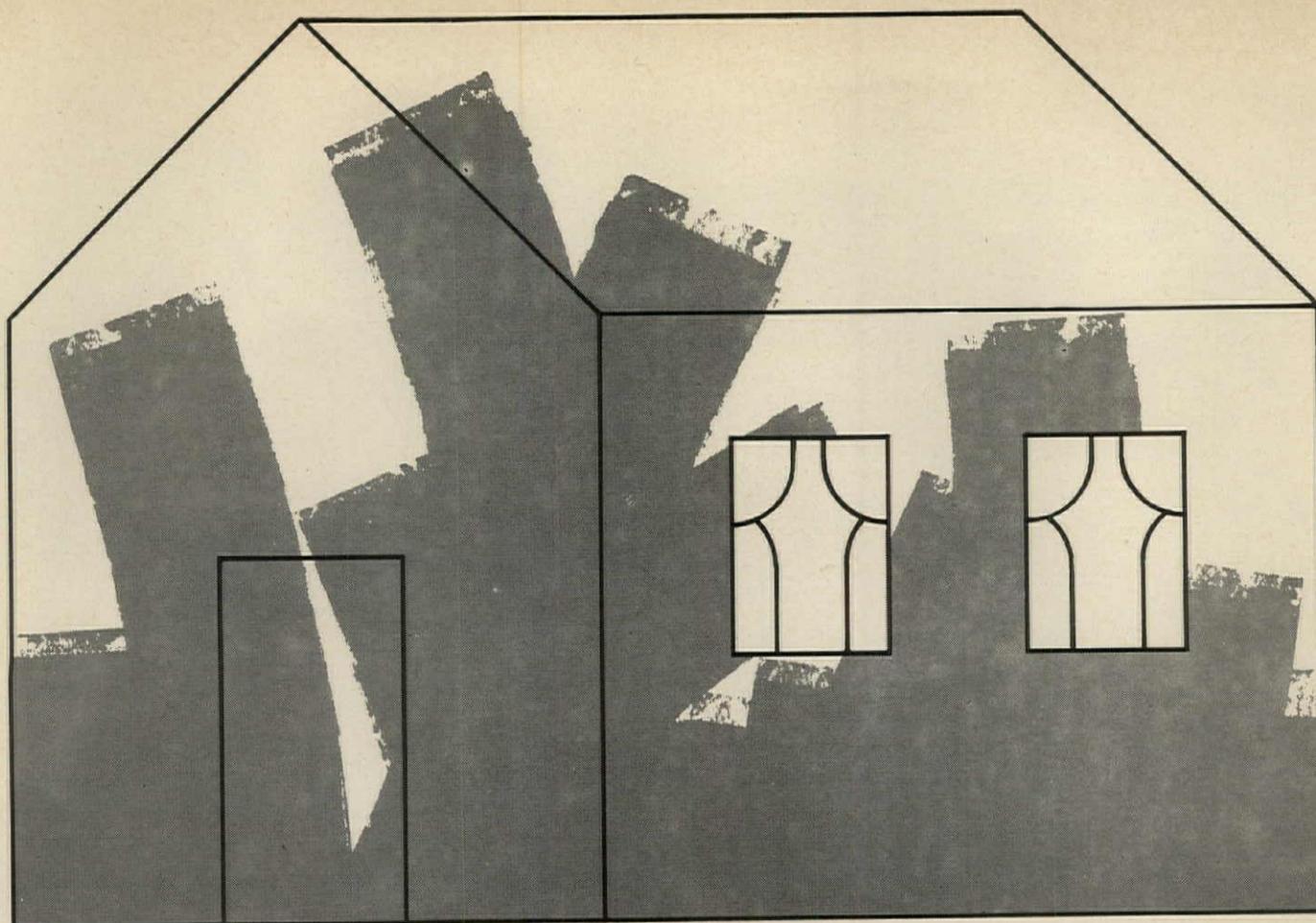


Whirlpool
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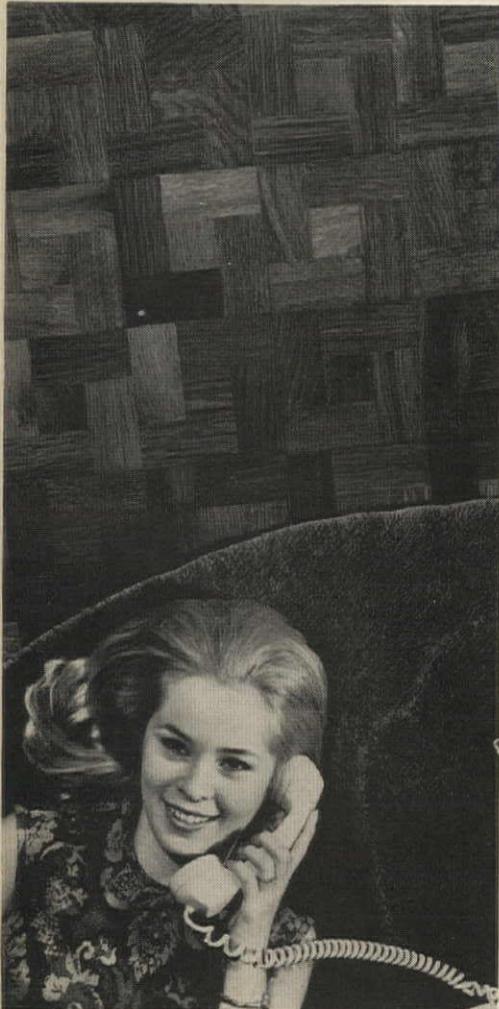
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Circle 84 on Reader Service card

NEW LITERATURE

continued from p. 114

KITCHEN CABINETS. Full-color photos highlight a four-page brochure that enumerates construction and design features. Hager Mfg., Mankato, Minn. *Circle 312 on Reader Service card*

APPLIANCES. Full-line catalog presents complete product information on manufacturer's electric and gas ranges, built-in ovens, cooktops, disposers, dishwashers, refrigerator-freezers and vent hoods. Easy-to-read feature charts and dimension diagrams are included. 12 pages. Tappan, Mansfield, Ohio. *Circle 313 on Reader Service card*

ALUMINUM SHAKES. Illustrated application manual for roofs and sidewalls tells how to install 12"x36"x3/4" deeply embossed shingles of aluminum. The 28-page guide includes step-by-step instructions—and detail drawings—in each case. Also included: a component part list. Reynolds Metals, Park Ridge, Ill. *Circle 316 on Reader Service card*

Annual H&H indexes

Copies of House & Home's editorial indexes for 1965, 1966 and 1967 are still available. Each is an eight-page, cross-referenced listing of subjects covered that year by this magazine. To get copies (there's no charge) write to: Reader Service Dept., House & Home, 330 West 42nd St., New York, N.Y. 10036.

SEAMLESS FLOORING. Four-page specification brochure for architects describes and illustrates a multi-coat system of a fast-curing resin—flooring can take light foot traffic after 24 hours, heavy after 72 hours. Sherwin-Williams, Cleveland, Ohio. *Circle 317 on Reader Service card*

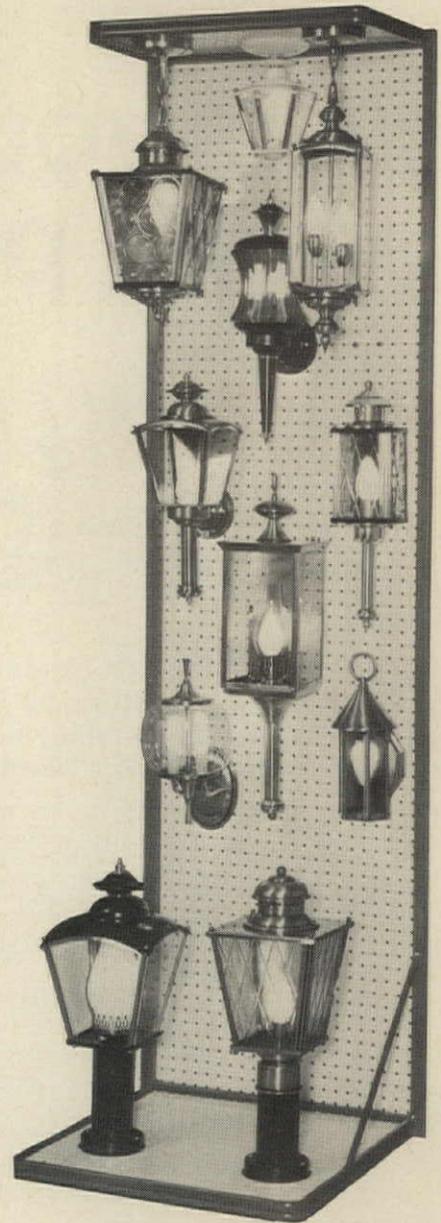
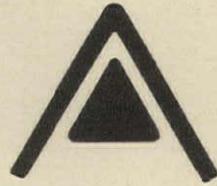
PREFINISHED MASONRY PANELS. How to install factory-finished stone panels—epoxy-and-aggregate-coated plywood—is the subject of a four-page guide with detail drawings. Includes specs and results of performance tests. Sanspray Siding, New York City. *Circle 318 on Reader Service card*

TUB-SHOWER ENCLOSURES. Features, dimensions and finish information are contained in four-page brochure with specs. Miller Industries, Miami. *Circle 319 on Reader Service card*

WALL-BEARING CONSTRUCTION. Sixteen-page booklet describes use of precast concrete units in the construction of high-rise, wall-bearing apartments. Full-page diagrams show how bearing walls were designed to carry the load of a seven-story building. Both construction and finished building are shown. Flexicor, Dayton, Ohio. *Circle 320 on Reader Service card*

CONCRETE SYSTEM. Information sheet tells how to use a combination materials transporter and concrete-mixing plant that is mounted on a truck or semi-trailer chassis—and can be operated by one man. Included: information on size and capacity, plus specs. National Concrete Machinery, Lancaster, Pa. *Circle 314 on Reader Service card*

CERAMIC TILE. Four-color illustrations highlight a 16-page booklet dramatizing the latest design trends in the use of ceramic tile. Includes discussion of installation methods and materials. Tile Council of America, New York City. *Circle 311 on Reader Service card*



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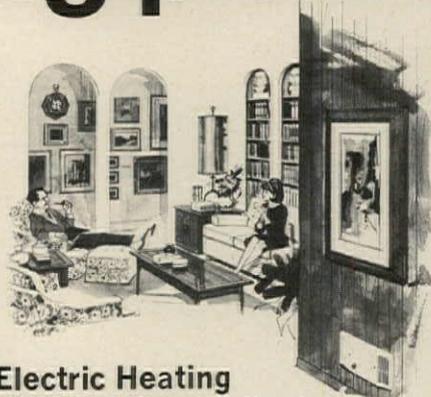
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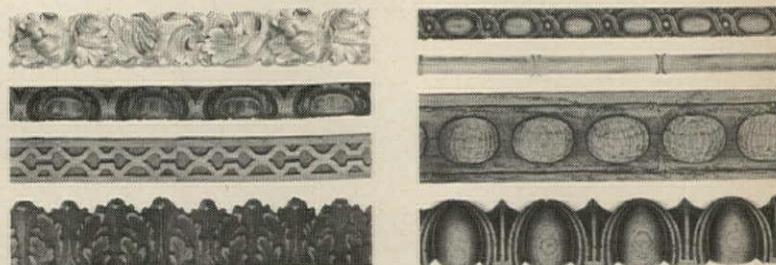
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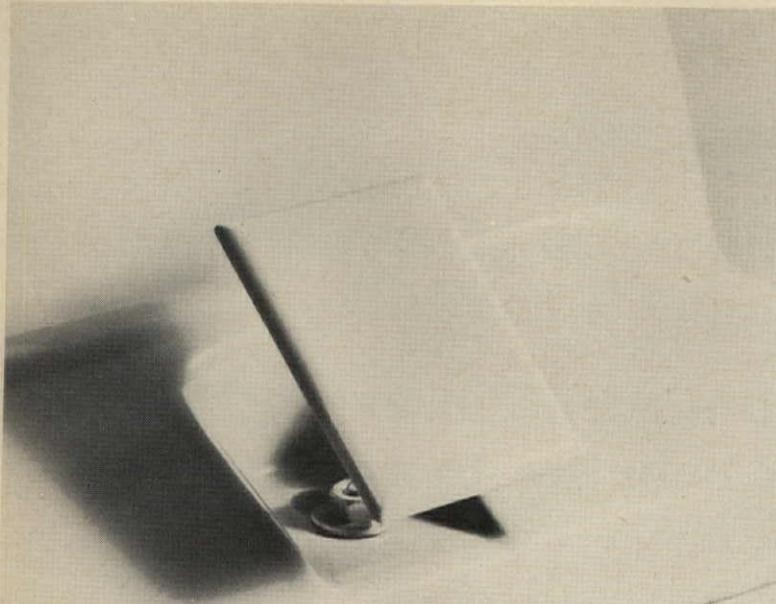
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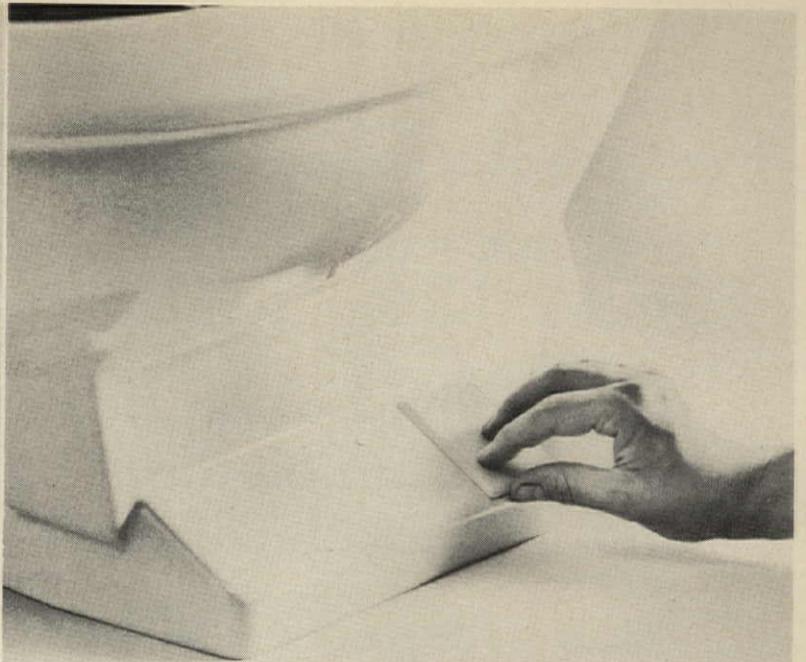
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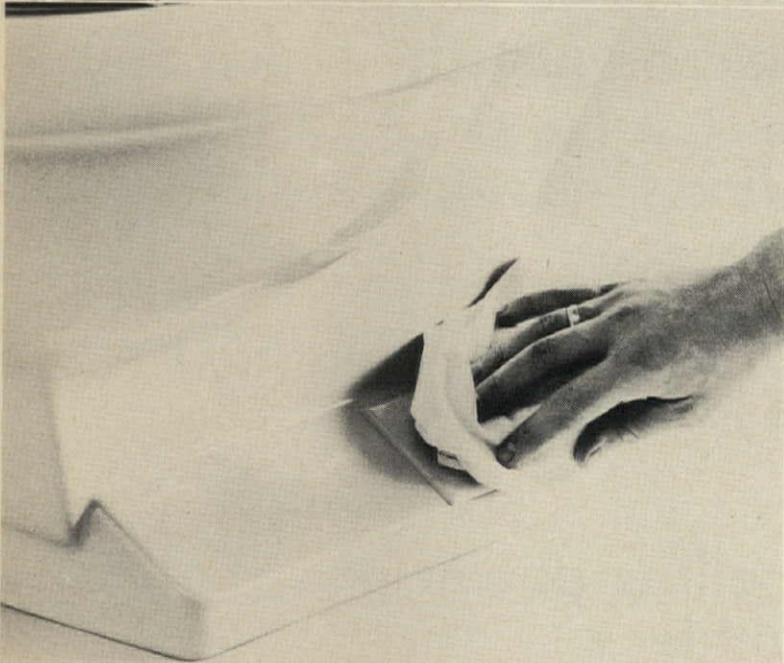
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Specify Eljer fixtures for your homes and use the flat bolt cover as an extra selling point to potential homebuyers. Point out the contemporary and uncluttered lines of the toilet that has it. Tell them how sanitary it is, with no exposed bolt caps to gather dirt and bacteria. And tell them how easy it is to keep clean. It will help sell the bathroom, which may help sell the entire home.

Check the Yellow Pages for your Eljer plumbing contractor. Or write Eljer, Dept. HH8, P.O. Box 836, Pittsburgh, Pa. 15230.



Eljer Plumbingware Division / Wallace-Murray Corporation

It doesn't cost a red cent more to give your kitchen floors the excitement of today's color.

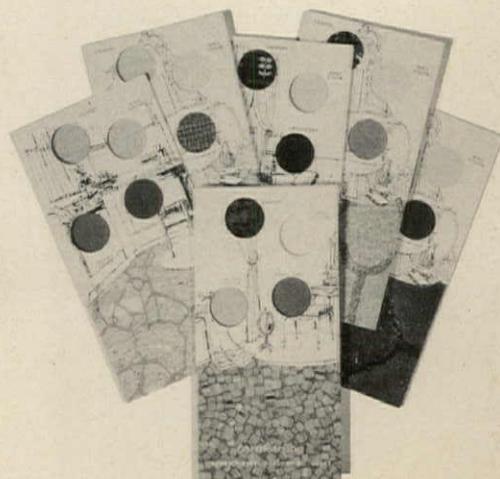
Lively, vivid color steals the scene in everything today—from clothing to cosmetics to appliances and interior decoration.

Your prospects will be looking for fresh, dramatic touches in the model homes they see. Stop them with memorable Armstrong color like this. It's an exciting change from the yesterday floors they've been living with. This could be just the touch you need to turn a "looker" into a buyer. And it doesn't cost a cent more than a floor that isn't noticed.

Bold, show-stopping color is featured throughout the entire Armstrong line for '68, from budget-priced vinyl-asbestos Excelon[®] Tile to luxury sheet Vinyl Corlon[®].

Let us help you use the selling power of color. As a starter, send for our Builder's Color Scheme Kit. Write Armstrong Builder Design Service, 308 Sixth St., Lancaster, Pa. 17604.

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This is Arlmont Vinyl Corlon
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